

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

C Number: C56224C

Lock Date: 01/26/1995

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

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

males (cont...)

ALIMENTARY SYSTEM

Esophagus Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Parasite Metazoan	+	+	A	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+
Intestine Large, Colon Parasite Metazoan	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum Parasite Metazoan	+	+	A	+	+	+	+	+	+	+	+	A	+	+	+	I	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver Angiectasis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus																	X						X		
Clear Cell Focus																									
Degeneration, Cystic	2																								1
Degeneration, Fatty				4					1				2	3	2										
Eosinophilic Focus																									1

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	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	
	6	7	5	5	5	6	5	5	3	6	3	6	7	5	6	3	6	7	6	6	4	6	6	5	6	
	8	3	0	7	9	4	3	7	8	0	5	6	1	6	7	3	6	1	2	9	6	1	9	2	9	
	4	5	7	4	9	8	2	8	2	6	1	5	7	1	9	3	4	5	4	6	9	7	6	5	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	
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	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	
Regeneration										3																
Vacuolization Cytoplasmic, Focal												2														
Bile Duct, Hyperplasia	3				2	2	2	1		3			1				1	4		2	1	2		3		
Centrilobular, Necrosis	2	1		1				1	1	3									1					2		
Mesentery	+																									
Fat, Necrosis						3		2		2				2					2			2		2		
Oral Mucosa																										
Gingival, Inflammation, Chronic Active																										
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy	2	2			2		2	1						1					2	1	1	2				
Basophilic Focus																										
Hyperplasia										X																
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	M	+		
Atrophy																										
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Inflammation, Acute																										
Mineralization																										
Necrosis			4		4								3									3		3		
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Mineralization																										
Necrosis	2								2	2			3									2		2		

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

CARDIOVASCULAR SYSTEM

Blood Vessel
 Aorta, Mineralization

Heart
 Cardiomyopathy
 Artery, Mineralization
 Atrium, Thrombosis

	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	3		2	3					2	1	2	3	1	2		1	3	2	2				1	2
	4																		2				4		

ENDOCRINE SYSTEM

Adrenal Cortex
 Hyperplasia
 Hypertrophy
 Vacuolization Cytoplasmic

Adrenal Medulla
 Hyperplasia

Islets, Pancreatic

Parathyroid Gland
 Hyperplasia

Pituitary Gland
 Mineralization

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

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

Pars Distalis, Hemorrhage																									
Pars Distalis, Hyperplasia	1																								
Thyroid Gland	+ + + + + + + + + + + + A + + + + + + + + + + + + + + +																								
C-cell, Hyperplasia	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2																								
Follicular Cell, Hyperplasia	1 1																								

GENERAL BODY SYSTEM

Peritoneum	+																								
------------	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

GENITAL SYSTEM

Epididymis	+ +																								
Preputial Gland	+ + + + + + + + + + + + + + + + + + M + + + + + + + + + +																								
Hyperplasia																									
Inflammation, Chronic Active	3																								
Prostate	+ +																								
Hyperplasia	2 2																								
Inflammation, Chronic Active	4 3 3 2 4																								
Seminal Vesicle	+ +																								
Inflammation, Suppurative	A																								
Testes	+ +																								

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

males
(cont...)

Atrophy
Artery, Inflammation, Chronic Active
Interstitial Cell, Hyperplasia

1 1 1

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node Renal, Hemorrhage					+		+	+		+													+		+
Lymph Node, Bronchial	+	+	+	M	+	+	+	M	M	+	M	M	+	+	M	+	M	+	+	+	+	+	+	+	M
Lymph Node, Mandibular Infiltration Cellular, Plasma Cell	+	+	+	+	+	M	+	+	+	+	+	M	+	M	M	+	+	+	+	+	+	+	M	+	+
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	M	M	+	M	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Accessory Spleen																									X
Fibrosis	2													2											2
Hematopoietic Cell Proliferation																									3
Hyperplasia, Focal																									2
Necrosis							4					3													2

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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
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		0	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...)

Thymus + M + + + + + + + + + M + + M + + + + + + + M +

INTEGUMENTARY SYSTEM

Mammary Gland Degeneration Galactocele + + + + M + M M M + M M + M M M + + + + M M M + M
2 2 3

Skin Inflammation, Chronic Active Tail, Hyperkeratosis Tail, Inflammation, Chronic Active + 3

MUSCULOSKELETAL SYSTEM

Bone Fibrous Osteodystrophy + 1

NERVOUS SYSTEM

Brain +

RESPIRATORY SYSTEM

Larynx +

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

males (cont...)

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Metaplasia, Osseous Mineralization																1									
Alveolar Epithelium, Hyperplasia																									
Artery, Mediastinum, Mineralization																									
Mediastinum, Inflammation, Suppurative																									
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Suppurative																									
Thrombosis																									
Lateral Wall, Hyperplasia																									
Lateral Wall, Metaplasia, Squamous																									
Lateral Wall, Necrosis																									
Olfactory Epithelium, Atrophy																									
Olfactory Epithelium, Degeneration, Hyaline																									
Olfactory Epithelium, Metaplasia																									
Respiratory Epithelium, Degeneration, Hyaline																									
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+

SPECIAL SENSES SYSTEM

Zymbal's Gland

URINARY SYSTEM

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		6	7	5	5	5	6	5	5	3	6	3	6	7	5	6	3	6	7	6	6	4	6	6	5	6	
		8	3	0	7	9	4	3	7	8	0	5	6	1	6	7	3	6	1	2	9	6	1	9	2	9	
		4	5	7	4	9	8	2	8	2	6	1	5	7	1	9	3	4	5	4	6	9	7	6	5	0	
FISCHER 344 RATS MALE CONTROL	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	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	males (cont...)
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst																										2	
Infarct																											
Mineralization																											
Nephropathy		3	4	2	4	3	2	2	3	2	3	1	4	4	2	4	2	3	4	2	3	1	3	3	3	3	
Papilla, Necrosis																											
Renal Tubule, Hyperplasia																			1				2				
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active																											4
Necrosis																											

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x .. Lesion present
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1) Minimal 3) Moderate
2) Mild 4) Marked

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

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

ALIMENTARY SYSTEM

Esophagus Inflammation, Suppurative	+ +																								50	1	4.0
Intestine Large, Cecum Parasite Metazoan	+ + + + A +																								46	2	
Intestine Large, Colon Parasite Metazoan	+ +																								49	3	
Intestine Large, Rectum Parasite Metazoan	+ +																								47	1	
Intestine Small, Duodenum	+ +																								50		
Intestine Small, Ileum	+ + + + + + A + + + + + + + + + + + + + + + + +																								47		
Intestine Small, Jejunum	+ + + + A + A + + + + + + + + + + + + + + A + + + + +																								46		
Liver	+ +																								50		
Angiectasis	1 2 X 1 X X X X 1 1 X X																								6	1.2	
Basophilic Focus	X X																								9		
Clear Cell Focus	X X																								5		
Degeneration, Cystic	2 3 1 2 2 1 2																								12	1.9	
Degeneration, Fatty	4 1 X X X X X X																								5	2.2	
Eosinophilic Focus	X X																								4		

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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								
DAY ON TEST		4	6	7	7	7	6	7	7	7	5	6	7	3	5	6	7	5	6	7	6	5	5	5	5	6							
		9	8	3	3	0	9	2	3	3	8	8	3	0	9	8	3	2	5	3	8	3	9	7	9	0							
		0	5	5	5	2	3	7	5	5	1	5	5	2	5	6	5	2	7	5	1	6	1	2	9	9							
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							
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							
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	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						
Regeneration																											1	3.0					
Vacuolization Cytoplasmic, Focal																											1	2.0					
Bile Duct, Hyperplasia		2	2	3	1	1		2			2			2					3			2	2	1	3	1	28	2.0					
Centrilobular, Necrosis			1																1		2	1					12	1.4					
Mesentery																																	
Fat, Necrosis																											2	2	2			11	2.1
Oral Mucosa																																	
Gingival, Inflammation, Chronic Active			+																								1	4.0					
Pancreas																																	
Atrophy			+	1	2	3	1				1		2				2	2	1		2	1		2			50	1.6					
Basophilic Focus				X						X																	3						
Hyperplasia										3						2					2		2	1			5	2.0					
Salivary Glands																																	
Atrophy			+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	47	2.0					
Stomach, Forestomach																																	
Inflammation, Acute			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	2.0					
Mineralization							2						2														1	2.0					
Necrosis		1												3	2			2									9	2.8					
Stomach, Glandular																																	
Mineralization			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	3.0					
Necrosis							4									2						2					2	2.1					

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Page 11

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	
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	
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	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																								

CARDIOVASCULAR SYSTEM

Blood Vessel																																																		
Aorta, Mineralization																										4	1	2	2.5																					
Heart																																																		
Cardiomyopathy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	1	3	3	2	3	3	2	2	1	3	2	2	3	3	1	3	3	1	2	2	1	50	38	2.1
Artery, Mineralization																									4																									
Atrium, Thrombosis																										2																								
																										3																								
																										3.3																								

ENDOCRINE SYSTEM

Adrenal Cortex																																																		
Hyperplasia																										2	1	2	1	2	2	2	2			2	2	2	3	2	3	3	2	2	4	2	2	50	15	1.9
Hypertrophy																																																		
Vacuolization Cytoplasmic																									2																									
																										2																								
																										2																								
																										2																								
Adrenal Medulla																																																		
Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	3	2	2	3	3		2	2	2	2	3	2	3	3	2	2	4	2	2	50	30	2.3			
Islets, Pancreatic																																																		
Parathyroid Gland																																																		
Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	3	3	2			2	2				2	2			2							49	9	2.1	
Pituitary Gland																																																		
Mineralization	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					2																		50	1	2.0

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TDMS No. 05201 - 05
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Furfuryl alcohol
 CAS Number: 98-00-0

Date Report Requested: 01/12/2009
 Time Report Requested: 09:25:45
 First Dose M/F: 11/26/91 / 11/26/91
 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		
	4	6	7	7	7	6	7	7	7	5	6	7	3	5	6	7	5	6	7	6	5	5	5	6	
	9	8	3	3	0	9	2	3	3	8	8	3	0	9	8	3	2	5	3	8	3	9	7	9	0
	0	5	5	5	2	3	7	5	5	1	5	5	2	5	6	5	2	7	5	1	6	1	2	9	9
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	
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	
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	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	* TOTALS

Pars Distalis, Hemorrhage																									4	1	4.0
Pars Distalis, Hyperplasia																									3	4	2.3
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
C-cell, Hyperplasia																									1	2	1.3
Follicular Cell, Hyperplasia																									3		3.0

GENERAL BODY SYSTEM

Peritoneum																									1
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----------

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49			
Hyperplasia																									2	1	2.0
Inflammation, Chronic Active																									1	3	3.0
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperplasia																									2	3	2.0
Inflammation, Chronic Active																									2	3	3.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Inflammation, Suppurative																									3	1	3.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

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

Atrophy																								3	1 3.0	
Artery, Inflammation, Chronic Active										2	2															3 1.7
Interstitial Cell, Hyperplasia																								1	4 1.0	

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymph Node													+												10	
Renal, Hemorrhage																									2	1 2.0
Lymph Node, Bronchial	+	+	+	+	+	+	M	+	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	39	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Infiltration Cellular, Plasma Cell																								3	1 3.0	
Lymph Node, Mediastinal	M	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Lymph Node, Mesenteric	+	+	+	+	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Accessory Spleen																								X	3	
Fibrosis																								X	14 1.9	
Hematopoietic Cell Proliferation																									1 3.0	
Hyperplasia, Focal																									1 4.0	
Necrosis																									2 3.5	

