

**TDMS No.** 99020 - 05  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344

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

Pulegone  
**CAS Number:** 89-82-7

**Date Report Requested:** 05/21/2008  
**Time Report Requested:** 09:15:32  
**First Dose M/F:** 04/09/03 / 04/10/03  
**Lab:** BAT

F1\_R2

**C Number:** C99020  
**Lock Date:** 01/06/2006  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.0.0



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

**FISCHER 344 RATS MALE**

**0 MG/KG**

Bile Duct, Hyperplasia	1	1		1	1	1	1	1	1	1	1	1	1		1	1	1		2			1	1	1	
Centrilobular, Hepatocyte, Degeneration																						2			
Hepatocyte, Degeneration, Cystic																									
Portal, Fibrosis				1		1	1	1					1		1										
Mesentery																									
Necrosis														3	3							3			
Pancreas																									
Acinus, Atrophy	1													2									3		
Acinus, Atypia Cellular	1																								
Acinus, Hyperplasia	3			2									3									1			
Duct, Cyst	1												1												
Salivary Glands																									
Basophilic Focus																									
Hyperplasia														2											
Stomach, Forestomach																									
Inflammation																									
Epithelium, Hyperplasia														2	1		2	1				1	1		1
Stomach, Glandular																									
Inflammation																									

**CARDIOVASCULAR SYSTEM**

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

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

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FISCHER 344 RATS MALE 0 MG/KG ANIMAL ID	0																									males (cont...)
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	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	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		

Trachea Inflammation +  
 1 1

SPECIAL SENSES SYSTEM

Eye +  
 Harderian Gland Inflammation +  
 Epithelium, Hyperplasia 2 2 2

URINARY SYSTEM

Kidney Nephropathy +  
 Cortex, Mineralization 2 2 1 1 1 2 3 2 2 2 2 1 2 2 1 2 2 2 2 1 2 2 2  
 Pelvis, Dilatation  
 Renal Tubule, Pigmentation  
 Transitional Epithelium, Hyperplasia  
 Urinary Bladder Inflammation +

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DAY ON TEST	0																								* TOTALS																																	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7	6	7	7	0	7	7		7	7	2	2	2	2	2	0	2	2	7	8	8	8	7	7	7	8	7	7	7	8	7	2	7	7	9	8	8	4	8	8	9
<b>FISCHER 344 RATS MALE</b>	0																																																									
<b>0 MG/KG</b>	0																																																									
ANIMAL ID	0																																																									
	2																																																									
	6																																																									
Bile Duct, Hyperplasia	1				1				1				1				1				1				2				1				<b>29</b>	<b>1.1</b>																								
Centrilobular, Hepatocyte, Degeneration																	2				3								<b>3</b>	<b>2.3</b>																												
Hepatocyte, Degeneration, Cystic									1																				<b>1</b>	<b>1.0</b>																												
Portal, Fibrosis	1				1																								<b>8</b>	<b>1.0</b>																												
Mesentery					+								+				+								+				+				<b>9</b>																									
Necrosis	2																3												3				3				<b>7</b>	<b>2.9</b>																				
Pancreas	+																								<b>50</b>																																	
Acinus, Atrophy	1		2																																						<b>13</b>	<b>1.6</b>																
Acinus, Atypia Cellular																																							<b>1</b>	<b>1.0</b>																		
Acinus, Hyperplasia					2				3				2				2				3								2				1				<b>11</b>	<b>2.2</b>																				
Duct, Cyst									1																1								<b>4</b>	<b>1.0</b>																								
Salivary Glands	+																								<b>50</b>																																	
Basophilic Focus																									<b>1</b>																																	
Hyperplasia																									<b>1</b>																																	
Stomach, Forestomach	+																								<b>50</b>																																	
Inflammation	1																																						<b>2</b>	<b>1.5</b>																		
Epithelium, Hyperplasia	1		1																																				<b>16</b>	<b>1.3</b>																		
Stomach, Glandular	+																								<b>50</b>																																	
Inflammation																									<b>1</b>																																	

