

**TDMS No.** 99017 - 05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F 344/N

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

Diethylamine  
**CAS Number:** 109-89-7

**Date Report Requested:** 12/30/2008  
**Time Report Requested:** 09:38:54  
**First Dose M/F:** 08/25/03 / 08/25/03  
**Lab:** BNW

F1\_R2

**C Number:** C99017  
**Lock Date:** 07/24/2006  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.1.0

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

males (cont...)

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus																2								
Basophilic Focus, Multiple				X				1																
Clear Cell Focus			4																4					
Clear Cell Focus, Multiple							1						1	1						1				1
Degeneration, Cystic			4																					
Hepatodiaphragmatic Nodule Necrosis			4										4											
Vacuolization Cytoplasmic Kupffer Cell, Pigmentation	1	2	2					2																

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 1-4 .. Lesion qualified as:  
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 2) Mild 4) Marked  
 Page 2

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		
		7	7	7	7	7	6	7	6	6	6	7	7	7	7	7	5	7	6	7	5	7	7	7	7		
		2	2	3	2	2	6	2	4	4	5	3	3	2	3	2	5	2	9	2	4	3	2	2	3	2	
		9	3	0	3	9	0	9	0	7	6	0	0	9	0	9	7	9	5	9	7	0	9	9	0	9	
<b>FISCHER 344 RATS MALE</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	0	0	0	0	0
	<b>CONTROL</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
		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2

males (cont...)

Periportal, Inflammation, Chronic	2																								
Mesentery	+ +																								
Necrosis	3 3																								
Fat, Hemorrhage																									
Pancreas	+ M + + + + +																								
Acinus, Atrophy	2 3 1 1 1 1 3 1 1 2 3 1 1 2 3 1 1 1 1 1 1 1 1 1 1 1																								
Duct, Cyst																									
Salivary Glands	+ +																								
Duct, Cyst																									
Stomach, Forestomach	+ +																								
Diverticulum																									
Hyperplasia, Squamous	3 2																								
Ulcer																									
Stomach, Glandular	+ +																								

**CARDIOVASCULAR SYSTEM**

Heart	+ +																								
Cardiomyopathy	1 2 1 1 1 2 1																								
Atrium, Thrombosis																									

**ENDOCRINE SYSTEM**

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Diethylamine

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Lab: BNW

DAY ON TEST	ANIMAL ID																									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	
7	7	7	7	7	6	7	6	6	6	7	7	7	7	7	5	7	6	7	5	7	7	7	7	7	7	
2	2	3	2	2	6	2	4	4	5	3	3	2	3	2	5	2	9	2	4	3	2	2	3	2	2	
9	3	0	3	9	0	9	0	7	6	0	0	9	0	9	7	9	5	9	7	0	9	9	0	9	9	
.....																										
FISCHER 344 RATS MALE CONTROL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	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	1	2	2	2	2	2	

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy																										
Hyperplasia	4		2	1	2	2			2										4		2					
Vacuolization Cytoplasmic		3		1			2											3		2						
.....																										
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hyperplasia				2	4		1	2			3					4	3									
Bilateral, Hyperplasia																										
.....																										
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hyperplasia													4													
.....																										
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
.....																										
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy																										
Cyst									4																	
Hemorrhage																										
Pars Distalis, Hyperplasia	4																				3					
.....																										
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
C-cell, Hyperplasia			2		4							2		1			1		3				1			
Follicular Cell, Hyperplasia																										

GENERAL BODY SYSTEM  
NONE

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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	
	7	7	7	7	7	6	7	6	6	6	7	7	7	7	7	5	7	6	7	5	7	7	7	7	7	7
	2	2	3	2	2	6	2	4	4	5	3	3	2	3	2	5	2	9	2	4	3	2	2	3	2	2
	9	3	0	3	9	0	9	0	7	6	0	0	9	0	9	7	9	5	9	7	0	9	9	0	9	9
<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	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
<b>CONTROL</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
	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...)

GENITAL SYSTEM

Epididymis Necrosis, Fatty	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																										3	
Preputial Gland Cyst	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																										4	
Prostate Hyperplasia Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	2		1	1	2		2		1	1	2	2			1	1	1	1	1							2	1
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Testes Artery, Inflammation, Chronic Active Germinal Epithelium, Atrophy Germinal Epithelium, Mineralization Interstitial Cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		3																									
	3	3					3				3																

HEMATOPOIETIC SYSTEM

Bone Marrow Hyperplasia, Reticulum Cell	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node Pancreatic, Infiltration Cellular, Histiocyte											+		+		+		+		+		+		+		+	

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DAY ON TEST	0 0																								
	7 7 7 7 7 6 7 6 6 6 7 7 7 7 7 5 7 6 7 5 7 7 7 7 7																								
FISCHER 344 RATS MALE CONTROL	2 2 3 2 2 6 2 4 4 5 3 3 2 3 2 5 2 9 2 4 3 2 2 3 2																								
	9 3 0 3 9 0 9 0 7 6 0 0 9 0 9 7 9 5 9 7 0 9 9 0 9																								
ANIMAL ID	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																									
males (cont...)																									

Pancreatic, Pigmentation																									
Lymph Node, Bronchial	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, 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, Mediastinal Infiltration Cellular, Histiocyte	M	M	+	+	+	+	M	+	+	M	+	+	+	M	M	+	M	+	M	+	+	M	M	+	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation																									
Hemorrhage																									
Hyperplasia, Lymphoid																									
Necrosis																									
Thrombosis																									
Capsule, Fibrosis																									
Thymus	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+
Hyperplasia, Tubular																									

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Galactocele																									

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DAY ON TEST	ANIMAL ID																									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	
7	7	7	7	7	6	7	6	6	6	7	7	7	7	7	5	7	6	7	5	7	7	7	7	7	7	
2	2	3	2	2	6	2	4	4	5	3	3	2	3	2	5	2	9	2	4	3	2	2	3	2	2	
9	3	0	3	9	0	9	0	7	6	0	0	9	0	9	7	9	5	9	7	0	9	9	0	9	9	

**FISCHER 344 RATS MALE**

**CONTROL**

Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sebacous Gland, Hyperplasia																									

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression		3		2						4													2		
Gliosis																									
Hemorrhage									4																
Hydrocephalus																									

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body				X																			X		
Inflammation, Suppurative				1																					
Inflammation, Chronic																									
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Edema																									
Hemorrhage																							3	1	
Inflammation, Chronic									1					2		1									2
Alveolar Epithelium, Hyperplasia																							1		4

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	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		
7	7	7	7	7	6	7	6	6	6	7	7	7	7	7	5	7	6	7	5	7	7	7	7	7	7	7	7		
2	2	3	2	2	6	2	4	4	5	3	3	2	3	2	5	2	9	2	4	3	2	2	3	2	2	3	2		
9	3	0	3	9	0	9	0	7	6	0	0	9	0	9	7	9	5	9	7	0	9	9	0	9	9	0	9		

CONTROL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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					
Alveolus, Infiltration Cellular, Histiocyte	1	1		1							2		3			2		1									2			
Alveolus, Proteinosis																														
Interstitial, Fibrosis																														
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Foreign Body		X									X												X							
Inflammation, Suppurative					1																		2							
Inflammation, Chronic							1																							
Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet																						1		1						
Glands, Respiratory Epithelium, Hyperplasia	1	1	1	1		1	1	1	1	1	1	1	1	1	1		1		1	1			1	1	1	1	1	1		
Olfactory Epithelium, Accumulation, Hyaline Droplet			1																1				1							
Olfactory Epithelium, Atrophy						2																								
Olfactory Epithelium, Respiratory Metaplasia						1																								
Respiratory Epithelium, Hyperplasia		2																					2							
Pleura	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Fibrosis																														
Inflammation, Chronic		1														1													2	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Cornea, Fibrosis																														

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DAY ON TEST	0																								* TOTALS
	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	7	5	6	6	7	6	6	6	6	7	7	6	6	7	7	7	5	7	7	7	5	7	7	7	0
8	3	6	2	0	3	4	6	2	5	3	3	7	4	1	3	3	4	2	3	2	0	2	3	2	0
5	0	2	1	5	0	6	7	5	1	0	0	5	2	0	0	0	9	9	0	9	5	9	0	9	0
<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	0	0	0
<b>CONTROL</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
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
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	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

Periportal, Inflammation, Chronic																									1	2.0
Mesentery																									10	
Necrosis																									9	3.0
Fat, Hemorrhage																									1	3.0
Pancreas																									49	
Acinus, Atrophy																									24	1.6
Duct, Cyst																									1	4.0
Salivary Glands																									50	
Duct, Cyst																									1	4.0
Stomach, Forestomach																									50	
Diverticulum																									1	2.0
Hyperplasia, Squamous																									2	2.5
Ulcer																									1	4.0
Stomach, Glandular																									50	

CARDIOVASCULAR SYSTEM

Heart																									50	
Cardiomyopathy																									23	1.2
Atrium, Thrombosis																									1	4.0

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

2) Mild 4) Marked













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

Lens, Cataract																											<b>1 2.0</b>	
Retina, Atrophy																												<b>1 2.0</b>
Sclera, Metaplasia, Osseous																												<b>11 1.5</b>
Sclera, Mineralization																												<b>1 2.0</b>

Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
Inflammation, Chronic																												<b>1 1.0</b>

Zymbal's Gland																												<b>1</b>
----------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----------

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
Nephropathy, Chronic	1	1	1	1	1	3	3	1	1	3	1		4	4	1		1		3	1	1			2	3	1		<b>44 2.0</b>
Cortex, Cyst																												<b>1 3.0</b>
Cortex, Renal Tubule, Accumulation, Hyaline Droplet																												<b>1 4.0</b>
Cortex, Renal Tubule, Casts Granular, Focal																												<b>1 4.0</b>
Papilla, Mineralization																												<b>2 1.0</b>

Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
Hemorrhage																												<b>4 4.0</b>
Infiltration Cellular, Histiocyte																												<b>1 4.0</b>
Muscularis, Pigmentation																												<b>1 4.0</b>
Transitional Epithelium, Hyperplasia																												<b>1 4.0</b>

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Page 17



TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

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
	7	6	7	5	7	7	7	6	7	6	7	7	6	7	6	7	6	4	7	6	7	7	6	6	7
	2	0	2	1	1	2	2	7	2	7	3	0	6	0	4	3	8	7	2	4	2	1	5	7	1
	9	0	9	2	0	9	9	4	9	4	0	2	3	2	0	0	2	8	9	6	9	0	2	7	5
<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	0	0	0
<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
<b>31 PPM</b>	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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...)

Bile Duct, Cyst																								4																								
Periportal, Inflammation, Chronic																																																2
Mesentery																																																
Necrosis																								3																								3
Fat, Hemorrhage																																																2
Pancreas																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Acinus, Atrophy																								1	3					3	2					3	3	3	3		1			1		2	1	
Salivary Glands																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Ulcer																														4										4							4	
Stomach, Glandular																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

CARDIOVASCULAR SYSTEM

Heart																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy																										1		3			2			2		1	3	1	1	1				1		2	
Atrium, Thrombosis																															4			2											4		

ENDOCRINE SYSTEM

Adrenal Cortex																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																																															4

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DAY ON TEST	0																								
	7																								
FISCHER 344 RATS MALE ANIMAL ID	0																								
	0																								
31 PPM	2																								
	0																								
																									males (cont...)

Hyperplasia	2 3		4				2 4		3			4								
Hyperplasia, Focal Necrosis											3									
Vacuolization Cytoplasmic	2 4				2						2									
Adrenal Medulla Hyperplasia	+ +		+ +		+ +		+ +		+ +		+ +		+ +		+ +		+ +		+ +	
Islets, Pancreatic Hyperplasia	1 3		1 4		2 1		4		1 2		3 3		1							
Parathyroid Gland	+ +		+ M		+ +		+ +		+ M		+ +		+ +		+ +		+ +		+ M	
Pituitary Gland Hemorrhage Pars Distalis, Hyperplasia	+ +		+ +		+ +		+ M		+ +		+ +		+ +		+ +		+ M		+ +	
Thyroid Gland C-cell, Hyperplasia	+ +		+ +		+ +		+ +		+ +		+ +		+ +		+ +		+ +		+ +	

**GENERAL BODY SYSTEM**

Peritoneum

**GENITAL SYSTEM**

Epididymis

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TDMS No. 99017 - 05

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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Diethylamine

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First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

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		
DAY ON TEST		7	6	7	5	7	7	7	6	7	6	7	7	6	7	6	7	6	4	7	6	7	7	6	6	7	
DAY ON TEST		2	0	2	1	1	2	2	7	2	7	3	0	6	0	4	3	8	7	2	4	2	1	5	7	1	
DAY ON TEST		9	0	9	2	0	9	9	4	9	4	0	2	3	2	0	0	2	8	9	6	9	0	2	7	5	
<b>FISCHER 344 RATS MALE</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	
	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
	ANIMAL ID	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
	ANIMAL ID	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
	ANIMAL ID	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...)

Preputial Gland Hyperplasia Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Prostate Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	1		1	1		1		1	1		2	2		2								1	2	1	3	1	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Testes Mineralization Germinal Epithelium, Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	4				3			3		4						4						3		4	3		

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node Ectasia																											
Lymph Node, Bronchial Hyperplasia, Lymphoid	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, 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, Mediastinal	+	+	+	M	+	+	+	M	+	M	M	M	+	M	M	+	M	M	+	+	M	M	M	+	M		

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I .. Insufficient tissue  
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TDMS No. 99017 - 05

Test Type: CHRONIC

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Diethylamine

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Lab: BNW

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		
		7	6	7	5	7	7	7	6	7	6	7	7	6	7	6	4	7	6	7	7	6	6	7		
		2	0	2	1	1	2	2	7	2	7	3	0	6	0	4	3	8	7	2	4	2	1	5	7	1
		9	0	9	2	0	9	9	4	9	4	0	2	3	2	0	0	2	8	9	6	9	0	2	7	5
<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	0	0	0
<b>31 PPM</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
ANIMAL ID		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	1	1	1	1	1	1	1	1	1	1	1	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

males (cont...)

Lymph Node, Mesenteric Ectasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Spleen Hematopoietic Cell Proliferation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage																											
Necrosis																											
Thymus	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M	+	+	+

INTEGUMENTARY SYSTEM

Mammary Gland Galactocele	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skin Cyst Epithelial Inclusion	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Suppurative																												
Ulcer																												

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skeletal Muscle																												

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Page 22

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
	7	6	7	5	7	7	7	6	7	6	7	7	6	7	6	7	6	4	7	6	7	7	6	6	7
	2	0	2	1	1	2	2	7	2	7	3	0	6	0	4	3	8	7	2	4	2	1	5	7	1
	9	0	9	2	0	9	9	4	9	4	0	2	3	2	0	0	2	8	9	6	9	0	2	7	5
<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	0	0	0
<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
<b>31 PPM</b>	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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...)

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression			3	3			2						4							3		4			
Hemorrhage				1																					4
Hydrocephalus																							3		

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body																							X		
Inflammation, Suppurative						2																			
Epiglottis, Metaplasia, Squamous					1																				
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage								2				2													
Inflammation, Suppurative																				1					2
Inflammation, Chronic		2			2																	1	1		
Metaplasia, Osseous							1																		
Alveolar Epithelium, Hyperplasia			4			1										4		4							2
Alveolus, Infiltration Cellular, Histocyte		2			3												1				2	1			
Artery, Thrombosis								3																	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body																					X		X		
Hemorrhage																									
Inflammation, Suppurative														2							1		2		
Glands, Respiratory Epithelium,	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1		1	1

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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	
DAY ON TEST		7	6	7	5	7	7	7	6	7	6	7	7	6	7	6	4	7	6	7	7	6	6	7	6	7	5	
DAY ON TEST		2	0	2	1	1	2	2	7	2	7	3	0	6	0	4	3	8	7	2	4	2	1	5	7	1	1	
DAY ON TEST		9	0	9	2	0	9	9	4	9	4	0	2	3	2	0	0	2	8	9	6	9	0	2	7	5	5	
<b>FISCHER 344 RATS MALE</b> <b>31 PPM</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	
	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
	ANIMAL ID	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
	ANIMAL ID	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	2
	ANIMAL ID	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	males (cont...)

Accumulation, Hyaline Droplet Glands, Respiratory Epithelium, Hyperplasia	1	1	2	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	2	2	1					1
Olfactory Epithelium, Accumulation, Hyaline Droplet	3	2	3	3	3	2	4	3	3	2	2	3	2	3	2	2	3	2	3	3	2	2	2	2	2	2	2
Olfactory Epithelium, Atrophy	2	2	2	1		1	2	3	1	1	1	1	2	2	1	1	1	2	1	2	2	2	1	2	2	2	2
Olfactory Epithelium, Degeneration, Hyaline																											2
Olfactory Epithelium, Metaplasia, Squamous																											1
Olfactory Epithelium, Necrosis																											2
Olfactory Epithelium, Respiratory Metaplasia																					1						
Olfactory Epithelium, Vacuolization Cytoplasmic																											
Respiratory Epithelium, Accumulation, Hyaline Droplet	1	1	1	1	1	1	3	1	1				1		2	1	1	1	1	1	1	2	1				
Respiratory Epithelium, Hyperplasia	1		1	1	1		1		1	1			2	1	2	1	2		1	2	1	2					
Respiratory Epithelium, Metaplasia, Squamous																											
Respiratory Epithelium, Vacuolization Cytoplasmic				4				4					4														
Pleura	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																											
Inflammation, Chronic																											1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**SPECIAL SENSES SYSTEM**

\* .. 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  
Page 24



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		
		7	6	7	5	7	7	7	6	7	6	7	7	6	7	6	7	6	4	7	6	7	7	6	7	
		2	0	2	1	1	2	2	7	2	7	3	0	6	0	4	3	8	7	2	4	2	1	5	7	1
		9	0	9	2	0	9	9	4	9	4	0	2	3	2	0	0	2	8	9	6	9	0	2	7	5
FISCHER 344 RATS MALE		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	
31 PPM		2	2	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	1	1	1	1	1	1	1	2	2	2	2	2	2	
		<b>males (cont...)</b>																								

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lens, Cataract													4											
Retina, Atrophy													4											
Sclera, Metaplasia, Osseous										2					2	2			2		2		2	2
Sclera, Mineralization																								
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic																								
Zymbal's Gland		+												+										

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Nephropathy, Chronic	4	4	3	1	1	1	4		1		3			1	1	3	4	2	3		4	1	3	1
Cortex, Infarct										3		4												
Cortex, Renal Tubule, Mineralization																								
Cortex, Renal Tubule, Necrosis								2																
Papilla, Mineralization			1																			2		
Pelvis, Dilatation																								
Pelvis, Transitional Epithelium, Mineralization																								
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage																								

\* .. 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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DAY ON TEST	0																								* TOTALS
	4	7	7	4	7	5	7	7	7	7	7	7	7	7	6	7	7	6	6	6	5	6	7	6	
	7	3	3	5	2	7	3	3	2	3	3	3	3	0	3	7	0	3	8	3	7	8	1	1	9
	3	0	0	5	9	1	0	0	9	0	0	0	0	5	0	0	2	0	8	5	4	3	1	0	8
<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	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
<b>31 PPM</b>	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	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

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression				2				3							3	3			4						11 3.1
Hemorrhage	4			3									1		4		2		3						8 2.8
Hydrocephalus																									1 3.0