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

Thymus + M + + + + + M + + + + + M + + + + + + + + + + 43

INTEGUMENTARY SYSTEM

Mammary Gland Degeneration Galactoceles + + + + M + M + M + + + + M + + M + + + + + M M + 30
 2 2 3 3 2 3 3 3 3 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

Skin Inflammation, Chronic Active Tail, Hyperkeratosis Tail, Inflammation, Chronic Active + 50
 1 3.0
 1 3.0
 1 2.0

MUSCULOSKELETAL SYSTEM

Bone Fibrous Osteodystrophy + 50
 3 2 2.0

NERVOUS SYSTEM

Brain + 50

RESPIRATORY SYSTEM

Larynx + 50

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TDMS No. 05201 - 05

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Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

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

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Cyst																										1	2.0	
Infarct																										2	1	2.0
Mineralization								3																		3	2	3.0
Nephropathy	4	3	2	4	3	4	4	4	4	3	3	4	2	2	3	3	3	2	4	4	2	3	3	2	2	50	2.9	
Papilla, Necrosis																										3	1	3.0
Renal Tubule, Hyperplasia					3		4	4																		5	2.8	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Inflammation, Chronic Active																										1	4.0	
Necrosis																4										1	4.0	

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Page 17

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	7	6	6	6	4	5	7	7	5	7	4	6	4	6	4	6	6	6	7	6	4	7	7	4
	2	1	8	0	9	6	5	2	2	7	3	7	0	9	2	9	8	0	5	0	3	9	3	3	9
	7	6	6	6	3	2	5	6	8	1	5	7	9	0	2	0	9	4	2	5	7	0	5	5	1
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
2.0 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
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	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

males (cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+
Intestine Large, Cecum Parasite Metazoan	+	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Large, Colon Parasite Metazoan	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	X	+	+	+	+	+	+
Intestine Large, Rectum Parasite Metazoan	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum Parasite Metazoan	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																							2	1	
Basophilic Focus	X							X		X									X		X	X	X		
Clear Cell Focus																									
Degeneration, Cystic		3		2	2					2		2		2				2				1			
Degeneration, Fatty								2		2				1				1							3
Eosinophilic Focus								X		X															

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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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	7	6	6	6	4	5	7	7	5	7	4	6	4	6	4	6	6	7	6	4	7	7	4	
	2	1	8	0	9	6	5	2	2	7	3	7	0	9	2	9	8	0	5	0	3	9	3	3	9
	7	6	6	6	3	2	5	6	8	1	5	7	9	0	2	0	9	4	2	5	7	0	5	5	1
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
2.0 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
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	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
Hepatodiaphragmatic Nodule																									
Mixed Cell Focus	X																								
Necrosis																									
Regeneration	4											2													
Bile Duct, Hyperplasia	3	2	2	2	3			1	1		2	3		2	2	1	3	3	2						
Centrilobular, Necrosis			2	1	2							1		2	2		1	1	1						
Mesentery	+							+	+			+											+		
Artery, Mineralization								4																	
Fat, Hemorrhage																									
Fat, Necrosis	3								2			2													
Oral Mucosa																									
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy	4		3		3		1			1	1	2		1	1			2	3	2	2	1			
Basophilic Focus																									
Hyperplasia																									
Artery, Inflammation																									
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy			2																						
Inflammation, Chronic Active												2													
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia, Squamous																									
Inflammation, Acute																									
Mineralization									3																
Necrosis								4	3	4															

males (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

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		
		6	7	6	6	6	4	5	7	7	5	7	4	6	4	6	4	6	6	7	6	4	7	7	4	
		2	1	8	0	9	6	5	2	2	7	3	7	0	9	2	9	8	0	5	0	3	9	3	3	9
		7	6	6	6	3	2	5	6	8	1	5	7	9	0	2	0	9	4	2	5	7	0	5	5	1
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	
2.0 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	
		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

males
(cont...)

Stomach, Glandular
Mineralization
Necrosis

+ +

4
2

Tongue

CARDIOVASCULAR SYSTEM

Blood Vessel
Aorta, Mineralization

+
4

Heart
Cardiomyopathy
Artery, Mineralization
Atrium, Thrombosis

+ +

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

3
3

1 3 3 3 2 2

ENDOCRINE SYSTEM

Adrenal Cortex
Hyperplasia
Hypertrophy
Vacuolization Cytoplasmic

+ +

2 2

2 2

Adrenal Medulla
Hyperplasia

+ +

2 2 1 2 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 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 6 7 6 6 6 4 5 7 7 5 7 4 6 4 6 6 6 7 6 4 7 7 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
ANIMAL ID | 2 1 8 0 9 6 5 2 2 7 3 7 0 9 2 9 8 0 5 0 3 9 3 3 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 6 6 6 3 2 5 6 8 1 5 7 9 0 2 0 9 4 2 5 7 0 5 5 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.0 PPM | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland
Hyperplasia | + + + + + + + + + M + + + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland
Pars Distalis, Hyperplasia
Pars Intermedia, Hyperplasia | 3 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland
C-cell, Hyperplasia
Follicular Cell, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Peritoneum | + | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Epididymis | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Penis | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate | + | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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. 05201 - 05
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Furfuryl alcohol
 CAS Number: 98-00-0

Date Report Requested: 01/12/2009
 Time Report Requested: 09:25:45
 First Dose M/F: 11/26/91 / 11/26/91
 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 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 7 | 6 | 6 | 6 | 4 | 5 | 7 | 7 | 5 | 7 | 4 | 6 | 4 | 6 | 4 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 4 | | |
| | 2 | 1 | 8 | 0 | 9 | 6 | 5 | 2 | 2 | 7 | 3 | 7 | 0 | 9 | 2 | 9 | 8 | 0 | 5 | 0 | 3 | 9 | 3 | 3 | 9 | |
| | 7 | 6 | 6 | 6 | 3 | 2 | 5 | 6 | 8 | 1 | 5 | 7 | 9 | 0 | 2 | 0 | 9 | 4 | 2 | 5 | 7 | 0 | 5 | 5 | 1 | |
| 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 | |
| 2.0 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 | |
| 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 | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Hyperplasia
Inflammation, Chronic Active | | | | | | | | 4 | | 3 | | | 2 | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |
| Testes
Atrophy
Artery, Inflammation, Chronic Active
Interstitial Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | 1 | | 2 | | | | 2 | | | | | | | 2 | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow
Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | + | M | + | + | M | M | M | + | M | + | + | + | M | + | + | + | + | M | + | + | M | + | M | M | M |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular
Infiltration Cellular, Plasma Cell | + | M | + | + | + | M | + | + | + | M | + | + | 3 | + | + | M | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mediastinal | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. 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 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 | 0 |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 6 | 7 | 6 | 6 | 6 | 4 | 5 | 7 | 7 | 5 | 7 | 4 | 6 | 4 | 6 | 4 | 6 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 4 | |
| | | 2 | 1 | 8 | 0 | 9 | 6 | 5 | 2 | 2 | 7 | 3 | 7 | 0 | 9 | 2 | 9 | 8 | 0 | 5 | 0 | 3 | 9 | 3 | 3 | 9 | |
| | | 7 | 6 | 6 | 6 | 3 | 2 | 5 | 6 | 8 | 1 | 5 | 7 | 9 | 0 | 2 | 0 | 9 | 4 | 2 | 5 | 7 | 0 | 5 | 5 | 1 | |
| 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 | |
| 2.0 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 | |
| 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 | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Fibrosis | 2 | 2 | | | 2 | | | 1 | | 3 | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus Cyst | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | M | + | + | M | M | + | + | + | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Galactocele | M | + | M | M | M | M | + | + | + | M | M | + | M | M | M | M | + | + | + | + | M | M | + | M | M | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst Epithelial Inclusion | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tail, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

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

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------|
| DAY ON TEST | | 6 | 7 | 6 | 6 | 6 | 4 | 5 | 7 | 7 | 5 | 7 | 4 | 6 | 4 | 6 | 4 | 6 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 4 |
| DAY ON TEST | | 2 | 1 | 8 | 0 | 9 | 6 | 5 | 2 | 2 | 7 | 3 | 7 | 0 | 9 | 2 | 9 | 8 | 0 | 5 | 0 | 3 | 9 | 3 | 3 | 9 |
| DAY ON TEST | | 7 | 6 | 6 | 6 | 3 | 2 | 5 | 6 | 8 | 1 | 5 | 7 | 9 | 0 | 2 | 0 | 9 | 4 | 2 | 5 | 7 | 0 | 5 | 5 | 1 |
| 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 |
| 2.0 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 |
| 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 |
| 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 | | 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...) |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Artery, Mediastinum, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Perivascular, Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lateral Wall, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lateral Wall, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Olfactory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 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
 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 | 0 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 7 | 6 | 6 | 6 | 4 | 5 | 7 | 7 | 5 | 7 | 4 | 6 | 4 | 6 | 4 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 4 | |
| | 2 | 1 | 8 | 0 | 9 | 6 | 5 | 2 | 2 | 7 | 3 | 7 | 0 | 9 | 2 | 9 | 8 | 0 | 5 | 0 | 3 | 9 | 3 | 9 | |
| | 7 | 6 | 6 | 6 | 3 | 2 | 5 | 6 | 8 | 1 | 5 | 7 | 9 | 0 | 2 | 0 | 9 | 4 | 2 | 5 | 7 | 0 | 5 | 1 | |
| 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 | |
| 2.0 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 | |
| | 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 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Degeneration, Hyaline | | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | |
| Olfactory Epithelium, Fibrosis | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Olfactory Epithelium, Hyperplasia | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Olfactory Epithelium, Metaplasia | 2 | | | | | | | 1 | | | | | | | | | | | | | 1 | | | | |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | 1 | 1 | 1 | | | | | 1 | 1 | | 1 | | | | 1 | | | | 1 | | |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | 2 | 2 | | 1 | | 3 | | | | | | | 2 | 1 | | 2 | 2 | 2 | | | | 1 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

males (cont...)