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+																								<b>50</b>
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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	
7	7	7	3	6	6	7	7	7	4	7	7	7	7	7	7	7	6	1	6	7	7	7	7	6	0	
2	2	2	7	1	2	2	2	2	5	2	0	2	2	2	2	2	8	9	7	2	2	2	2	7	0	
8	8	7	4	1	2	7	8	7	1	8	9	8	7	8	7	7	2	9	3	7	7	8	8	2	0	
<b>FISCHER 344 RATS MALE</b>																										
<b>18.75 MG/KG</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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	
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		

Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Depletion Cellular																									
Fibrosis																									
Hyperplasia, Lymphoid									2																
Thymus	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation				2																					

**INTEGUMENTARY SYSTEM**

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Duct, Dilatation																								3	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion		X															X				X			X	
Inflammation, Chronic Active																									

**MUSCULOSKELETAL SYSTEM**

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

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage																									
Hydrocephalus						2																			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
	7	7	7	3	6	6	7	7	7	4	7	7	7	7	7	7	6	1	6	7	7	7	7	6	
	2	2	2	7	1	2	2	2	2	5	2	0	2	2	2	2	8	9	7	2	2	2	2	7	
	8	8	7	4	1	2	7	8	7	1	8	9	8	7	8	7	2	9	3	7	7	8	8	2	
<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>18.75 MG/KG</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	
	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males  
(cont...)

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hydronephrosis																								
Inflammation																								
Nephropathy	2	2	2		1	1	2	1	2	1	2	1	1	2	2		3	2		1	3	2	2	1
Cortex, Mineralization																								
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage																								
Inflammation																								
Ulcer																								
Transitional Epithelium, Hyperplasia																								

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1-4 .. Lesion qualified as:

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DAY ON TEST	FISCHER 344 RATS MALE																									males (cont...)
	ANIMAL ID																									
37.5 MG/KG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	6	6	7	7	7	7	7	7	7	7	7	4	6	7	6	5	7	7	6	7	7	6	7	7	
	2	9	3	0	2	2	2	2	2	0	2	2	5	4	2	3	9	2	2	3	2	2	7	2	2	
	7	7	7	1	7	7	8	7	8	5	7	8	6	1	7	6	4	5	7	2	8	8	3	8	8	
Eosinophilic Focus			X											X		X			X	X	X	X				
Fatty Change	2												1	1	1	2	2	1		2		1	1		1	
Hematopoietic Cell Proliferation																									1	
Hepatodiaphragmatic Nodule																									X	
Inflammation	1	2	1	1	1	1	1	1	1		1	2	1	1	1	1	1		2	1	1	1	1	1	1	
Mixed Cell Focus			X						X				X	X											1	
Thrombosis																										
Bile Duct, Crystals																									4	
Bile Duct, Cyst	2									4		3							3			1	1			
Bile Duct, Hyperplasia	2		2	1	1	1	2	1	1		1	2		1	2	1			1	2	1	2	3	2	3	
Centrilobular, Hepatocyte, Degeneration																	2									
Hepatocyte, Cellular Alteration, Diffuse	1		1	2		1							2	1		1			1		1		2		1	
Hepatocyte, Degeneration, Cystic			1											1												
Hepatocyte, Necrosis		2	1									1											1			
Kupffer Cell, Pigmentation, Hemosiderin																			1							
Oval Cell, Hyperplasia	1													1						1			2	1	1	
Portal, Fibrosis	1		1						1					1								1	2	1	2	
Mesentery																										
Necrosis		3							3					3					3						3	
Oral Mucosa																										
Pharyngeal, Cyst																									4	
Pharyngeal, Hyperplasia	4																									
Pancreas																										
Inflammation																										
Acinus, Atrophy	1				2		1				1	2	1		2				2		1			2	1	
Acinus, Hyperplasia				2				2																		
Duct, Cyst																						1				

