

TDMS No. 20302 - 03

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

ALPHA-PINENE

CAS Number: 80-56-8

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

F1_R2

Date Report Requested: 11/17/2006

Time Report Requested: 07:28:13

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

Lab: BNW

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

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Lab: BNW

FISCHER 344 RATS MALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm
Disposition Summary					
Animals Initially in Study	10	10	10	10	10
Early Deaths					
Survivors					
Terminal Sacrifice	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10
ALIMENTARY SYSTEM					
Liver	(10)	(10)	(10)	(10)	(10)
Clear Cell Focus					
Hepatodiaphragmatic Nodule		1 (10%)			
Mesentery	(0)	(1)	(0)	(0)	(0)
Fat, Necrosis		1 (100%)			
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)
Mineralization					
CARDIOVASCULAR SYSTEM					
Heart	(10)	(0)	(0)	(0)	(0)
Cardiomyopathy	6 (60%)				
ENDOCRINE SYSTEM					
None					
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Epididymis	(10)	(0)	(0)	(0)	(0)
Granuloma Sperm					

a - Number of animals examined microscopically at site and number of animals with lesion

FISCHER 344 RATS MALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm
HEMATOPOIETIC SYSTEM					
Lymph Node, Mediastinal Infiltration Cellular, Mast Cell	(7)	(0)	(0)	(0)	(0)
Lymph Node, Mesenteric Infiltration Cellular, Mast Cell	(10)	(0)	(0)	(0)	(0)
INTEGUMENTARY SYSTEM					
None					
MUSCULOSKELETAL SYSTEM					
None					
NERVOUS SYSTEM					
Brain Cerebellum, Mineralization	(10) 1 (10%)	(0)	(0)	(0)	(0)
RESPIRATORY SYSTEM					
Lung Hemorrhage Inflammation, Chronic Active	(10) 2 (20%)	(0)	(0)	(0)	(0)
Pleura Inflammation, Granulomatous	(0)	(0)	(0)	(0)	(0)
SPECIAL SENSES SYSTEM					
Harderian Gland Inflammation, Chronic	(10)	(0)	(0)	(0)	(0)
URINARY SYSTEM					
Kidney Accumulation, Hyaline Droplet Casts Granular	(10) 1 (10%)	(10) 10 (100%) 9 (90%)	(10) 10 (100%) 10 (100%)	(10) 10 (100%) 10 (100%)	(10) 10 (100%) 10 (100%)

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FISCHER 344 RATS MALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm
Nephropathy	9 (90%)	10 (100%)	10 (100%)	10 (100%)	10 (100%)

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

Lab: BNW

FISCHER 344 RATS MALE

400 ppm

Disposition Summary

Animals Initially in Study	10
Early Deaths	
Survivors	
Terminal Sacrifice	10
Animals Examined Microscopically	10

ALIMENTARY SYSTEM

Liver	(10)
Clear Cell Focus	1 (10%)
Hepatodiaphragmatic Nodule	1 (10%)
Mesentery	(0)
Fat, Necrosis	
Stomach, Glandular	(10)
Mineralization	1 (10%)

CARDIOVASCULAR SYSTEM

Heart	(10)
Cardiomyopathy	8 (80%)

ENDOCRINE SYSTEM

None

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Epididymis	(10)
Granuloma Sperm	1 (10%)

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FISCHER 344 RATS MALE

400 ppm

HEMATOPOIETIC SYSTEM

Lymph Node, Mediastinal	(4)
Infiltration Cellular, Mast Cell	1 (25%)
Lymph Node, Mesenteric	(10)
Infiltration Cellular, Mast Cell	1 (10%)

INTEGUMENTARY SYSTEM

None

MUSCULOSKELETAL SYSTEM

None

NERVOUS SYSTEM

Brain	(10)
Cerebellum, Mineralization	

RESPIRATORY SYSTEM

Lung	(10)
Hemorrhage	1 (10%)
Inflammation, Chronic Active	5 (50%)
Pleura	(1)
Inflammation, Granulomatous	1 (100%)

SPECIAL SENSES SYSTEM

Harderian Gland	(10)
Inflammation, Chronic	1 (10%)

URINARY SYSTEM

Kidney	(10)
Accumulation, Hyaline Droplet	10 (100%)
Casts Granular	10 (100%)

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Lab: BNW

FISCHER 344 RATS MALE

400 ppm

Nephropathy

10 (100%)

*** END OF MALE ***

FISCHER 344 RATS FEMALE	CONTROL	25 ppm	50 ppm	100 ppm	200 ppm
Disposition Summary					
Animals Initially in Study	10	10	10	10	10
Early Deaths					
Natural Death					
Survivors					
Terminal Sacrifice	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10
ALIMENTARY SYSTEM					
Mesentery	(1)	(1)	(3)	(0)	(0)
Fat, Necrosis	1 (100%)	1 (100%)	3 (100%)		
Tongue	(0)	(1)	(0)	(0)	(0)
Cyst		1 (100%)			
CARDIOVASCULAR SYSTEM					
Heart	(10)	(0)	(0)	(0)	(10)
Cardiomyopathy	3 (30%)				2 (20%)
ENDOCRINE SYSTEM					
None					
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Vagina	(0)	(1)	(0)	(0)	(0)
Cyst		1 (100%)			
HEMATOPOIETIC SYSTEM					
Lymph Node, Bronchial	(1)	(0)	(0)	(0)	(0)

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Lab: BNW

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Hemorrhage	1 (100%)				
INTEGUMENTARY SYSTEM					
None					
MUSCULOSKELETAL SYSTEM					
None					
NERVOUS SYSTEM					
None					
RESPIRATORY SYSTEM					
Lung	(10)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	4 (40%)				2 (20%)
Alveolar Epithelium, Hyperplasia					1 (10%)
SPECIAL SENSES SYSTEM					
Eye	(10)	(0)	(0)	(0)	(9)
Cataract					1 (11%)
Retina, Atrophy					1 (11%)
URINARY SYSTEM					
Kidney	(10)	(10)	(10)	(10)	(10)
Nephropathy	1 (10%)				1 (10%)

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FISCHER 344 RATS FEMALE

400 ppm

Disposition Summary

Animals Initially in Study	10
Early Deaths	
Natural Death	6
Survivors	
Terminal Sacrifice	4
Animals Examined Microscopically	10

ALIMENTARY SYSTEM

Mesentery	(0)
Fat, Necrosis	
Tongue	(0)
Cyst	

CARDIOVASCULAR SYSTEM

Heart	(10)
Cardiomyopathy	1 (10%)

ENDOCRINE SYSTEM

None

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Vagina	(0)
Cyst	

HEMATOPOIETIC SYSTEM

Lymph Node, Bronchial	(0)
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FISCHER 344 RATS FEMALE

400 ppm

Hemorrhage

INTEGUMENTARY SYSTEM

None

MUSCULOSKELETAL SYSTEM

None

NERVOUS SYSTEM

None

RESPIRATORY SYSTEM

Lung	(9)
Inflammation, Chronic Active	5 (56%)
Alveolar Epithelium, Hyperplasia	

SPECIAL SENSES SYSTEM

Eye	(10)
Cataract	
Retina, Atrophy	

URINARY SYSTEM

Kidney	(10)
Nephropathy	

*** END OF REPORT ***