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|---|--|--|--|--|--|---|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | 4 | | | | | | | | | + | | | | | | + | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 4 | | | | | | 4 | |
| Retina, Atrophy | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 2 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 2 | 4 | 2 | 3 | 2 | 3 | 3 | 4 | 3 | 4 | 2 | 3 | 3 | 4 | 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | 6 | 7 | 6 | 6 | 6 | 4 | 5 | 7 | 7 | 5 | 7 | 4 | 6 | 4 | 6 | 4 | 6 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 4 | | |
| | 2 | 1 | 8 | 0 | 9 | 6 | 5 | 2 | 2 | 7 | 3 | 7 | 0 | 9 | 2 | 9 | 8 | 0 | 5 | 0 | 3 | 9 | 3 | 3 | 9 | | |
| | 7 | 6 | 6 | 6 | 3 | 2 | 5 | 6 | 8 | 1 | 5 | 7 | 9 | 0 | 2 | 0 | 9 | 4 | 2 | 5 | 7 | 0 | 5 | 5 | 1 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | |
| 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 | |
| 2.0 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 | 2 | 2 | |
| | 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 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Hyperplasia | | | | | | | | | 1 | | 2 | | | | | | | | | | 2 | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation, Chronic Active | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 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

Page 26

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|----|---------|---------|-------|---|---|--------|
| | 6 3 5 7 5 5 6 6 4 5 6 6 6 5 5 6 7 6 6 6 6 6 6 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
2.0 PPM
ANIMAL ID | 9 9 4 3 7 6 0 0 7 2 2 0 8 8 7 8 2 3 9 7 1 4 1 6 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 9 3 5 8 0 1 9 7 5 3 9 6 1 8 9 1 7 1 8 6 4 6 0 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | | | | | | | | |
| Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.7 | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | 1 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 2 1 2 4 | 2 2 2 3 | 3 3 3 | 2 | 2 | 31 2.2 |
| Centrilobular, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 17 1.3 | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | | | | | | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 | | | | | | | | |
| Fat, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 6 2.3 | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 22 1.8 | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | | | | | | | | |
| Artery, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | |
| Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 6 3.5 | | | | | | | | |

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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 3 | 5 | 7 | 5 | 5 | 6 | 6 | 4 | 5 | 6 | 6 | 5 | 5 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 9 | 9 | 4 | 3 | 7 | 6 | 0 | 0 | 7 | 2 | 2 | 0 | 8 | 8 | 7 | 8 | 2 | 3 | 9 | 7 | 1 | 4 | 1 | 6 | 3 | |
| | 4 | 9 | 3 | 5 | 8 | 0 | 1 | 9 | 7 | 5 | 3 | 9 | 6 | 1 | 8 | 9 | 1 | 7 | 1 | 8 | 6 | 4 | 6 | 0 | 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 | 0 | |
| 2.0 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 | |
| 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 | 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

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | M | M | + | + | + | + | 45 |
| Hyperplasia | | | | | | | | | | | | | | | | | 2 | | | | | | | | | 5 3.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Hyperplasia | | | | | | | | | | 2 | | | | | | | | 2 | | | | | | | | 8 2.6 |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | 49 |
| C-cell, Hyperplasia | 1 | 1 | 1 | | 1 | | 1 | | | | | | 1 | 1 | 2 | 1 | 1 | 1 | | | 1 | 1 | | 1 | | 33 1.1 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 2.0 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Penis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|
| | 6 | 3 | 5 | 7 | 5 | 5 | 6 | 6 | 4 | 5 | 6 | 6 | 6 | 5 | 5 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 9 | 9 | 4 | 3 | 7 | 6 | 0 | 0 | 7 | 2 | 2 | 0 | 8 | 8 | 7 | 8 | 2 | 3 | 9 | 7 | 1 | 4 | 1 | 6 | 3 | |
| | 4 | 9 | 3 | 5 | 8 | 0 | 1 | 9 | 7 | 5 | 3 | 9 | 6 | 1 | 8 | 9 | 1 | 7 | 1 | 8 | 6 | 4 | 6 | 0 | 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 | 0 | |
| 2.0 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 | |
| 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 | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|--|-----|--|---|--|---|--|---|--|----|-----|
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | | 4 | | 2 | | 4 | | 2 | | 13 | 2.3 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | 2 | | | | | | | | 2 | 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 2 | 3.0 |
| Thymus Cyst | + | + | + | + | M | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 40 | | 1 | | 3.0 | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|-----|
| Mammary Gland Galactocele | + | M | M | + | + | + | + | M | M | M | + | M | + | M | M | + | + | + | + | M | + | + | + | + | M | 25 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | | 2.5 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3.5 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 |
| Subcutaneous Tissue, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3.0 |
| Tail, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 3 | | 2 | | 2.5 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|-----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 3 |
| Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | 2.2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | 2.4 |

NERVOUS 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 32
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 | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 3 | 5 | 7 | 5 | 5 | 6 | 6 | 4 | 5 | 6 | 6 | 6 | 5 | 5 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 9 | 9 | 4 | 3 | 7 | 6 | 0 | 0 | 7 | 2 | 2 | 0 | 8 | 8 | 7 | 8 | 2 | 3 | 9 | 7 | 1 | 4 | 1 | 6 | 3 |
| | 4 | 9 | 3 | 5 | 8 | 0 | 1 | 9 | 7 | 5 | 3 | 9 | 6 | 1 | 8 | 9 | 1 | 7 | 1 | 8 | 6 | 4 | 6 | 0 | 5 |

| FISCHER 344 RATS MALE
2.0 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 | |
| | | 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 | 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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | 2 | | | | | | 3 | | | | 2 2.5 |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 4.0 | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Metaplasia, Squamous | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 | |
| Mineralization | | | | | | | | | | | | | | | | | 3 | | | | | | | | | 2 3.0 | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Alveolar Epithelium, Hyperplasia | | | | | 1 | | | | | | | | | 1 | | | | | | | | | 1 | | | 7 1.0 | |
| Artery, Mediastinum, Mineralization | | | | | | | | | | | | | | | | | 3 | | | | | | | | | 2 3.5 | |
| Perivascular, Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Suppurative | | | | | 2 | | | | | | 1 | | | | | | | 2 | 1 | | | | | | | 6 1.5 | |
| Thrombosis | | | | | | | | | | | | | 4 | | | 3 | | 3 | | | | 2 | 4 | 1 | | 15 2.7 | |
| Lateral Wall, Hyperplasia | | | | | 1 | | | | | 1 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 1 | 1 | 49 1.5 |
| Lateral Wall, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Olfactory Epithelium, Atrophy | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 12 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | |
| 6 | 3 | 5 | 7 | 5 | 5 | 6 | 6 | 4 | 5 | 6 | 6 | 6 | 5 | 5 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| 9 | 9 | 4 | 3 | 7 | 6 | 0 | 0 | 7 | 2 | 2 | 0 | 8 | 8 | 7 | 8 | 2 | 3 | 9 | 7 | 1 | 4 | 1 | 6 | 3 | |
| 4 | 9 | 3 | 5 | 8 | 0 | 1 | 9 | 7 | 5 | 3 | 9 | 6 | 1 | 8 | 9 | 1 | 7 | 1 | 8 | 6 | 4 | 6 | 0 | 5 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
2.0 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 | |
| | 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 | 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 | 5 2.0 |
| Renal Tubule, Hyperplasia | 3 | | | | | | | | | | | 2 | | | | | | | | | | | 5 2.0 | | |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. 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

Page 35

| 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 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 4 | 7 | 7 | 6 | 5 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 7 | 6 | 5 |
| | | 3 | 3 | 5 | 0 | 8 | 0 | 3 | 0 | 3 | 9 | 2 | 3 | 1 | 4 | 8 | 3 | 3 | 0 | 3 | 9 | 2 | 6 | 3 | 7 | 8 |
| | | 5 | 5 | 4 | 5 | 8 | 8 | 5 | 0 | 5 | 2 | 8 | 5 | 6 | 6 | 8 | 9 | 5 | 8 | 5 | 2 | 5 | 6 | 5 | 1 | 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 |
| 8.0 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 |
| 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 | 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 |

males (cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | X | X | X | | | | | | | | | X | | | | | | | | X | | | X | | |
| Intestine Large, Colon | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parasite Metazoan | | | | | | | | | | X | | | | | | | | | | | | | X | | X |
| Intestine Large, Rectum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Intestine Small, Jejunum | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | X | X | | | X | X | | X | X | | X | X | X | X | | | X | | X | | | X | X | X |
| Clear Cell Focus | X | X | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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 36

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | 7 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 4 | 7 | 7 | 6 | 5 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 7 | 6 | 5 |
| DAY ON TEST | | 3 | 3 | 5 | 0 | 8 | 0 | 3 | 0 | 3 | 9 | 2 | 3 | 1 | 4 | 8 | 3 | 3 | 0 | 3 | 9 | 2 | 6 | 3 | 7 | 8 |
| DAY ON TEST | | 5 | 5 | 4 | 5 | 8 | 8 | 5 | 0 | 5 | 2 | 8 | 5 | 6 | 6 | 8 | 9 | 5 | 8 | 5 | 2 | 5 | 6 | 5 | 1 | 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 |
| 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 |
| 8.0 PPM | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| 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 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 2 | 3 | 4 | 5 |
| Degeneration, Cystic | | | | 1 | | 3 | | 3 | | 1 | | | | | | 2 | | | 3 | | | 2 | | | | |
| Degeneration, Fatty | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | X | | | | | | | | | | | X | | | | X | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | X | | | | X | | | | | | | X | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | X | | | | | | | | | | | | | | | | | | 3 | | |
| Bile Duct, Hyperplasia | | 2 | 1 | 1 | | | | 2 | | 3 | | 1 | 1 | 2 | | 2 | | 2 | 3 | | 2 | 3 | 1 | 2 | 3 | 2 |
| Centrilobular, Necrosis | | | | | | | | | | 3 | | | | 2 | | | | 2 | | | | 1 | | 1 | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Hemorrhage | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | 3 | 2 | | | | | | 3 | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pharyngeal, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Mineralization | | | | | | X | | | | | | | | | X | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |

males (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 37

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 7 5 5 6 7 7 7 7 6 4 7 7 6 5 6 6 7 7 5 5 6 7 6 5 | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
8.0 PPM | 3 3 5 0 8 0 3 0 3 9 2 3 1 4 8 3 3 0 3 9 2 6 3 7 8 | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 4 5 8 8 5 0 5 2 8 5 6 6 8 9 5 8 5 2 5 6 5 1 0 | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 0 0 0 0 0 0 0 0 0 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Glandular Mineralization Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | 3 | | | | | 4 | | | | | | | | | | | | | | |
| | | | 2 | | 3 | | | 2 | | | | | | | | | | | | | | 2 | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | |
| Aorta, Mineralization | | | | | | | | | | + | | | | | | | | | | | | | | |
| | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 2 | 2 | 2 | 1 | 3 | 2 | 2 | | 3 | 4 | | 3 | 3 | 3 | 2 | 2 | | 2 | 1 | 2 | 1 | 2 | 2 | 1 |
| Artery, Mineralization | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Atrium, Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 2 | 3 | | | | 1 | 3 | | 2 | | | 2 | | 2 | | | | 2 | 2 | | | | | 2 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | 3 | | | | | | | | | 3 | | | | | |
| Vacuolization Cytoplasmic | | | | | 2 | | | | | | | 2 | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 3 | 2 | | | 3 | | 3 | 1 | 3 | 2 | | 3 | 3 | 2 | 2 | | | | 2 | | | | 3 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. 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 | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 7 5 5 6 7 7 7 7 6 4 7 7 6 5 6 6 7 7 5 5 6 7 6 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
8.0 PPM ANIMAL ID | 3 3 5 0 8 0 3 0 3 9 2 3 1 4 8 3 3 0 3 9 2 6 3 7 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 4 5 8 8 5 0 5 2 8 5 6 6 8 9 5 8 5 2 5 6 5 1 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Parathyroid Gland
Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 2 4 3 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland
Pars Distalis, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland
C-cell, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Peritoneum | + | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Epididymis | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland
Hyperplasia
Inflammation, Chronic Active | + + + + + + + + + M + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate
Hyperplasia
Inflammation, Chronic Active | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 2 3 2 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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 39

| 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 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 4 | 7 | 7 | 6 | 5 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 7 | 6 | 5 | |
| | | 3 | 3 | 5 | 0 | 8 | 0 | 3 | 0 | 3 | 9 | 2 | 3 | 1 | 4 | 8 | 3 | 3 | 0 | 3 | 9 | 2 | 6 | 3 | 7 | 8 | |
| | | 5 | 5 | 4 | 5 | 8 | 8 | 5 | 0 | 5 | 2 | 8 | 5 | 6 | 6 | 8 | 9 | 5 | 8 | 5 | 2 | 5 | 6 | 5 | 1 | 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 |
| | 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 |
| 8.0 PPM | | 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 | 2 | 2 | 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...) | | | | | | | | | | | | | | | | | | | | | | | | | |

Mineralization

3

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Artery, Inflammation, Chronic Active | | | | | 1 | 3 | | | | | | | | | 2 | | | | | | | | | | | |
| Interstitial Cell, Hyperplasia | | | | | 2 | | | | | | 1 | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node Renal, Hemorrhage | | | | | + | | | | | | + | | | | | | | | | | | + | | | | + | + |
| Lymph Node, Bronchial | M | M | + | + | + | + | + | + | M | + | + | M | M | + | M | M | + | M | + | M | + | + | M | + | + | + | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mediastinal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | 2 | | | | | | | | | 2 | | | | | | 3 | | | 3 | | | | 2 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 |
|-----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 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 |
| 8.0 PPM | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 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...)