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

FISCHER 344 RATS MALE

37.5 MG/KG

Salivary Glands

+ +

Stomach, Forestomach

+ +

Inflammation

2 1 1 2 2

Ulcer

4 2 1 4

Epithelium, Hyperplasia

3 3 2 1 1 1 3 1 3 2 2

Stomach, Glandular

+ +

Erosion

Inflammation

1

Mineralization

3 2

Epithelium, Hyperplasia

1

Tongue

+ +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Mineralization

2

Heart

+ +

Cardiomyopathy

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

Mineralization

3

Atrium, Thrombosis

Endocardium, Bacterium

X X

Endocardium, Inflammation

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 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                              | 4 | 6 | 6 | 5 | 7 | 5 | 6 | 4 | 5 | 5 | 3 | 5 | 5 | 4 | 5 | 6 | 5 | 3 | 3 | 4 | 5 | 5 | 6 | 3 | 5 |
|                              | 1 | 0 | 1 | 3 | 0 | 0 | 5 | 7 | 9 | 1 | 7 | 4 | 1 | 9 | 8 | 0 | 4 | 6 | 6 | 0 | 3 | 2 | 8 | 6 | 7 |
|                              | 4 | 2 | 5 | 3 | 3 | 3 | 0 | 6 | 1 | 1 | 7 | 5 | 0 | 0 | 7 | 5 | 7 | 0 | 0 | 7 | 5 | 5 | 4 | 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 |
| <b>75 CHG 0 MG/KG</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 |
|                              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
|                              | 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...)

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Inflammation            | 3 |   |   |   |   |   |   |   | 1 | 2 |   |   |   |   |   |   | 3 | 2 | 2 | 3 |   |   |   | 1 |  |
| Mineralization          |   | 2 |   |   |   |   |   | 2 | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Perforation             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Ulcer                   | 4 |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 3 | 4 |   |   |   |  |
| Epithelium, Hyperplasia | 3 |   |   | 1 |   |   |   |   |   |   | 2 | 1 |   | 1 |   |   |   |   | 2 | 3 | 3 |   |   | 3 |  |
| Stomach, Glandular      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Inflammation            |   |   |   |   |   |   |   |   | 1 | 2 |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |  |
| Mineralization          |   | 2 |   | 1 |   |   | 2 | 1 | 2 |   |   | 2 | 2 | 1 | 2 | 2 | 2 |   |   |   | 2 | 1 | 2 | 2 |  |
| Serosa, Inflammation    | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Dilatation     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mineralization |   | 3 | 1 | 2 |   |   | 2 | 2 | 2 | 2 |   | 2 | 1 | 1 | 2 | 2 | 2 |   |   |   |   | 2 | 2 | 2 |
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 2 |
| Mineralization |   | 2 |   |   |   |   | 3 |   | 2 | 2 | 2 | 2 | 1 |   | 2 |   | 1 | 1 | 1 |   |   | 1 | 3 | 1 |

**ENDOCRINE SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia    |   |   |   |   | 2 |   | 2 |   | 1 | 2 | 2 |   |   |   | 2 | 2 | 1 | 1 |   |   | 1 | 1 |   | 1 |
| Hypertrophy    |   |   |   |   | 3 |   |   | 1 |   | 1 |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |

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











TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                             | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|   | 4 6 6 5 7 5 6 4 5 5 3 5 5 4 5 6 5 3 3 4 5 5 6 3 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FISCHER 344 RATS MALE<br>75 CHG 0 MG/KG | 1 0 1 3 0 0 5 7 9 1 7 4 1 9 8 0 4 6 6 0 3 2 8 6 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 4 2 5 3 3 3 0 6 1 1 7 5 0 0 7 5 7 0 0 7 5 5 4 6 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANIMAL ID                               | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75 CHG 0 MG/KG                          | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 5 5 5 5 5 5 5 5 5 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 2 3 4 5 6 7 8 9 0 1 2 3 4 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 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...)