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Foreign Body							X							X											3
Inflammation, Suppurative																									1 2.0
Epiglottis, Metaplasia, Squamous																									1 1.0
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage														3											3 2.3
Inflammation, Suppurative												2						3							4 2.0
Inflammation, Chronic				1											2			2			1				8 1.5
Metaplasia, Osseous																									1 1.0
Alveolar Epithelium, Hyperplasia												2		1											7 2.6
Alveolus, Infiltration Cellular, Histocyte				1								3		2				2		2		1	1		12 1.8
Artery, Thrombosis																			4						2 3.5
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Foreign Body														X											3
Hemorrhage	3																								1 3.0
Inflammation, Suppurative							1							2											5 1.6
Glands, Respiratory Epithelium,		2	1	1	1	1		1		1	1	2	2	1	2	1	2	1	1	1	1	1	1	1	45 1.2

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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
	4	7	7	4	7	5	7	7	7	7	7	7	7	7	6	7	7	6	6	6	5	6	7	6		
	7	3	3	5	2	7	3	3	2	3	3	3	3	0	3	7	0	3	8	3	7	8	1	1	9	
	3	0	0	5	9	1	0	0	9	0	0	0	0	5	0	0	2	0	8	5	4	3	1	0	8	
<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	0	0	0	0
<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
<b>31 PPM</b>	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	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>* TOTALS</b>

Accumulation, Hyaline Droplet Glands, Respiratory Epithelium, Hyperplasia	1	1	1	1	1	1	2	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	<b>46 1.2</b>
Olfactory Epithelium, Accumulation, Hyaline Droplet	2	2	2	3	2	2	2	2	3	3	3	2	2	2	3	2	2	2	2	2	3	3	3	2	<b>49 2.4</b>	
Olfactory Epithelium, Atrophy	2	2	1	2	1	1	2	2	1	2	2	1	1	2	1	1	2	1	1	2	1	2	1	1	2	<b>49 1.5</b>
Olfactory Epithelium, Degeneration, Hyaline																										<b>1 2.0</b>
Olfactory Epithelium, Metaplasia, Squamous	2																									<b>2 1.5</b>
Olfactory Epithelium, Necrosis																										<b>1 2.0</b>
Olfactory Epithelium, Respiratory Metaplasia											1															<b>2 1.0</b>
Olfactory Epithelium, Vacuolization Cytoplasmic															4					4						<b>2 4.0</b>
Respiratory Epithelium, Accumulation, Hyaline Droplet		2	1			1	1	1			1	1			1				1	1	1					<b>29 1.2</b>
Respiratory Epithelium, Hyperplasia	2	1	1		1		1	1	1	1	1	1	1		1	2			2	1				1		<b>34 1.2</b>
Respiratory Epithelium, Metaplasia, Squamous													1			1										<b>2 1.0</b>
Respiratory Epithelium, Vacuolization Cytoplasmic															4					4						<b>5 4.0</b>
Pleura	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
Hyperplasia																					3					<b>1 3.0</b>
Inflammation, Chronic			1									2										1				<b>4 1.3</b>
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>

**SPECIAL SENSES SYSTEM**

\* .. 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  
2) Mild 4) Marked

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DAY ON TEST	0 0																								* TOTALS
	4 7 7 4 7 5 7 7 7 7 7 7 7 7 6 7 7 6 6 6 5 6 7 6 7 3 3 5 2 7 3 3 2 3 3 3 3 0 3 7 0 3 8 3 7 8 1 1 9 3 0 0 5 9 1 0 0 9 0 0 0 0 0 5 0 0 2 0 8 5 4 3 1 0 8																								
<b>FISCHER 344 RATS MALE</b>	0 0																								
<b>31 PPM</b>	0 0																								
<b>ANIMAL ID</b>	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																								
	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																								

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lens, Cataract														4						4					3 4.0
Retina, Atrophy														4						4					3 4.0
Sclera, Metaplasia, Osseous																2							3		9 2.1
Sclera, Mineralization																						1			1 1.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic		1																							1 1.0
Zymbal's Gland																							+		3

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Nephropathy, Chronic	2	3	3	1	3	1	2	3	1	1		4	3	1		4	3	1	1	3		4	1		39 2.3
Cortex, Infarct																									2 3.5
Cortex, Renal Tubule, Mineralization	2																								1 2.0
Cortex, Renal Tubule, Necrosis																									1 2.0
Papilla, Mineralization								1																	3 1.3
Pelvis, Dilatation	3																								1 3.0
Pelvis, Transitional Epithelium, Mineralization																						2			1 2.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage	4																								1 4.0

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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
	7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7	7	7
	2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3	2
	9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0	9
<b>FISCHER 344 RATS MALE</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
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	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
	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
<b>62.5 PPM</b>																									

males (cont...)

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Necrosis	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum Necrosis	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																								
Basophilic Focus																						3		
Basophilic Focus, Multiple																								3
Clear Cell Focus						1																		
Clear Cell Focus, Multiple								3																
Hepatodiaphragmatic Nodule		1	X																					
Necrosis							4										4							
Vacuolization Cytoplasmic													4								3			

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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
		7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	7	7	7	7	7	7	7
		2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3
		9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0
<b>FISCHER 344 RATS MALE</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
		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	<b>62.5 PPM</b>	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	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

males (cont...)

Bile Duct, Hyperplasia  
Periportal, Inflammation, Chronic

Mesentery Inflammation, Chronic Necrosis Fat, Hemorrhage	+	+			+				+				+	+				+	+					
	3	3			3				3				3	3				3	3					

Pancreas Acinus, Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	1	2				1		1	4				2	1	1			1			1	1	2	

Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Stomach, Forestomach Inflammation, Suppurative Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Stomach, Glandular Erosion	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Tongue  
Epithelium, Hyperplasia

**CARDIOVASCULAR SYSTEM**

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

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 I .. Insufficient tissue  
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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
DAY ON TEST		7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7
		2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2
		9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9
<b>FISCHER 344 RATS MALE</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
	<b>62.5 PPM</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	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

males (cont...)

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	1	2			2	1					1	1	1						1		1	1	
Atrium, Thrombosis										4					3								
Atrium, Ventricle, Thrombosis																					4		
Ventricle, Thrombosis																							

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																							
Hyperplasia	2																				2		
Hyperplasia, Focal																							
Vacuolization Cytoplasmic	1		2											4		3	4	2			2		2
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	1		2				4	1	4	3	2		3		4	4	2		3	4	4	3	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																							
Hemorrhage																							
Pars Distalis, Hyperplasia					3		3		2			3	4		3								4
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C-cell, Hyperplasia			1			1					3					1							

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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	
	7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7	7	7	
	2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3	2	
	9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0	9	
<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	0	0	0	
<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	
<b>62.5 PPM</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	
	1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males (cont...)

Follicular Cell, Hyperplasia 2

**GENERAL BODY SYSTEM**

Peritoneum

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Prostate Hyperplasia Inflammation, Suppurative	2		2		2	2		2		1	2		3	2	2	4		2		2				2	
Seminal Vesicle Cyst Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Testes Mineralization Germinal Epithelium, Atrophy Interstitial Cell, Hyperplasia	3							4		4															3

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 2) Mild 4) Marked

TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

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
	7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7	7
	2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3
	9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0
<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	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
<b>62.5 PPM</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	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

males  
(cont...)

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia, Reticulum Cell																								
Lymph Node								+				+												
Lymph Node, Bronchial	M	M	M	+	M	M	M	M	M	M	M	M	M	M	M	M	+	M	M	M	M	M	M	M
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, Mediastinal	+	M	+	M	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation																								
Hemorrhage												4									4			
Necrosis				4																				
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**INTEGUMENTARY SYSTEM**

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Galactocele																								

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DAY ON TEST	ANIMAL ID																									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	
7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7	7	7	7	0
2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3	2	2	0
9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0	9	9	0
<hr/>																										
<b>FISCHER 344 RATS MALE</b> <b>62.5 PPM</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
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	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
	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	2

Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion																									
Hyperkeratosis																									
Ulcer																									

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skeletal Muscle																									

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression																									
Hemorrhage																									
Hydrocephalus																									

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body																									
Inflammation, Suppurative																									
Epiglottis, Hyperplasia																									

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TDMS No. 99017 - 05  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
Diethylamine  
CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
Time Report Requested: 09:38:54  
First Dose M/F: 08/25/03 / 08/25/03  
Lab: BNW

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		
<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	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		
<b>62.5 PPM</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	0	0	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	1	1	2	2	3	4	5		
<b>males (cont...)</b>																												
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hemorrhage																					3			2				
Inflammation, Chronic						1		2							1							2	1					
Alveolar Epithelium, Hyperplasia		1																										
Alveolus, Infiltration Cellular, Histiocyte		1	1			1	3	2			1		1	1	1	1			1		2	2	1					
Alveolus, Proteinosis																						2						
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Foreign Body	X																											
Inflammation, Suppurative	2			3		1													1		2		2					
Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet	2	2	2			2	2	2			1	1	2															
Glands, Respiratory Epithelium, Hyperplasia	2	2	2			2	2	2			1	2	2															
Goblet Cell, Hyperplasia																					1							
Nasolacrimal Duct, Inflammation, Suppurative																										2		
Olfactory Epithelium, Accumulation, Hyaline Droplet	3	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2				2	2	1	3	2	2	2	2
Olfactory Epithelium, Atrophy	1	1	2	2	3	2	2	2			1	2	2	1	1	3	2	2	2	2	2	2	2	2	2	1	2	
Olfactory Epithelium, Hyperplasia, Basal Cell				2		3					3		2			1	2					2	2	2		1		
Olfactory Epithelium, Respiratory Metaplasia																										2		
Olfactory Epithelium, Vacuolization Cytoplasmic														4	4											3		
Respiratory Epithelium, Accumulation, Hyaline Droplet		2	1	1	2			1	1																	2		
Respiratory Epithelium, Hyperplasia		1				1	1		2	1	1															2		
Respiratory Epithelium, Metaplasia, Squamous						2						1														2		

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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
	7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7	7
	2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3
	9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0
<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	0	0
<b>62.5 PPM</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
ANIMAL ID	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	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

males (cont...)

Respiratory Epithelium, Necrosis																								
Respiratory Epithelium, Ulcer				4															1					
Respiratory Epithelium, Vacuolization												4	4					4						
Cytoplasmic Turbinate, Necrosis																						2		
Pleura Inflammation, Chronic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		1																				1		
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Anterior Chamber, Inflammation, Suppurative																								
Cornea, Inflammation, Suppurative																								
Cornea, Mineralization																							1	
Lens, Cataract																								
Retina, Atrophy																								
Sclera, Metaplasia, Osseous						2			2		2				2				1		2			
Sclera, Mineralization							1																	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**URINARY SYSTEM**

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TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

	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	
	7	7	7	4	7	7	5	7	7	6	7	6	6	7	6	6	7	6	6	7	7	7	7	7	7	
	2	3	2	7	2	2	9	1	2	8	2	1	8	3	5	4	2	5	5	2	3	2	2	3	2	
	9	0	9	5	9	9	6	2	4	1	9	2	7	0	2	6	9	2	3	9	0	6	9	0	9	
<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	0	0	0	
<b>62.5 PPM</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	
ANIMAL ID	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	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	<b>males (cont...)</b>
	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	
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Nephropathy, Chronic	3	2	1		2	2	3	1	3		1	2	3	1	2	2	2			2	1	4	3	1	4	
Cortex, Infarct																					3					
Pelvis, Transitional Epithelium, Hyperplasia																						4				
Pelvis, Transitional Epithelium, Mineralization																							4			
Urinary Bladder	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Transitional Epithelium, Hemorrhage																										

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 Lab: BNW

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
	7	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7	
	3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1
	0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1
<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	0	0	0
<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
<b>62.5 PPM</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	2	2	2	2	3	3	3	3	3	3	3	3	3	4	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
																								<b>* TOTALS</b>	

### ALIMENTARY SYSTEM

Esophagus	+ +																							50	
Intestine Large, Cecum Necrosis	+ +																							49	<b>1 4.0</b>
Intestine Large, Colon	+ +																							49	
Intestine Large, Rectum	+ +																							49	
Intestine Small, Duodenum	+ +																							49	
Intestine Small, Ileum Necrosis	+ +																							4	<b>1 4.0</b>
Intestine Small, Jejunum	+ +																							48	
Liver	+ +																							50	
Angiectasis																									<b>1 3.0</b>
Basophilic Focus																									<b>3 3.0</b>
Basophilic Focus, Multiple	X																								<b>1 1.0</b>
Clear Cell Focus																									<b>2 3.5</b>
Clear Cell Focus, Multiple																									<b>2 1.0</b>
Hepatodiaphragmatic Nodule Necrosis	4																								<b>4 4.0</b>
Vacuolization Cytoplasmic	3																								<b>5 3.2</b>

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 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																														
	7	6	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7																															
	3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1																													
	0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1																													
<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	0	0																														
<b>62.5 PPM</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																														
ANIMAL ID	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4																														
	2	2	2	2	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																													
	<b>* TOTALS</b>																																																					
Bile Duct, Hyperplasia																								3	<b>1 3.0</b>																													
Periportal, Inflammation, Chronic																								3	<b>1 3.0</b>																													
Mesentery																								+	+	+	+	<b>16</b>																										
Inflammation, Chronic																												3	<b>1 3.0</b>																									
Necrosis																								3				3	<b>13 3.0</b>																									
Fat, Hemorrhage																												3	<b>1 3.0</b>																									
Pancreas																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>								
Acinus, Atrophy																								1	2			3	1			2	1		3	1		1	3	3	1	1		3	2	1		<b>29 1.7</b>						
Salivary Glands																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>						
Stomach, Forestomach																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>						
Inflammation, Suppurative																																																						
Ulcer																																																				2	<b>1 2.0</b>	
																																																				4	<b>2 4.0</b>	
Stomach, Glandular																								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>					
Erosion																																																					2	<b>3 2.3</b>
Tongue																																																						
Epithelium, Hyperplasia																																																					+	<b>1</b>
																																																					3	<b>1 3.0</b>

**CARDIOVASCULAR SYSTEM**

Blood Vessel																									<b>1</b>
--------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----------

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DAY ON TEST	ANIMAL ID																								* TOTALS
	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	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7		
3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1	
0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1	
<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	0	0	
<b>62.5 PPM</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	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	2	2	2	2	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

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy	1		1	1		1									1	1	1			1	1		2	1	21 1.1
Atrium, Thrombosis														4											3 3.7
Atrium, Ventricle, Thrombosis																									1 4.0
Ventricle, Thrombosis											4														1 4.0

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																							4		1 4.0
Hyperplasia	2			4		4			4					3	2	4		3							10 3.0
Hyperplasia, Focal					2																				1 2.0
Vacuolization Cytoplasmic	2						1	2		1							3		2			3	1	16 2.2	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia	3	4			3	2		2		2				2				3		1		2			25 2.7
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parathyroid Gland	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	48
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																						4			1 4.0
Hemorrhage											4														1 4.0
Pars Distalis, Hyperplasia						4										3									9 3.2
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C-cell, Hyperplasia							2								1							2			7 1.6

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TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

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
		7	6	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7		
		3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1
		0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1
<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	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
<b>62.5 PPM</b>		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	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>* TOTALS</b>																								

Follicular Cell, Hyperplasia 1 2.0

**GENERAL BODY SYSTEM**

Peritoneum + 1

**GENITAL SYSTEM**

Epididymis	+ +																								50	
Preputial Gland Hyperplasia	+ +																								50	1 4.0
Prostate Hyperplasia Inflammation, Suppurative	+ +																								50	1 2.0 29 2.0
	2	2		2		1	1	1	1				1	4	4	2	1			2	1	2				
Seminal Vesicle Cyst Inflammation, Suppurative	+ +																								50	1 3.0 1 4.0
Testes Mineralization Germinal Epithelium, Atrophy Interstitial Cell, Hyperplasia	+ +																								50	1 3.0 7 3.4 1 3.0
				3				4	3																	

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Diethylamine

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Lab: BNW

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			
	7	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7			
	3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1		
	0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1		
.....																											
<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	0	0	0	0	
<b>62.5 PPM</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	
<b>ANIMAL ID</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	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>

**HEMATOPOIETIC SYSTEM**

Bone Marrow Hyperplasia, Reticulum Cell	+ +																										<b>50</b>	
Lymph Node																												<b>10</b>
Lymph Node, Bronchial	M M M M M M M M M M + M																										<b>3</b>	
Lymph Node, Mandibular	M M																										<b>1</b>	
Lymph Node, Mediastinal	M + + M + M + + M + M + M + + + + + + M M M M + + + + +																										<b>35</b>	
Lymph Node, Mesenteric	+ +																										<b>50</b>	
Spleen Hematopoietic Cell Proliferation	+ +																										<b>50</b>	<b>3 4.0</b>
Hemorrhage	4 4 4																											<b>2 4.0</b>
Necrosis	4																											<b>2 4.0</b>
Thymus	+ + + + + + + + M + + + + + + + + + + + + + + + M M + + + + +																										<b>47</b>	

**INTEGUMENTARY SYSTEM**

Mammary Gland Galactocele	+ +																										<b>50</b>	
	1 4																											<b>3 3.0</b>

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TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

<b>DAY ON TEST</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7	
	3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1
	0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1
<b>FISCHER 344 RATS MALE</b> <b>62.5 PPM</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	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	2	2	2	2	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
	<b>* TOTALS</b>																								

Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst Epithelial Inclusion		4																								3 4.0
Hyperkeratosis																										1 4.0
Ulcer		3																								1 3.0

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																										1

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	2	+	+	+	+	+	+	+	+	+	+	2	+	+	+	+	+	+	50
Compression									2											2							6 2.8
Hemorrhage											1												4				5 2.4
Hydrocephalus																											1 1.0

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Foreign Body		X		X																							3
Inflammation, Suppurative																											1 1.0
Epiglottitis, Hyperplasia																											1 3.0

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TDMS No. 99017 - 05

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

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First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

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			
	7	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7		
	3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1	
	0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1	
.....																										
FISCHER 344 RATS MALE 62.5 PPM 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
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
	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	
.....																										
																									* TOTALS	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hemorrhage														2												4
Inflammation, Chronic							1											3		2					8	
Alveolar Epithelium, Hyperplasia					2	4					1							1				2			6	
Alveolus, Infiltration Cellular, Histiocyte			1	1	2														3		2				19	
Alveolus, Proteinosis																			3						2	
.....																										
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Foreign Body							X													X			X		4	
Inflammation, Suppurative						2					2					1		1							10	
Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet	2	1	2	2	2	2	1	1	2	2		2		1	1	1	2	2	2	1	1	2		1	42	
Glands, Respiratory Epithelium, Hyperplasia	1	1	2	2	2	2	1	1	1	1		1	1	2	2	1	3	1	2	2	1	1		2	46	
Goblet Cell, Hyperplasia						2																			2	
Nasolacrimal Duct, Inflammation, Suppurative																									2	
Olfactory Epithelium, Accumulation, Hyaline Droplet	2	2	2	3	2	2	2	2	2	2	3	2	2	1	2	2	2	3	3	3	3	3	3	2	49	
Olfactory Epithelium, Atrophy	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	1	2	2	2	1	2	2	2	50	
Olfactory Epithelium, Hyperplasia, Basal Cell	2			1	2	2		1					1			2				2	1		1	22		
Olfactory Epithelium, Respiratory Metaplasia						1																		2		
Olfactory Epithelium, Vacuolization Cytoplasmic											4	4		4	3									4		
Respiratory Epithelium, Accumulation, Hyaline Droplet	2	1	1	2	1	1	1	2	1	1		1	2	1		2	2	1	1	1	1	1	1	1	42	
Respiratory Epithelium, Hyperplasia				2	1	2	1		1	1	1	2	1			1		1	1	2	1	1	2	1	35	
Respiratory Epithelium, Metaplasia, Squamous																								1	6	