RESPIRATORY SYSTEM

Larynx

+ +

Lung

+ +

Hemorrhage
Mineralization
Alveolar Epithelium, Hyperplasia
Artery, Mediastinum, Mineralization

1 4
3 1
4

Nose

+ +

Inflammation, Suppurative
Thrombosis
Glands, Hyperplasia
Lateral Wall, Hyperplasia
Lateral Wall, Metaplasia, Squamous
Nasopharyngeal Duct, Inflammation, Acute
Olfactory Epithelium, Atrophy
Olfactory Epithelium, Degeneration, Hyaline
Olfactory Epithelium, Fibrosis
Olfactory Epithelium, Hyperplasia
Olfactory Epithelium, Metaplasia
Respiratory Epithelium, Degeneration, Hyaline
Respiratory Epithelium, Hyperplasia
Respiratory Epithelium, Metaplasia, Squamous

1
2
3
1
1
1 2
2 2 2 2 2 3 2 3 2 2 2 2 3 2 3 3 3 3 3 3 3 2 2 2 3 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
Page 42

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|----|-----|-----|
| | 0
4
9
2 | 0
5
3
6 | 0
6
7
0 | 0
6
7
9 | 0
4
7
8 | 0
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7
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3
7 | 0
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5 | 0
7
5
0 | 0
6
5
2 | | | | |
| 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 | | |
| 8.0 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 | | |
| 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 | 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 | 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 | | |
| Degeneration, Cystic | | | 1 | | | | | | | | | | | | | 3 | 2 | | 2 | | | 3 | | | | | 12 | 2.2 | |
| Degeneration, Fatty | | | | 2 | | | | | | 1 | | | | | | | | | | | | | | | 2 | | 3 | 1.7 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | X | | | | | 4 | | |
| Mixed Cell Focus | | | | | | | | | | X | | | | | | | | | | | | | | | | | 2 | | |
| Regeneration | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | 2 | 3.5 | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Bile Duct, Hyperplasia | 2 | 3 | 1 | | | | | | | 2 | | 2 | | 2 | | 3 | 3 | 2 | | | 3 | | 1 | | | | 30 | 2.1 | |
| Centrilobular, Necrosis | 2 | | | | | | | | | | 1 | 1 | | 1 | | 1 | 1 | 1 | | | 1 | | | | | | 15 | 1.5 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Fat, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Fat, Necrosis | | | | | | | | | | | | | | | 2 | | 2 | | | | 2 | | | | 2 | | | 7 | 2.3 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pharyngeal, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atrophy | | | | 2 | 1 | 1 | | | | | | | | 2 | 1 | | | | | 3 | 2 | 1 | | | 2 | | 2 | 23 | 2.0 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 | 2.0 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 | |
| Necrosis | | | | 3 | | | | | | | 3 | | 2 | 2 | | | | | | | 2 | | | | 2 | | 2 | 2.8 | |

* .. 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

| 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 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 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 |
| FISCHER 344 RATS MALE
8.0 PPM | 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 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------------|---------------|
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | 2 | | | | | | | | | | 2 | | | | | | | | 3 | 3 | 2 | 12 2.4 |
| Pituitary Gland
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 48 | |
| | | | | | | | 2 | | | | | | | | | | | | | | | | | 3 2.7 | |
| Thyroid Gland
C-cell, Hyperplasia | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Follicular Cell, Hyperplasia | | 1 | 1 | | | | | 1 | 1 | | 2 | 1 | 1 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | 30 1.1 | |
| | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 2.0 | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Preputial Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Inflammation, Chronic Active | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Prostate
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Chronic Active | | | | | | 3 | | | | 1 | | | | | | | | | | | | | | 5 2.2 |
| | | | | | | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Seminal Vesicle | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 46 |

* .. 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 | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| | 4 | 5 | 6 | 6 | 4 | 5 | 4 | 5 | 7 | 5 | 5 | 6 | 5 | 6 | 6 | 4 | 5 | 7 | 6 | 7 | 6 | 7 | | | | |
| | 9 | 3 | 7 | 7 | 7 | 8 | 7 | 5 | 0 | 7 | 4 | 2 | 7 | 4 | 6 | 1 | 9 | 1 | 8 | 9 | 3 | 6 | 3 | 5 | 3 | |
| | 2 | 6 | 0 | 9 | 8 | 5 | 3 | 9 | 8 | 1 | 7 | 1 | 2 | 6 | 6 | 9 | 3 | 6 | 3 | 7 | 5 | 5 | 0 | 2 | 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 | 0 | |
| 8.0 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 | |
| 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 | |
| | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|--------------|---|--------------|-----------|
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | | | | | | | | | | 3 | | | | | | | | | | | 3 3.0 | | | | |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 3 | 4 2.3 | | | |
| Interstitial Cell, Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4 1.3 | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------|--------------|-----------------|---------------|-----------|-----------|-----------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Lymph Node Renal, Hemorrhage | + | + | | | | | | | | | | | | | | | | | | | | | | 10 1 2.0 | | | | |
| Lymph Node, Bronchial | + | + | + | M | + | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | M | M | M | 33 | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 48 |
| Lymph Node, Mediastinal | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | 46 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | 2 | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | |
| Fibrosis | 2 | | | 2 | | | | | | | | | | | 1 | 2 | 3 | | | | | | | | 10 2.2 | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 2 | | | | | | | | | | | 2 | 2 2.0 | | | | | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | | | | |

* .. 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 | 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 | |
| 4 | 5 | 6 | 6 | 4 | 5 | 4 | 5 | 7 | 5 | 5 | 6 | 5 | 6 | 6 | 4 | 5 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 0 |
| 9 | 3 | 7 | 7 | 7 | 8 | 7 | 5 | 0 | 7 | 4 | 2 | 7 | 4 | 6 | 1 | 9 | 1 | 8 | 9 | 3 | 6 | 3 | 5 | 3 | 0 | 0 |
| 2 | 6 | 0 | 9 | 8 | 5 | 3 | 9 | 8 | 1 | 7 | 1 | 2 | 6 | 6 | 9 | 3 | 6 | 3 | 7 | 5 | 5 | 0 | 2 | 5 | 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 |
| 8.0 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 |
| | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 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 | 0 |

Trachea + 50

SPECIAL SENSES SYSTEM

Eye + 1 1.0
 Cataract 1 1.0

Zymbal's Gland + 1

URINARY SYSTEM

Kidney + 50

Hydronephrosis 2 2.0
 Mineralization 4 4.0
 Nephropathy 2 2 3 4 3 2 2 3 3 3 2 3 2 2 3 2 3 3 2 3 4 4 4 4 4 50 3.1
 Stromal Hyperplasia 1 3.0
 Renal Tubule, Hyperplasia 2 1.5

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

Page 51

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 6 5 6 5 4 6 6 5 6 6 6 4 6 5 5 5 6 6 6 4 6 6 6 5 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
ANIMAL ID | 6 9 0 6 6 1 3 8 0 1 8 7 3 2 3 5 0 2 2 7 1 9 8 8 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 4 6 8 9 3 1 1 9 0 2 6 8 6 2 5 1 2 2 2 2 3 1 1 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0 PPM | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + + + + + A + + + + + A A + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Parasite Metazoan | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + + + + + + + + + + + A A + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 2 3 2 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Parasite Metazoan | X X X | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Rectum | + + + + + + + + + + + A + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parasite Metazoan | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Duodenum | + + + + + + + + + + + A + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + + + + + A + + + + + A A + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | + + + + + A + + + + + A + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | 2 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | | |

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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 6 5 6 5 4 6 6 5 6 6 6 4 6 5 5 5 6 6 6 4 6 6 6 5 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
ANIMAL ID | 6 9 0 6 6 1 3 8 0 1 8 7 3 2 3 5 0 2 2 7 1 9 8 8 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 4 6 8 9 3 1 1 9 0 2 6 8 6 2 5 1 2 2 2 3 1 1 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0 PPM | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1 1 1 2 2 2 3 4 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| | males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 2 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Fatty | 1 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | X X X | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | X X X | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 1 1 2 1 1 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Centrilobular, Necrosis | 1 1 1 3 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Inflammation, Chronic Active | 3 4 3 3 4 2 3 3 3 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Mineralization | 3 4 3 3 4 2 3 3 3 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Hemorrhage | 1 3 2 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | 1 3 2 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + + + + + + + + + + + A + + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 1 1 1 2 2 1 2 2 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Inflammation | 4 4 4 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Mineralization | 4 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 3 2 2 4 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

| 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 | 6 | 5 | 4 | 6 | 6 | 5 | 6 | 6 | 6 | 4 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 5 | 6 |
| | 6 | 9 | 0 | 6 | 6 | 1 | 3 | 8 | 0 | 1 | 8 | 7 | 3 | 2 | 3 | 5 | 0 | 2 | 2 | 7 | 1 | 9 | 8 | 8 | 0 |
| | 8 | 4 | 6 | 8 | 9 | 3 | 1 | 1 | 9 | 0 | 2 | 6 | 8 | 6 | 2 | 5 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 9 |
| 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 |
| 32.0 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 |
| 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 | 3 | 4 | 5 |

males (cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Necrosis | | | | | | | | | | | | | | | | | | | 2 | 3 | | | | | 4 |
| Stomach, Glandular Mineralization Necrosis | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 4 | 4 | 4 | 3 | | 2 | | | 2 | | 4 | | 3 | | 3 | 1 | 3 | 3 | | 2 | 4 | 4 | 4 | | |
| | | | | | | | | | | | 1 | | | | 2 | 2 | | | 1 | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Blood Vessel Aorta, Mineralization | + | + | + | + | | + | | + | | + | | + | | + | | + | + | | + | + | + | + | | | | | | | |
| | 4 | 4 | 4 | 3 | | 2 | | 2 | | 4 | | 2 | | 3 | | 4 | 1 | | 3 | 4 | 4 | 4 | | | | | | | |
| Heart Cardiomyopathy Inflammation, Suppurative Artery, Mineralization Atrium, Thrombosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| | 2 | 3 | 3 | 3 | | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 3 | | 1 | 3 | 2 | 3 | 2 | | 2 | 3 | 3 | 3 | 1 | | | | |
| | | | | | | | | | | | | | | | | | | | | | 3 | | | 2 | 3 | 4 | 4 | | |
| | 3 | 4 | 4 | 3 | | 2 | | | | 4 | | | | 3 | | 3 | 2 | | | 2 | 3 | 4 | 4 | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex Hyperplasia Hypertrophy Necrosis Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 2 | | | | | 2 | 1 | | | | 2 | | 2 | 2 | | | 3 | | | 2 | 2 | | 2 | 2 | 2 |
| | | | | 3 | | | | 2 | | | 2 | | | | 2 | | | | | 1 | | | | | |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 3 | 4 | | | | | | 2 | 2 | 2 | | | | 2 | 3 | | 2 | | | 2 | 3 | | 4 | 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | 6 | 5 | 4 | 6 | 6 | 5 | 6 | 6 | 4 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 5 | 6 | | | |
| | 6 | 9 | 0 | 6 | 6 | 1 | 3 | 8 | 0 | 1 | 8 | 7 | 3 | 2 | 3 | 5 | 0 | 2 | 2 | 7 | 1 | 9 | 8 | 8 | 0 | | |
| | 8 | 4 | 6 | 8 | 9 | 3 | 1 | 1 | 9 | 0 | 2 | 6 | 8 | 6 | 2 | 5 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 9 | | |
| 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 | | |
| 32.0 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 | | |
| 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 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | males (cont...) |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Islets, Pancreatic Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 |
| Parathyroid Gland Hyperplasia Necrosis | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 |
| Pituitary Gland Pars Distalis, Angiectasis Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 |
| Thyroid Gland C-cell, Hyperplasia Follicular Cell, Hyperplasia | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Penis | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Preputial Gland Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 |