Inflammation

1 1

**SPECIAL SENSES SYSTEM**

|   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye                                     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation                            | 2 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Synechia                                | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cornea, Inflammation                    | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Harderian Gland                         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Infiltration Cellular, Mononuclear Cell | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Epithelium, Hyperplasia                 | 2 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**URINARY SYSTEM**

|                         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Kidney                  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyst                    | 2 3 2 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Glomerulopathy, Hyaline | 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nephropathy             | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cortex, Mineralization  | 3 2 2 3 3 2 2 2 3 2 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urinary Bladder         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation            | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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





















TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                                  | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|--|--|---|--|--|--|--|--|--|--|
|  | 4 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 7 | 6 |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| FISCHER 344 RATS FEMALE<br>0 MG/KG           | 9 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|  | 2 | 0 | 9 | 2 | 2 | 8 | 2 | 0 | 7 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 0 | 2 | 2 | 3 |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| ANIMAL ID                                    | 5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|  | 8 | 4 | 3 | 9 | 9 | 1 | 8 | 7 | 4 | 8 | 4 | 8 | 8 | 9 | 9 | 8 | 9 | 9 | 8 | 9 | 9 | 8 | 9 | 4 |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| 0 MG/KG                                      | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|  | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|  | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|  | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
|  | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| females (cont...)                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Hepatocyte, Necrosis                         |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |  | 1 |  |  |   |  |  |  |  |  |  |  |
| Mesentery Necrosis                           |   |   |   |   |   |   |   | + |   |   |   |   | + |   |   |   |   | + |   |   | + |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Oral Mucosa Pharyngeal, Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Pancreas Acinus, Atrophy                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Pancreas Acinus, Hyperplasia                 | 1 |   |   |   |   |   | 2 |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 1 | 1 |  |   |  |  |   |  |  |  |  |  |  |  |
| Pancreas Duct, Cyst                          |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Salivary Glands Inflammation                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Salivary Glands Mineralization               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |  | 1 |  |  |   |  |  |  |  |  |  |  |
| Stomach, Forestomach Inflammation            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Stomach, Forestomach Mineralization          | 1 |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Stomach, Forestomach Ulcer                   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Stomach, Forestomach Epithelium, Hyperplasia | 3 |   |   |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   |   |   | 1 | 3 |   |   |   |   |   |   |  |   |  |  | 1 |  |  |  |  |  |  |  |
| Stomach, Glandular Erosion                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Stomach, Glandular Mineralization            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |
| Tooth  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |  |   |  |  |  |  |  |  |  |

\* .. 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. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
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 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

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

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

|                            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex             | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Degeneration, Cystic       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia                |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hypertrophy                | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adrenal Medulla            | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hyperplasia                | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mineralization             | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Islets, Pancreatic         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parathyroid Gland          | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyst                       | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pituitary Gland            | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pars Distalis, Cyst        | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pars Distalis, Hyperplasia | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rathke's Cleft, Cyst       | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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 1-4 .. Lesion qualified as:  
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TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

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

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

**GENERAL BODY SYSTEM**  
 NONE

**GENITAL SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Inflammation                     |   |   |   |   | 2 | 2 |   |   |   | 2 |   |   |   |   |   |   |   |   | 2 |   |   |   | 2 | 2 |
| Duct, Cyst                       |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 |
| Ovary                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                          | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |
| Cyst                             |   |   |   |   |   |   |   |   | 3 |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Endometrium, Hyperplasia, Cystic |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |

**HEMATOPOIETIC SYSTEM**

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. 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. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

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

**MUSCULOSKELETAL SYSTEM**

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

**NERVOUS SYSTEM**

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hemorrhage    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Hydrocephalus | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Hyperplasia              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolus, Inflammation, Histiocytic           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Degeneration            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Metaplasia, Respiratory |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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. 99020 - 05  
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 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

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

**FISCHER 344 RATS FEMALE**  
**0 MG/KG**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trachea Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|                      |   |   | 1 |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

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

**URINARY SYSTEM**

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis        |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cyst               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |
| Glomerulosclerosis |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemorrhage         |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephropathy        | 1 | 1 | 2 | 1 | 2 | 1 |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 2 | 1 |   |   |
| Urinary Bladder    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

\* .. 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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 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 99020 - 05  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                    | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                                | 7   | 5 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 |          |
|                                | 2   | 1 | 5 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 7 | 0 | 2 | 2 | 7 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |          |
|                                | 9   | 9 | 9 | 8 | 9 | 0 | 8 | 8 | 8 | 8 | 2 | 2 | 9 | 9 | 4 | 9 | 9 | 8 | 9 | 1 | 8 | 8 | 9 | 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>0 MG/KG</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                      | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |          |