\* .. 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

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
	7	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7	
	3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1
	0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1
<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	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
<b>62.5 PPM</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	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>* TOTALS</b>	

Respiratory Epithelium, Necrosis 1 1.0  
 Respiratory Epithelium, Ulcer 2 2.5  
 Respiratory Epithelium, Vacuolization 8 3.9  
 Cytoplasmic Turbinate, Necrosis 4 4 4 3 4 1 2.0

Pleura Inflammation, Chronic + 50 3 1.3

Trachea + 50

**SPECIAL SENSES SYSTEM**

Eye + 50  
 Anterior Chamber, Inflammation, Suppurative 4 1 4.0  
 Cornea, Inflammation, Suppurative 2 1 2.0  
 Cornea, Mineralization 1 1.0  
 Lens, Cataract 3 1 3.0  
 Retina, Atrophy 3 1 3.0  
 Sclera, Metaplasia, Osseous 2 2 2 2 1 2 13 1.8  
 Sclera, Mineralization 1 1.0

Harderian Gland + 50

**URINARY 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

TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

DAY ON TEST	ANIMAL ID																									* TOTALS
	0	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	6	7	7	7	7	5	7	7	7	6	7	6	6	7	7	7	7	7	7	6	6	4	7			
3	7	3	3	3	2	6	2	3	1	5	1	2	9	2	1	2	2	3	1	2	6	9	5	1		
0	4	0	0	0	9	9	9	0	5	6	9	4	4	9	4	9	9	0	6	9	5	9	3	1		
<hr/>																										
<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	0	0	0	
<b>62.5 PPM</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	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	2	2	2	2	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	
<hr/>																										
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Nephropathy, Chronic	2	3	1	1	2	3	1	3	2		1		1	3	1	4	4		4	3			1	1		
Cortex, Infarct												2														
Pelvis, Transitional Epithelium, Hyperplasia																			2							
Pelvis, Transitional Epithelium, Mineralization																										
<hr/>																										
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Transitional Epithelium, Hemorrhage																			3							

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+ .. Tissue examined microscopically

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M .. Missing tissue

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

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	
	7	6	7	7	7	7	7	6	7	7	7	7	7	2	7	6	7	6	7	7	7	7	7	7	
	3	1	2	2	2	2	3	3	1	2	2	2	3	3	2	9	3	8	3	6	2	2	2	3	1
	0	1	9	9	9	9	0	0	8	9	9	9	0	0	9	1	0	4	0	9	9	9	9	0	6

  

FISCHER 344 RATS MALE 125 PPM 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
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	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
	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

males (cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Artery, Inflammation, Chronic																								
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus	2			1			3			2														
Clear Cell Focus	2			2																				
Clear Cell Focus, Multiple																								
Vacuolization Cytoplasmic																								
Bile Duct, Dilatation																								
Bile Duct, Hyperplasia																								
Periportal, Pigmentation																								
Mesentery											+													

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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  
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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	
FISCHER 344 RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 PPM		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
ANIMAL ID		1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	0	1	2	2	3	4	5	

males (cont...)

Necrosis																														
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Atrophy			1		1					2			3	2	1	3	1	1			1					3	1	1	1	4
Acinus, Hyperplasia								2																						
Duct, Cyst																														
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Ulcer																														
Muscularis, Degeneration																														
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic Active																														

CARDIOVASCULAR SYSTEM

Blood Vessel																													
Adventitia, Inflammation, Chronic																													
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	1			1		1					1				1				1	1					1			1	
Myocardium, Mineralization																													

ENDOCRINE SYSTEM

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TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

	DAY ON TEST																									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	
	7	6	7	7	7	7	7	7	6	7	7	7	7	7	2	7	6	7	6	7	7	7	7	7	7	
	3	1	2	2	2	2	3	3	1	2	2	2	3	3	2	9	3	8	3	6	2	2	2	3	1	
	0	1	9	9	9	9	0	0	8	9	9	9	0	0	9	1	0	4	0	9	9	9	9	0	6	
<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	0	0	0	
<b>125 PPM</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	
ANIMAL ID	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	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	
	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	
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia			3							4			4					2			2	4				
Vacuolization Cytoplasmic													2													
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	
Hyperplasia	4	3		4	4							1		4	3			4						1		
Bilateral, Hyperplasia						3																				
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																										
Parathyroid Gland	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst																										
Pars Distalis, Hyperplasia		2	1																							
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst							2																			
Ultimobranchial Cyst	1																									
C-cell, Hyperplasia	2				1							3				4						1	1			
Follicular Cell, Hyperplasia																										

GENERAL BODY SYSTEM

Peritoneum	+
Mesothelium, Tunica Vaginalis,	
Hyperplasia	2

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Page 54

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

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Penis		+				+																		
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst																								
Hyperplasia																								
Inflammation, Suppurative																								
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	1																							
Inflammation, Suppurative	1				3	2	2		2	2	2										1			
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Suppurative																								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Artery, Inflammation, Chronic Active	2																							
Germinal Epithelium, Atrophy	3																							
Interstitial Cell, Hyperplasia																								
Tunic, Hyperplasia																								

**HEMATOPOIETIC SYSTEM**

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TDMS No. 99017 - 05

Test Type: CHRONIC

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Species/Strain: RATS/F 344/N

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Diethylamine

CAS Number: 109-89-7

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First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

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
	7	6	7	7	7	7	7	6	7	7	7	7	7	2	7	6	7	6	7	7	7	7	7	7	7	7	7
	3	1	2	2	2	2	3	3	1	2	2	2	3	3	2	9	3	8	3	6	2	2	2	2	3	1	0
	0	1	9	9	9	9	0	0	8	9	9	9	0	0	9	1	0	4	0	9	9	9	9	9	0	6	0
<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	0	0	0	0	0
<b>125 PPM</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
ANIMAL ID	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	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
	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	5
																											<b>males (cont...)</b>
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node		+								+						+											
Deep Cervical, Hemorrhage																											
Deep Cervical, Pigmentation																											2
Lymph Node, Bronchial	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
Ectasia																											
Pigmentation																											
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
Ectasia																											
Lymph Node, Mediastinal	+	+	+	M	+	+	+	+	M	M	+	M	+	+	+	M	M	+	+	M	M	+	+	M	+	+	+
Infiltration Cellular, Histiocyte	3																										
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia, Lymphoid																											
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation																											
Necrosis																											
Thymus	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**INTEGUMENTARY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
 M .. Missing tissue  
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TDMS No. 99017 - 05

Test Type: CHRONIC

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Diethylamine

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Lab: BNW

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
	7	6	7	7	7	7	7	6	7	7	7	7	7	2	7	6	7	6	7	7	7	7	7	7	7	
	3	1	2	2	2	2	3	3	1	2	2	2	3	3	2	9	3	8	3	6	2	2	2	3	1	
	0	1	9	9	9	9	0	0	8	9	9	9	0	0	9	1	0	4	0	9	9	9	9	0	6	

**FISCHER 344 RATS MALE**

125 PPM

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
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
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
1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males (cont...)

Mammary Gland  
Galactocele

+ +

Skin  
Cyst Epithelial Inclusion  
Ulcer

+ 4 + + + +

**MUSCULOSKELETAL SYSTEM**

Bone  
Cranium, Fracture

+ +

Skeletal Muscle

**NERVOUS SYSTEM**

Brain  
Compression  
Inflammation, Suppurative  
Necrosis

+ +

**RESPIRATORY SYSTEM**

Larynx  
Foreign Body  
Inflammation, Suppurative

+ +

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+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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2) Mild 4) Marked

TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| 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>FISCHER 344 RATS MALE</b> | ANIMAL ID | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 2 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |
|                              | 125 PPM   | 3 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 6 | 2 | 2 | 2 |
|                              |           | 0 | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 8 | 9 | 9 | 9 | 0 | 0 | 9 | 1 | 0 | 4 | 0 | 9 | 9 | 9 | 0 |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Respiratory Epithelium, Metaplasia,<br>Squamous                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lung   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hemorrhage   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |  |
| Inflammation, Suppurative  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |  |
| Inflammation, Chronic  | 2 |   |   |   |   |   |   |   | 2 |   |   |   | 4 |   |   |   |   |   |   |   | 2 |   |   |  |
| Metaplasia, Osseous  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Alveolar Epithelium, Hyperplasia                                 |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   | 3 |   |   |  |
| Alveolar Epithelium, Metaplasia,<br>Squamous                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Alveolus, Infiltration Cellular, Histiocyte                      | 2 |   |   |   | 1 | 2 |   | 1 | 2 |   |   | 1 | 2 |   |   | 1 | 1 |   | 1 | 2 |   |   | 3 |  |
| Alveolus, Metaplasia, Osseous                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |  |
| Alveolus, Mineralization   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Alveolus, Proteinosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bronchiole, Hyperplasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Interstitialium, Fibrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Nose   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Foreign Body   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |  |
| Inflammation, Suppurative  |   | 4 | 1 |   |   | 3 |   | 2 |   |   | 2 | 3 | 4 |   |   | 2 | 4 |   | 2 |   |   | 3 | 4 |  |
| Thrombosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Glands, Olfactory Epithelium,<br>Accumulation, Hyaline Droplet   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Glands, Respiratory Epithelium,<br>Accumulation, Hyaline Droplet |   | 2 | 2 | 1 | 1 |   | 2 |   | 2 | 1 | 2 |   | 1 | 1 | 2 |   | 2 | 1 | 1 | 1 | 2 | 1 | 1 |  |
| Glands, Respiratory Epithelium,<br>Hyperplasia                   | 1 | 2 | 1 | 1 |   | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 |   | 2 | 2 | 3 | 1 | 2 | 1 | 1 | 1 | 3 |  |
| Goblet Cell, Hyperplasia   |   |   |   |   |   | 2 |   |   |   |   |   | 3 |   |   |   | 3 | 3 |   |   | 3 |   | 2 | 2 |  |
| Olfactory Epithelium, Accumulation,<br>Hyaline Droplet           |   | 1 | 1 | 2 | 1 | 1 | 2 |   | 2 | 2 |   |   |   | 1 | 1 |   | 2 |   | 1 | 1 | 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

| DAY ON TEST   | FISCHER 344 RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | males<br>(cont...) |   |   |   |  |   |   |
|---|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|--|---|---|
|   | ANIMAL ID             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |   |  |   |   |
| 125 PPM   | 0                     | 0 | 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                     | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7                  |   |   |   |  |   |   |
|   | 3                     | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 6 | 2 | 2 | 2 | 3 | 1 |                    |   |   |   |  |   |   |
|   | 0                     | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 8 | 9 | 9 | 9 | 0 | 0 | 9 | 1 | 0 | 4 | 0 | 9 | 9 | 9 | 9 | 0 | 6 |                    |   |   |   |  |   |   |
| Olfactory Epithelium, Atrophy                         | 2                     | 2 | 3 | 1 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 4 |                    |   |   |   |  |   |   |
| Olfactory Epithelium, Degeneration, Hyaline           | 2                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |   |  |   |   |
| Olfactory Epithelium, Hyperplasia, Basal Cell         | 3                     | 2 | 3 | 2 | 1 | 2 | 4 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 3 |                    |   |   |   |  |   |   |
| Olfactory Epithelium, Metaplasia, Squamous            |                       |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |   |  |   |   |
| Olfactory Epithelium, Necrosis                        |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |                    |   |   |   |  |   |   |
| Olfactory Epithelium, Respiratory Metaplasia          |                       |   |   | 1 |   |   | 1 | 3 | 2 | 2 |   |   | 2 | 2 | 2 | 1 |   |   | 1 | 2 | 2 |   |   | 2 | 1 |                    |   | 2 |   |  | 1 | 3 |
| Olfactory Epithelium, Vacuolization Cytoplasmic       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |                    |   |   |   |  |   |   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet |                       |   | 3 |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   | 1 |   |   |   | 1 |   |   | 1 |   |                    |   |   |   |  |   |   |
| Respiratory Epithelium, Hyperplasia                   | 1                     | 1 | 1 | 1 | 1 | 3 | 1 | 3 |   |   | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 1 | 3 |   |                    | 3 |   |   |  |   |   |
| Respiratory Epithelium, Inflammation, Chronic         |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |                    |   |   |   |  |   |   |
| Respiratory Epithelium, Metaplasia, Squamous          |                       |   | 3 |   |   |   |   | 3 |   |   |   |   |   | 3 | 3 | 3 | 1 | 1 |   |   |   | 3 |   |   | 3 |                    |   | 3 |   |  |   |   |
| Respiratory Epithelium, Necrosis                      |                       |   |   |   |   |   |   |   |   |   | 1 |   |   | 4 | 4 |   |   | 1 | 2 |   |   | 1 | 1 |   |   |                    |   |   |   |  |   |   |
| Respiratory Epithelium, Ulcer                         |                       |   | 4 |   |   |   | 3 |   |   |   |   | 1 |   |   | 4 | 4 |   |   | 4 | 1 |   |   |   |   |   | 3                  |   |   | 4 |  |   |   |
| Respiratory Epithelium, Vacuolization Cytoplasmic     |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |                    |   |   |   |  |   |   |
| Turbinates, Hyperostosis                              |                       |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   | 4 | 3 |   |   |   | 3 |   |   | 1 |   |   |                    |   | 4 |   |  |   |   |
| Turbinates, Necrosis                                  |                       |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   | 4 | 3 |   |   |   | 3 |   |   | 1 |   |   |                    |   | 4 |   |  |   |   |
| Pleura Inflammation, Chronic                          | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                    |   |   |   |  |   |   |
|   | 2                     |   |   |   |   |   |   |   | 2 |   |   | 1 | 2 |   |   |   |   |   |   |   |   |   |   |   | 1 |                    |   |   |   |  |   |   |
| Trachea   | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                    |   |   |   |  |   |   |

\* .. 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  
Page 59

| 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 |
|------------------------------|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                              | 7                      | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 2 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |
|                              | 3                      | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 6 | 2 | 2 | 2 |
|                              | 0                      | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 8 | 9 | 9 | 9 | 0 | 0 | 9 | 1 | 0 | 4 | 0 | 9 | 9 | 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 |
|                              | 6                      | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                              | 0                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |
| <b>FISCHER 344 RATS MALE</b> |                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>125 PPM</b>               |                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ANIMAL ID                    |                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                              | <b>males (cont...)</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Eye   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Anterior Chamber, Inflammation, Suppurative |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Cornea, Hyperplasia                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Cornea, Inflammation, Suppurative           | 1 |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |  |  |
| Cornea, Inflammation, Chronic               |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Cornea, Inflammation, Chronic Active        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Cornea, Mineralization                      |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Cornea, Vacuolization Cytoplasmic           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Lens, Cataract                              |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Retina, Atrophy                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Retina, Dysplasia                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Sclera, Metaplasia, Osseous                 |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |  |  |
| Harderian Gland                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Hyperplasia                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Inflammation, Chronic                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Zymbal's Gland                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |

**URINARY SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy, Chronic               | 4 | 1 | 1 | 2 | 2 | 1 | 3 |   | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 2 | 3 | 1 |   | 1 | 1 | 2 |
| Cortex, Infarct                    |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cortex, Renal Tubule, Hyperplasia, |   |   |   |   |   |   |   |   |   |   |   | 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

| 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 2 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 3 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 6 | 2 | 2 | 2 | 3 | 1 |   |
|             | 0 | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 8 | 9 | 9 | 9 | 0 | 0 | 9 | 1 | 0 | 4 | 0 | 9 | 9 | 9 | 9 | 0 | 6 |   |

---

| FISCHER 344 RATS MALE<br>125 PPM<br>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 |
|   | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 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 |
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 4 | 5 |

males  
(cont...)

Atypical  
Pelvis, Inflammation, Suppurative  
Pelvis, Transitional Epithelium, Hyperplasia

---

Urinary Bladder  
Transitional 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

Page 61

TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| DAY ON TEST                                   | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |    |    |    |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|----|----|----|
|   | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |          | 7  | 0  | 50 |
| 2   | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 6 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2        | 50 |    |    |
| 9   | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9 | 50       |    |    |    |
| FISCHER 344 RATS MALE<br>125 PPM<br>ANIMAL ID | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |    |    |    |
|   | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |    |    |    |
|   | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |          | 6  | 6  | 50 |
|   | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |          | 4  | 4  | 50 |
|   | 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  | 50 |    |

**ALIMENTARY SYSTEM**

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| Esophagus                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Intestine Large, Cecum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Intestine Large, Colon        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Intestine Large, Rectum       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Intestine Small, Duodenum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Intestine Small, Ileum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 49  |     |
| Intestine Small, Jejunum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Artery, Inflammation, Chronic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1   | 2.0 |
| Liver                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |
| Basophilic Focus              |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5   | 2.2 |
| Clear Cell Focus              |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4   | 2.3 |
| Clear Cell Focus, Multiple    |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 | 1 | 1 |   |   | X | 1 |   | 6 | 1.0 |     |
| Vacuolization Cytoplasmic     |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 |   |   |   |   |   |   |   |   |   | 2 | 1.5 |     |
| Bile Duct, Dilatation         |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0 |     |
| Bile Duct, Hyperplasia        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0 |     |
| Periportal, Pigmentation      |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0 |     |
| Mesentery                     |   |   |   | + |   |   |   |   |   |   |   |   |   | + | + | + |   |   | + | + |   |   |   |   |   | +   | 10  |

\* .. 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. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

|   |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
|   | 7               | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|   | 2               | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 6 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 3 | 2 | 3 | 2 |
|   | 9               | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 0 | 9 |
| FISCHER 344 RATS MALE<br>125 PPM<br>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 |
|   | 6               | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|   | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |
|   | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   |          |            |           |            |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|-----|---|---|---|----------|------------|-----------|------------|
| Necrosis                     |   |   |   | 3 |   |   |   |   |   | 3 |   |   | 3 3 |   |   |   |   |   | 3 3 |   |   | 1 |          |            | <b>10</b> | <b>2.7</b> |
| Pancreas                     | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | +   | + | + | + | +        | 50         |           |            |
| Acinus, Atrophy              | 2 | 1 |   |   | 2 |   | 1 |   | 3 | 1 | 2 |   | 3   |   | 2 |   | 1 | 3 | 2   | 2 | 1 | 3 | 1        | <b>31</b>  |           |            |
| Acinus, Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   | <b>1</b> |            |           |            |
| Duct, Cyst                   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   | 2 | <b>1</b> |            |           |            |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   | <b>2</b> | <b>2.0</b> |           |            |
| Salivary Glands              | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | +   | + | + | + | +        | 50         |           |            |
| Stomach, Forestomach         | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | +   | + | + | + | +        | 50         |           |            |
| Ulcer                        |   |   |   |   |   |   |   |   |   |   |   |   | 3   |   | 3 |   |   |   |     |   |   |   |          | <b>2</b>   |           |            |
| Muscularis, Degeneration     |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   |          | <b>1</b>   |           |            |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   |          | <b>3.0</b> |           |            |
| Stomach, Glandular           | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | +   | + | + | + | +        | 50         |           |            |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   |          | <b>1</b>   |           |            |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |   |   |   |          | <b>3.0</b> |           |            |