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I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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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 | |
| | 6 | 5 | 6 | 5 | 4 | 6 | 6 | 5 | 6 | 6 | 6 | 4 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 5 | 6 | |
| | 6 | 9 | 0 | 6 | 6 | 1 | 3 | 8 | 0 | 1 | 8 | 7 | 3 | 2 | 3 | 5 | 0 | 2 | 2 | 7 | 1 | 9 | 8 | 8 | 0 | |
| | 8 | 4 | 6 | 8 | 9 | 3 | 1 | 1 | 9 | 0 | 2 | 6 | 8 | 6 | 2 | 5 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 9 | | |
| 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 | |
| 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 | |
| 32.0 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 | |
| | 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 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

males (cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|--|---|--|---|---|---|--|---|---|---|---|--|---|---|---|---|---|--|--|--|--|--|
| Fibrous Osteodystrophy | 3 | 4 | 3 | 4 | | 3 | | 3 | 4 | 3 | | 3 | 3 | 4 | 4 | | 3 | 4 | 4 | 3 | 2 | | | | | |
| Fracture | | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | 4 | 4 | 2 | | | | | | 2 | | 1 | | | 1 | | 3 | | | | 3 | 4 | 4 | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | 3 | | | | |
| Alveolar Epithelium, Hyperplasia | | | 2 | 1 | | | | 2 | | | | 1 | 1 | | | | | | | | | | | | 1 |
| Artery, Mediastinum, Mineralization | 3 | 3 | 4 | 4 | | | | 2 | | 4 | | | | 3 | | 4 | | | | | | 3 | 4 | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 2 | | 1 | 2 | | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 |
| Thrombosis | | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Glands, Hyperplasia | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 3 | 1 | 4 | 2 | 2 | 2 | 1 | 4 | 2 | 4 | 2 | 3 | 1 | 2 | 2 | 2 | 1 |
| Lateral Wall, Hyperplasia | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | |
| Lateral Wall, Metaplasia, Squamous | | 2 | 1 | 1 | | | | | 1 | | | | 1 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | 1 | |
| Olfactory Epithelium, Atrophy | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | | 3 | 3 | 3 | 3 | 3 | 3 | | 3 | 4 | 2 | 3 | |

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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 6 5 6 5 4 6 6 5 6 6 6 4 6 5 5 5 6 6 6 4 6 6 6 5 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
ANIMAL ID | 6 9 0 6 6 1 3 8 0 1 8 7 3 2 3 5 0 2 2 7 1 9 8 8 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 4 6 8 9 3 1 1 9 0 2 6 8 6 2 5 1 2 2 2 3 1 1 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0 PPM | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Fibrosis | 3 | 3 | 3 | 3 | 2 | | 2 | 1 | 2 | | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | | 2 | 2 | | 2 | 2 | |
| Olfactory Epithelium, Hyperplasia | 2 | 1 | 3 | 2 | 2 | | 1 | 1 | 2 | | | 1 | 2 | 2 | 1 | 2 | 2 | 2 | | 2 | 1 | | 2 | 1 | 2 |
| Olfactory Epithelium, Metaplasia | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 2 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | | | | | 2 | 2 | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 |
| Respiratory Epithelium, Metaplasia, Squamous | | 2 | | 1 | | | 2 | 1 | | | | | | 1 | | | | 2 | 1 | 2 | | 2 | 1 | 1 | |
| Trachea Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | 3 | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

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First Dose M/F: 11/26/91 / 11/26/91

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 | 6 | 5 | 6 | 5 | 5 | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 5 | 6 | 4 | 5 | 6 | 4 | 6 | 6 | 6 | |
| 0 | 8 | 5 | 2 | 8 | 4 | 1 | 2 | 8 | 1 | 7 | 5 | 4 | 6 | 5 | 3 | 3 | 9 | 3 | 2 | 8 | 3 | 9 | 3 | 2 | 2 | |
| 4 | 0 | 1 | 1 | 5 | 9 | 0 | 2 | 3 | 5 | 4 | 0 | 7 | 4 | 1 | 8 | 7 | 9 | 7 | 1 | 0 | 7 | 7 | 8 | 3 | 3 | |
| 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 | |
| 32.0 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 | |
| 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| Degeneration, Cystic | | | 3 | | | | | | 3 | | | | | | | 3 | 1 | | | | | | | | 9 2.3 | |
| Degeneration, Fatty | 1 | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | 1 | | | 7 1.1 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Hepatodiaphragmatic Nodule | | | | | | X | X | X | | | | | | | | | | | | | | | | | 6 | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | X | | | 2 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | |
| Bile Duct, Hyperplasia | | 2 | | 1 | | | | | 2 | | | | | 1 | | | 2 | | 1 | | | 2 | | | 13 1.5 | |
| Centrilobular, Necrosis | | | | 2 | | | | | | | | | | | | | | | | | | 1 | | | 8 1.4 | |
| Mesentery | | + | + | | | + | | | + | + | + | | + | + | + | + | | | + | + | | | + | | 26 | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | 4 | 4 | | | | | 4 | | | | 3 4.0 | |
| Artery, Mineralization | | | 2 | | | 4 | | 3 | 3 | 4 | | 4 | 4 | 2 | 2 | | | | 2 | 4 | | | 3 | | 22 3.1 | |
| Fat, Hemorrhage | | | | | | 4 | | | | | | | | | | | | | | | | | | | 2 4.0 | |
| Fat, Necrosis | | 2 | | | | | | | | | | | | | | | | | | | | | | | 4 2.0 | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | | 2 | | | | 3 | | | | | 1 | | 2 | | | 1 | | 3 | | 2 | | 2 | | | 17 1.7 | |
| Basophilic Focus | | | | | | | | | X | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | 2 1.5 | |
| Artery, Inflammation | | | | | | | | | | | 4 | | | | | | | | | | | | | | 5 3.6 | |
| Artery, Mineralization | | | | | | | | | | | | | 4 | | | | | | | | | | | | 3 3.3 | |
| Salivary Glands | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Mineralization | | | | | | 3 | 2 | | | | | 4 | | 2 | 3 | | 2 | | | | | 2 | | | 12 2.6 | |

* .. 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

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| 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 | 6 | 5 | 5 | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 5 | 6 | 4 | 5 | 6 | 4 | 6 | 6 | |
| | 0 | 8 | 5 | 2 | 8 | 4 | 1 | 2 | 8 | 1 | 7 | 5 | 4 | 6 | 5 | 3 | 3 | 9 | 3 | 2 | 8 | 3 | 9 | 3 | 2 |
| | 4 | 0 | 1 | 1 | 5 | 9 | 0 | 2 | 3 | 5 | 4 | 0 | 7 | 4 | 1 | 8 | 7 | 9 | 7 | 1 | 0 | 7 | 7 | 8 | 3 |
| 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 |
| 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 |
| 32.0 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 |
| | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|-----------|---|---|---|---------------|
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 | 1 | | | | | | | | | | | | | | | | | | 6 2.3 | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 3 | | | 4 | 4 | | | 4 | 4 | 4 | | | 4 | 3 | 3 | 4 | | | 3 | 3 | 3 | 3 | 3 | 3 | 32 3.3 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 3 | | | 4 | 4 | | | 4 | 4 | 4 | | | 4 | 3 | 3 | 4 | | | 3 | 3 | 3 | 3 | 3 | 3 | 4 1.5 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|-----------|-----------|---|---|---------------|---|---------------|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | + | | | + | + | | | + | + | + | | | + | + | + | + | | | + | + | + | + | + | + | 31 | | | | | | |
| Aorta, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 2 | | | 4 | 3 | | | 4 | 3 | 4 | | | 4 | 4 | 4 | 4 | | | 3 | | | 4 | 4 | 4 | 3 | 31 3.4 | | |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 3 | 1 | 2 | 3 | 3 | | | 2 | 4 | 4 | 3 | | | 3 | 3 | | | 4 | 3 | 2 | | | 3 | 3 | 2 | 3 | 4 | 42 2.6 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | | | | | | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 | | | 3 | 2 | | | 4 | 3 | 3 | | | 4 | 4 | 3 | 3 | | | 3 | | | 4 | 4 | | | 3 | 3 | 29 3.1 |
| Atrium, Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.7 | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|-----------|---|---|---|---|---|-----------|
| Adrenal Cortex | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 24 2.0 | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 2.0 | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 2.0 | | | | | | | |
| Adrenal Medulla | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 19 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 | 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 | 5 | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 5 | 6 | 4 | 5 | 6 | 4 | 6 | 6 | |
| | 0 | 8 | 5 | 2 | 8 | 4 | 1 | 2 | 8 | 1 | 7 | 5 | 4 | 6 | 5 | 3 | 3 | 9 | 3 | 2 | 8 | 3 | 9 | 3 | 2 |
| | 4 | 0 | 1 | 1 | 5 | 9 | 0 | 2 | 3 | 5 | 4 | 0 | 7 | 4 | 1 | 8 | 7 | 9 | 7 | 1 | 0 | 7 | 7 | 8 | 3 |

| 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 |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 32.0 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 |
| | 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 |

* TOTALS

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|------------|-----------|--------------|
| Olfactory Epithelium, Fibrosis | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 40 | 2.0 | | | |
| Olfactory Epithelium, Hyperplasia | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 40 | 1.8 | | | |
| Olfactory Epithelium, Metaplasia | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 49 | 2.2 | | |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | | | | | | 1 | | | | | | | | | | | | 3 | 1.7 |
| Respiratory Epithelium, Hyperplasia | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 50 | 3.5 |
| Respiratory Epithelium, Metaplasia, Squamous | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | | | | | 26 | 1.4 |
| Trachea Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 3.0 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--------------|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Harderian Gland Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|----------|-----|
| | 6 5 6 5 5 6 6 5 5 6 6 6 3 6 6 6 5 6 4 5 6 4 6 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| | 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0 PPM | 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 5 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 2 | 4 | 2.3 | |
| Hyperplasia, Oncocytic | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | |
| Mineralization | 2 | 2 | | | 4 | 3 | | | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 3 | 4 | 3 | | | 3 | 3 | 28 | 3.3 | | |
| Nephropathy | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 50 | 3.7 |
| Renal Tubule, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 2 | 6 | 2.5 | |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | |

*** END OF MALE DATA ***

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

| 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 | | 7 | 6 | 5 | 6 | 7 | 4 | 5 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 4 | 4 | 7 | 7 | 7 | 7 | |
| CONTROL | | 3 | 3 | 8 | 9 | 3 | 7 | 7 | 3 | 1 | 2 | 3 | 0 | 3 | 3 | 3 | 8 | 3 | 2 | 3 | 7 | 7 | 3 | 3 | 0 | |
| ANIMAL ID | | 5 | 1 | 1 | 3 | 5 | 0 | 3 | 5 | 6 | 1 | 5 | 7 | 5 | 5 | 5 | 1 | 5 | 7 | 5 | 8 | 7 | 6 | 6 | 7 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 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 | 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...)