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|----|
| Thyroid Gland       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      | 50 |
| C-cell, Hyperplasia | 2 | 1 |   | 1 | 2 | 1 | 2 | 2 | 1 | 1 |   | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 2 | 39 1.3 |    |
| Follicle, Cyst      |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |    |

**GENERAL BODY SYSTEM**  
 NONE

**GENITAL SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|----|
| Clitoral Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50 |
| Hyperplasia                      | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 3 2.3 |    |
| Inflammation                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6 2.0 |    |
| Duct, Cyst                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0 |    |
| Ovary                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |    |
| Atrophy                          |   |   |   |   |   | 1 |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   | 5 1.2 |    |
| Cyst                             |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 2 | 4 |   |   |   |   |   | 2 |   | 6 2.7 |    |
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |    |
| Hemorrhage                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 2 3.5 |    |
| Endometrium, Hyperplasia, Cystic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |    |

**HEMATOPOIETIC SYSTEM**

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

\* .. 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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 Page 76







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 Lab: BAT

| DAY ON TEST                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
|                                | 2 | 2 | 8 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 7 | 2 | 7 | 8 | 2 | 2 | 2 | 0 | 2 |
|                                | 8 | 9 | 5 | 8 | 8 | 8 | 3 | 9 | 8 | 9 | 9 | 9 | 9 | 1 | 8 | 8 | 3 | 8 | 4 | 9 | 9 | 8 | 9 | 1 | 9 |
| <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>37.5 MG/KG</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 |
|                                | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
|                                | 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                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Muscularis, Degeneration            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Periesophageal Tissue, Inflammation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Cecum              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Colon              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Rectum             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Duodenum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clear Cell Focus                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fatty Change                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
|                                | 2 | 2 | 8 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 7 | 2 | 7 | 8 | 2 | 2 | 2 | 0 | 2 |
|                                | 8 | 9 | 5 | 8 | 8 | 8 | 3 | 9 | 8 | 9 | 9 | 9 | 9 | 1 | 8 | 8 | 3 | 8 | 4 | 9 | 9 | 8 | 9 | 1 | 9 |
| <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>37.5 MG/KG</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 |
|                                | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |   |
|                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mineralization<br>Duct, Dilatation                                  |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |
| Skin<br>Epidermis, Hyperplasia<br>Subcutaneous Tissue, Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

**MUSCULOSKELETAL SYSTEM**

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

**NERVOUS SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain<br>Hydrocephalus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung<br>Inflammation  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar Epithelium, Hyperplasia                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Metaplasia,<br>Squamous                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolus, Inflammation, Histiocytic<br>Serosa, Inflammation | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |
|   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 x .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked  
 Page 85



TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
|                                | 2 | 2 | 8 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 7 | 2 | 7 | 8 | 2 | 2 | 2 | 0 | 2 |
|                                | 8 | 9 | 5 | 8 | 8 | 8 | 3 | 9 | 8 | 9 | 9 | 9 | 9 | 1 | 8 | 8 | 3 | 8 | 4 | 9 | 9 | 8 | 9 | 1 | 9 |
| <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>37.5 MG/KG</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 |
|                                | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                | 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 |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cortex, Mineralization         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Renal Tubule, Degeneration     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Urinary Bladder                | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |

females  
(cont...)

\* .. 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 87





























TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 0 | 2 | 1 | 2 | 9 | 2 | 2 | 2 | 2 | 2 |
|                                | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 9 | 9 | 9 | 9 | 8 | 5 | 9 | 9 | 2 | 8 | 6 | 8 | 8 | 8 | 9 | 8 | 9 | 9 |
| <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>75.0 MG/KG</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 |
|                                | 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 |

females  
(cont...)