**CARDIOVASCULAR SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |            |          |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------|----------|
| Blood Vessel                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |            |          |
| Adventitia, Inflammation, Chronic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |            | <b>1</b> |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>2.0</b> |          |
| Heart                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50         |          |
| Cardiomyopathy                    | 1 | 2 | 2 |   | 1 | 1 | 1 | 1 |   | 1 |   |   | 1 |   | 2 |   |   | 1 |   | 1 | 3 | 1 | 1 | <b>25</b>  |          |
| Myocardium, Mineralization        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | <b>1</b>   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>3.0</b> |          |

**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  
 2) Mild 4) Marked

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TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST                  | FISCHER 344 RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|------------------------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                              | ANIMAL ID             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |
| 7                            | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50       |
| 2                            | 7                     | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 12       |
| 3                            | 2                     | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 6 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 3 | 2 | 3 | 6        |
| 9                            | 9                     | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 9 | 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 | 49       |
| 6                            | 6                     | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 17       |
| 2                            | 2                     | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1        |
| 6                            | 6                     | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 50       |
| Adrenal Cortex               |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50       |
| Hyperplasia                  |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12       |
| Vacuolization Cytoplasmic    |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6        |
| Adrenal Medulla              |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 49       |
| Hyperplasia                  |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 17       |
| Bilateral, Hyperplasia       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |
| Islets, Pancreatic           |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50       |
| Hyperplasia                  |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |
| Parathyroid Gland            |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 45       |
| Pituitary Gland              |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50       |
| Cyst                         |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |
| Pars Distalis, Hyperplasia   |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7        |
| Thyroid Gland                |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50       |
| Cyst                         |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |
| Ultimobranhcial Cyst         |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |
| C-cell, Hyperplasia          |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 11       |
| Follicular Cell, Hyperplasia |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |

GENERAL BODY SYSTEM

|  |   |     |
|--|---|-----|
| Peritoneum                                 | 1 | 2.0 |
| Mesothelium, Tunica Vaginalis, Hyperplasia | 1 | 2.0 |

\* .. 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  
 Page 64



TDMS No. 99017 - 05

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 12/30/2008

Test Type: CHRONIC

Diethylamine

Time Report Requested: 09:38:54

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 109-89-7

First Dose M/F: 08/25/03 / 08/25/03

Species/Strain: RATS/F 344/N

Lab: BNW

| DAY ON TEST                                    | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
|  | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |  |
|  | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 6 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 3 | 2 | 3 | 2 |  |
|  | 9 | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 0 | 9 |  |
| <b>FISCHER 344 RATS MALE</b><br><b>125 PPM</b> | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|  | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|  | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|  | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|  | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>* TOTALS</b>                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

GENITAL SYSTEM

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Epididymis                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Penis                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Preputial Gland                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cyst                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 2 2.5  |
| Hyperplasia                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   | 1 4.0  |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   | 1 3.0  |
| Prostate                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hyperplasia                          |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   | 4 1.3  |
| Inflammation, Suppurative            | 1 | 2 | 1 |   | 1 | 1 |   | 1 |   | 2 |   |   | 2 | 1 | 2 |   | 1 | 2 |   | 2 | 1 | 1 |   |   | 26 1.5 |
| Seminal Vesicle                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 2 2.0  |
| Testes                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Germinal Epithelium, Atrophy         | 4 |   |   | 4 |   |   |   |   | 4 |   |   |   | 4 |   |   | 4 |   | 4 |   | 3 |   | 3 |   | 3 | 15 3.6 |
| Interstitial Cell, Hyperplasia       |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   | 2 3.0  |
| Tunic, Hyperplasia                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |

HEMATOPOIETIC 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



TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |   |       |
|-------------------------------|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| FISCHER 344 RATS MALE         |  | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |       |
| 125 PPM                       |  | 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                     |  | 6               | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |   |       |
|                               |  | 2               | 2 | 2 | 2 | 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 |       |
|                               |  | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Mammary Gland                 |  | +               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 49    |
| Galactocele                   |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 4 |   |   |   |   |   |   | 2 4.0 |
| Skin                          |  | +               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Cyst Epithelial Inclusion     |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Ulcer                         |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   | 1 3.0 |
| <b>MUSCULOSKELETAL SYSTEM</b> |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Bone                          |  | +               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Cranium, Fracture             |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Skeletal Muscle               |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   | 1     |
| <b>NERVOUS SYSTEM</b>         |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Brain                         |  | +               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Compression                   |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 4 2.5 |
| Inflammation, Suppurative     |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   | 1 4.0 |
| Necrosis                      |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   | 1 4.0 |
| <b>RESPIRATORY SYSTEM</b>     |  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Larynx                        |  | +               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Foreign Body                  |  |                 | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 2     |
| Inflammation, Suppurative     |  |                 | 2 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   | 2 |   |   |   |   |   |   | 4 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. 99017 - 05  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
Diethylamine  
CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
Time Report Requested: 09:38:54  
First Dose M/F: 08/25/03 / 08/25/03  
Lab: BNW

Table with columns for DAY ON TEST (0-9) and ANIMAL ID (0-25). Includes text: FISCHER 344 RATS MALE, 125 PPM, and \* TOTALS.

Respiratory Epithelium, Metaplasia, Squamous 1 1.0

Lung + 50
Hemorrhage 1 2 5 1.2
Inflammation, Suppurative 3 2 2.0
Inflammation, Chronic 2 1 1 10 1.7
Metaplasia, Osseous 1 1 2 1.0
Alveolar Epithelium, Hyperplasia 4 3 1 5 3.0
Alveolar Epithelium, Metaplasia, Squamous 1 1 1.0
Alveolus, Infiltration Cellular, Histiocyte 2 2 2 20 1.6
Alveolus, Metaplasia, Osseous 1 2.0
Alveolus, Mineralization 1 1.0
Alveolus, Proteinosis 1 1.0
Bronchiole, Hyperplasia 1 2 1.0
Interstitium, Fibrosis 1 2 3 2.0

Nose + 50
Foreign Body X 2
Inflammation, Suppurative 1 2 1 1 4 2 1 4 4 1 4 4 3 4 1 2 29 2.6
Thrombosis 1 1.0
Glands, Olfactory Epithelium, Accumulation, Hyaline Droplet 1 1.0
Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet 2 2 2 1 2 2 2 2 1 2 1 2 2 1 2 1 1 2 2 2 1 1 1 1 2 45 1.5
Glands, Respiratory Epithelium, Hyperplasia 1 2 1 1 2 2 2 2 2 2 2 2 3 2 2 3 2 2 2 2 1 1 1 2 48 1.7
Goblet Cell, Hyperplasia 2 1 4 1 2 13 2.2
Olfactory Epithelium, Accumulation, Hyaline Droplet 2 3 2 1 2 2 2 2 2 2 1 1 2 2 2 1 1 3 2 2 2 2 2 3 42 1.7

\* .. 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
Page 68

TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST   | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |     |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-----|-----|
|   | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |          |     |     |
| FISCHER 344 RATS MALE<br>125 PPM<br>ANIMAL ID         | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |     |     |
|   | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |          | 6   |     |
|   | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        |     |     |
|   | 9 | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 0 | 9 | 9        |     |     |
| Olfactory Epithelium, Atrophy                         | 3 | 4 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 1 | 2        | 50  | 2.3 |
| Olfactory Epithelium, Degeneration, Hyaline           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   | 2.0 |
| Olfactory Epithelium, Hyperplasia, Basal Cell         | 3 | 4 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 4 | 2 | 3 | 2 | 3        | 50  | 2.4 |
| Olfactory Epithelium, Metaplasia, Squamous            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   | 1.0 |
| Olfactory Epithelium, Necrosis                        |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |          | 2   | 2.0 |
| Olfactory Epithelium, Respiratory Metaplasia          | 2 |   | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 |   |   | 2 | 1 | 1 |   | 2 | 2 | 1 | 1 | 1 |   | 1 | 2        | 37  | 1.6 |
| Olfactory Epithelium, Vacuolization Cytoplasmic       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   | 4.0 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet |   |   |   |   |   |   |   |   |   | 2 | 1 |   |   |   |   |   |   | 2 |   |   |   |   | 1 |   | 3        | 11  | 1.5 |
| Respiratory Epithelium, Hyperplasia                   | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 |   | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1        | 47  | 1.9 |
| Respiratory Epithelium, Inflammation, Chronic         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   | 2.0 |
| Respiratory Epithelium, Metaplasia, Squamous          |   |   | 2 |   |   | 2 |   |   | 1 | 1 | 1 | 2 |   | 3 | 3 | 1 |   | 2 | 2 | 1 |   | 1 | 1 | 2 | 26       | 2.1 |     |
| Respiratory Epithelium, Necrosis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 4   | 1.3 |
| Respiratory Epithelium, Ulcer                         | 4 | 4 |   | 3 |   |   |   |   | 4 | 3 | 3 | 4 | 2 | 4 | 4 |   | 4 | 4 |   |   |   |   |   | 2 | 22       | 3.3 |     |
| Respiratory Epithelium, Vacuolization Cytoplasmic     |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 4 |   |   |   |   |   |   |   |          | 3   | 4.0 |
| Turbinate, Hyperostosis                               |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   | 2 |   |   |   |          | 3   | 2.3 |
| Turbinate, Necrosis                                   | 3 |   |   | 2 |   |   |   |   | 4 | 4 |   | 4 |   | 4 |   |   | 4 | 4 | 3 | 4 |   | 1 | 2 |   | 19       | 2.9 |     |
| Pleura  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50  |     |
| Inflammation, Chronic                                 | 2 |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 2 | 9        | 1.6 |     |
| 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  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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               |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|   | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7               |
|   | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 6 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 3 | 2 | 3 | 2               |
|   | 9 | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 0 | 9               |
| FISCHER 344 RATS MALE<br>125 PPM<br>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               |
|   | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6               |
|   | 2 | 2 | 2 | 2 | 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               |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |

SPECIAL SENSES SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Anterior Chamber, Inflammation, Suppurative |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 2 3.0 |
| Cornea, Hyperplasia                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Cornea, Inflammation, Suppurative           |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   | 2 |   |   |   |   |   | 5 2.4 |
| Cornea, Inflammation, Chronic               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0 |
| Cornea, Inflammation, Chronic Active        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Cornea, Mineralization                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Cornea, Vacuolization Cytoplasmic           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   | 1 |   |   |   | 3 1.3 |
| Lens, Cataract                              | 4 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   | 1 |   |   |   |   |   | 5 2.6 |
| Retina, Atrophy                             | 3 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   | 3 3.3 |
| Retina, Dysplasia                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 1 2.0 |
| Sclera, Metaplasia, Osseous                 |   |   |   |   |   | 1 |   |   | 1 |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 2 | 6 1.3 |
| Harderian Gland                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Hyperplasia                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Inflammation, Chronic                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 1.5 |
| Zymbal's Gland                              |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   | 2     |

URINARY SYSTEM

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Nephropathy, Chronic               |   |   | 1 | 2 |   | 1 |   | 3 | 2 |   | 3 | 1 |   | 1 | 1 | 4 | 1 | 1 | 4 | 1 | 2 | 4 | 3 | 39 1.9 |
| Cortex, Infarct                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.5  |
| Cortex, Renal Tubule, Hyperplasia, |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | 1 3.0  |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| 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 |
|  | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7               | 7 |
|  | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 6 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 3 | 2 | 3 | 2               | 2 |
|  | 9 | 0 | 0 | 6 | 9 | 0 | 9 | 9 | 4 | 9 | 9 | 7 | 2 | 2 | 3 | 8 | 6 | 0 | 9 | 0 | 0 | 9 | 0 | 9               | 9 |
| <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 | 0 | 0               | 0 |
| <b>125 PPM</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 |
| ANIMAL ID                                    | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6               | 6 |
|  | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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>* TOTALS</b> |   |
| Atypical                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |   |
| Pelvis, Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0           |   |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 2.8           |   |
| Urinary Bladder                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50              |   |
| Transitional Epithelium, Hyperplasia         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.5           |   |

\*\*\* 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

Page 71

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 |   |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                |           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 5 |   |   |
|                                |           | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 0 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 3 | 0 | 6 | 1 | 3 | 3 | 3 | 9 |   |
|                                |           | 1 | 1 | 2 | 6 | 2 | 1 | 1 | 2 | 2 | 6 | 1 | 1 | 4 | 2 | 2 | 1 | 0 | 4 | 5 | 6 | 1 | 6 | 2 | 8 |   |
| <b>FISCHER 344 RATS FEMALE</b> |           | 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 |   |   |
| <b>CONTROL</b>                 |           | 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 | 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 |

females (cont...)

**ALIMENTARY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon Epithelium, Hyperplasia, Focal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus                                      |   |   | 3 |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus, Multiple                            | 1 |   | 1 |   |   |   |   |   |   | 1 | X | 1 |   |   |   |   |   |   |   | 1 | 1 |   |   | 1 |   |
| Clear Cell Focus                                      |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   | 1 |   |   |   |   | 2 |
| Clear Cell Focus, Multiple                            |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Hemorrhage  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatodiaphragmatic Nodule                            |   |   | 4 |   | 4 |   |   |   | 4 | 4 |   | 4 |   |   |   |   |   |   | 4 |   |   |   |   |   |   |
| Thrombosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |
| Vacuolization Cytoplasmic                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST                    | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females (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 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 5 | 0 |                   |
| 3                              | 3         | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 3 | 0 | 6 | 1 | 3 | 3 | 3 | 9 | 0 |                   |
| 1                              | 1         | 2 | 6 | 2 | 1 | 1 | 2 | 2 | 2 | 6 | 1 | 1 | 4 | 2 | 2 | 1 | 0 | 4 | 5 | 6 | 1 | 6 | 2 | 8 | 0 |                   |
| <b>FISCHER 344 RATS FEMALE</b> |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |
| <b>CONTROL</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 |                   |
| 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 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |                   |
| 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 |                   |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mesentery Necrosis   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pancreas Acinus, Atrophy   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Salivary Glands  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stomach, Forestomach Hyperplasia, Squamous Inflammation, Suppurative Ulcer |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stomach, Glandular Ulcer   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

CARDIOVASCULAR SYSTEM

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Heart Cardiomyopathy Atrium, Ventricle, Thrombosis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

ENDOCRINE SYSTEM

|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex Atrophy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST                    | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females (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 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 5 |                   |
| 3                              | 3         | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 3 | 0 | 6 | 1 | 3 | 3 | 3 | 9 |   |                   |
| 1                              | 1         | 2 | 6 | 2 | 1 | 1 | 2 | 2 | 2 | 6 | 1 | 1 | 4 | 2 | 2 | 1 | 0 | 4 | 5 | 6 | 1 | 6 | 2 | 8 |   |                   |
| <b>FISCHER 344 RATS FEMALE</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 |   |                   |
| <b>CONTROL</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 |   |                   |
|                                | 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 |   |                   |
|                                | 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 |                   |

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Hyperplasia              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation, Chronic    |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Cyst                     |   |   |   |   | 2 |   |   |   | 4 |   |   |   |   | 2 |   |   |   |   |   |   | 4 |   |   |   |  |
| Uterus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Endometrium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |  |
| Vagina                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

HEMATOPOIETIC SYSTEM

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Reticulum Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Myelofibrosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Lymph Node                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Lymph Node, Bronchial       | M | M | M | M | M | M | M | M | M | M | + | M | M | + | M | + | M | M | M | M | M | M | M | M |   |
| Hyperplasia, Histiocytic    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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 |   |

\* .. 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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
|  | 7 | 3 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 5 |          | 7 |
|  | 3 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 9 | 0 | 3 | 4 | 3        | 3 |
|  | 1 | 1 | 6 | 1 | 1 | 2 | 8 | 1 | 2 | 2 | 8 | 2 | 2 | 2 | 5 | 0 | 2 | 6 | 1 | 9 | 4 | 2 | 4 | 1        | 1 |
| <b>FISCHER 344 RATS FEMALE</b><br><b>CONTROL</b> | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |
|  | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |
|  | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |
|  | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |
|  | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |
| 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 |

|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|--|--|--|--|--|--|---|--|--|--|--|---|--|--|--|--|--|---|--|--|--|---|---|--|--|---|---|----|--|----|-----|
| Mesentery Necrosis   |  |  |  |  |  | + |  |  |  |  | + |  |  |  |  |  | + |  |  |  | + |   |  |  | + | + | 16 |  |    |     |
|  |  |  |  |  |  | 3 |  |  |  |  | 3 |  |  |  |  |  | 2 |  |  |  |   | 3 |  |  |   | 3 | 3  |  | 15 | 2.9 |
| Pancreas Acinus, Atrophy   |  |  |  |  |  | + |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  | 2 |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
| Salivary Glands  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  | 50 |     |
| Stomach, Forestomach Hyperplasia, Squamous Inflammation, Suppurative Ulcer |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
| Stomach, Glandular Ulcer   |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
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|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |
|  |  |  |  |  |  |   |  |  |  |  |   |  |  |  |  |  |   |  |  |  |   |   |  |  |   |   |    |  |    |     |

**CARDIOVASCULAR SYSTEM**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Heart Cardiomyopathy Atrium, Ventricle, Thrombosis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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**ENDOCRINE SYSTEM**

|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex Atrophy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\* .. 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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| 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 |   |   |
|-------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS FEMALE |  | 7 | 3 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 5 | 7 | 7 |
| CONTROL                 |  | 3 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 9 | 0 | 3 | 4 | 3 | 3 |
| ANIMAL ID               |  | 1 | 1 | 6 | 1 | 1 | 2 | 8 | 1 | 2 | 2 | 8 | 2 | 2 | 2 | 5 | 0 | 2 | 6 | 1 | 9 | 4 | 2 | 4 | 1 | 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 |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
|                              |  | 0 | 0 | 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  | 0 |
| Hemorrhage                   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |    |   |
| Hyperplasia                  |  |   |   |   |   | 4 | 3 | 4 |   |   | 4 |   |   | 4 | 4 |   |   |   |   | 4 |   |   |   |   | 2 |    |   |
| Hyperplasia, Focal           |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Necrosis                     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Vacuolization Cytoplasmic    |  |   |   |   |   | 2 | 1 |   | 1 | 1 |   |   |   | 2 | 2 |   | 1 |   |   | 3 |   |   |   | 1 |   |    |   |
| Adrenal Medulla              |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Hyperplasia                  |  |   |   |   |   | 4 |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   | 6  |   |
| Islets, Pancreatic           |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Parathyroid Gland            |  | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | 43 |   |
| Pituitary Gland              |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Hemorrhage                   |  |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   | 2  |   |
| Pars Distalis, Hyperplasia   |  |   |   |   |   | 4 |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 9  |   |
| Thyroid Gland                |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Ultimobranchial Cyst         |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1  |   |
| C-cell, Hyperplasia          |  | 1 |   |   |   | 1 | 2 | 1 |   | 1 | 2 |   |   | 1 | 4 |   | 1 | 2 |   | 1 | 2 |   | 1 | 1 | 1 | 25 |   |
| Follicular Cell, Hyperplasia |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |

**GENERAL BODY SYSTEM**

|            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

**GENITAL 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

TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

|                                | 0 | 0 | 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 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 5 | 7 | 7 |                 |  |
|                                | 3 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 9 | 0 | 3 | 4 | 3 | 3 |                 |  |
|                                | 1 | 1 | 6 | 1 | 1 | 2 | 8 | 1 | 2 | 2 | 8 | 2 | 2 | 2 | 5 | 0 | 2 | 6 | 1 | 9 | 4 | 2 | 4 | 1 | 1 |                 |  |
| <b>FISCHER 344 RATS FEMALE</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 |                 |  |
| <b>CONTROL</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 |                 |  |
| ANIMAL ID                      | 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 | <b>* TOTALS</b> |  |

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              |              |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|--------------|
| Clitoral Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +            | <b>50</b>    |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 | <b>1 4.0</b> |              |
| Hyperplasia              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 | <b>2 4.0</b> |              |
| Inflammation, Chronic    |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              | <b>1 4.0</b> |
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +            | <b>50</b>    |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 4 | <b>7 2.6</b> |              |
| Uterus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +            | <b>50</b>    |
| Endometrium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              | <b>1 2.0</b> |
| Vagina                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              | <b>1</b>     |
| Cyst                     |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              | <b>1 4.0</b> |

**HEMATOPOIETIC SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Bone Marrow                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>    |
| Hyperplasia, Reticulum Cell |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>2 3.5</b> |
| Myelofibrosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 3.0</b> |
| Lymph Node                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>3</b>     |
| Lymph Node, Bronchial       | 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 | <b>4</b>     |
| Hyperplasia, Histiocytic    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <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 | M | <b>2</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

|                                | DAY ON TEST | Animal IDs       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | * TOTALS |                  |                  |                  |                  |                  |                  |   |   |   |   |
|--------------------------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|---|---|---|---|
|                                |             | 0<br>7<br>3<br>1 | 0<br>3<br>6<br>1 | 0<br>6<br>4<br>6 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>6<br>3<br>8 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>6<br>3<br>8 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>6<br>3<br>8 | 0<br>5<br>2<br>5 | 0<br>7<br>3<br>0 | 0<br>4<br>8<br>6 | 0<br>7<br>3<br>1 | 0<br>5<br>9<br>9 | 0<br>7<br>0<br>4 | 0<br>7<br>3<br>2 | 0<br>5<br>4<br>4 | 0<br>7<br>4<br>7 | 0<br>5<br>3<br>8 | 0<br>7<br>4<br>9 |          | 0<br>7<br>4<br>0 | 0<br>5<br>4<br>1 | 0<br>7<br>3<br>1 | 0<br>7<br>4<br>1 | 0<br>5<br>3<br>4 | 0<br>7<br>4<br>2 |   |   |   |   |
| <b>FISCHER 344 RATS FEMALE</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 |
| <b>CONTROL</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 |   |
|                                |             | 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 | 1 | 1 |   |
|                                |             | 2                | 2                | 2                | 2                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 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                | 1        | 2                | 3                | 4                | 5                | 6                | 7                | 8 | 9 | 0 | 0 |

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |       |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|
| Lymph Node, Mediastinal          | M | + | M | M | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | 33 |       |       |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50    |       |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |       |
| Atrophy                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0 |       |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   | 4 |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 7 3.9 |       |
| Hemorrhage                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       | 1 4.0 |
| Necrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       | 1 4.0 |
| Pigmentation                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       | 1 2.0 |
| Stromal Hyperplasia              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       | 1 4.0 |
| Thymus                           | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 48    |       |

**INTEGUMENTARY SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Mammary Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Galactocele               |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 4 2.5 |
| Skin                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Cyst Epithelial Inclusion |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 4.0 |
| Ulcer                     |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 3 |   |   |   |    | 6 3.2 |

**MUSCULOSKELETAL SYSTEM**

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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  
 Page 84



TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |   |                 |  |  |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|--|
|                                | 7 | 3 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 5 | 7 | 7 | 7 |   |                 |  |  |
|                                | 3 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 9 | 0 | 3 | 4 | 3 | 3 |   |   |                 |  |  |
|                                | 1 | 1 | 6 | 1 | 1 | 2 | 8 | 1 | 2 | 2 | 8 | 2 | 2 | 2 | 5 | 0 | 2 | 6 | 1 | 9 | 4 | 2 | 4 | 1 | 1 |   |   |                 |  |  |
| <b>FISCHER 344 RATS FEMALE</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               |  |  |
| <b>CONTROL</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               |  |  |
| ANIMAL ID                      | 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               |  |  |
|                                | 2 | 2 | 2 | 2 | 3 | 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 |   |   | <b>* TOTALS</b> |  |  |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|-----|-----|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Glands, Respiratory Epithelium, Hyperplasia           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 45 | 1.0 |     |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Goblet Cell, Hyperplasia                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 1   | 2.0 |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Nasolacrimal Duct, Inflammation, Suppurative          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 2.0 |     |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Olfactory Epithelium, Accumulation, Hyaline Droplet   | 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 | 11 | 1.3 |
| Olfactory Epithelium, Atrophy                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 1.0 |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Olfactory Epithelium, Respiratory Metaplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 2   | 3   | 1.7 |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Respiratory Epithelium, Accumulation, Hyaline Droplet |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     | 1   | 4   | 1.0 |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Respiratory Epithelium, Hyperplasia                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 2   | 1   | 2   | 1   | 7 | 1.4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Respiratory Epithelium, Metaplasia, Squamous          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     | 1   | 1   | 1.0 |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Pleura Inflammation, Chronic                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6   | 1.2 |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |     |     |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |

SPECIAL SENSES SYSTEM

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |     |   |     |   |     |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|-----|---|-----|---|-----|
| Eye                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |   |     |   |     |   |     |
| Lens, Cataract              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 3 | 3 | 2.0 |   |     |   |     |
| Retina, Atrophy             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  | 2 |   | 3   | 4 | 2.5 |   |     |
| Sclera, Metaplasia, Osseous |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 |   |     |   | 2   | 4 | 1.8 |
| Harderian Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                         | 0 | 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 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 5 | 7 | 7 |          |
|                         | 3 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 2 | 9 | 3 | 8 | 3 | 9 | 0 | 3 | 4 | 3 | 3 |          |
|                         | 1 | 1 | 6 | 1 | 1 | 2 | 8 | 1 | 2 | 2 | 8 | 2 | 2 | 2 | 5 | 0 | 2 | 6 | 1 | 9 | 4 | 2 | 4 | 1 | 1 |          |
| .....                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| FISCHER 344 RATS FEMALE | 0 | 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 |          |
| CONTROL                 | 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 | 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 |          |
|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |

URINARY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--|
| Kidney  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |  |
| Nephropathy, Chronic                            |   |   |   |   | 1 | 1 | 3 |   | 3 | 3 | 3 | 1 |   | 1 | 2 | 1 | 3 |   | 1 |   | 3 |   | 2 | 2 | 26 1.7 |  |
| Papilla, Mineralization                         |   |   |   |   | 1 |   | 2 |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 2 |   | 1 | 1 | 12 1.2 |  |
| Pelvis, Transitional Epithelium, Mineralization |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.0  |  |
| .....   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |  |
| 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

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| DAY ON TEST                       | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females (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 |                   |
| 6                                 | 7         | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 0                 |
| 4                                 | 3         | 3 | 0 | 3 | 3 | 4 | 3 | 3 | 3 | 7 | 0 | 3 | 3 | 5 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 0 | 7 | 3 | 0                 |
| 0                                 | 2         | 1 | 2 | 1 | 1 | 5 | 0 | 2 | 2 | 8 | 2 | 2 | 2 | 4 | 1 | 8 | 6 | 1 | 2 | 1 | 1 | 6 | 5 | 2 | 0                 |
| .....                             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |
| FISCHER 344 RATS FEMALE<br>31 PPM | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                 |
|                                   | 0         | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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                 |

**ALIMENTARY SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum            | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Colon            | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Rectum           | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Duodenum         | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Ileum            | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Jejunum          | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Liver                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus                  |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus, Multiple        | 1 |   |   |   |   |   |   | 1 |   |   | 1 | 1 |   |   |   |   | 1 | 1 | 1 | 1 | 1 |   | 2 |
| Clear Cell Focus                  |   | 2 |   |   |   |   |   |   |   |   | 2 | 3 |   |   |   |   |   |   |   |   |   |   |   |
| Clear Cell Focus, Multiple        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Degeneration, Cystic              |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatodiaphragmatic Nodule        |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |
| Necrosis                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |
| Vacuolization Cytoplasmic         |   |   |   | 4 |   |   |   |   |   |   | 2 |   |   | 4 |   |   |   |   |   |   |   |   |   |
| Periportal, Inflammation, Chronic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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                       | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
|-----------------------------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
|                                   | 0640      | 0077 | 0077 | 0077 | 0077 | 0076 | 0077 | 0077 | 0077 | 0075 | 0077 | 0077 | 0077 | 0066 | 0076 | 0066 | 0066 | 0077 | 0077 | 0077 | 0077 | 0075 | 0077 |  |  |
| FISCHER 344 RATS FEMALE<br>31 PPM | 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    |  |  |
|                                   | 1         | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    |  |  |
|                                   | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |

females (cont...)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mesentery<br>Necrosis                               |   |   |   |   |   | + |   |   |   | + | + |   |   | + | + |   |   |   |   |   |   | + | + |
|   |   |   |   |   |   | 3 |   |   |   | 3 | 3 |   |   | 2 |   | 3 |   |   |   |   |   | 3 |   |
| Pancreas<br>Acinus, Atrophy<br>Artery, Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Salivary Glands                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach<br>Erosion<br>Ulcer            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |
| Stomach, Glandular<br>Ulcer                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |
| Tongue<br>Epithelium, Hyperplasia                   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

CARDIOVASCULAR SYSTEM

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

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  
 2) Mild 4) Marked

TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST   | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|   | 6 7 7 7 7 6 7 7 7 5 7 7 7 6 7 6 6 6 7 7 7 7 5 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FISCHER 344 RATS FEMALE<br>31 PPM<br>ANIMAL ID      | 4 3 3 0 3 3 4 3 3 3 7 0 3 3 5 3 8 4 3 3 3 3 0 7 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 0 2 1 2 1 1 5 0 2 2 8 2 2 2 4 1 8 6 1 2 1 1 6 5 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 2 3 4 5 6 7 8 9 0 1 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| females (cont...)                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adrenal Cortex                                      | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia   | 4 4 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia, Focal                                  | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Necrosis  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vacuolization Cytoplasmic                           | 1 3 2 4 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adrenal Medulla                                     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Islets, Pancreatic                                  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia   | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parathyroid Gland                                   | + + + M + M + + + + + + + + M + + + M M + M + +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pituitary Gland                                     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyst  | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hemorrhage  | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pars Distalis, Hyperplasia                          | 3 3 3 3 3 3                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Thyroid Gland                                       | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C-cell, Hyperplasia                                 | 3 1 1 1 1 4 1 1 1                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

GENERAL BODY SYSTEM

NONE

GENITAL 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

Page 90

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |   |
|-------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS FEMALE |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| 31 PPM                  |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |   |
| ANIMAL ID               |  | 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 |

females (cont...)

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia              | 4 |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst                     |   |   |   |   | 1 |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Uterus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Endometrium, Hyperplasia |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

HEMATOPOIETIC SYSTEM

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |     |
| Hyperplasia, Reticulum Cell      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4   |
| Lymph Node, Bronchial            | 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   |
| Hemorrhage                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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, Mediastinal          | + | + | + | M | + | + | + | M | + | M | M | M | M | M | M | M | M | + | + | + | + | + | + | + | + | +   |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   |
| Fibrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 4 |

\* .. 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. 99017 - 05  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
Diethylamine  
CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
Time Report Requested: 09:38:54  
First Dose M/F: 08/25/03 / 08/25/03  
Lab: BNW

| 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 |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 5 | 7 |
|             | 4 | 3 | 3 | 0 | 3 | 3 | 4 | 3 | 3 | 3 | 7 | 0 | 3 | 3 | 5 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 0 | 7 | 3 |
|             | 0 | 2 | 1 | 2 | 1 | 1 | 5 | 0 | 2 | 2 | 8 | 2 | 2 | 2 | 4 | 1 | 8 | 6 | 1 | 2 | 1 | 1 | 6 | 5 | 2 |

  

| FISCHER 344 RATS FEMALE<br>ANIMAL ID<br>31 PPM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | 0 | 0 | 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 |
|  | 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 | 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 |   |

females  
(cont...)

Hyperplasia, Histiocytic  
Pigmentation

4

Thymus

+ + + M + + + + + + + + + + + + + + + M + + + + +

**INTEGUMENTARY SYSTEM**

Mammary Gland  
Galactocele

+  
4

Skin  
Cyst Epithelial Inclusion  
Ulcer

+  
4 3 4

Subcutaneous Tissue, Cyst

**MUSCULOSKELETAL SYSTEM**

Bone

+ +

**NERVOUS SYSTEM**

Brain  
Compression  
Hemorrhage

+  
4 4 3 4

\* .. 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  
Page 92

| 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 |   |   |
|--------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                |  | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 5 | 7 |   |
|                                |  | 4 | 3 | 3 | 0 | 3 | 3 | 4 | 3 | 3 | 3 | 7 | 0 | 3 | 3 | 5 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 0 | 7 | 3 |   |
|                                |  | 0 | 2 | 1 | 2 | 1 | 1 | 5 | 0 | 2 | 2 | 8 | 2 | 2 | 2 | 4 | 1 | 8 | 6 | 1 | 2 | 1 | 1 | 6 | 5 | 2 |   |
| <b>FISCHER 344 RATS FEMALE</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 |   |
| 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 |   |
| <b>31 PPM</b>                  |  | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |   |
|                                |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females (cont...)

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body  |   | X |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   | X |
| Inflammation, Suppurative                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Respiratory Epithelium, Metaplasia, Squamous                  | 2 |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage  |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic   |   | 1 | 1 |   |   | 2 |   |   |   |   | 1 |   |   |   |   |   | 1 | 1 |   | 2 |   |   |   |   |   |
| Alveolar Epithelium, Hyperplasia                              | 1 | 1 |   |   |   |   |   |   |   |   | 2 |   |   |   |   | 1 |   |   | 1 |   |   |   |   |   |   |
| Alveolus, Infiltration Cellular, Histocyte                    | 2 | 2 | 2 |   | 1 | 2 | 1 |   | 1 |   | 2 |   | 1 |   |   |   | 2 | 1 |   | 2 |   |   |   |   |   |
| Bronchiole, Hyperplasia                                       |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Interstitialium, Fibrosis                                     |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |   |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Suppurative                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 |   | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |   | 2 | 2 | 2 | 2 | 2 |   |
| Glands, Respiratory Epithelium, Hyperplasia                   | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | 3 | 1 | 2 | 2 |   |
| Nasolacrimal Duct, Inflammation, Suppurative                  |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet           | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 3 | 3 |   |
| Olfactory Epithelium, Atrophy                                 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 2 |   | 3 | 2 | 2 | 3 | 1 |   |
| Olfactory Epithelium, Hyperplasia, Basal                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | females<br>(cont...) |
|--------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|
|                                | 6 7 7 7 7 6 7 7 7 5 7 7 7 6 7 6 6 6 7 7 7 7 5 7<br>4 3 3 0 3 3 4 3 3 3 7 0 3 3 5 3 8 4 3 3 3 3 0 7 3<br>0 2 1 2 1 1 5 0 2 2 8 2 2 2 4 1 8 6 1 2 1 1 6 5 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| <b>FISCHER 344 RATS FEMALE</b> | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| <b>31 PPM</b>                  | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| ANIMAL ID                      | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|                                | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|                                | 1 2 3 4 5 6 7 8 9 0 1 1 2 3 4 5 6 7 8 9 0 1 2 2 3 4 5   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |

|   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Cell  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Olfactory Epithelium, Necrosis                        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Olfactory Epithelium, Respiratory Metaplasia          |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Olfactory Epithelium, Vacuolization Cytoplasmic       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1 1 1 1 1 1 2 2 2 2 3 1 2 2 2 2 2 1 2 2 2 2 2     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Respiratory Epithelium, Hyperplasia                   | 1     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Respiratory Epithelium, Inflammation, Chronic         | 1     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Respiratory Epithelium, Metaplasia, Squamous          |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Respiratory Epithelium, Vacuolization Cytoplasmic     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pleura  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation, Chronic                                 | 1 1 1 1 2 1 2 2 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trachea   | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**SPECIAL SENSES SYSTEM**

|                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye                               | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cornea, Inflammation, Suppurative |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lens, Cataract                    |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retina, Atrophy                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sclera, Metaplasia, Osseous       | 2 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  
Page 94  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

| DAY ON TEST                    | 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 |
| 6                              | 7         | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 5 | 7 |   |
| 4                              | 3         | 3 | 0 | 3 | 3 | 4 | 3 | 3 | 3 | 7 | 0 | 3 | 3 | 5 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 0 | 7 | 3 |   |
| 0                              | 2         | 1 | 2 | 1 | 1 | 5 | 0 | 2 | 2 | 8 | 2 | 2 | 2 | 4 | 1 | 8 | 6 | 1 | 2 | 1 | 1 | 6 | 5 | 2 |   |
| <b>FISCHER 344 RATS FEMALE</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 |   |
| <b>31 PPM</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 |   |
|                                | 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 | 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 |   |

females (cont...)

