

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
Disposition Summary						
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
ALIMENTARY SYSTEM						
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]
CARDIOVASCULAR SYSTEM						
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	6 [1.0]					8 [1.0]
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Granuloma Sperm						1 [2.0]

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HEMATOPOIETIC SYSTEM						
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]
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
Brain Cerebellum, Mineralization	(10) 1 [2.0]	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
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]
SPECIAL SENSES SYSTEM						
Harderian Gland Inflammation, Chronic	(10)	(0)	(0)	(0)	(0)	(10) 1 [3.0]
URINARY SYSTEM						

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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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Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
Disposition Summary						
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
ALIMENTARY SYSTEM						
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]				
CARDIOVASCULAR SYSTEM						
Heart	(10)	(0)	(0)	(0)	(10)	(10)
Cardiomyopathy	3 [1.0]				2 [1.0]	1 [1.0]
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Vagina	(0)	(1)	(0)	(0)	(0)	(0)
Cyst		1 [3.0]				
HEMATOPOIETIC SYSTEM						

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Lymph Node, Bronchial Hemorrhage	(1) 1 [2.0]	(0)	(0)	(0)	(0)	(0)
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
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]
SPECIAL SENSES SYSTEM						
Eye Cataract Retina, Atrophy	(10)	(0)	(0)	(0)	(9) 1 [2.0] 1 [3.0]	(10)
URINARY SYSTEM						
Kidney Nephropathy	(10) 1 [1.0]	(10)	(10)	(10)	(10) 1 [1.0]	(10)

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