Tongue

Tooth
Pulp, Necrosis

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | 1 | 1 | | | 1 | | | 1 | 1 | 2 | 1 | | 2 | 2 | 2 | 1 | 1 | | 1 | | | 2 | | 2 | |
| Atrium, Thrombosis | | | | 1 | | | | | | | | 3 | | | | | | | | | | | | | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | 1 | | | 2 | | | 2 | | 2 | 2 | 2 | | | 1 | 2 | 3 | | 2 | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | 2 | | 2 | | | | | | | | | | | | 3 | | | | | 2 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | 2 | 1 | 2 | | | | | | | | | | 3 | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + |
| 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Pituitary Gland
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | 2 | | | | | | | | | 2 | | | | | | | 3 | | | | | 2 | |
| Thyroid Gland
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | | 2 | 1 | 1 | 2 | | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland
Hyperplasia
Inflammation, Chronic Active | M | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow
Hyperplasia, Histiocytic | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 73

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|---|
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | + | + | M | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | M | M | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mediastinal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | M | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 | | | | | | | | | | | | | | | | | | 2 | | | 2 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Lipocyte | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Galactocele | | | | 2 | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

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

females (cont...)

Cyst Epithelial Inclusion

X

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperostosis | | | 1 | | 3 | | | | | | | 3 | | | | 2 | | | | | | 2 | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Epiglottis, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte Inflammation, Suppurative Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Perivascular, Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|---|--|--|---|---|---|---|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thrombosis | | | | 4 | | | | | | | | | | 1 | | | | | | 1 | | | | | 4 | |
| Olfactory Epithelium, Degeneration, Hyaline | | | | | | | 2 | 2 | 1 | 1 | | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | 1 | | | | | 1 | | 1 | | | 1 | | 1 | 1 | 1 | 1 | | 1 | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

Eye
Cataract
Retina, Atrophy

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte Nephropathy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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

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

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|--------|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Intestine Large, Cecum
Parasite Metazoan | + | | | | | | | | | | | | | | | | | | | | | | | | 49 | 5 |
| Intestine Large, Colon
Parasite Metazoan | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 2 |
| Intestine Large, Rectum
Parasite Metazoan | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | 4 |
| Intestine Small, Duodenum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Intestine Small, Ileum
Parasite Metazoan | + | | | | | | | | | | | | | | | | | | | | | | | | 49 | 1 |
| Intestine Small, Jejunum | + | | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3 2.3 |
| Basophilic Focus | X X | | | | | | | | | | | | | | | | | | | | | | | | X X X | 30 |
| Clear Cell Focus | X | | | | | | | | | | | | | | | | | | | | | | | | X | 5 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Degeneration, Fatty | | | | | | | | | | | | | | | | | | | | | | | | | 3 2 | 13 2.0 |
| Eosinophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | | | 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
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TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Hyperplasia | | | | 1 | | 3 | | | | | | | | | | | | | | | 1 | | | 4 | | 8 2.3 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| C-cell, Hyperplasia | 2 | | | | 2 | 1 | | 1 | | 1 | 1 | 1 | 2 | | 2 | 1 | 2 | 2 | | 1 | 3 | | 1 | 1 | 1 | 40 1.5 |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | | | | | | 2 | | | | | | | | | | | | | | | | | 2 2.5 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.3 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperplasia, Histiocytic | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 2 4.0 |

* .. 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
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TDMS No. 05201 - 05

Test Type: CHRONIC

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Species/Strain: RATS/F 344/N

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Furfuryl alcohol

CAS Number: 98-00-0

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First Dose M/F: 11/26/91 / 11/26/91

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 | 5 | 7 | 6 | 4 | 6 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 2 | 3 | 3 | 7 | 3 | 7 | 6 | 7 | 5 | 3 | 9 | 8 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 7 | 5 | 5 | 1 | 5 | 9 | 9 | 7 | 1 | 5 | 7 | 1 | 5 | 5 | 2 | 6 | 8 | 6 | 7 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
2.0 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 | 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 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Parasite Metazoan | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon
Parasite Metazoan | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | X | + | X | + | + | + | + |
| Intestine Large, Rectum
Parasite Metazoan | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | X | | X | X | | | X | X | X | X | X | | X | | X | | | X | X | X | | X |
| Clear Cell Focus | | | | | | | | | X | | X | | | | | | X | | | | | X | | |
| Degeneration, Fatty | | | | | | 2 | | | | | | | | | 2 | | 3 | | | 2 | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | X | X | | | X | | | | | | | X | X | |

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x .. Lesion present
l .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
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2) Mild 4) Marked

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| | 7 7 7 5 7 6 4 6 6 7 4 5 7 7 7 7 7 6 6 7 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
2.0 PPM ANIMAL ID | 2 3 3 7 3 7 6 7 5 3 9 8 3 3 3 3 0 3 3 9 3 3 3 3 3 | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
| | 7 5 5 1 5 9 9 7 1 5 7 1 5 5 2 6 8 6 7 3 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 |
| Mixed Cell Focus | X | | | | | X | | | | X | X | | X | | | | | X | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic, Focal | | | | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Centrilobular, Necrosis | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pharyngeal, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

| FISCHER 344 RATS FEMALE | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females (cont...) |
|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|
| 2.0 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 | | |
| | 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 | 5 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aorta, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Artery, Mineralization | 1 | 1 | 2 | 2 | | 2 | | | | 2 | 2 | | | | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | | |
| Atrium, Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Adrenal Cortex | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Adrenal Medulla | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Islets, Pancreatic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | + | + | + | A | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Parathyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| 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 | |
| 7 | 7 | 7 | 5 | 7 | 6 | 4 | 6 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| 2 | 3 | 3 | 7 | 3 | 7 | 6 | 7 | 5 | 3 | 9 | 8 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | | |
| 7 | 5 | 5 | 1 | 5 | 9 | 9 | 7 | 1 | 5 | 7 | 1 | 5 | 5 | 2 | 6 | 8 | 6 | 7 | 3 | 6 | 6 | 6 | 6 | 6 | | |
| 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 | | |
| 2.0 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 | | |
| | 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 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females (cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pituitary Gland
Pars Distalis, Hyperplasia | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | 3 | 2 | | | | | | | | | | 3 | 2 | | |
| Thyroid Gland
C-cell, Hyperplasia | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | 1 | 1 | | 2 | | 1 | | 1 | | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 1 |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland
Hyperplasia
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + |
| | | | | | | | | | | | 1 | 3 | | | | | | | | | | | 3 | |
| Ovary
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | 3 | | | | | | | 3 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | |

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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| DAY ON TEST | FISCHER 344 RATS FEMALE | | | | | | | | | | | | | | | | | | | | | | | | | females (cont...) |
|----------------------------------|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.0 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 | 7 | 7 | 5 | 7 | 6 | 4 | 6 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 3 | 3 | 7 | 3 | 7 | 6 | 7 | 5 | 3 | 9 | 8 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 7 | 5 | 5 | 1 | 5 | 9 | 9 | 7 | 1 | 5 | 7 | 1 | 5 | 5 | 2 | 6 | 8 | 6 | 7 | 3 | 6 | 6 | 6 | 6 | 6 | 6 |
| Bone Marrow | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Histiocytic | | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | M | M | + | + | M | M | + | + | + | M | + | M | M | + | + | M | + | + | M | M | + | + | M | + | + | |
| Lymph Node, Mandibular | M | + | + | + | + | + | + | + | + | M | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node, Mediastinal | M | + | + | M | M | M | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | M | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Spleen | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | M | + | + | + | + | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

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First Dose M/F: 11/26/91 / 11/26/91

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 | 5 | 7 | 6 | 4 | 6 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 2 | 3 | 3 | 7 | 3 | 7 | 6 | 7 | 5 | 3 | 9 | 8 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 7 | 5 | 5 | 1 | 5 | 9 | 9 | 7 | 1 | 5 | 7 | 1 | 5 | 5 | 2 | 6 | 8 | 6 | 7 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | |
| 2.0 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 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Atrophy | | | | 1 | | | | 2 | | | | | | | | | | | | | | | | | 1 |
| Olfactory Epithelium, Degeneration, Hyaline | 2 | 1 | 2 | 1 | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 |
| Olfactory Epithelium, Metaplasia | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| Respiratory Epithelium, Degeneration, Hyaline | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | 1 | 1 | 1 | 1 | |
| Respiratory Epithelium, Hyperplasia | 2 | 1 | | | | 2 | | 1 | 1 | | | | | | | | | | 1 | | 1 | 2 | | | |

Trachea +

SPECIAL SENSES SYSTEM

Zymbal's Gland

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Nephropathy | 2 | 2 | 1 | | 3 | 4 | 1 | | 1 | 3 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 3 |
| Urinary Bladder | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. 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 90

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|--------|
| | 0
7
3
6 | 0
6
0
3 | 0
7
3
6 | 0
7
3
6 | 0
7
9
0 | 0
7
3
6 | 0
7
1
6 | 0
7
4
6 | 0
5
2
8 | 0
6
7
6 | 0
4
3
6 | 0
7
2
6 | 0
7
3
6 | 0
7
3
6 | 0
5
0
6 | 0
6
2
8 | 0
7
3
6 | 0
7
3
6 | 0
6
3
6 | 0
7
5
1 | 0
7
3
5 | 0
7
3
6 | 0
7
2
7 | 0
7
0
9 | | |
| 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 | |
| 2.0 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 | |
| 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 | |
| Mixed Cell Focus | | X | | X | X | | | | | | | | | X | | X | | X | | X | | | | | | 13 |
| Necrosis | | | | | | | | | | | | | | | 3 | | | | | | | | | | | 1 3.0 |
| Regeneration | | | | | | | | | | 3 | | | | | | | | | | | | | | | | 1 3.0 |
| Vacuolization Cytoplasmic, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Bile Duct, Hyperplasia | | | | | | | | | | | 3 | 1 | | | | | | 1 | 2 | | | | 2 | 3 | 1 | 7 1.9 |
| Centrilobular, Necrosis | 1 | | | | | 1 | | | | 2 | | | | 1 | | | | | | | | | 1 | | | 6 1.2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| Fat, Necrosis | | | | | | + | | | | + | + | | | | + | + | + | | | | | | | | | 7 1.9 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pharyngeal, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 11 1.8 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 6 2.3 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | 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 | 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 | 6 | 7 | 7 | 5 | 6 | 4 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 0 | |
| 3 | 0 | 3 | 3 | 3 | 9 | 3 | 1 | 4 | 7 | 2 | 3 | 3 | 3 | 0 | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 2 | 0 | 3 | |
| 6 | 3 | 6 | 6 | 6 | 0 | 6 | 6 | 7 | 6 | 8 | 6 | 6 | 6 | 6 | 8 | 6 | 6 | 6 | 1 | 6 | 5 | 1 | 7 | 6 | |
| FISCHER 344 RATS FEMALE | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.0 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 | |
| 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|----|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 48 | |
| Hyperplasia, Histiocytic | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | 5 | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Lymph Node, Bronchial | + | + | M | M | M | M | + | + | + | + | M | + | + | + | + | + | M | M | M | + | M | + | + | + | 30 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Lymph Node, Mediastinal | + | M | + | M | + | + | + | + | + | + | M | M | + | + | + | + | M | + | + | + | + | M | + | + | 37 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | 3 2.7 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | 4 3.8 | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Thymus | + | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | 44 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 49 |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |

* .. 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 6 | 4 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | |
| | 3 | 0 | 3 | 3 | 3 | 9 | 3 | 1 | 4 | 7 | 2 | 3 | 3 | 3 | 0 | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 2 | 0 | 3 |
| | 6 | 3 | 6 | 6 | 6 | 0 | 6 | 6 | 7 | 6 | 8 | 6 | 6 | 6 | 6 | 8 | 6 | 6 | 6 | 1 | 6 | 5 | 1 | 7 | 6 |
| 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 |
| 2.0 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 |
| 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 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Olfactory Epithelium, Atrophy | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | 6 | 1.3 |
| Olfactory Epithelium, Degeneration, Hyaline | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 50 | 1.6 |
| Olfactory Epithelium, Metaplasia | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.2 |
| Respiratory Epithelium, Degeneration, Hyaline | 1 | 1 | | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 1 | | | | 1 | 1 | 2 | 2 | | 1 | | 1 | 1 | 1 | | 39 | 1.2 |
| Respiratory Epithelium, Hyperplasia | 1 | | | 1 | | | | 2 | 1 | 2 | | 2 | 2 | 2 | | | | | 1 | 1 | | | | | | 18 | 1.4 |

Trachea + 50

SPECIAL SENSES SYSTEM

Zymbal's Gland + 1

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hydronephrosis | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 1.0 |
| Infarct | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Nephropathy | 1 | 1 | 2 | 2 | | 2 | 1 | 2 | 1 | 3 | | 2 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 45 | 1.9 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked
 Page 97

| 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 | 6 | 5 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 5 | 5 | 6 | 5 | 7 |
| | 3 | 3 | 3 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 0 | 3 | 1 | 1 | 5 | 3 | 4 | 4 | 7 | 2 | 3 |
| | 5 | 9 | 5 | 5 | 5 | 9 | 3 | 5 | 7 | 3 | 5 | 5 | 8 | 2 | 0 | 5 | 5 | 8 | 8 | 6 | 7 | 7 | 0 | 2 | 6 |
| 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 |
| 8.0 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 |
| ANIMAL ID | 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 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females (cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Parasite Metazoan | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | X |
| Intestine Large, Colon
Parasite Metazoan | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum
Parasite Metazoan | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | X | X | X | X | | X | X | | X | X | | X | X | | X | X | | X | X | | X | X | X | |
| Clear Cell Focus | | | X | | X | | | | | | | | | | | X | | | | | | | | | |
| Degeneration, Cystic | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Fatty | | | | | | | | | 1 | 3 | | | 3 | | 2 | | | 2 | 3 | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | X | | | | | | X | | | | X | | | | |

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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

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First Dose M/F: 11/26/91 / 11/26/91

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 | 6 | 5 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 5 | 5 | 6 | 5 | 7 | 7 |
| | 3 | 3 | 3 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 0 | 3 | 1 | 1 | 5 | 3 | 4 | 4 | 7 | 2 | 3 | 3 |
| | 5 | 9 | 5 | 5 | 5 | 9 | 3 | 5 | 7 | 3 | 5 | 5 | 8 | 2 | 0 | 5 | 5 | 8 | 8 | 6 | 7 | 7 | 0 | 2 | 6 | 6 |
| 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 |
| 8.0 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 |
| ANIMAL ID | 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 | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | 2 | 2 | | | | | 2 | | 2 | | | | |
| Centrilobular, Necrosis | | | | | | 1 | | | 1 | | | | | 1 | | | | | 1 | 2 | | 1 | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pharyngeal, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

| 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 | 6 | 5 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 5 | 5 | 6 | 5 | 7 |
| | 3 | 3 | 3 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 0 | 3 | 1 | 1 | 5 | 3 | 4 | 4 | 7 | 2 | 3 |
| | 5 | 9 | 5 | 5 | 5 | 9 | 3 | 5 | 7 | 3 | 5 | 5 | 8 | 2 | 0 | 5 | 5 | 8 | 8 | 6 | 7 | 7 | 0 | 2 | 6 |
| 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 |
| 8.0 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 |
| ANIMAL ID | 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 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females (cont...)

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 2 | | 1 | | 1 | | | 1 | 1 | | 2 | | | | | | | | 1 | | | 1 | | 1 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 2 | 1 | 1 | 2 | | 1 | | | 2 | | 2 | | | | 2 | | | 2 | 2 | 2 | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | |
| Vacuolization Cytoplasmic | | | | 2 | | | | | | 2 | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | |
| Hyperplasia | | | | | | 2 | | | | | | | | 2 | | | | | | | 1 | | | | |
| Islets, Pancreatic | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Parathyroid Gland | + | + | + | + | + | + | M | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | M | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Angiectasis | | | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 3 | | | | | | | 4 | 2 | | 2 | | | | 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
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 05201 - 05

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Species/Strain: RATS/F 344/N

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Furfuryl alcohol

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First Dose M/F: 11/26/91 / 11/26/91

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 | 6 | 5 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 5 | 5 | 6 | 5 | 7 |
| | 3 | 3 | 3 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 0 | 3 | 1 | 1 | 5 | 3 | 4 | 4 | 7 | 2 | 3 |
| | 5 | 9 | 5 | 5 | 5 | 9 | 3 | 5 | 7 | 3 | 5 | 5 | 8 | 2 | 0 | 5 | 5 | 8 | 8 | 6 | 7 | 7 | 0 | 2 | 6 |
| 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 |
| 8.0 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 |
| ANIMAL ID | 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 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females (cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Renal, Pigmentation | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | + | + | + | + | + | + | + | M | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | M |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
| Lymph Node, Mediastinal Hemorrhage | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mesenteric Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Spleen | | | | | | | | | | X | | | | | | | X | | | | | | | |
| Fibrosis | | | | | | 2 | | | | | | | | | | | | | 1 | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Galactocele | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | I | + |

* .. 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 6 | 7 | 7 | 7 | 6 | 5 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 5 | 5 | 6 | 5 | 7 |
| | 3 | 3 | 3 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 0 | 3 | 1 | 1 | 5 | 3 | 4 | 4 | 7 | 2 | 3 |
| | 5 | 9 | 5 | 5 | 5 | 9 | 3 | 5 | 7 | 3 | 5 | 5 | 8 | 2 | 0 | 5 | 5 | 8 | 8 | 6 | 7 | 7 | 0 | 2 | 6 |
| 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 |
| 8.0 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 |
| ANIMAL ID | 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 | 1 | 1 | 1 | 1 |

females (cont...)

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperostosis | | | | | | | | | | 2 | | | | 3 | | | | 2 | 4 | | | 2 | | 2 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Granulomatous | | | | | | | | | | | | | | 2 | | | | | | | | | 2 | | |
| Alveolar Epithelium, Hyperplasia | 1 | | 1 | | | | | | | | | | 1 | 1 | | 4 | | | | | | 1 | 1 | | |
| Nose | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | 2 | | | | 1 | | | | | | 2 | 3 | | 2 | | |
| Glands, Hyperplasia | | 1 | 1 | | 1 | 1 | | 1 | 1 | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | |
| Lateral Wall, Hyperplasia | 2 | 2 | 2 | 2 | 2 | 3 | | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Olfactory Epithelium, Atrophy | | 2 | 2 | 2 | 2 | 2 | | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 |
| Olfactory Epithelium, Degeneration, Hyaline | 3 | 3 | 3 | 3 | 3 | 3 | | 2 | 2 | 2 | | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| Olfactory Epithelium, Fibrosis | | 2 | 2 | 1 | 1 | | | | | | 2 | | | | | | | | | 1 | 1 | | 2 | | |

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

| 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 | 6 | 5 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 5 | 5 | 6 | 5 | 7 |
| | | 3 | 3 | 3 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 0 | 3 | 1 | 1 | 5 | 3 | 4 | 4 | 7 | 2 | 3 |
| | | 5 | 9 | 5 | 5 | 5 | 9 | 3 | 5 | 7 | 3 | 5 | 5 | 8 | 2 | 0 | 5 | 5 | 8 | 8 | 6 | 7 | 7 | 0 | 2 | 6 |
| FISCHER 344 RATS FEMALE
8.0 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 |
| | | 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 | 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 |

females (cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Hyperplasia | 2 | 2 | 1 | 1 | 1 | | | 1 | | | 2 | 1 | | | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | | | |
| Olfactory Epithelium, Metaplasia | 2 | 2 | 2 | 1 | | | | 2 | 1 | | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | | 1 | 2 | 2 | 2 | |
| Respiratory Epithelium, Degeneration, Hyaline | 3 | 2 | 2 | 1 | 2 | 2 | | 2 | 2 | 2 | 2 | | | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | | 1 | 1 |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | 2 | 3 | 3 | | | 2 | 2 | 3 | 2 | 1 | 2 | 2 | | 2 | 1 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | | |
| Trachea | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | | | 1 | 1 | 2 |
| 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
 Page 104

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 1 | 7 | 7 | 7 | 5 | | |
| | 9 | 0 | 9 | 3 | 4 | 3 | 3 | 9 | 3 | 3 | 8 | 3 | 3 | 7 | 7 | 2 | 1 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 9 | | |
| | 4 | 6 | 3 | 6 | 6 | 6 | 6 | 4 | 2 | 6 | 9 | 6 | 6 | 9 | 9 | 9 | 6 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 5 | | |
| FISCHER 344 RATS FEMALE
8.0 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 | | |
| | 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 | * TOTALS | |
| Inflammation, Granulomatous
Mixed Cell Focus | | | | | X | | | | | | X | X | X | | X | X | X | | | | | | | | | 1 | 2.0 |
| Bile Duct, Hyperplasia | 1 | | 2 | | | | | | | | | | | | | | | | | | | | | | | 6 | 1.8 |
| Centrilobular, Necrosis | 1 | | | | | | | | | | | | | 2 | | | | | | | | | | | | 8 | 1.3 |
| Mesentery
Fat, Necrosis | | | + | | | | | | | + | | + | | | + | | | | | + | | | | | | 11 | 2.0 |
| Oral Mucosa
Pharyngeal, Hyperplasia, Squamous | | | | | + | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Pancreas
Atrophy
Basophilic Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 48 | 1.6 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 49 | |
| Stomach, Forestomach
Hyperplasia, Squamous
Inflammation, Acute
Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 49 | 2.0 |
| Stomach, Glandular
Mineralization
Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 49 | 1.0 |
| Tongue | | | | | | | | | | | | | | | + | | | | | | | | | | | 1 | |

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

| DAY ON TEST | 0 | 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 | 7 | 4 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 |
| | 3 | 1 | 3 | 3 | 7 | 0 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 8 | 3 | 3 | 1 | 2 | 6 | 4 | 3 | 3 | 3 | 3 |
| | 5 | 5 | 3 | 5 | 0 | 7 | 5 | 8 | 5 | 5 | 8 | 2 | 2 | 8 | 6 | 5 | 5 | 1 | 5 | 5 | 2 | 5 | 6 | 6 | 6 |
| 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 |
| 32.0 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 |
| 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 | 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...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | | | | | | | X | | | | | | | | | X | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | X | | | | | | | | | | | | | | | | | | | | X | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | X | X | | | | | | | | | | | | | | | | | | | | X | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | 2 | | 1 | 2 | | 1 | | | | | | | 1 | | | | | | | | | | |
| Basophilic Focus | X | | | X | X | X | | X | X | | X | X | | X | | | X | X | | X | X | X | X | X | |
| Clear Cell Focus | | | | | | | | | | X | | | | X | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Fatty | | 3 | 2 | | 2 | | 1 | | | | 3 | | 3 | | | 4 | | 3 | | | | | | 2 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | X | X | | | X | | | | | | | | | | | | | | | | | | |