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hydrometra                       |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Endometrium, Hyperplasia, Cystic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Vagina                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |

**HEMATOPOIETIC SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia                                   |   |   | 2 | 2 |   | 3 |   |   |   |   |   | 4 |   | 3 |   | 3 | 4 | 3 | 4 |   | 1 |   |   |   |   |
| Myelofibrosis                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node                                    |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   | + |   |   |   |   |   |   |   |   | + |
| Deep Cervical, Hyperplasia, Lymphoid          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |
| Deep Cervical, Pigmentation, Hemosiderin      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |
| Mediastinal, Degeneration, Cystic             |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Hyperplasia, Plasma Cell         |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreatic, Infiltration Cellular, Histiocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                        | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Spleen  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Hematopoietic Cell Proliferation              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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 100

TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 0 | 2 | 1 | 2 | 9 | 2 | 2 | 2 | 2 | 2 |
|                                | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 9 | 9 | 9 | 9 | 8 | 5 | 9 | 9 | 2 | 8 | 6 | 8 | 8 | 8 | 9 | 8 | 9 | 9 |
| <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>75.0 MG/KG</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 | 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 |

females  
(cont...)

Hyperplasia, Lymphoid  
 Capsule, Hemorrhage

Thymus + M +

**INTEGUMENTARY SYSTEM**

Mammary Gland  
 Inflammation  
 Duct, Dilatation +  
 4

Skin +

**MUSCULOSKELETAL SYSTEM**

Bone  
 Fibrous Osteodystrophy +

**NERVOUS SYSTEM**

Brain  
 Hemorrhage +  
 4

**RESPIRATORY 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. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST  | 0     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | females<br>(cont...) |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|
|  | 7 7 7 7 7 7 7 7 7 7 7 7 6 7 7 7 7 7 7 6 7 7 7 7 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| FISCHER 344 RATS FEMALE<br>75.0 MG/KG<br>ANIMAL ID | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|  | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|  | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |

|   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lung  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Congestion                                    | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alveolar Epithelium, Hyperplasia              |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alveolus, Inflammation, Histiocytic           | 1 2 1 1 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Perivascular, Inflammation                    |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nose  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation                                  | 1 1 1 2 1 3 2 4 2 4 2 3 2 3 2 3 2 3 2 3 2 3 3       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Thrombosis                                    | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Glands, Dilatation                            | 1 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Olfactory Epithelium, Degeneration            | 1 2 2 2 2 2 2 2 2 3 2 2 2 2 2 3 2 2 2 3 2 3 2 2 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Olfactory Epithelium, Metaplasia, Respiratory | 2 3 2 1 2 2 2 2 3 2 4 2 2 1 1 3 1 2 2 2 2 2 3 2 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Septum, Fibrosis                              | 3   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turbinate, Inflammation                       | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trachea                                       | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation                                  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**SPECIAL SENSES SYSTEM**

|                         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye                     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cataract                | 3 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retina, Atrophy         | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retina, Dysplasia       | 2 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Harderian Gland         | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mineralization          |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Epithelium, Hyperplasia |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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





























TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| DAY ON TEST   | 0           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | females<br>(cont...) |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|
|   | 6 5 6 5 6 5 6 3 4 6 3 5 5 4 4 5 5 5 6 6 5 6 5 6 5         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| FISCHER 344 RATS FEMALE<br>150 CHG 0 MG/KG<br>ANIMAL ID | 1 8 1 2 1 2 9 6 7 0 4 3 3 7 7 5 8 3 0 0 9 2 9 4 4         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|   | 7 2 7 3 7 4 1 9 1 4 9 8 8 0 1 9 6 3 4 4 3 1 4 3 8         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Adrenal Cortex  | + + + + + + + M + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Hyperplasia   | 2 1 1 2 2 2 1 2 1 2 1 2 1 2 1 1 1 2 1 1 2 1 2 1 2         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Hypertrophy   | 1 2 1 1 1 2 2 1 2 1 2 1 3 1 2 3 1 2 3 1 2 3 1 2 3         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Adrenal Medulla   | + + + + + + + M + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Hyperplasia   | 2 2 1 3 1 1 1 2 1 2 1 2 1 2 1 1 1 2 1 1 2 1 2 1 2         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Islets, Pancreatic                                      | + + + + + + + M + M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Parathyroid Gland                                       | + + + + + + + M + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Hyperplasia   | 3 4 3 3 3 2 3 3 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Pituitary Gland   | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Hemorrhage  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Pars Distalis, Angiectasis                              |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2                    |
| Pars Distalis, Cyst                                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4                    |
| Pars Distalis, Hyperplasia                              | 1 1 2 2 2 1 1 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Thyroid Gland   | + + + + + + + M + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| Inflammation  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| C-cell, Hyperplasia                                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 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  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked









TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| 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 |                      |
| 6                                    | 5         | 6 | 5 | 6 | 5 | 6 | 3 | 4 | 6 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 5 | 6 | 5 | 6 | 5 |   |                      |
| 1                                    | 8         | 1 | 2 | 1 | 2 | 9 | 6 | 7 | 0 | 4 | 3 | 3 | 7 | 7 | 5 | 8 | 3 | 0 | 0 | 9 | 2 | 9 | 4 | 4 |   |                      |
| 7                                    | 2         | 7 | 3 | 7 | 4 | 1 | 9 | 1 | 4 | 9 | 8 | 8 | 0 | 1 | 9 | 6 | 3 | 4 | 4 | 3 | 1 | 4 | 3 | 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>150 CHG 0 MG/KG</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 |   |                      |
|                                      | 5         | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |   |   |                      |
|                                      | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |                      |
| Kidney                               | +         | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |                      |
| Cyst                                 |           |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
| Glomerulopathy, Hyaline              | 3         | 3 | 3 | 4 | 3 | 3 | 3 |   | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 |   |                      |
| Inflammation                         |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
| Nephropathy                          | 4         | 3 | 4 | 2 | 4 | 4 | 4 |   | 2 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |   |                      |
| Cortex, Mineralization               | 2         | 2 | 2 |   |   | 3 | 1 |   |   | 3 |   | 2 |   | 1 | 1 | 2 |   |   | 1 |   |   |   | 3 | 1 | 2 |                      |
| .....                                |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
| Urinary Bladder                      | +         | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |                      |
| Inflammation                         |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |                      |
| Transitional Epithelium, Hyperplasia |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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  
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TDMS No. 99020 - 05  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344

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

Pulegone  
 CAS Number: 89-82-7

Date Report Requested: 05/21/2008  
 Time Report Requested: 09:15:32  
 First Dose M/F: 04/09/03 / 04/10/03  
 Lab: BAT

| 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 |          |  |
| 3                              | 4         | 5 | 3 | 6 | 0 | 5 | 5 | 5 | 6 | 5 | 6 | 5 | 5 | 6 | 4 | 5 | 5 | 4 | 3 | 6 | 3 | 6 | 5 | 6 |          |  |
| 9                              | 5         | 0 | 3 | 0 | 1 | 7 | 7 | 3 | 6 | 1 | 6 | 8 | 9 | 6 | 6 | 8 | 6 | 8 | 9 | 0 | 5 | 1 | 5 | 1 |          |  |
| 0                              | 0         | 3 | 8 | 7 | 9 | 4 | 8 | 7 | 6 | 6 | 6 | 6 | 3 | 2 | 8 | 0 | 9 | 8 | 3 | 4 | 2 | 1 | 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 |          |  |
| <b>150 CHG 0 MG/KG</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 | 4 |          |  |
|                                | 7         | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |          |  |
|                                | 6         | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0        |  |

Skeletal Muscle Hemorrhage 1 1 3.0

**NERVOUS SYSTEM**

Brain Hemorrhage 50 1 4.0  
 Thrombosis 1 1.0  
 Peripheral Nerve 1  
 Spinal Cord 1

**RESPIRATORY SYSTEM**

Lung 50 1  
 Bacterium 1  
 Hemorrhage 12 2.4  
 Inflammation, Suppurative 1 4.0  
 Pigmentation, Hemosiderin 1 2.0  
 Thrombosis 1 2.0  
 Alveolar Epithelium, Hyperplasia 12 1.3  
 Alveolus, Inflammation, Histiocytic 43 1.1  
 Arteriole, Inflammation 2 2.0  
 Interstitium, Mineralization 16 1.7

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