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Zymbal's Gland  |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy, Chronic                         |   | 1 | 4 | 1 |   | 1 | 2 |   |   |   | 2 |   | 1 | 1 |   | 3 |   | 1 |   | 2 |   | 2 | 2 |   |
| Papilla, Mineralization                      |   |   |   |   |   | 2 |   |   |   |   | 1 |   |   |   | 2 |   |   |   |   |   |   |   | 1 |   |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Renal Tubule, Vacuolization Cytoplasmic      |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |
| 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  
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TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|             | 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 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 6 |          |
| 3           | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 4 | 3 | 1 | 3 | 3 | 3 | 7 | 3 | 3 | 1 | 3 | 8 | 6 |          |
| 1           | 1         | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 6 | 7 | 2 | 2 | 7 | 1 | 0 | 2 | 1 | 4 | 2 | 2 | 0 | 1 | 8 | 6 |          |

---

| FISCHER 344 RATS FEMALE<br>31 PPM | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|-----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                                   | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |
| 0                                 | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |
| 0                                 | 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 |          |
| 2                                 | 2         | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |          |

|                         |   |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  |       |       |        |
|-------------------------|---|--|--|---|--|--|---|--|--|---|---|--|---|--|---|---|--|--|---|--|--|---|--|--|-------|-------|--------|
| Mesentery               | + |  |  |   |  |  |   |  |  |   | + |  | + |  | + |   |  |  |   |  |  |   |  |  | 15    |       |        |
| Necrosis                | 3 |  |  | 3 |  |  | 3 |  |  | 3 |   |  | 3 |  |   | 3 |  |  | 3 |  |  | 3 |  |  | 3     | 3     | 14 2.9 |
| Pancreas                | + |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 50    |       |        |
| Acinus, Atrophy         |   |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 1 3.0 |       |        |
| Artery, Inflammation    | 2 |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 1 2.0 |       |        |
| Salivary Glands         | + |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 50    |       |        |
| Stomach, Forestomach    | + |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 50    |       |        |
| Erosion                 |   |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 2     | 1 2.0 |        |
| Ulcer                   | 3 |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 3 3.7 |       |        |
| Stomach, Glandular      | + |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 50    |       |        |
| Ulcer                   |   |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 1 3.0 |       |        |
| Tongue                  |   |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 2     |       |        |
| Epithelium, Hyperplasia | 3 |  |  |   |  |  |   |  |  |   |   |  |   |  |   |   |  |  |   |  |  |   |  |  | 1 3.0 |       |        |

### CARDIOVASCULAR SYSTEM

|                |   |  |  |   |  |  |   |  |  |   |  |  |   |  |  |   |  |  |  |  |  |   |  |  |    |  |  |   |  |  |   |  |  |        |
|----------------|---|--|--|---|--|--|---|--|--|---|--|--|---|--|--|---|--|--|--|--|--|---|--|--|----|--|--|---|--|--|---|--|--|--------|
| Heart          | + |  |  |   |  |  |   |  |  |   |  |  |   |  |  |   |  |  |  |  |  |   |  |  | 50 |  |  |   |  |  |   |  |  |        |
| Cardiomyopathy |   |  |  | 2 |  |  | 1 |  |  | 1 |  |  | 1 |  |  | 2 |  |  |  |  |  | 2 |  |  | 1  |  |  | 1 |  |  | 1 |  |  | 17 1.3 |

### 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  
 2) Mild 4) Marked

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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 | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|---|-----|
|                                | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
|                                | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 4 | 3 | 1 | 3 | 3 | 3 | 7 | 3 | 3 | 1 | 3 | 8 | 6 | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
|                                | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 6 | 7 | 2 | 2 | 7 | 1 | 0 | 2 | 1 | 4 | 2 | 2 | 0 | 1 | 8 | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| .....                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| <b>FISCHER 344 RATS FEMALE</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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| <b>31 PPM</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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| <b>ANIMAL ID</b>               | 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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
|                                | 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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| .....                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| Clitoral Gland                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |   |     |
| Cyst                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |    | 1   | 2.0 |   |     |
| Hyperplasia                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   | 1 |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5  | 3.2 |     |   |     |
| .....                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| Ovary                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |     |   |     |
| Cyst                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |    | 5   | 2.8 |   |     |
| .....                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |     |
| Uterus                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +   | 50  |   |     |
| Endometrium, Hyperplasia       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     | 1 | 1.0 |

**HEMATOPOIETIC SYSTEM**

| Bone Marrow                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |    |     |  |
|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-----|--|
| Hyperplasia, Reticulum Cell      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    | 1  | 4.0 |  |
| .....                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |     |  |
| Lymph Node, Bronchial            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 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  | 1  |     |  |
| Hemorrhage                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    | 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 | M | M | M | M | M | M | M | M | M | M | M  | M  | 0  |     |  |
| .....                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |     |  |
| Lymph Node, Mediastinal          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | M | M | M | M | M | M | + | M | M | + | + | M | M | + | + | M | + | M | + | M | + | M | + | M | + | M | + | M | + | M | +  | 27 |    |     |  |
| .....                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |     |  |
| Lymph Node, Mesenteric           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +  | +  | 50  |  |
| .....                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |     |  |
| Spleen                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +  | 50 |     |  |
| Fibrosis                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    | 1  | 4.0 |  |
| Hematopoietic Cell Proliferation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    | 3  | 3.7 |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
x .. Lesion present  
l .. 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 |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 6 |   |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 4 | 3 | 1 | 3 | 3 | 3 | 7 | 3 | 3 | 1 | 3 | 8 | 6 |   |
|             | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 6 | 7 | 2 | 2 | 7 | 1 | 0 | 2 | 1 | 4 | 2 | 2 | 0 | 1 | 8 | 6 |

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| FISCHER 344 RATS FEMALE | 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 |   |
| 31 PPM                  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                         | 2 | 2 | 2 | 2 | 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 |

\* TOTALS

|                                       |   |   |     |
|---------------------------------------|---|---|-----|
| Hyperplasia, Histiocytic Pigmentation | 4   | 1 | 4.0 |
| Thymus                                | + + + + + + + + + + + M M + + + + + M + + M + + |   | 44  |

**INTEGUMENTARY SYSTEM**

|                                |   |    |   |     |
|--------------------------------|---|----|---|-----|
| Mammary Gland Galactoceles     | + | 50 | 3 | 2.0 |
| Skin Cyst Epithelial Inclusion | + | 50 | 1 | 4.0 |
| Ulcer                          |   |    | 2 | 3.5 |
| Subcutaneous Tissue, Cyst      |   | 3  | 1 | 3.0 |

**MUSCULOSKELETAL SYSTEM**

|      |   |    |
|------|---|----|
| Bone | + | 50 |
|------|---|----|

**NERVOUS SYSTEM**

|                   |   |     |    |     |
|-------------------|---|-----|----|-----|
| Brain Compression | + | 50  | 11 | 3.5 |
| Hemorrhage        | 3 3   | 3 4 | 3  | 4   |
|                   |   |     | 4  | 4   |
|                   |   |     | 4  | 4   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
x .. Lesion present  
l .. 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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                                | 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 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 6 |          |
|                                | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 4 | 3 | 1 | 3 | 3 | 3 | 3 | 7 | 3 | 3 | 1 | 3 | 8 | 6        |
|                                | 1           | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 6 | 7 | 2 | 2 | 7 | 1 | 0 | 2 | 1 | 4 | 2 | 2 | 0 | 1 | 8 | 6        |
| <b>FISCHER 344 RATS FEMALE</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        |
| <b>31 PPM</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        |
| ANIMAL ID                      | 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        |
|                                | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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        |

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Larynx  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |    | 6      |
| Inflammation, Suppurative                                     |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0  |
| Respiratory Epithelium, Metaplasia, Squamous                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 2.0  |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Hemorrhage  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 1.5  |
| Inflammation, Chronic   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 11 1.3 |
| Alveolar Epithelium, Hyperplasia                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 6 1.7  |
| Alveolus, Infiltration Cellular, Histiocyte                   |   |   |   | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 24 1.3 |
| Bronchiole, Hyperplasia                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0  |
| Interstitium, Fibrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 1.0  |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |        |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |    | 1      |
| Inflammation, Suppurative                                     |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 4 1.5  |
| Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet |   |   |   | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1  | 46 1.6 |
| Glands, Respiratory Epithelium, Hyperplasia                   |   |   |   | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 3 | 2 | 1  | 49 1.7 |
| Nasolacrimal Duct, Inflammation, Suppurative                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 1.5  |
| Olfactory Epithelium, Accumulation, Hyaline Droplet           |   |   |   | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3  | 49 2.6 |
| Olfactory Epithelium, Atrophy                                 |   |   |   | 2 | 1 |   | 1 | 1 | 3 | 1 | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 1 | 1 | 1  | 47 1.9 |
| Olfactory Epithelium, Hyperplasia, Basal                      |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 1.0  |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

|  | DAY ON TEST | 0     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | * TOTALS |
|--|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
|  |             | 7 7 7 7 7 7 7 7 7 7 6 6 7 7 7 7 7 7 5 7 7 7 7 6 6   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  |             | 3 3 3 3 3 3 3 3 3 3 1 0 4 3 1 3 3 3 3 7 3 3 1 3 8 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  |             | 1 1 0 2 0 2 1 2 2 2 6 7 2 2 7 1 0 2 1 4 2 2 0 1 8 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| <b>FISCHER 344 RATS FEMALE</b>               |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  |             | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| <b>ANIMAL ID</b>                             |             | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| <b>31 PPM</b>                                |             | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  |             | 2 2 2 2 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  |             | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Harderian Gland                              |             | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50       |
| Zymbal's Gland                               |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + 2      |
| <b>URINARY SYSTEM</b>                        |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Kidney                                       |             | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50       |
| Nephropathy, Chronic                         |             | 1 1 2 1 1 1 1 3 2 1 1 1 1 1 2 3 2 1 1 1             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 31 1.6   |
| Papilla, Mineralization                      |             | 1 1 1 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 13 1.2   |
| Pelvis, Transitional Epithelium, Hyperplasia |             | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 3.0    |
| Renal Tubule, Vacuolization Cytoplasmic      |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 4.0    |
| Urinary Bladder                              |             | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50       |

\* .. 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

| DAY ON TEST                    | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females<br>(cont...) |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
|                                | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 |                      | 7 |
|                                | 1 | 6 | 3 | 3 | 8 | 3 | 3 | 3 | 8 | 3 | 3 | 2 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3                    | 3 |
|                                | 9 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 1 | 4 | 1 | 1                    | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |
| 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 |
| <b>62.5 PPM</b>                | 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 |
|                                | 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 |
|                                | 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     | +             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intestine Large, Rectum    | +             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intestine Small, Duodenum  | +             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intestine Small, Ileum     | + A + + + + + + + + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intestine Small, Jejunum   | + A + + + + + + + + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Liver                      | +             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Angiectasis                |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Basophilic Focus           | 1 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Basophilic Focus, Multiple | 2 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clear Cell Focus           | 3 3 1 3 1 1 1 2 1 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clear Cell Focus, Multiple | 3 3 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hemorrhage                 | 4 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hepatodiaphragmatic Nodule | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Necrosis                   | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vacuolization Cytoplasmic  | 2 3 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Artery, 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 |   |
|                                | 1 | 6 | 3 | 3 | 8 | 3 | 3 | 3 | 8 | 3 | 3 | 2 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 |   |
|                                | 9 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 4 | 1 | 1 | 1 |   |
| <b>FISCHER 344 RATS FEMALE</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 |   |
| <b>62.5 PPM</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 |   |
| <b>ANIMAL ID</b>               | 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 |   |
|                                | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |   |

females (cont...)

|  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bile Duct, Hyperplasia<br>Hepatocyte, Regeneration<br>Periportal, Pigmentation | 4 |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mesentery<br>Necrosis<br>Artery, Inflammation                                  |   |  | + |   |   | + |   |   | + |   |   | + | + |   | + |   |   | + |   | + |   |   |   | + |  |
|  |   |  | 3 |   |   | 3 |   |   | 3 |   |   | 3 | 3 |   | 3 |   |   | 3 |   | 3 |   |   |   | 3 |  |
| Pancreas<br>Acinus, Atrophy<br>Artery, Inflammation                            |   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Salivary Glands  |   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Stomach, Forestomach<br>Ulcer  |   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Stomach, Glandular   |   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

|                |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. 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  
Page 105

| DAY ON TEST             | ANIMAL ID                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |
|-------------------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|
|                         | 0719                     | 0719 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 |   |
| FISCHER 344 RATS FEMALE | 0                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |   |
| 62.5 PPM                | 0                        | 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    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 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    |   |
|                         | 1                        | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 3    | 4    | 5 |
|                         | <b>females (cont...)</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hyperplasia                       | 2 | 3 | 4 |   |   | 2 | 2 | 2 |   |   |   |   | 3 |   | 3 | 4 | 3 |   |   |   |   |   |   |   |   |
| Hyperplasia, Focal                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Vacuolization Cytoplasmic         |   |   | 4 |   |   | 4 |   |   |   |   | 2 | 1 |   |   |   | 2 | 1 |   |   |   |   |   |   | 4 |   |
| Adrenal Medulla Hyperplasia       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland                 | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pituitary Gland Cyst              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pars Distalis, Hyperplasia        |   |   | 4 |   |   | 3 |   |   |   |   | 3 |   |   |   |   |   | 4 |   |   |   | 3 |   |   |   |   |
| Thyroid Gland C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|                                   |   |   | 1 | 1 | 1 |   |   |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 2 |   | 2 |   | 1 |   |   | 1 | 1 |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia         |   |   |   |   |   | 4 | 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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 M .. Missing tissue  
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 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

| 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 |                      |
| 7                              | 6         | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 |                      |
| 1                              | 6         | 3 | 3 | 8 | 3 | 3 | 3 | 8 | 3 | 3 | 2 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 |                      |
| 9                              | 1         | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 4 | 1 | 1 |                      |
| <b>FISCHER 344 RATS FEMALE</b> | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |                      |
| <b>62.5 PPM</b>                | 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 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |   |                      |
|                                | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |                      |

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Cyst                     | 4 |   | 4 |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Uterus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hemorrhage               |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   | 4 |   |   |   |  |
| Thrombosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |  |
| Endometrium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**HEMATOPOIETIC SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Reticulum Cell      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node                       | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Bronchial            | + | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | M | + | M | M |
| 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, Mediastinal          | + | M | M | + | + | + | M | + | M | M | + | M | M | M | M | + | M | M | M | + | + | M | M | M |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Fibrosis                         |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 4 |   |   |   |   |   |   |   |   |   |   |
| Necrosis                         | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
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Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST                          | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                      | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 |   |
| FISCHER 344 RATS FEMALE<br>ANIMAL ID | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                      | 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 |   |
| 62.5 PPM                             | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ANIMAL ID                            | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 3 | 4 |

females (cont...)

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus | + | M | M | + | + | + | + | + | + | M | + | + | M | + | + | + | + | M | + | + | + | + | + | M | M |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

INTEGUMENTARY SYSTEM

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Galactocele                   | 1 |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |
| Skin                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst Epithelial Inclusion     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ulcer                         |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |
| Subcutaneous Tissue, Fibrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |

MUSCULOSKELETAL SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

NERVOUS SYSTEM

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression                     |   |   |   | 4 | 4 |   |   | 2 |   | 3 |   |   |   | 3 |   |   |   |   |   |   | 3 |   | 4 | 3 |   |
| Hemorrhage                      |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |
| Meninges, Inflammation, Chronic |   |   |   |   |   |   |   |   |   |   |   |   | 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

Page 108

| DAY ON TEST                                       | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|   | 7 6 7 7 6 7 7 7 4 7 7 7 7 6 7 7 6 7 7 7 7 5 7 6 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 6 3 3 8 3 3 3 8 3 3 2 3 8 3 3 3 3 3 3 3 4 3 3 3 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 1 2 2 1 1 1 1 1 2 2 5 2 2 1 1 9 2 1 1 1 4 1 1 1 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .....   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FISCHER 344 RATS FEMALE                           | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANIMAL ID   | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 62.5 PPM  | 5   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1 1 1 2 2 2 2   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1 1 1 2 2 3 4   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .....   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| females (cont...)                                 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

|   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Larynx  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign Body  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation, Suppurative                                     | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Epiglottis, Metaplasia, Squamous                              | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .....   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lung  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hemorrhage  | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation, Chronic   | 2 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Metaplasia, Osseous   | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alveolar Epithelium, Hyperplasia                              | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alveolus, Infiltration Cellular, Histiocyte                   | 2 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alveolus, Proteinosis   | 2 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Perivascular, Infiltration Cellular, Lymphocyte               | 2 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .....   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nose  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign Body  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation, Suppurative                                     | 1 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 2 2 2 1 2 2 2 2 2 2 2 1 2 1 2 2 2 2 2 2 2 2 1 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Glands, Respiratory Epithelium, Hyperplasia                   | 2 1 2 1 1 1 3 2 1 1 4 3 2 2 2 3 1 2 2 3 1 1 1 1 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Goblet Cell, Hyperplasia                                      | 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 |   |
|                                | 1 | 6 | 3 | 3 | 8 | 3 | 3 | 3 | 8 | 3 | 3 | 2 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 |   |
|                                | 9 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 4 | 1 | 1 | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |   |
| 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 |   |
| <b>62.5 PPM</b>                | 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 |   |
|                                | 0 | 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 | 1 | 2 | 2 | 2 | 2 | 2 |   |

females (cont...)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Accumulation, Hyaline Droplet   | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 1 | 3 | 2 | 2 |
| Olfactory Epithelium, Atrophy                         | 3 | 3 | 3 | 2 | 3 | 1 | 2 | 3 |   | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 2 | 3 | 1 |   | 1 | 2 | 1 | 2 | 3 |
| Olfactory Epithelium, Hyperplasia, Basal Cell         |   |   | 2 | 2 |   | 2 | 3 |   |   | 1 |   |   |   | 2 | 1 |   | 2 | 1 |   | 1 |   | 1 | 1 |   |   |
| Olfactory Epithelium, Metaplasia, Squamous            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Necrosis                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |
| Olfactory Epithelium, Respiratory Metaplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Vacuolization Cytoplasmic       |   | 4 |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1 |   |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 1 |
| Respiratory Epithelium, Hyperplasia                   | 2 | 1 | 1 |   | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 |   | 1 |
| Respiratory Epithelium, Metaplasia, Squamous          |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |
| Respiratory Epithelium, Necrosis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |
| Respiratory Epithelium, Vacuolization Cytoplasmic     |   | 4 |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pleura Inflammation, Chronic                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   | 2 |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

|     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. 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. 99017 - 05

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Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

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First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |   |                          |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
|                                | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 |                          |
|                                | 1 | 6 | 3 | 3 | 8 | 3 | 3 | 3 | 8 | 3 | 3 | 2 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 |                          |
|                                | 9 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |                          |
| <b>FISCHER 344 RATS FEMALE</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 |                          |
| <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 |                          |
| <b>62.5 PPM</b>                | 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 |                          |
|                                | 0 | 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 | 1 | 1 | 2 | 2 | 2 | 2 |                          |
|                                |   |   |   |   |   |   |   |   |   |   | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5                        |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>females (cont...)</b> |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bilateral, Lens, Cataract         | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Inflammation, Suppurative |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Mineralization            |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Vacuolization Cytoplasmic |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lens, Cataract                    |   |   |   |   |   | 4 |   |   |   | 3 |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |
| Retina, Atrophy                   | 4 |   |   |   |   | 4 |   |   |   | 3 |   | 2 |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |
| Sclera, Metaplasia, Osseous       |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic             |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

URINARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy, Chronic                         |   | 2 |   |   | 3 | 1 | 3 | 4 |   | 3 | 2 | 2 |   |   | 3 | 2 |   |   | 2 |   |   | 1 |   | 2 | 3 |
| Cortex, Infarct                              |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cortex, Renal Tubule, Necrosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Papilla, Mineralization                      |   | 1 |   |   | 1 | 1 | 2 |   |   | 1 |   | 1 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Transitional 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  
Page 111

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
|                                | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 3 | 6 | 6 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6               |   |
|                                | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 8 | 1 | 8 | 6 | 3 | 3 | 3 | 3 | 5 | 3 | 0 | 3 | 2 | 3 | 4               |   |
|                                | 2 | 2 | 4 | 2 | 1 | 1 | 2 | 1 | 1 | 8 | 3 | 0 | 8 | 6 | 8 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 4 | 0 | 1               |   |
| <b>FISCHER 344 RATS FEMALE</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               |   |
| 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               |   |
| <b>62.5 PPM</b>                | 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               |   |
|                                | 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>* TOTALS</b> |   |

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 49     |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Angiectasis                |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 2.3  |
| Basophilic Focus           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   | 4 2.5  |
| Basophilic Focus, Multiple | 1 | 1 |   | 1 | 1 |   | 1 |   |   |   |   | 1 | 1 |   |   |   |   |   |   | 1 |   | 1 |   |   |   | 19 1.3 |
| Clear Cell Focus           |   | 3 |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6 3.0  |
| Clear Cell Focus, Multiple |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.0  |
| Hemorrhage                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.5  |
| Hepatodiaphragmatic Nodule |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   | 2 4.0  |
| Necrosis                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Vacuolization Cytoplasmic  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   |   |   | 3 |   | 6 2.2  |
| Artery, Inflammation       |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |

\* .. 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





| DAY ON TEST                    | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |               |               |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------------|---------------|
|                                | 7 7 5 7 7 7 7 7 7 6 6 3 6 6 6 7 7 7 5 7 7 7 6<br>3 3 5 3 3 3 3 3 3 1 8 1 8 6 3 3 3 3 5 3 0 3 2 3 4<br>2 2 4 2 1 1 2 1 1 8 3 0 8 6 8 1 2 1 3 1 2 2 4 0 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |               |               |
| <b>FISCHER 344 RATS FEMALE</b> | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |               |               |
| <b>62.5 PPM</b>                | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |               |               |
| ANIMAL ID                      | 5<br>2 2 2 2 3 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 5<br>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   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |               |               |
| Hyperplasia                    | 2   |   | 3 |   |   |   | 4 | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |          |               | <b>15 2.9</b> |
| Hyperplasia, Focal             |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |          |               | <b>3 2.0</b>  |
| Vacuolization Cytoplasmic      |   |   |   |   |   |   |   |   | 3 | 1 |   |   |   | 3 |   | 2 |   |   |   |   |   | 4 | 1        |               | <b>13 2.5</b> |
| Adrenal Medulla                | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b>     |               |
| Hyperplasia                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |          | <b>2 2.5</b>  |               |
| Islets, Pancreatic             | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b>     |               |
| Parathyroid Gland              | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | +        | <b>48</b>     |               |
| Pituitary Gland                | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b>     |               |
| Cyst                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | <b>1 3.0</b>  |               |
| Pars Distalis, Hyperplasia     |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   | 3 |   | 4 |   |          | <b>7 3.6</b>  |               |
| Thyroid Gland                  | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b>     |               |
| C-cell, Hyperplasia            | 1   | 1 |   |   | 4 | 1 | 1 | 3 |   | 1 |   |   |   | 1 |   | 1 |   |   |   |   |   |   | 1 4      | <b>25 1.4</b> |               |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>    |
| Cyst           |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   | 4 |   |   |   |   |   | <b>2 3.0</b> |
| Hyperplasia    |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | <b>4 3.5</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

| DAY ON TEST                                      | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | * TOTALS |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
|  | 7 7 5 7 7 7 7 7 7 6 6 3 6 6 6 7 7 7 5 7 7 7 7 7 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| FISCHER 344 RATS FEMALE<br>62.5 PPM<br>ANIMAL ID | 3 3 5 3 3 3 3 3 3 1 8 1 8 6 3 3 3 3 5 3 0 3 2 3 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  | 2 2 4 2 1 1 2 1 1 8 3 0 8 6 8 1 2 1 3 1 2 2 4 0 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  | 5   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  | 2 2 2 2 3 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|  | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 4.0 |
| Uterus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Hemorrhage               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 4.0 |
| Thrombosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Endometrium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |

**HEMATOPOIETIC SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Hyperplasia, Reticulum Cell      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 1 3.0 |
| Lymph Node                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Lymph Node, Bronchial            | M | M | M | M | M | M | M | M | M | M | M | + | + | M | M | M | M | M | M | M | M | M | M | M | M | 5       |
| 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 | 1       |
| Lymph Node, Mediastinal          | + | M | M | + | M | M | + | M | + | + | M | M | + | + | + | + | M | + | + | + | + | M | + | + | + | 25      |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Fibrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 3.8   |
| Necrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0   |

\* .. 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. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

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

Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
|                                | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 3 | 6 | 6 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6               |   |
|                                | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 8 | 1 | 8 | 6 | 3 | 3 | 3 | 3 | 5 | 3 | 0 | 3 | 2 | 3               | 4 |
|                                | 2 | 2 | 4 | 2 | 1 | 1 | 2 | 1 | 1 | 8 | 3 | 0 | 8 | 6 | 8 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 4 | 0               | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |
| <b>62.5 PPM</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 |
| <b>ANIMAL ID</b>               | 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 |
|                                | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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>* TOTALS</b> |   |

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Thymus | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | <b>40</b> |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

**INTEGUMENTARY SYSTEM**

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |              |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Mammary Gland                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>    |
| Galactocele                   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>5 1.0</b> |
| Skin                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>    |
| Cyst Epithelial Inclusion     |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 2.0</b> |
| Ulcer                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 4.0</b> |
| Subcutaneous Tissue, Fibrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 3.0</b> |

**MUSCULOSKELETAL SYSTEM**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |
| Skeletal Muscle |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  |

**NERVOUS SYSTEM**

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Brain                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>     |
| Compression                     | 3 |   | 3 |   |   |   |   |   |   | 3 | 4 |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   | <b>14 3.3</b> |
| Hemorrhage                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | <b>2 2.5</b>  |
| Meninges, Inflammation, Chronic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 1.0</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  
 Page 116

TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| 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 | * TOTALS |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                         | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 3 | 6 | 6 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 6 | 0 |          |
| FISCHER 344 RATS FEMALE | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 8 | 1 | 8 | 6 | 3 | 3 | 3 | 3 | 5 | 3 | 0 | 3 | 2 | 3 | 4 |   |          |
| 62.5 PPM                | 2 | 2 | 4 | 2 | 1 | 1 | 2 | 1 | 1 | 8 | 3 | 0 | 8 | 6 | 8 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 4 | 0 | 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 |   |          |
|                         | 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 |   |          |
|                         | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |   |          |

|                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|
| Peripheral Nerve |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | 1 |   |
| Spinal Cord      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   | + | 1 |

RESPIRATORY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Larynx  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50     |        |
| Foreign Body  |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   | X |   |   |   |   |   |   |   |   |   |   | 4      |        |
| Inflammation, Suppurative                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0  |        |
| Epiglottis, Metaplasia, Squamous                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 2 1.0  |        |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50     |        |
| Hemorrhage  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |        |
| Inflammation, Chronic   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 7 1.4  |        |
| Metaplasia, Osseous   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 2.0  |        |
| Alveolar Epithelium, Hyperplasia                              |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 2.0  |        |
| Alveolus, Infiltration Cellular, Histiocyte                   |   |   |   | 1 |   | 1 |   | 1 |   | 2 | 1 | 1 |   |   |   |   |   | 2 | 2 | 1 | 1 | 1 |   | 1 | 1 |   | 27 1.3 |        |
| Alveolus, Proteinosis   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |        |
| Perivascular, Infiltration Cellular, Lymphocyte               |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0  |        |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50     |        |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | 1      |        |
| Inflammation, Suppurative                                     |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 2 | 2 |   |   |   | 3 |   |   |   | 15 1.5 |        |
| Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet |   | 2 | 2 | 2 | 1 | 2 | 2 | 1 |   | 3 | 2 | 1 | 1 | 2 | 1 |   | 1 | 1 | 3 | 1 | 1 | 2 |   | 1 | 2 |   | 45 1.7 |        |
| Glands, Respiratory Epithelium, Hyperplasia                   |   | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 |   | 2 | 1 | 1 | 1 |   | 3 | 1 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |        | 48 1.9 |
| Goblet Cell, Hyperplasia                                      |   |   |   |   |   |   |   |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 1.8  |        |

\* .. 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  
 Page 117

| DAY ON TEST   | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |           |            |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-----------|------------|
|   | 7 7 5 7 7 7 7 7 7 6 6 3 6 6 6 7 7 7 5 7 7 7 7 7 6<br>3 3 5 3 3 3 3 3 3 1 8 1 8 6 3 3 3 3 5 3 0 3 2 3 4<br>2 2 4 2 1 1 2 1 1 8 3 0 8 6 8 1 2 1 3 1 2 2 4 0 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |            |
| <b>FISCHER 344 RATS FEMALE</b>                        | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |            |
| <b>62.5 PPM</b>                                       | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |            |
| <b>ANIMAL ID</b>                                      | 5   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |            |
| <b>62.5 PPM</b>                                       | 2 2 2 2 3   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |            |
| <b>62.5 PPM</b>                                       | 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 4 4 4 4 4 4   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |            |
| Olfactory Epithelium, Accumulation, Hyaline Droplet   | 2   | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2        | <b>50</b> | <b>2.6</b> |
| Olfactory Epithelium, Atrophy                         | 3   | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 3 | 2 | 2        | <b>48</b> | <b>2.3</b> |
| Olfactory Epithelium, Hyperplasia, Basal Cell         |   | 1 |   | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 |   |   | 1 |   | 2 | 1 | 1 |   | 3 |   | 3 | 3 | 2 |          | <b>29</b> | <b>1.7</b> |
| Olfactory Epithelium, Metaplasia, Squamous            |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | <b>1</b>  | <b>1.0</b> |
| Olfactory Epithelium, Necrosis                        |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |          | <b>3</b>  | <b>1.0</b> |
| Olfactory Epithelium, Respiratory Metaplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   | 1 |   |   |          | <b>2</b>  | <b>1.0</b> |
| Olfactory Epithelium, Vacuolization Cytoplasmic       |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |          | <b>4</b>  | <b>3.8</b> |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1   | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 1        | <b>46</b> | <b>1.2</b> |
| Respiratory Epithelium, Hyperplasia                   | 1   | 2 |   | 2 | 2 | 2 | 2 | 2 | 1 | 1 |   |   | 2 | 1 |   | 2 | 1 | 1 |   | 2 |   | 1 | 1 | 1 | 2        | <b>41</b> | <b>1.4</b> |
| Respiratory Epithelium, Metaplasia, Squamous          |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |          | <b>5</b>  | <b>1.4</b> |
| Respiratory Epithelium, Necrosis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | <b>1</b>  | <b>1.0</b> |
| Respiratory Epithelium, Vacuolization Cytoplasmic     |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |          | <b>4</b>  | <b>4.0</b> |
| Pleura Inflammation, Chronic                          | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b> |            |
|   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   | 2 | 2 |   |   |   |   |   | 1 |          | <b>12</b> | <b>1.3</b> |
| Trachea   | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b> |            |

**SPECIAL SENSES SYSTEM**

|     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</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

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID                      | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 3 | 6 | 6 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 |
|                                | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 8 | 1 | 8 | 6 | 3 | 3 | 3 | 3 | 5 | 3 | 0 | 3 | 2 | 3 | 4 |
|                                | 2 | 2 | 4 | 2 | 1 | 1 | 2 | 1 | 1 | 8 | 3 | 0 | 8 | 6 | 8 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 4 | 0 | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |
| <b>62.5 PPM</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 |
| <b>ANIMAL ID</b>               | 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 |
|                                | 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>* TOTALS</b>                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Bilateral, Lens, Cataract         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>4.0</b> |
| Cornea, Inflammation, Suppurative | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>2</b>  | <b>2.5</b> |
| Cornea, Mineralization            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>1.0</b> |
| Cornea, Vacuolization Cytoplasmic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>3.0</b> |
| Lens, Cataract                    | 3 |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   | <b>5</b>  | <b>3.6</b> |
| Retina, Atrophy                   | 3 |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   | 2 |   |   | <b>8</b>  | <b>3.3</b> |
| Sclera, Metaplasia, Osseous       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>2</b>  | <b>1.5</b> |
| -----                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |
| Harderian Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |            |
| Inflammation, Chronic             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>1.0</b> |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |            |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|------------|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>  |            |
| Nephropathy, Chronic                         | 3 | 1 | 1 | 1 |   |   | 2 |   | 1 |   | 3 |   | 1 | 1 | 1 |   |   | 1 | 1 |   | 2 | 1 | 1 |   | 2 | <b>30</b> | <b>1.9</b> |            |
| Cortex, Infarct                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   | <b>3.0</b> |
| Cortex, Renal Tubule, Necrosis               |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   | <b>1.0</b> |
| Papilla, Mineralization                      |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |           | <b>9</b>   | <b>1.2</b> |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>2</b>   | <b>2.0</b> |
| -----  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |            |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>  |            |
| Hemorrhage                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   | <b>3.0</b> |
| Transitional Epithelium, Hyperplasia         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <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  
l .. 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  
Page 119

| DAY ON TEST | 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 |
| 4           | 7         | 6 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |   |
| 4           | 3         | 2 | 6 | 3 | 3 | 3 | 7 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 1 | 3 | 3 | 3 |   |
| 9           | 2         | 7 | 6 | 1 | 1 | 2 | 5 | 8 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 9 | 8 | 2 | 2 | 2 | 1 | 2 | 2 |   |

  

| FISCHER 344 RATS FEMALE | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | females (cont...) |
|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-------------------|
| 125 PPM                 | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |                   |
|                         | 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 | 7 | 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 |  |                   |
|                         | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |  |                   |

ALIMENTARY SYSTEM

|                            |   |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
|----------------------------|---|--|--|--|---|---|---|--|---|---|--|---|---|---|---|--|--|--|--|---|--|---|---|---|--|
| Esophagus                  | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Intestine Large, Cecum     | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Intestine Large, Colon     | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Intestine Large, Rectum    | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Intestine Small, Duodenum  | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Intestine Small, Ileum     | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Intestine Small, Jejunum   | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Liver                      | + |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Angiectasis                |   |  |  |  |   |   | 3 |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Basophilic Focus           |   |  |  |  |   |   |   |  | 1 |   |  |   |   |   |   |  |  |  |  |   |  |   | 1 |   |  |
| Basophilic Focus, Multiple |   |  |  |  | 1 |   |   |  |   | 1 |  |   | 1 | 1 | 1 |  |  |  |  | 1 |  |   | 1 | 1 |  |
| Clear Cell Focus           |   |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Clear Cell Focus, Multiple |   |  |  |  |   |   |   |  |   |   |  |   |   | 3 |   |  |  |  |  |   |  |   |   |   |  |
| Hepatodiaphragmatic Nodule |   |  |  |  |   | 4 |   |  |   |   |  | 4 |   |   |   |  |  |  |  |   |  | 4 | 4 |   |  |
| Vacuolization Cytoplasmic  |   |  |  |  | 2 |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Mesentery                  |   |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |
| Necrosis                   |   |  |  |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |   |  |   |   |   |  |

\* .. 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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| 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 |   |
|-------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS FEMALE |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| 125 PPM                 |  | 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               |  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 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 |   |   |
|                         |  | 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 |

females (cont...)

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pancreas                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation, Chronic   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Acinus, Atrophy         |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   | 3 |   |   |   | 1 |   |   |   |   |
| Salivary Glands         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ulcer                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Glandular      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Tongue                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

CARDIOVASCULAR SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

ENDOCRINE SYSTEM

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Vacuolization Cytoplasmic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST                        | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                                    | 4 7 6 6 7 7 7 6 6 7 7 7 7 7 7 7 7 4 6 7 7 7 7 7 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FISCHER 344 RATS FEMALE<br>125 PPM | 4 3 2 6 3 3 3 7 1 3 3 3 3 3 3 3 3 2 1 3 3 1 3 3 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 9 2 7 6 1 1 2 5 8 1 2 0 2 1 1 2 2 9 8 2 2 2 2 1 2 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANIMAL ID                          | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 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   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 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   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | females (cont...)                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adrenal Medulla                    | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Islets, Pancreatic                 | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parathyroid Gland                  | + + M + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pituitary Gland                    | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyst                               |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hemorrhage                         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pars Distalis, Hyperplasia         | 3 3 4 4 4 3 3 3 2 2 3                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Thyroid Gland                      | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C-cell, Hyperplasia                | 1 1 2 1 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Clitoral Gland | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyst           | 2 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia    | 3 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ovary          | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyst           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Uterus         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |
| 4                              | 7         | 6 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 7                    | 0 |
| 4                              | 3         | 2 | 6 | 3 | 3 | 3 | 7 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 1 | 3 | 3 | 3                    | 0 |
| 9                              | 2         | 7 | 6 | 1 | 1 | 2 | 5 | 8 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 9 | 8 | 2 | 2 | 2 | 2 | 1 | 2 | 2                    | 0 |
| <b>FISCHER 344 RATS FEMALE</b> |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |
| <b>125 PPM</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 |
| 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 | 7                    | 7 |
| 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 | 2                    |   |

Thymus + + M + M + +

**INTEGUMENTARY SYSTEM**

Mammary Gland Galactocele +  
 2

Skin Cyst Epithelial Inclusion Ulcer +  
 4 4 4

**MUSCULOSKELETAL SYSTEM**

Bone Cranium, Inflammation, Suppurative +  
 4

**NERVOUS SYSTEM**

Brain Compression Hemorrhage +  
 3 4 4 4 3 4  
 1 2

**RESPIRATORY SYSTEM**

Larynx +

\* .. 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  
 Page 124

| 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           |  | 4 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1           |  | 4 | 3 | 2 | 6 | 3 | 3 | 3 | 7 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 1 | 3 | 3 | 3 |
| 2           |  | 9 | 2 | 7 | 6 | 1 | 1 | 2 | 5 | 8 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 9 | 8 | 2 | 2 | 2 | 2 |

  

| FISCHER 344 RATS FEMALE |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2                       |  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 3                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4                       |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |
| 1         |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2         |  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 3         |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4         |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |

  

| 125 PPM |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2       |  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 3       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4       |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |

females (cont...)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Foreign Body Inflammation, Suppurative                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X<br>1 |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      |
| Hemorrhage  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
| Inflammation, Chronic   |   |   | 1 |   | 1 | 1 |   | 1 |   |   |   |   | 1 | 1 | 3 |   | 2 | 1 | 1 | 2 |   | 1 |   | 1 |        |
| Alveolar Epithelium, Hyperplasia                              |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |        |
| Alveolar Epithelium, Metaplasia, Squamous                     |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
| Alveolus, Infiltration Cellular, Histiocyte                   | 1 | 1 | 1 | 2 | 1 | 1 | 2 |   | 1 | 1 |   | 1 | 2 | 1 | 2 |   | 2 | 1 | 1 | 2 |   | 1 |   | 2 | 1      |
| Alveolus, Proteinosis   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 3 |   |   |   |   |        |
| Interstitial, Fibrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X      |
| Inflammation, Suppurative                                     | 2 | 2 | 3 |   | 3 | 3 | 3 | 4 | 2 | 4 |   | 4 | 3 | 3 |   |   |   |   | 3 |   | 4 | 2 | 3 |   |        |
| Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 |   |   | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 |   | 1 | 2 | 1 | 1      |
| Glands, Respiratory Epithelium, Hyperplasia                   | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 4 | 3 | 1 | 1 | 3      |
| Goblet Cell, Hyperplasia                                      | 3 |   |   | 3 |   | 1 | 3 |   |   |   | 3 |   | 3 | 2 | 4 | 2 |   |   |   |   |   |   |   |   |        |
| Olfactory Epithelium, Accumulation, Hyaline Droplet           | 3 | 3 | 3 | 1 | 2 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 3 |   | 3 | 2 | 3 | 3 | 2 | 2 | 3      |
| Olfactory Epithelium, Atrophy                                 | 4 | 1 | 2 | 3 | 3 | 2 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 2 | 2 | 3      |
| Olfactory Epithelium, Hyperplasia                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Olfactory Epithelium, Hyperplasia, Basal Cell                 | 2 | 2 | 2 | 2 | 4 | 2 | 1 | 2 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 2 |   | 3 | 2 |   | 3 | 2 | 3 | 4      |
| Olfactory Epithelium, Mineralization                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |        |
| Olfactory Epithelium, Respiratory Metaplasia                  |   |   |   |   | 3 |   |   |   |   |   | 1 | 1 | 2 | 2 | 2 |   |   |   | 3 |   | 3 | 2 |   |   |        |
| Olfactory Epithelium, Vacuolization                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 4 |   |   |   |        |