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

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|--|--|--|--|--|---|--|--|--|--|--|--|---|---|---|--|--|--|--|---|---|---|---|---|
| | 7 7 7 7 6 7 7 4 7 7 5 7 7 5 6 7 7 7 5 6 6 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
ANIMAL ID | 3 1 3 3 7 0 3 3 3 3 1 1 1 1 8 3 3 1 2 6 4 3 3 3 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 3 5 0 7 5 8 5 5 8 2 2 8 6 5 5 1 5 5 2 5 6 6 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0 PPM | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0 PPM | 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 |
| Mixed Cell Focus | X | | | | | | X | | | | | | | X | | | | | | | X | X | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | 2 | 2 | | | | | | | 1 | | |
| Centrilobular, Necrosis | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | + | + | | | | | | | + | + | |
| | | | | | | | | | | | | | | | 2 | 2 | | | | | | | 2 | 2 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Hepatocyte | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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
2) Mild 4) Marked

| 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 | 6 | 7 | 7 | 4 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 0 |
| 3 | 1 | 3 | 3 | 7 | 0 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 8 | 3 | 3 | 1 | 2 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | 0 |
| 5 | 5 | 3 | 5 | 0 | 7 | 5 | 8 | 5 | 5 | 8 | 2 | 2 | 8 | 6 | 5 | 5 | 1 | 5 | 5 | 2 | 5 | 6 | 6 | 6 | 6 | 0 |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
32.0 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 |
| | 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 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 0 |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 2 | 2 | 1 | | 1 | 1 | 1 | | 4 | 4 | | 2 | 1 | 1 | | 2 | | 1 | 1 | | 1 | 2 | 1 | 1 | 1 | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

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

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node
Renal, Ectasia | | | | | + | + | | | | | | | | + | + | | | | | | | | | | + | |
| Renal, Hemorrhage | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | 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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | 7 | 6 | 7 | 7 | 4 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 |
| | | 3 | 1 | 3 | 3 | 7 | 0 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 8 | 3 | 3 | 1 | 2 | 6 | 4 | 3 | 3 | 3 | 3 |
| | | 5 | 5 | 3 | 5 | 0 | 7 | 5 | 8 | 5 | 5 | 8 | 2 | 2 | 8 | 6 | 5 | 5 | 1 | 5 | 5 | 2 | 5 | 6 | 6 | 6 |
| FISCHER 344 RATS FEMALE | 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 |
| | | 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 |
| | 32.0 PPM | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mandibular | + | + | M | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + |
| Lymph Node, Mediastinal Hemorrhage | + | + | M | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | M |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | 2 | | 2 | | | | | | | 2 | | | | | | | | | | | 2 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 3 | 3 | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | M |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Galactocele | | | | | | 2 | 2 | | | | | | 2 | | 2 | | | | | | | | | | | |
| Hyperplasia, Atypical | | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Necrosis | | | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tail, Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Tail, Inflammation, Chronic Active | | | | | | | | | | | | | 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 | |
|--------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 |
| | | 3 | 1 | 3 | 3 | 7 | 0 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 8 | 3 | 3 | 1 | 2 | 6 | 4 | 3 | 3 | 3 | 3 |
| | | 5 | 5 | 3 | 5 | 0 | 7 | 5 | 8 | 5 | 5 | 8 | 2 | 2 | 8 | 6 | 5 | 5 | 1 | 5 | 5 | 2 | 5 | 6 | 6 | 6 |
| 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 |
| 32.0 PPM | | 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 | 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 |

females (cont...)

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperostosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar Epithelium, Hyperplasia | 1 | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinum, Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative | 1 | | 1 | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Glands, Hyperplasia | 1 | 3 | 3 | | 1 | 3 | 3 | 3 | 2 | 3 | | 1 | 1 | | 1 | 2 | 4 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | |

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

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

| FISCHER 344 RATS FEMALE
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 | |
| 32.0 PPM | 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 | 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...)

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lateral Wall, Hyperplasia | 2 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |
| Lateral Wall, Metaplasia, Squamous | | | | 1 | 1 | | | 1 | 1 | | 1 | 1 | | | | | | | | 1 | | | | |
| Olfactory Epithelium, Atrophy | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |
| Olfactory Epithelium, Degeneration, Hyaline | 3 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| Olfactory Epithelium, Fibrosis | 1 | | 2 | | | 2 | | | | | 2 | | | | 2 | 2 | | | 2 | 2 | 2 | | 1 | 1 |
| Olfactory Epithelium, Hyperplasia | 1 | 1 | 2 | | 1 | 1 | 1 | | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| Olfactory Epithelium, Metaplasia | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |
| Respiratory Epithelium, Degeneration, Hyaline | | | | | | | | 2 | | | | | | 2 | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia | 2 | 3 | 4 | 3 | 3 | 4 | 2 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Respiratory Epithelium, Metaplasia, Squamous | | 1 | 1 | | | | | | | | | | | | | | 2 | | 1 | | | | | 1 |

Trachea +

SPECIAL SENSES SYSTEM

Eye +

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 3 | 4 | 4 | 2 | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 3 | 3 |
| Renal Tubule, Hyperplasia | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

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

TDMS No. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | 7 | 7 | 7 | 6 | 7 | 7 | 4 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | | |
| | 3 | 1 | 3 | 3 | 7 | 0 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 8 | 3 | 3 | 1 | 2 | 6 | 4 | 3 | 3 | 3 | 3 | | |
| | 5 | 5 | 3 | 5 | 0 | 7 | 5 | 8 | 5 | 5 | 8 | 2 | 2 | 8 | 6 | 5 | 5 | 1 | 5 | 5 | 2 | 5 | 6 | 6 | 6 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | |
| 32.0 PPM | 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 | | |
| | 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...) | | | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | |

* .. 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

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Route: RESPIRATORY EXPOSURE WHOLE BODY

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First Dose M/F: 11/26/91 / 11/26/91

Lab: BNW

| | 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 | 0 | | |
| FISCHER 344 RATS FEMALE | 5 | 5 | 4 | 5 | 7 | 6 | 4 | 7 | 3 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 4 | 6 | 5 | 7 | 6 | 5 | 7 | 7 | 6 | |
| 32.0 PPM | 9 | 9 | 9 | 8 | 3 | 1 | 2 | 3 | 0 | 9 | 8 | 3 | 2 | 3 | 3 | 3 | 7 | 7 | 6 | 2 | 3 | 2 | 0 | 3 | 5 | |
| ANIMAL ID | 7 | 9 | 7 | 1 | 6 | 6 | 9 | 6 | 2 | 3 | 9 | 9 | 1 | 8 | 6 | 6 | 8 | 1 | 0 | 1 | 2 | 6 | 6 | 6 | 8 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 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 | |
| Mixed Cell Focus | | | | | | | X | | | | | | | | | | X | | | X | | | | | 8 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 2 2.0 |
| Regeneration | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Bile Duct, Hyperplasia | | | | 2 | | | | | | 2 | | 1 | | | | | | | | | | | 2 | | | 7 1.7 |
| Centrilobular, Necrosis | | | 1 | 1 | | | | | | 1 | 1 | 1 | | | | | | | | 1 | | | 1 | | | 9 1.0 |
| Mesentery | | | | | + | | + | | | | | | | | | | | | | | + | | | | 7 | |
| Fat, Necrosis | | | | | 2 | | | | | | | | | | | | | | | | | 3 | | | | 6 2.2 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Atrophy | | | | | | | | | 2 | | | | | 1 | 1 | | 2 | | | | | 2 | | 1 | | 11 1.5 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Metaplasia, Hepatocyte | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 2.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 3 | | | | 1 3.0 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Necrosis | | | | | | | | | | | | | 3 | 4 | | | | | 3 | | | | | | | 12 3.2 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 3 | | 7 2.1 |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

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

| DAY ON TEST | 0 | 0 | 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 | 4 | 5 | 7 | 6 | 4 | 7 | 3 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 4 | 6 | 5 | 7 | 6 | 5 | 7 | 7 | 6 | |
| | 9 | 9 | 9 | 8 | 3 | 1 | 2 | 3 | 0 | 9 | 8 | 3 | 2 | 3 | 3 | 3 | 7 | 7 | 6 | 2 | 3 | 2 | 0 | 3 | 5 | |
| | 7 | 9 | 7 | 1 | 6 | 6 | 9 | 6 | 2 | 3 | 9 | 9 | 1 | 8 | 6 | 6 | 8 | 1 | 0 | 1 | 2 | 6 | 6 | 6 | 8 | |
| 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 | |
| 32.0 PPM | 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 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |

Degeneration

4

1 4.0

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | 1 | | 1 | | | | | | 1 | | | 1 | 2 | | | | 1 | | | 1 | 1 | | | 19 1.2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | 2 | | 2 | | 2 | | | | | 2 | 2 | | 2 | | | | | 2 | | 1 | | | | 2 | 2 | 23 1.8 |
| Hypertrophy | | | | | 2 | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | 2 | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | 2 | | 3 | 3 | | | | | | | | | | | 2 | | 8 2.4 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | 3 | | 2 | | | 2 | | | | 3 | | | | | | 3 | | | | | | 1 | | 14 2.2 |

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Parathyroid Gland | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | 46 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Hyperplasia | | 2 | | 3 | | | | | | | | | | | | | | | | | | | | 2 | | 9 2.4 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. 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. 05201 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furfuryl alcohol

CAS Number: 98-00-0

Date Report Requested: 01/12/2009

Time Report Requested: 09:25:45

First Dose M/F: 11/26/91 / 11/26/91

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 | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|-----------------|
| | 5 | 5 | 4 | 5 | 7 | 6 | 4 | 7 | 3 | 6 | 6 | 6 | 6 | 7 | 7 | 4 | 6 | 5 | 7 | 6 | 5 | 7 | 7 | 6 | | |
| | 9 | 9 | 9 | 8 | 3 | 1 | 2 | 3 | 0 | 9 | 8 | 3 | 2 | 3 | 3 | 3 | 7 | 7 | 6 | 2 | 3 | 2 | 0 | 3 | 5 | |
| | 7 | 9 | 7 | 1 | 6 | 6 | 9 | 6 | 2 | 3 | 9 | 9 | 1 | 8 | 6 | 6 | 8 | 1 | 0 | 1 | 2 | 6 | 6 | 6 | 8 | |
| 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 | |
| 32.0 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 | |
| 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 | 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 | * TOTALS |
| C-cell, Hyperplasia | 1 | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | 1 | 1 | 1 | 39 1.3 | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Clitoral Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | 45 | 1 3.0 |
| Ovary
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 7 2.0 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node
Renal, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | 1 2.0 |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node, Bronchial | M | + | + | + | M | + | M | + | + | M | M | + | + | M | M | + | + | M | + | M | M | + | M | M | + | 25 | |

* .. 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 | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-------------|--|
| | 5 5 4 5 7 6 4 7 3 6 6 6 6 7 7 4 6 5 7 6 5 7 7 6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
32.0 PPM
ANIMAL ID | 9 9 9 8 3 1 2 3 0 9 8 3 2 3 3 3 7 7 6 2 3 2 0 3 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 9 7 1 6 6 9 6 2 3 9 9 1 8 6 6 8 1 0 1 2 6 6 6 8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | 42 | |
| Lymph Node, Mediastinal Hemorrhage | + | + | + | + | + | + | M | + | M | + | + | + | + | + | M | + | M | + | + | + | M | + | + | + | + | 40
1 3.0 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | | X | | | 1 | | |
| Fibrosis | | | | | | | | | | | | | | 3 | | | | | | | | | | | 5 2.2 | | |
| Hematopoietic Cell Proliferation | | | 3 | | | | 4 | | | | | | | | | | | | | | 3 | | | | 5 3.2 | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 1.0 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | M 43 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Galactocele | | | | | | | | | | | | | | | 2 | | | | | | | | | | | 5 2.0 | |
| Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 1 3.0 | |
| Subcutaneous Tissue, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Tail, Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Tail, Inflammation, Chronic Active | | | | | | | 3 | | | | | | | | | | | | | 2 | 1 | | | 3 | | 5 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

