TDMS No. 20302 - 04

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

Test Type: 90-DAY

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)

WITH AVERAGE SEVERITY GRADES[b]

Date Report Regsted: 11/17/2006

ALPHA-PINENE

CAS Number: 80-56-8

Pathologist: GRUMBEIN, S. - LIEUALLEN, W.

Time Report Reqsted: 07:28:41 First Dose M/F: 03/28/05 / 03/28/05 Lab: BNW

F1_M3

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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Time Report Reqsted: 07:28:41 First Dose M/F: 03/28/05 / 03/28/05 Lab: BNW

B6C3F1 MICE MALE	control	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
Disposition Summary						
Animals Initially in Study Early Deaths	10	10	10	10	10	10
Survivors Terminal Sacrifice Animals Examined Microscopically	10 10	10 10	10 10	10 10	10 10	10 10
ALIMENTARY SYSTEM						
Gallbladder	(9)	(0)	(0)	(0)	(0)	(7)
Infiltration Cellular, Polymorphonuclear Pancreas Duct, Cyst	(10)	(0)	(0)	(1) 1 [3.0]	(0)	1 [2.0] (10)
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
Adrenal Cortex Hypertrophy	(10) 2 [2.0]	(0)	(0)	(0)	(0)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						

None

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

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MS No. 20302 - 04 st Type: 90-DAY ute: RESPIRATORY EXPOSURE WHOLE BODY ecies/Strain: MICE/B6C3F1	P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] ALPHA-PINENE CAS Number: 80-56-8 Pathologist: GRUMBEIN, S LIEUALLEN, W.				Date Report Reqsted: 11/17/2006 Time Report Reqsted: 07:28:41 First Dose M/F: 03/28/05 / 03/28/05 Lab: BNW	
B6C3F1 MICE MALE	control	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
None						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney Dilatation	(10)	(10)	(10) 1 [1.0]	(10) 1 [1.0]	(10)	(10)
Nephropathy Urinary Bladder Transitional Epithelium, Hyperplasia	(10)	(10)	1 [1.0] (10)	1 [1.0] 1 [1.0] (10) 7 [1.0]	(10) 10 [2.0]	1 [1.0] (10) 10 [2.5]

*** END OF MALE ***

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)

	TDMS	No.	20302	-	04
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Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

Test Type: 90-DAY

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

Date Report Regsted: 11/17/2006

ALPHA-PINENE

CAS Number: 80-56-8

Pathologist: GRUMBEIN, S. - LIEUALLEN, W.

Time Report Reqsted: 07:28:41 First Dose M/F: 03/28/05 / 03/28/05 Lab: BNW

B6C3F1 MICE FEMALE	control	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
Disposition Summary						
Animals Initially in Study Early Deaths Survivors	10	10	10	10	10	10
Terminal Sacrifice Animals Examined Microscopically	10 10	10 10	10 10	10 10	10 10	10 10
ALIMENTARY SYSTEM						
Stomach, Glandular Mineralization	(10)	(0)	(0)	(0)	(0)	(10) 1 [1.0]
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Ovary	(10)	(0)	(0)	(0)	(0)	(10)
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						

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DMS No. 20302 - 04	P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)		Date Report Reqsted: 11/17/2006			
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B6C3F1 MICE FEMALE	control	25 ppm	50 ppm	100 ppm	200 ppm	400 ppm
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
Lung Alveolar Epithelium, Hyperplasia	(10)	(0)	(0)	(0)	(0)	(10) 1 [4.0]
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney Nephropathy Urinary Bladder Transitional Epithelium, Hyperplasia	(10) 2 [1.0] (10)	(10) (10)	(10) 1 [1.0] (10)	(10) (10) 6 [1.0]	(10) (10) 10 [1.6]	(10) 1 [1.0] (10) 10 [2.2]

*** END OF REPORT ***

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)