

TDMS No. 20302 - 03

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES[b]**

**Date Report Requested:** 11/17/2006

**Test Type:** 90-DAY

ALPHA-PINENE

**Time Report Requested:** 07:28:13

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**CAS Number:** 80-56-8

**First Dose M/F:** 03/28/05 / 03/29/05

**Species/Strain:** RATS/F 344

**Pathologist:** GRUMBEIN, S. - LIEUALLEN, W. - RENNE, R. (past)

**Lab:** BNW

F1\_R2

**C Number:** C20302  
**Lock Date:** 12/07/2005  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL

a - Number of animals examined microscopically at site and number of animals with lesion  
b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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FISCHER 344 RATS MALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
<b>Disposition Summary</b>						
Animals Initially in Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Clear Cell Focus						1
Hepatodiaphragmatic Nodule		1				1
Mesentery	(0)	(1)	(0)	(0)	(0)	(0)
Fat, Necrosis		1 [2.0]				
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
Mineralization						1 [1.0]
<b>CARDIOVASCULAR SYSTEM</b>						
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	6 [1.0]					8 [1.0]
<b>ENDOCRINE SYSTEM</b>						
None						
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Granuloma Sperm						1 [2.0]

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<b>HEMATOPOIETIC SYSTEM</b>						
Lymph Node, Mediastinal Infiltration Cellular, Mast Cell	(7)	(0)	(0)	(0)	(0)	(4) 1 [3.0]
Lymph Node, Mesenteric Infiltration Cellular, Mast Cell	(10)	(0)	(0)	(0)	(0)	(10) 1 [2.0]
<b>INTEGUMENTARY SYSTEM</b>						
None						
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
Brain Cerebellum, Mineralization	(10) 1 [2.0]	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung Hemorrhage	(10)	(0)	(0)	(0)	(0)	(10) 1 [3.0]
Inflammation, Chronic Active	2 [1.0]					5 [1.4]
Pleura Inflammation, Granulomatous	(0)	(0)	(0)	(0)	(0)	(1) 1 [3.0]
<b>SPECIAL SENSES SYSTEM</b>						
Harderian Gland Inflammation, Chronic	(10)	(0)	(0)	(0)	(0)	(10) 1 [3.0]
<b>URINARY SYSTEM</b>						

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FISCHER 344 RATS MALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Accumulation, Hyaline Droplet	1 [2.0]	10 [1.1]	10 [1.8]	10 [2.0]	10 [2.7]	10 [3.0]
Casts Granular		9 [1.0]	10 [1.2]	10 [1.5]	10 [2.5]	10 [3.0]
Nephropathy	9 [1.1]	10 [1.6]	10 [2.0]	10 [2.0]	10 [2.5]	10 [3.0]

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

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FISCHER 344 RATS FEMALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
<b>Disposition Summary</b>						
Animals Initially in Study	10	10	10	10	10	10
Early Deaths						
Natural Death						6
Survivors						
Terminal Sacrifice	10	10	10	10	10	4
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Mesentery	(1)	(1)	(3)	(0)	(0)	(0)
Fat, Necrosis	1 [2.0]	1 [2.0]	3 [2.0]			
Tongue	(0)	(1)	(0)	(0)	(0)	(0)
Cyst		1 [3.0]				
<b>CARDIOVASCULAR SYSTEM</b>						
Heart	(10)	(0)	(0)	(0)	(10)	(10)
Cardiomyopathy	3 [1.0]				2 [1.0]	1 [1.0]
<b>ENDOCRINE SYSTEM</b>						
None						
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Vagina	(0)	(1)	(0)	(0)	(0)	(0)
Cyst		1 [3.0]				
<b>HEMATOPOIETIC SYSTEM</b>						

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Lymph Node, Bronchial Hemorrhage	(1) 1 [2.0]	(0)	(0)	(0)	(0)	(0)
<b>INTEGUMENTARY SYSTEM</b>						
None						
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
Lung Inflammation, Chronic Active Alveolar Epithelium, Hyperplasia	(10) 4 [1.0]	(0)	(0)	(0)	(10) 2 [1.0] 1 [2.0]	(9) 5 [1.0]
<b>SPECIAL SENSES SYSTEM</b>						
Eye Cataract Retina, Atrophy	(10)	(0)	(0)	(0)	(9) 1 [2.0] 1 [3.0]	(10)
<b>URINARY SYSTEM</b>						
Kidney Nephropathy	(10) 1 [1.0]	(10)	(10)	(10)	(10) 1 [1.0]	(10)

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

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