\* .. 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   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                                    | 4 7 6 6 7 7 7 6 6 7 7 7 7 7 7 7 4 6 7 7 7 7 7 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FISCHER 344 RATS FEMALE<br>125 PPM | 4 3 2 6 3 3 3 7 1 3 3 3 3 3 3 3 2 1 3 3 1 3 3 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 9 2 7 6 1 1 2 5 8 1 2 0 2 1 1 2 2 9 8 2 2 2 1 2 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANIMAL ID                          | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                    | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

females (cont...)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cytoplasmic Respiratory Epithelium, Accumulation, Hyaline Droplet | 1 | 2 | 1 | 1 |   |   |   |   | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |   | 1 | 2 | 1 | 2 |
| Respiratory Epithelium, Hyperplasia                               | 2 | 1 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 4 | 2 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 4 |
| Respiratory Epithelium, Metaplasia, Squamous                      | 2 |   | 3 | 1 | 2 | 2 | 2 | 3 | 1 | 4 |   | 2 | 1 | 3 |   |   |   |   | 2 | 2 | 2 | 2 | 2 | 1 |
| Respiratory Epithelium, Necrosis                                  |   |   |   |   |   |   | 1 |   |   |   |   |   |   | 2 |   |   |   |   |   |   | 1 |   |   |   |
| Respiratory Epithelium, Ulcer                                     | 2 | 2 | 2 | 4 |   | 3 |   | 4 |   |   | 3 | 4 | 2 |   | 3 |   |   |   | 3 | 4 |   |   | 3 | 4 |
| Respiratory Epithelium, Vacuolization                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 4 |   |   |   |   |   |   |
| Cytoplasmic Turbinate, Hyperostosis                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Turbinate, Necrosis   | 3 |   | 3 | 3 | 4 | 3 |   | 3 |   |   | 2 | 2 | 2 | 3 |   |   |   |   | 3 | 3 |   |   |   | 4 |
| Pleura Inflammation, Chronic                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   |   | 1 |   | 2 | 1 |   | 1 |   | 1 | 1 |   |   | 1 | 1 |   |   | 2 |   | 1 |   |   | 1 |   | 1 |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**SPECIAL SENSES SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Anterior Chamber, Inflammation, Suppurative |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Inflammation, Suppurative           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lens, Cataract                              |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |
| Retina, Atrophy                             |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   | 4 |   |   |   |   | 2 |
| Sclera, Metaplasia, Osseous                 |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. 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                    | 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 |                      |
| 4                              | 7         | 6 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 0 |                      |
| 4                              | 3         | 2 | 6 | 3 | 3 | 3 | 7 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 1 | 3 | 3 | 3 | 0 |                      |
| 9                              | 2         | 7 | 6 | 1 | 1 | 2 | 5 | 8 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 9 | 8 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |                      |
| <b>FISCHER 344 RATS FEMALE</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 |                      |
| <b>125 PPM</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 |                      |
|                                | 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 |                      |
|                                | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |                      |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy, Chronic                                   | 1 | 3 |   | 2 | 1 | 2 |   |   |   |   |   |   |   | 1 |   |   | 1 |   | 1 |   | 1 |   | 1 | 1 |
| Cortex, Infarct  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cortex, Renal Tubule, Accumulation,<br>Hyaline Droplet | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Papilla, Mineralization                                |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   | 1 |   |   |
| Pelvis, Transitional Epithelium,<br>Mineralization     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |
| Urinary Bladder  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Transitional Epithelium, Hyperplasia                   |   |   |   |   | 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

Table with columns for DAY ON TEST, FISCHER 344 RATS FEMALE 125 PPM, ANIMAL ID, and \* TOTALS. Contains numerical data for 50 animals across 25 days.

ALIMENTARY SYSTEM

Table listing lesions in the Alimentary System: Esophagus, Intestine Large (Cecum, Colon, Rectum), Intestine Small (Duodenum, Ileum, Jejunum), Liver (Angiectasis, Basophilic Focus, Clear Cell Focus, Hepatodiaphragmatic Nodule, Vacuolization Cytoplasmic), Mesentery (Necrosis). Includes counts and severity grades.

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
x .. Lesion present
l .. 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
Page 128



| DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |
| 6           | 5         | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 50       |
| 4           | 9         | 3 | 2 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 9 | 8 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 1 1.0    |
| 7           | 0         | 2 | 9 | 0 | 1 | 2 | 7 | 1 | 1 | 1 | 2 | 6 | 2 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 1 | 1 | 1 | 4 2.3    |

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Pancreas                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Inflammation, Chronic   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |
| Acinus, Atrophy         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3     |
|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Salivary Glands         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Stomach, Forestomach    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Ulcer                   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Stomach, Glandular      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Tongue                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |
| Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cardiomyopathy | 1 |   |   |   |   | 1 |   |   |   |   |   |   | 1 | 1 |   | 1 | 2 | 1 |   |   |   | 1 | 1 | 2 | 16 1.2 |

**ENDOCRINE SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Cortex            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hemorrhage                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | 1 3.0  |
| Hyperplasia               |   |   | 2 | 2 |   |   |   |   |   |   |   |   | 2 |   |   |   | 2 | 2 |   |   |   | 4 |   |   | 18 2.8 |
| Vacuolization Cytoplasmic |   | 1 |   | 1 |   |   |   |   |   |   |   |   | 2 | 1 | 3 |   |   | 2 |   |   | 2 |   |   | 3 | 11 1.6 |

\* .. 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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| DAY ON TEST                                     | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | * TOTALS |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
|   | 6 5 7 7 7 7 7 6 7 7 7 5 5 7 7 7 5 7 7 7 6 7 7 7 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
| FISCHER 344 RATS FEMALE<br>125 PPM<br>ANIMAL ID | 4 9 3 2 3 3 3 6 3 3 3 9 8 3 3 3 7 3 3 3 6 3 3 3 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|   | 7 0 2 9 0 1 2 7 1 1 1 2 6 2 2 1 1 2 0 1 3 2 1 1 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|   | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|   | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|   | 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |
|   | 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |

|                            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |
|----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|
| Adrenal Medulla            | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50     |
| Islets, Pancreatic         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50     |
| Parathyroid Gland          | + + + + + + + + M + + + + + + + + + + + + + + + + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48     |
| Pituitary Gland            | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50     |
| Cyst                       | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 4.0  |
| Hemorrhage                 | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 2.5  |
| Pars Distalis, Hyperplasia | 4 4 4 3 4 3 4                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 18 3.3 |
| Thyroid Gland              | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50     |
| C-cell, Hyperplasia        | 1 2 2 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 21 1.2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Clitoral Gland | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50    |
| Cyst           | 1 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 2.0 |
| Hyperplasia    | 4 3 4 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 3.3 |
| Ovary          | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50    |
| Cyst           | 4 3 4 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 3.5 |
| Uterus         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 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. 99017 - 05

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 12/30/2008

Test Type: CHRONIC

Diethylamine

Time Report Requested: 09:38:54

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 109-89-7

First Dose M/F: 08/25/03 / 08/25/03

Species/Strain: RATS/F 344/N

Lab: BNW

| DAY ON TEST                                       | 0   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|   | 6 5 7 7 7 7 7 6 7 7 7 5 5 7 7 7 5 7 7 7 6 7 7 7 7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 4 9 3 2 3 3 3 6 3 3 3 9 8 3 3 3 7 3 3 3 6 3 3 3 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 7 0 2 9 0 1 2 7 1 1 1 2 6 2 2 1 1 2 0 1 3 2 1 1 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| <b>FISCHER 344 RATS FEMALE</b><br><b>125 PPM</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               |
|   |   | 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               |
|   |   | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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>* TOTALS</b> |

|                          |  |  |  |  |  |  |  |  |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  |          |            |            |
|--------------------------|--|--|--|--|--|--|--|--|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|----------|------------|------------|
| Hemorrhage               |  |  |  |  |  |  |  |  |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | <b>1</b> | <b>4.0</b> |            |
| Thrombosis               |  |  |  |  |  |  |  |  |  |   | 4 |  |  |  |  |  |  |  |  |  |  |  |  |          | <b>2</b>   | <b>4.0</b> |
| Endometrium, Hyperplasia |  |  |  |  |  |  |  |  |  | 2 |   |  |  |  |  |  |  |  |  |  |  |  |  |          | <b>2</b>   | <b>2.5</b> |

HEMATOPOIETIC SYSTEM

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            |           |            |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|------------|-----------|------------|
| Bone Marrow                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>50</b> |          |            |           |            |
| Hyperplasia, Reticulum Cell       | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |           | <b>3</b> | <b>3.7</b> |           |            |
| Lymph Node                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          | <b>1</b>   |           |            |
| Lymph Node, Bronchial             |   | M | + | + | M | M | M | M | + | M | M | M | M | M | M | M | M | + | M | + | M | M | M | M | M         | M        | <b>7</b>   |           |            |
| Infiltration Cellular, Histiocyte |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>1</b>  | <b>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         | M        | M          | <b>2</b>  |            |
| Lymph Node, Mediastinal           |   | M | M | M | + | + | + | M | + | M | + | + | M | + | M | M | + | + | M | + | M | + | + | M | +         | M        | <b>29</b>  |           |            |
| Hyperplasia, Lymphoid             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>1</b>  | <b>4.0</b> |
| Infiltration Cellular, Histiocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>1</b>  | <b>4.0</b> |
| Pigmentation                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>2</b>  | <b>3.0</b> |
| Lymph Node, Mesenteric            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>50</b> |            |
| Spleen                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>50</b> |            |
| Hematopoietic Cell Proliferation  |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   | 4 |   |   |   |   |   |   |   |   |           |          |            | <b>3</b>  | <b>3.7</b> |
| Hyperplasia, Histiocytic          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            | <b>1</b>  | <b>4.0</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. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |
|--------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 6               | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
|                                | 4               | 9 | 3 | 2 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 9 | 8 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 |
|                                | 7               | 0 | 2 | 9 | 0 | 1 | 2 | 7 | 1 | 1 | 1 | 2 | 6 | 2 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 1 | 1 | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |
| <b>125 PPM</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 |
| <b>ANIMAL ID</b>               | 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 |
|                                | 2               | 2 | 2 | 2 | 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 |
|                                | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Thymus + M + **47**

**INTEGUMENTARY SYSTEM**

Mammary Gland + **50**

Galactocele 4 1 **3 2.3**

Skin + **50**

Cyst Epithelial Inclusion 2 4 **2 3.0**

Ulcer **3 4.0**

**MUSCULOSKELETAL SYSTEM**

Bone + **50**

Cranium, Inflammation, Suppurative **1 4.0**

**NERVOUS SYSTEM**

Brain + **50**

Compression 4 3 4 **9 3.7**

Hemorrhage 4 1 1 **5 1.8**

**RESPIRATORY SYSTEM**

Larynx + **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

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TDMS No. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 |
|                                | 4 | 9 | 3 | 2 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 9 | 8 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 6 | 3 | 3 | 3 |
|                                | 7 | 0 | 2 | 9 | 0 | 1 | 2 | 7 | 1 | 1 | 1 | 2 | 6 | 2 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 1 | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |
| <b>125 PPM</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 |
| ANIMAL ID                      | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                | 2 | 2 | 2 | 2 | 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 |
| <b>* TOTALS</b>                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |    |     |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|----|-----|-----|
| Foreign Body<br>Inflammation, Suppurative                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2 | 1.0 |     |     |    |     |     |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |     |    |     |     |
| Hemorrhage  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2   | 2.0 |     |    |     |     |
| Inflammation, Chronic   | 1 |   |   |   | 1 |   | 1 |   | 1 |   |   |   | 1 | 1 |   | 1 |   | 2 |   | 2 | 1 | 2 |   |   |   |   | 24  | 1.3 |     |    |     |     |
| Alveolar Epithelium, Hyperplasia                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |     | 3   | 1.7 |    |     |     |
| Alveolar Epithelium, Metaplasia, Squamous                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     | 1   | 3.0 |    |     |     |
| Alveolus, Infiltration Cellular, Histocyte                    | 2 |   |   |   | 2 | 1 | 1 |   |   |   |   | 1 | 1 | 1 | 1 |   | 1 | 1 | 2 |   | 2 | 2 | 2 |   | 1 |   | 35  | 1.4 |     |    |     |     |
| Alveolus, Proteinosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   | 1 |   |   |   |   |     | 2   | 2.0 |    |     |     |
| Interstitial, Fibrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     | 2   | 1.0 |    |     |     |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |     |     |    |     |     |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     | 2   |     |    |     |     |
| Inflammation, Suppurative                                     | 3 |   |   | 4 |   |   | 3 | 1 | 4 | 3 |   | X | 4 | 3 | 2 | 1 | 3 |   |   | 4 | 3 | 3 |   |   |   |   | 3   | 2   | 3   | 34 | 2.9 |     |
| Glands, Respiratory Epithelium, Accumulation, Hyaline Droplet |   |   |   | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 1 |   | 1 |   | 2 | 1 | 2 | 1 | 2 | 2   |     |     | 44 | 1.6 |     |
| Glands, Respiratory Epithelium, Hyperplasia                   | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 |   |   |   |   |     |     |     | 49 | 2.1 |     |
| Goblet Cell, Hyperplasia                                      | 3 |   |   | 3 |   |   | 2 |   | 2 |   |   |   | 3 | 2 |   |   |   |   | 1 |   | 3 |   |   |   |   |   |     |     |     | 20 | 2.5 |     |
| Olfactory Epithelium, Accumulation, Hyaline Droplet           | 1 |   |   | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 3 |     |     |     | 48 | 2.4 |     |
| Olfactory Epithelium, Atrophy                                 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 2   |     |     | 50 | 2.7 |     |
| Olfactory Epithelium, Hyperplasia                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |    | 1   | 2.0 |
| Olfactory Epithelium, Hyperplasia, Basal Cell                 | 3 | 3 | 3 | 4 | 1 | 3 | 3 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 3   |     |     | 48 | 2.9 |     |
| Olfactory Epithelium, Mineralization                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |    | 1   | 1.0 |
| Olfactory Epithelium, Respiratory Metaplasia                  |   |   |   |   |   |   | 3 | 1 |   | 1 |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   | 1 | 2 | 2   |     |     | 19 | 1.7 |     |
| Olfactory Epithelium, Vacuolization                           |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |    | 3   | 3.3 |

\* .. 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

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TDMS No. 99017 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Diethylamine

CAS Number: 109-89-7

Date Report Requested: 12/30/2008

Time Report Requested: 09:38:54

First Dose M/F: 08/25/03 / 08/25/03

Lab: BNW

| 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 |
|--------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                |                 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
|                                |                 | 4 | 9 | 3 | 2 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 9 | 8 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 6 | 3 | 3 | 3 |
|                                |                 | 7 | 0 | 2 | 9 | 0 | 1 | 2 | 7 | 1 | 1 | 1 | 2 | 6 | 2 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 1 | 1 |
| <b>FISCHER 344 RATS FEMALE</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 |
| <b>125 PPM</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 |
|                                |                 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                |                 | 2 | 2 | 2 | 2 | 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 |
|                                | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Cytoplasmic<br>Respiratory Epithelium, Accumulation,<br>Hyaline Droplet |   |   |   |   |   |   | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | <b>39</b> | <b>1.4</b> |
| Respiratory Epithelium, Hyperplasia                                     | 3 | 1 | 4 | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 3 | 1 | 3 | <b>50</b> | <b>2.4</b> |
| Respiratory Epithelium, Metaplasia,<br>Squamous                         | 2 | 2 | 4 | 2 | 3 | 1 | 3 | 2 | 2 | 3 | 2 | 3 |   | 3 |   | 2 | 3 | 2 |   | 2 | 2 | 3 | 2 |   | 3 | <b>39</b> | <b>2.3</b> |
| Respiratory Epithelium, Necrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | <b>4</b>  | <b>1.8</b> |
| Respiratory Epithelium, Ulcer   | 4 | 3 | 4 |   | 4 | 2 | 4 | 3 | 4 | 4 | 3 | 3 |   | 3 |   |   | 3 | 3 | 2 | 1 | 4 | 4 | 3 |   | 3 | <b>34</b> | <b>3.1</b> |
| Respiratory Epithelium, Vacuolization                                   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>3</b>  | <b>3.7</b> |
| Cytoplasmic<br>Turbinate, Hyperostosis                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 3 |   |   | <b>2</b>  | <b>3.0</b> |
| Turbinate, Necrosis   | 4 |   | 3 |   | 4 |   | 4 | 3 | 3 | 4 | 3 | 2 |   | 3 |   | 3 | 3 | 2 | 2 | 1 | 4 | 4 | 4 |   | 1 | <b>32</b> | <b>3.0</b> |
| Pleura<br>Inflammation, Chronic   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |            |
|   | 2 |   |   |   | 1 | 1 | 1 |   |   |   |   |   |   | 1 |   |   |   | 2 |   | 2 | 2 | 2 |   |   |   | <b>21</b> | <b>1.3</b> |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |            |

SPECIAL SENSES SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Eye  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |            |
| Anterior Chamber, Inflammation,<br>Suppurative |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>4.0</b> |
| Cornea, Inflammation, Suppurative              |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>3.0</b> |
| Lens, Cataract                                 |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   | <b>4</b>  | <b>3.5</b> |
| Retina, Atrophy                                |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 2 |   |   | <b>6</b>  | <b>3.0</b> |
| Sclera, Metaplasia, Osseous                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   | <b>2</b>  | <b>2.0</b> |
| Harderian Gland                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</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. 99017 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Diethylamine  
 CAS Number: 109-89-7

Date Report Requested: 12/30/2008  
 Time Report Requested: 09:38:54  
 First Dose M/F: 08/25/03 / 08/25/03  
 Lab: BNW

| 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 |   |                 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|                                | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3               |
|                                | 4 | 9 | 3 | 2 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 9 | 8 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |                 |
|                                | 7 | 0 | 2 | 9 | 0 | 1 | 2 | 7 | 1 | 1 | 1 | 2 | 6 | 2 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |                 |
| <b>FISCHER 344 RATS FEMALE</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 |                 |
| <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 |                 |
| <b>125 PPM</b>                 | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |                 |
|                                | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | <b>* TOTALS</b> |

URINARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |       |       |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|-------|
| Kidney   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |       |       |
| Nephropathy, Chronic                                   | 2 | 1 | 1 | 2 |   |   |   |   |   |   |   |   | 1 | 1 | 1 | 1 |   |   |   |   | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 24 1.3 |       |       |
| Cortex, Infarct  |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 4.0 |       |
| Cortex, Renal Tubule, Accumulation,<br>Hyaline Droplet |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 4.0 |       |
| Papilla, Mineralization                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |        | 4 1.0 |       |
| Pelvis, Transitional Epithelium,<br>Mineralization     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 1.0 |       |
| Urinary Bladder  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |       |       |
| Transitional Epithelium, Hyperplasia                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |       | 1 2.0 |

\*\*\* 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

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked