TDMS No. 88006 - 03 Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Revised F1

C Number:

C88006B

Lock Date:

03/26/2004

Cage Range:

ALL

Date Range:

ALL

Reasons For Removal:

ALL

Removal Date Range:

ALL

Treatment Groups:

Include ALL

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Disposition Summary					
disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Accidently Killed			1	1	
Moribund Sacrifice	19	15	21	25	
Natural Death	4	3	5	2	
Survivors Natural Death				1	
Terminal Sacrifice	27	32	23	21	
Animals Examined Microscopically	50	50	50	50	
, ,					
LIMENTARY SYSTEM					
Intestine Large, Cecum	(48)	(47)	(46)	(47)	
Ulcer	(- /	1 (2%)	(- /	,	
Epithelium, Atrophy		1 (2%)			
Intestine Small, Duodenum	(49)	(48)	(47)	(47)	
Ulcer		1 (2%)			
Intestine Small, Jejunum	(46)	(47)	(44)	(47)	
Inflammation, Chronic Active		1 (2%)			
Epithelium, Ulcer	(50)	1 (2%)	(50)	(50)	
Liver	(50)	(50)	(50)	(50)	
Angiectasis Basophilic Focus	2 (4%)	1 (2%) 8 (16%)	1 (2%) 3 (6%)	4 (8%) 1 (2%)	
Basophilic Focus, Multiple	2 (4/0)	1 (2%)	3 (0 /0)	1 (2/0)	
Bile Stasis		1 (2%)			
Clear Cell Focus	8 (16%)	7 (14%)	5 (10%)	3 (6%)	
Clear Cell Focus, Multiple	1 (2%)	(/	- (- · · · /	- (/	
Degeneration, Cystic	2 (4%)	2 (4%)	3 (6%)	1 (2%)	
Hemorrhage	` '			1 (2%)	
Hepatodiaphragmatic Nodule		2 (4%)	5 (10%)	10 (20%)	
Necrosis	2 (4%)	2 (4%)	3 (6%)	4 (8%)	
Thrombosis	2 (22()	1 (2%)	1 (2%)	1 (2%)	
Vacuolization Cytoplasmic	3 (6%)	1 (2%)	4 (8%)		
Bile Duct, Dilatation	20 (60%)	2 (4%)	20 (700/)	20 (60%)	
Bile Duct, Hyperplasia Mesentery	30 (60%) (15)	42 (84%) (15)	39 (78%) (8)	30 (60%) (5)	
	(13)	(13)	IO1	(3)1	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Fot Hamarrhaga		4 (70/)			
Fat, Hemorrhage Oral Mucosa	(1)	1 (7%)	(0)	(1)	
Gingival, Hyperplasia, Squamous, Focal	(1) 1 (100%)	(0)	(0)	1 (100%)	
Pancreas	(50)	(50)	(50)	(50)	
Acinus, Atrophy	2 (4%)	2 (4%)	1 (2%)	(30)	
Stomach, Forestomach	(50)	(50)	(49)	(50)	
Hyperplasia, Squamous	1 (2%)	(00)	1 (2%)	1 (2%)	
Inflammation, Suppurative	. (=75)		. (=73)	1 (2%)	
Necrosis	1 (2%)			(= / - /	
Ulcer	4 (8%)	1 (2%)	2 (4%)		
Epithelium, Mineralization	,	1 (2%)	, ,		
Stomach, Glandular	(50)	(50)	(49)	(50)	
Erosion	2 (4%)		2 (4%)	3 (6%)	
Ulcer	1 (2%)				
Epithelium, Mineralization		1 (2%)			
Tongue	(0)	(1)	(0)	(1)	
Epithelium, Hyperplasia	(0)	(0)	(0)	1 (100%)	
Tooth	(0)	(0)	(2)	(0)	
Inflammation, Suppurative Peridontal Tissue, Inflammation			1 (50%) 1 (50%)		
Fendoniai rissue, illiamination			1 (30%)		
CARDIOVASCULAR SYSTEM					
Blood Vessel	(0)	(1)	(2)	(0)	
Pulmonary Artery, Infiltration Cellular,	(-)	()	1 (ŠÓ%)	(-)	
Polymorphonuclear			,		
Pulmonary Artery, Mineralization			1 (50%)		
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	7 (14%)	3 (6%)	4 (8%)	6 (12%)	
Atrium, Myocardium, Hypertrophy		1 (2%)			
Atrium, Necrosis	- 4		_ ,,,	1 (2%)	
Atrium, Thrombosis	3 (6%)	1 (2%)	5 (10%)	5 (10%)	
Myocardium, Hypertrophy	4 (00()	1 (2%)			
Valve, Thrombosis	1 (2%)				
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Atrophy	1 (2%)	1 (2%)	()	()	
Hyperplasia	14 (28%)	10 (20%)	12 (24%)	9 (18%)	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Hypertrophy	2 (4%)	2 (4%)			
Mineralization	1 (2%)		. (55.)		
Necrosis	0 (400()	04 (400()	1 (2%)	= (4004)	
Vacuolization Cytoplasmic	9 (18%)	21 (42%)	10 (20%)	5 (10%)	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Atrophy	1 (2%)	40 (000()	0 (400/)	44 (200()	
Hyperplasia Islets, Pancreatic	15 (30%)	13 (26%) (50)	9 (18%)	14 (28%)	
Hyperplasia	(50) 1 (2%)	3 (6%)	(50)	(50)	
Parathyroid Gland	(47)	(49)	(48)	(47)	
Hyperplasia	1 (2%)	(43)	1 (2%)	(47)	
Pituitary Gland	(49)	(49)	(49)	(49)	
Cyst	(40)	1 (2%)	1 (2%)	1 (2%)	
Hemorrhage		1 (2%)	1 (270)	1 (270)	
Hyperplasia	9 (18%)	8 (16%)	6 (12%)	14 (29%)	
Thyroid Gland	(49)	(50)	(50)	(50)	
Cyst	(- /	()	(= = /	1 (2%)	
C-cell, Hyperplasia	8 (16%)	9 (18%)	9 (18%)	6 (Ì2%)	
Follicle, Cyst	,	,	, ,	1 (2%)	
Follicular Cell, Hyperplasia		3 (6%)	1 (2%)	2 (4%)	
GENERAL BODY SYSTEM					
Peritoneum	(0)	(2)	(0)	(3)	
GENITAL SYSTEM					
Epididymis	(50)	(50)	(50)	(50)	
Penis	(1)	(0)	(0)	(0)	
Inflammation, Chronic Active	1 (100%)	(0)	(0)	(0)	
Preputial Gland	(50)	(50)	(50)	(50)	
Cyst	1 (2%)	2 (4%)	2 (4%)	1 (2%)	
Hyperplasia	2 (4%)	4 (8%)	1 (2%)	2 (4%)	
Inflammation, Suppurative			1 (2%)	• •	
Prostate	(50)	(50)	(50)	(50)	
Cyst			1 (2%)		
Hyperplasia	6 (12%)		1 (2%)	2 (4%)	
Inflammation, Suppurative	34 (68%)	35 (70%)	31 (62%)	24 (48%)	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Cyst			1 (2%)		

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
- 0			. (221)		
Dilatation		4 (00()	1 (2%)		
Inflammation, Suppurative	(50)	1 (2%)	1 (2%)	(50)	
Testes Artery, Inflammation, Chronic Active	(50)	(50)	(50) 1 (2%)	(50)	
Germinal Epithelium, Atrophy	5 (10%)	5 (10%)	8 (16%)	6 (12%)	
Germinal Epithelium, Mineralization	3 (1070)	1 (2%)	0 (1070)	0 (1270)	
Interstitial Cell, Hyperplasia	6 (12%)	7 (14%)	10 (20%)	7 (14%)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Lymph Node	(6)	(3)	(6)	(12)	
Deep Cervical, Hemorrhage				1 (8%)	
Lymph Node, Bronchial	(10)	(8)	(14)	(15)	
Hyperplasia, Histiocytic			1 (7%)		
Infiltration Cellular, Histiocyte Lymph Node, Mediastinal	(17)	(25)	1 (7%) (20)	(18)	
Angiectasis	1 (6%)	(23)	1 (5%)	(16)	
Hemorrhage	1 (078)	1 (4%)	1 (378)		
Hyperplasia, Lymphoid		2 (8%)		1 (6%)	
Infiltration Cellular, Histiocyte		= (070)	1 (5%)	. (373)	
Pigmentation			1 (5%)	1 (6%)	
Lymph Node, Mesenteric	(50)	(49)	(49)	(50)	
Spleen	(50)	(50)	(49)	(50)	
Accessory Spleen	1 (2%)		1 (2%)	1 (2%)	
Fibrosis	2 (4%)	1 (2%)	1 (2%)	1 (2%)	
Hematopoietic Cell Proliferation	1 (2%)	1 (2%)		0 (10()	
Hemorrhage		1 (2%)		2 (4%)	
Hyperplasia, Lymphoid Necrosis	3 (6%)	1 (2%) 3 (6%)	5 (10%)	1 (2%) 8 (16%)	
Thymus	(42)	(49)	(47)	(47)	
Cyst	(42)	1 (2%)	(47)	(47)	
Inflammation		1 (270)	1 (2%)		
Thrombosis			1 (2%)		
INTEGUMENTARY SYSTEM					
Mammary Gland	(48)	(49)	(50)	(50)	
Galactocele	2 (4%)	1 (2%)	3 (6%)	2 (4%)	
Hyperplasia		1 (2%)			

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion	2 (4%)	3 (6%)			
Hyperkeratosis Hyperplasia, Squamous		2 (4%) 1 (2%)	1 (2%)	2 (4%)	
Inflammation, Chronic		1 (2%)	1 (2%)		
Ulcer Subcutaneous Tissue, Metaplasia,	1 (2%)	2 (4%)	2 (4%) 1 (2%)	3 (6%)	
Osseous			1 (2/0)		
Subcutaneous Tissue, Mineralization	1 (2%)				
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Hyperostosis Maxilla, Fracture	1 (2%)	` ,			
Skeletal Muscle	(2)	(1)	1 (2%) (1)	(0)	
				(-7	
IERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Compression Gliosis	11 (22%)	11 (22%)	8 (16%)	2 (4%) 1 (2%)	
Hemorrhage	7 (14%)	2 (4%)	4 (8%)	2 (4%)	
Cerebrum, Demyelination, Focal Cerebrum, Necrosis, Focal	1 (2%)			1 (2%)	
Choroid Plexus, Hemorrhage	1 (270)		1 (2%)		
Meninges, Hemorrhage				1 (2%)	
RESPIRATORY SYSTEM					
Larynx	(50)	(49)	(50)	(50)	
Foreign Body	4 (8%)	5 (10%)	2 (4%)	5 (10%)	
Inflammation, Suppurative Inflammation, Chronic	6 (12%) 4 (8%)	11 (22%)	4 (8%) 6 (12%)	2 (4%) 10 (20%)	
Epiglottis, Hyperplasia	,		, ,	1 (2%)	
Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Metaplasia,	1 (2%)	2 (4%)			
Squamous					
Lung	(50)	(50)	(50)	(50)	

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TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Hemorrhage	7 (14%)	3 (6%)	1 (2%)	7 (14%)	
Inflammation, Suppurative	7 (1470)	3 (070)	1 (2%)	7 (1470)	
Inflammation, Chronic	4 (8%)	1 (2%)	3 (6%)	2 (4%)	
Thrombosis	1 (2%)	1 (270)	3 (070)	2 (470)	
Alveolar Epithelium, Degeneration, Mucoid,	1 (270)		1 (2%)		
Focal			. (273)		
Alveolar Epithelium, Hyperplasia	3 (6%)	6 (12%)	6 (12%)	3 (6%)	
Alveolus, Emphysema	- (5.5)	2 (4%)	1 (2%)	- (-,-)	
Alveolus, Infiltration Cellular, Histiocyte	11 (22%)	12 (24%)	10 (20%)	4 (8%)	
Interstitium, Fibrosis	3 (6%)	- (- · · ·)	2 (4%)	1 (2%)	
Mediastinum, Inflammation, Suppurative	- (-,-)		1 (2%)	- (= /	
Nose	(50)	(50)	(50)	(49)	
Foreign Body	6 (12%)	4 (8%)	3 (6%)	2 (4%)	
Hemorrhage	- (/	. (-,-)	1 (2%)	- (· · · ·)	
Inflammation, Suppurative	10 (20%)	8 (16%)	7 (14%)	5 (10%)	
Inflammation, Chronic	(=0,70)	1 (2%)	2 (4%)	G (1676)	
Glands, Dilatation	3 (6%)	7 (14%)	6 (12%)		
Goblet Cell, Hyperplasia	5 (10%)	5 (10%)	5 (10%)	5 (10%)	
Nasolacrimal Duct, Inflammation,	2 (4%)	1 (2%)	1 (2%)	- (1575)	
Suppurative	(,	(/	(,		
Nerve, Olfactory Epithelium, Degeneration				1 (2%)	
Olfactory Epithelium, Degeneration	1 (2%)	3 (6%)	3 (6%)	16 (33%)	
Olfactory Epithelium, Degeneration,	1 (2%)	1 (2%)	1 (2%)	- ()	
Hyaline	(7	(/	(,		
Olfactory Epithelium, Hyperplasia, Basal		17 (34%)	18 (36%)	43 (88%)	
Cell		(/	- (,	- ()	
Olfactory Epithelium, Metaplasia	2 (4%)	1 (2%)	3 (6%)	2 (4%)	
Respiratory Epithelium, Degeneration,	2 (4%)	,	2 (4%)	,	
Hyaline	,		,		
Respiratory Epithelium, Hyperplasia		1 (2%)		2 (4%)	
Respiratory Epithelium, Metaplasia,		,		1 (2%)	
Squamous				,	
Pleura	(6)	(5)	(6)	(5)	
Inflammation, Chronic	5 (83%)	5 (100%)	6 (100%)	5 (100%)	
Mesothelium, Hyperplasia	,	1 (20%)	,	,	
ECIAL SENSES SYSTEM					
Eye	(49)	(49)	(50)	(49)	
Atrophy	(10)	(10)	1 (2%)	1 (2%)	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
0 51 :				4 (00()	
Cornea, Fibrosis		4 (20()		1 (2%)	
Cornea, Hyperplasia, Squamous Cornea, Mineralization	4 (20/)	1 (2%)		1 (2%)	
Lens, Cataract	1 (2%) 3 (6%)		5 (10%)	1 (2%)	
Retina, Atrophy	3 (6%) 1 (2%)		1 (2%)	1 (270)	
Sclera, Metaplasia, Osseous	32 (65%)	32 (65%)	32 (64%)	25 (51%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Inflammation, Chronic	(50)	(30)	2 (4%)	(30)	
Zymbal's Gland	(0)	(1)	(2)	(2)	
Inflammation	(0)	(1)	1 (50%)	(=)	
RINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	2 (4%)	2 (4%)	2 (4%)		
Infarct	3 (6%)			5 (10%)	
Nephropathy	41 (82%)	46 (92%)	46 (92%)	45 (90%)	
Thrombosis				1 (2%)	
Bilateral, Pelvis, Dilatation		1 (2%)	1 (2%)	. (504)	
Bilateral, Infarct				1 (2%)	
Bilateral, Infarct, Multiple			4 (00()	1 (2%)	
Cortex, Renal Tubule, Accumulation,			1 (2%)	1 (2%)	
Hyaline Droplet	4 (00/)				
Glomerulus, Fibrosis	1 (2%)	46 (220()	10 (200/)	22 (669/)	
Papilla, Mineralization Pelvis, Transitional Epithelium, Hyperplasia	12 (24%) 1 (2%)	16 (32%) 2 (4%)	10 (20%) 1 (2%)	33 (66%) 1 (2%)	
Pelvis, Transitional Epithelium,	1 (2%)	Z (470)	1 (270)	I (270)	
Mineralization	I (Z/0)				
Pelvis, Dilatation		1 (2%)	1 (2%)		
Pelvis, Hemorrhage		1 (270)	1 (2%)		
Renal Tubule, Casts		1 (2%)	1 (270)		
Renal Tubule, Mineralization		1 (2%)			
Urinary Bladder	(50)	(50)	(50)	(50)	
Calculus Micro Observation Only	2 (4%)	1 (2%)	1 (2%)	1 (2%)	
Cyst	- (. / - /	. (=/*/	1 (2%)	. (=,0)	
Hemorrhage	1 (2%)	2 (4%)	2 (4%)	1 (2%)	
Inflammation, Suppurative	1 (2%)	(/	(/	(/	
Inflammation, Chronic	,	1 (2%)			
Necrosis		,	2 (4%)		
Transitional Epithelium, Hyperplasia	1 (2%)		1 (2%)	2 (4%)	

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

TDMS No. 88006 - 03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

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

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

FISCHER 344 RATS MALE CONTROL 100 PPM 300 PPM 1000 PPM

*** END OF MALE ***

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Disposition Summary					
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Accidently Killed	2				
Moribund Sacrifice	15	21	12	20	
Natural Death	6	5	2	4	
Survivors					
Terminal Sacrifice	27	24	36	26	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Rectum	(49)	(48)	(50)	(50)	
Intestine Small, Ileum	(45)	(46)	(48)	(47)	
Necrosis	(13)	1 (2%)	(13)	(,	
Intestine Small, Jejunum	(45)	(46)	(48)	(48)	
Diverticulum	(10)	2 (4%)	(10)	(10)	
Liver	(50)	(50)	(50)	(50)	
Angiectasis	3 (6%)	1 (2%)	2 (4%)	1 (2%)	
Basophilic Focus	21 (42%)	23 (46%)	21 (42%)	21 (42%)	
Basophilic Focus, Multiple	5 (10%)	5 (10%)	10 (20%)	8 (16%)	
Clear Cell Focus	6 (12%)	6 (12%)	6 (12%)	2 (4%)	
Clear Cell Focus, Multiple	3 (6%)	0 (1270)	1 (2%)	2 (470)	
Eosinophilic Focus	1 (2%)		2 (4%)	1 (2%)	
Hematopoietic Cell Proliferation	1 (270)		2 (370)	1 (2%)	
Hepatodiaphragmatic Nodule	2 (4%)	6 (12%)	6 (12%)	7 (14%)	
Inflammation, Suppurative	2 (470)	0 (12/0)	1 (2%)	, (1770)	
Necrosis	2 (4%)	1 (2%)	3 (6%)	1 (2%)	
Thrombosis	1 (2%)	1 (2 /0)	1 (2%)	1 (270)	
Vacuolization Cytoplasmic	8 (16%)	5 (10%)	1 (2%)		
Bile Duct, Bile Stasis	1 (2%)	3 (1070)	1 (270)		
Bile Duct, Bile Stasis Bile Duct, Hyperplasia	1 (2/0)		2 (4%)		
Hepatocyte, Regeneration			1 (2%)		
Serosa, Fibrosis			1 (2%)		
Mesentery	(14)	(17)	(12)	(10)	
Necrosis	14 (100%)	17 (100%)	12 (100%)	10 (100%)	
Oral Mucosa	(1)	(0)	(1)	(0)	
Inflammation, Suppurative	1 (100%)	(0)	(1)	(0)	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Pancreas	(50)	(50)	(50)	(50)	
Acinus, Atrophy	1 (2%)				
Duct, Cyst		1 (2%)			
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Diverticulum		1 (2%)			
Hyperplasia, Squamous		4 (8%)	2 (4%)	2 (4%)	
Inflammation, Suppurative			- 4	1 (2%)	
Ulcer	5 (10%)	5 (10%)	3 (6%)	2 (4%)	
Epithelium, Muscularis, Inflammation,		1 (2%)			
Suppurative	4.5	4	4	4	
Stomach, Glandular	(49)	(50)	(50)	(50)	
Erosion	2 (4%)			2 (4%)	
Hyperplasia		4 (00()	4 (00()	1 (2%)	
Ulcer	(0)	1 (2%)	1 (2%)	(0)	
Tongue	(0)	(1)	(2)	(0)	
Epithelium, Hyperplasia		1 (100%)	1 (50%)		
CARDIOVASCULAR SYSTEM					
Blood Vessel	(0)	(1)	(0)	(1)	
Infiltration Cellular, Polymorphonuclear	, ,	1 (100%)	. ,	`,	
Inflammation		, ,		1 (100%)	
Thrombosis				1 (100%)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy			1 (2%)		
Atrium, Thrombosis	1 (2%)	1 (2%)			
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Angiectasis	3 (6%)				
Hyperplasia	7 (14%)	5 (10%)	10 (20%)	8 (16%)	
Hypertrophy		1 (2%)		2 (4%)	
Necrosis	1 (2%)	1 (2%)	1 (2%)		
Thrombosis				1 (2%)	
Vacuolization Cytoplasmic	18 (36%)	18 (36%)	18 (36%)	12 (24%)	
Adrenal Medulla	(49)	(50)	(50)	(50)	
		1 (2%)			
Hemorrhage		1 (2 /0)			
Hemorrhage Hyperplasia Islets, Pancreatic	(50)	(50)	2 (4%) (50)	3 (6%) (50)	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Pituitary Gland	(50)	(49)	(50)	(50)	
Cyst	4 (8%)	5 (10%)	3 (6%)	2 (4%)	
Hemorrhage	2 (4%)	, ,	1 (2%)	1 (2%)	
Hyperplasia	7 (14%)	8 (16%)	8 (16%)	14 (28%)	
Thyroid Gland	(50)	(50)	(50)	(50)	
Ć-cell, Hyperplasia	8 (16%)	5 (10%)	9 (18%)	6 (12%)	
Follicle, Cyst	, ,	, ,	, ,	1 (2%)	
Follicular Cell, Hyperplasia				2 (4%)	
SENERAL BODY SYSTEM					
None					
SENITAL SYSTEM					
Clitoral Gland	(50)	(50)	(50)	(50)	
Cyst	2 (4%)				
Hyperplasia	7 (14%)	6 (12%)	3 (6%)	4 (8%)	
Inflammation, Chronic	2 (4%)		1 (2%)		
Ovary	(50)	(50)	(50)	(50)	
Atrophy	1 (2%)				
Cyst	9 (18%)	2 (4%)	9 (18%)	8 (16%)	
Uterus	(50)	(50)	(50)	(50)	
Cyst			1 (2%)		
Hemorrhage	1 (2%)	1 (2%)	1 (2%)	2 (4%)	
Hydrometra			1 (2%)		
Necrosis	1 (2%)				
Thrombosis			1 (2%)	1 (2%)	
Cervix, Myometrium, Hyperplasia	2 (4%)				
Endometrium, Hyperplasia	6 (12%)	3 (6%)	4 (8%)	5 (10%)	
Endometrium, Inflammation, Suppurative			1 (2%)		
Myometrium, Hyperplasia		1 (2%)			
Vagina	(0)	(1)	(0)	(1)	
Infiltration Cellular, Mixed Cell				1 (100%)	
EMATOPOIETIC SYSTEM					
Lymph Node	(2)	(3)	(2)	(5)	
Inflammation, Chronic Active	` '	` '	` '	1 (20%)	

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

TDMS No. 88006 - 03
Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

Pancreatic, Hemorrhage Lymph Node, Bronchial (4)	FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Lymph Node, Bronchial (4) (7) (8) (3) Anglectasis 1 (25%) Congestion 1 (25%) Hemorrhage 1 (25%) Hyperplasia, Lymphoid 1 (25%) 1 (14%) 1 (13%) Lymph Node, Madibular (3) (0) (1) (1) Lymph Node, Mediastinal (26) (25) (21) (28) Hyperplasia, Lymphoid 1 (50) (50) (50) (50) Lymph Node, Mediastinal (26) (25) (21) (28) Hyperplasia, Lymphoid 1 (50) (50) (50) (50) Lymph Node, Mediastinal (26) (25) (21) (28) Hyperplasia, Lymphoid 1 (4%) Lymph Node, Mediastinal (26) (50) (50) (50) (50) Lymph Node, Mesenteric (50) (50) (50) (50) (50) Lymph Node, Mesenteric (50) (50) (50) (50) (50) Lymph Node, Mesenteric (50) (50) (50) (50) (50) Spleen (50) (50) (50) (50) (50) (50) Spleen (50) (50) (50) (50) (50) (50) Hematopoietic Cell Proliferation (50) (50) (50) (50) (50) Hematopoietic Cell Proliferation (50) (48) (48) (48) (48) Lycyst (50) (48) (48) (48) (48) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) Galactocele (50) (50) (50) (50) (50) Galactocele (50) (50) (50) (50) (50) Galactocele (50) (50) (50) (50) (50) Spleen (50) (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) (50) (50)				4 (500)		
Anglectasis 1 (25%) Congestion 1 (25%) Hemorrhage 1 (25%) Hemorrhage 1 (33%) Hyperplasia, Lymphoid 1 (25%) 1 (14%) 1 (13%) Lymph Node, Mandibular (3) (0) (1) (1) (1) Lymph Node, Mandibular (26) (25) (21) (28) Hyperplasia, Lymphoid 1 (26) (25) (21) (28) Hyperplasia, Lymphoid 1 (26) (50) (50) (50) Pigmentation 1 (50) (50) (50) (50) (50) Congestion 1 (2%) Spleen (50) (50) (50) (50) (50) Accessory Spleen (50) (50) (50) (50) Accessory Spleen (50) (24%) 2 (4%) 1 (2%) Hematopoletic Cell Proliferation 2 (4%) 2 (4%) 2 (4%) 3 (6%) Pigmentation (50) (48) (48) (48) Cyst (50) (50) (50) (50) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Inflammation, Suppurative 1 (2%) Skin (50) (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) Skin (50) (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) Inflammation, Thornic 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%)		(4)	(7)		(3)	
Congestion		1 (25%)	(1)	(0)	(5)	
Hyperplasia, Lymphoid						
Lymph Node, Mandibular (3) (0) (1) (1) (1) Lymph Node, Mediastinal (26) (25) (25) (21) (28) Hyperplasia, Lymphoid (50) (50) (50) (50) (50) Pigmentation (50) (50) (50) (50) (50) Congestion (50) (50) (50) (50) (50) Spleen (50) (50) (50) (50) (50) (50) Accessory Spleen (12%) Fibrosis (12%) (24%) (24%) (24%) (36%) Pigmentation (24%) (24%) (24%) (36%) Pigmentation (24%) (48) (48) (48) Pigmentation (50) (50) (48) (48) (48) Cyst (50) (50) (50) (50) (50) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) (50) Galactocele (24%) (36%) (48%) (12%) Inflammation, Suppurative (12%) (12%) Necrosis (12%) Duct, Cyst (12%) Epithelium, Hyperplasia (2%) Skin (50) (50) (50) (50) (50) (50) Cyst Epithelial Inclusion (50) (50) (50) (50) Cyst Epithelial Inclusion (12%) Hyperkeratosis (12%) (12%) Inflammation, Chronic (12%) Ulcer (12%) (12%) Subcutaneous Tissue, Hemorrhage Subcutaneous Tissue, Inflammation, (12%)					1 (33%)	
Lymph Node, Mediastinal (26) (25) (21) (28) Hyperplasia, Lymphoid 1(5%) 1(5%) 1(4%) Lymph Node, Mesenteric (50) (50) (50) (50) (50) Spleen (50) (50) (50) (50) (50) Accessory Spleen 1(2%) 2(4%) 1(2%) Hematopoietic Cell Proliferation 2(4%) 2(4%) 2(4%) 1(2%) Hematopoietic Cell Proliferation 1(2%) Cyst (50) (50) (50) (50) (50) Mammary Gland (50) (50) (50) (50) (50) Galactocele 2(4%) 3(6%) 4(8%) 1(2%) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) Galactocele 2(4%) 3(6%) 4(8%) 1(2%) Inflammation, Suppurative 1(2%) Necrosis 1(2%) Duct, Cyst 1(2%) Duct, Cyst 2 Epithelium, Hyperplasia 1(2%) Skin (50) (50) (50) (50) (50) (50) Cyst Epithelium, Hyperplasia 1(2%) Skin (50) (50) (50) (50) (50) Cyst Epithelian Inclusion 1(2%) Hyperkeratosis 1(2%) 1(2%) Ulcer 1(2%) Subcutaneous Tissue, Hemorrhage Subcutaneous Tissue, Inflammation, 1(2%)	Hyperplasia, Lymphoid				(4)	
Hyperplasia, Lymphoid Pigmentation Lymph Node, Mesenteric Congestion Spleen (50) Accessory Spleen Fibrosis 1 (2%) Hematopoietic Cell Proliferation Cyst INTEGUMENTARY SYSTEM Mammary Gland Galactocele Inflammation, Suppurative Necrosis Duct, Cyst Duct, Cyst Epitheliam, Hyperplasia Sisin		(3)	(U) (25)	(1) (21)	(1)	
Pigmentation		(20)	(25)		(20)	
Lymph Node, Mesenteric Congestion Congestion Spleen (50) (50) (50) (50) (50) (50) (50) (50)	Pigmentation			1 (070)	1 (4%)	
Spleen (50) (50) (50) (50) Accessory Spleen 1 (2%) 2 (4%) 1 (2%) Fibrosis 1 (2%) 2 (4%) 2 (4%) 3 (6%) Pigmentation 1 (2%) 1 (2%) 1 (2%) Thymus (50) (48) (48) (48) Cyst 1 (2%) 1 (2%) 1 (2%) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Inflammation, Suppurative 1 (2%) 1 (2%) Necrosis 1 (2%) 1 (2%) Duct, Cyst 1 (2%) 1 (2%) Skin (50) (50) (50) (50) Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) 1 (2%) Hyperkeratosis 1 (2%) 1 (2%) Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage	Lymph Node, Mesenteric		(50)	(50)		
Accessory Spleen Fibrosis 1 (2%) 2 (4%) 1 (2%) Hematopoietic Cell Proliferation 2 (4%) 2 (4%) 3 (6%) Pigmentation 1 (2%) Thymus (50) (48) (48) (48) Cyst (50) (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Inflammation, Suppurative 1 (2%) Necrosis 1 (2%) Duct, Cyst 1 (2%) Epithelium, Hyperplasia 1 (2%) Skin (50) (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) Hyperkeratosis 1 (2%) Inflammation, Chronic 1 (2%) Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage Subcutaneous Tissue, Inflammation, 1 (2%)						
Fibrosis 1 (2%) Hematopoietic Cell Proliferation 2 (4%) 2 (4%) 2 (4%) 3 (6%) Pigmentation 1 (2%) Thymus (50) (48) (48) (48) Cyst (50) (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Necrosis 1 (2%) Duct, Cyst 1 (2%) Dut, Cyst 1 (2%) Skin (50) (50) (50) (50) (50) Cyst Epithelium, Hyperplasia 1 (2%) Skin (50) (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) Hyperkeratosis 1 (2%) Inflammation, Chronic 1 (2%) Ulcer 1 (2%) Subcutaneous Tissue, Hemorrhage Subcutaneous Tissue, Inflammation, 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%)		(50)		(50)	(50)	
Hematopoietic Cell Proliferation 2 (4%) 2 (4%) 2 (4%) 3 (6%) 1 (2%) 1		1 (2%)	1 (2%)	2 (4%)	1 (2%)	
Pigmentation			2 (4%)			
Thymus Cyst (50) (48) (48) (48) (48) (29) INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) (50) (50) (50) (50)		2 (170)	2 (170)	2 (170)		
INTEGUMENTARY SYSTEM	Thymus	(50)		(48)	(48)	
Mammary Gland (50) (50) (50) (50) Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Inflammation, Suppurative 1 (2%) 1 (2%) Necrosis 1 (2%) 1 (2%) Duct, Cyst 1 (2%) 1 (2%) Epithelium, Hyperplasia 1 (2%) (50) (50) (50) Skin (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) 1 (2%) Hyperkeratosis 1 (2%) 1 (2%) Inflammation, Chronic 1 (2%) 1 (2%) Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage 1 (2%) 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%) 1 (2%)	Cyst		1 (2%)			
Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Inflammation, Suppurative 1 (2%) 1 (2%) Necrosis 1 (2%) 1 (2%) Duct, Cyst 1 (2%) 1 (2%) Epithelium, Hyperplasia 1 (2%) (50) (50) (50) Skin (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) 1 (2%) 1 (2%) Hyperkeratosis 1 (2%) 1 (2%) 1 (2%) Inflammation, Chronic 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage 1 (2%) 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%) 1 (2%)	INTEGUMENTARY SYSTEM					
Galactocele 2 (4%) 3 (6%) 4 (8%) 1 (2%) Inflammation, Suppurative 1 (2%) Necrosis Duct, Cyst 5 1 (2%) Epithelium, Hyperplasia 1 (2%) Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) Hyperkeratosis 1 (2%) Inflammation, Chronic 1 (2%) Ulcer 1 (2%) Subcutaneous Tissue, Hemorrhage 5 Subcutaneous Tissue, Inflammation, 1 (2%)	Mammary Gland	(50)	(50)	(50)	(50)	
Necrosis 1 (2%) Duct, Cyst 1 (2%) Epithelium, Hyperplasia 1 (2%) Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) (50) (50) (50) Hyperkeratosis 1 (2%) 1 (2%) (50) <td>Galactocele</td> <td></td> <td>3 (6%)</td> <td>4 (8%)</td> <td></td> <td></td>	Galactocele		3 (6%)	4 (8%)		
Duct, Cyst 1 (2%) Epithelium, Hyperplasia 1 (2%) Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) (50) (50) (50) Hyperkeratosis 1 (2%) 1 (2%) (50)			1 (2%)	1 (2%)		
Epithelium, Hyperplasia 1 (2%) Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) 1 (2%) Hyperkeratosis 1 (2%) 1 (2%) Inflammation, Chronic 1 (2%) 1 (2%) Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage 1 (2%) 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%) 1 (2%)						
Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 (2%) Hyperkeratosis 1 (2%) 1 (2%) Inflammation, Chronic 1 (2%) 1 (2%) Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage 1 (2%) 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%)		1 (2%)			1 (2%)	
Cyst Epithelial Inclusion 1 (2%) Hyperkeratosis 1 (2%) 1 (2%) Inflammation, Chronic 1 (2%) Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%)	Skin		(50)	(50)	(50)	
Inflammation, Chronic Ulcer 1 (2%) Subcutaneous Tissue, Hemorrhage Subcutaneous Tissue, Inflammation, 1 (2%) 1 (2%) 1 (2%)		()	1 (2%)	()	(33)	
Ulcer 1 (2%) 3 (6%) 1 (2%) Subcutaneous Tissue, Hemorrhage 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%)		1 (2%)	1 (2%)			
Subcutaneous Tissue, Hemorrhage 1 (2%) Subcutaneous Tissue, Inflammation, 1 (2%)			4 (00()	2 (22()		
Subcutaneous Tissue, Inflammation, 1 (2%)			1 (2%)	3 (6%)	1 (2%)	
	Subcutaneous Tissue, nemormage		1 (2%)		I (270)	
			1 (270)			
MUSCULOSKELETAL SYSTEM	MUSCULOSKELETAL SYSTEM					
Bone (50) (50) (50) (50)	Bone	(50)	(50)	(50)	(50)	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Maxilla, Fracture Skeletal Muscle Infiltration Cellular, Lipocyte	1 (2%) (2) 1 (50%)	(1)	(0)	(0)	
NERVOUS SYSTEM					
Brain Compression Hemorrhage Cerebellum, Hydrocephalus Cerebrum, Infiltration Cellular, Mononuclear Cell, Focal	(50) 7 (14%) 6 (12%) 1 (2%)	(50) 7 (14%) 4 (8%) 1 (2%)	(50) 11 (22%) 5 (10%)	(50) 8 (16%) 1 (2%)	
RESPIRATORY SYSTEM					
Larynx Foreign Body Inflammation, Suppurative Inflammation, Chronic Epiglottis, Metaplasia, Squamous Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Metaplasia,	(50) 1 (2%) 2 (4%) 1 (2%) 1 (2%) 1 (2%)	(50) 1 (2%) 1 (2%) 1 (2%)	(50) 2 (4%) 1 (2%) 2 (4%) 1 (2%)	(50) 3 (6%) 4 (8%) 1 (2%) 2 (4%)	
Squamous Lung Hemorrhage Infiltration Cellular, Polymorphonuclear Inflammation, Suppurative	(50) 1 (2%)	(50) 1 (2%)	(50) 1 (2%)	(50) 1 (2%)	
Inflammation, Granulomatous Inflammation, Chronic Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Metaplasia,	5 (10%) 3 (6%) 1 (2%)	1 (2%) 1 (2%) 6 (12%)	1 (2%) 6 (12%) 2 (4%)	5 (10%) 5 (10%)	
Squamous Alveolus, Infiltration Cellular, Histiocyte Bronchiole, Foreign Body Bronchiole, Hyperplasia Bronchiole, Inflammation, Chronic Interstitium, Fibrosis	20 (40%) 1 (2%)	19 (38%) 1 (2%) 1 (2%)	22 (44%)	30 (60%) 1 (2%) 1 (2%)	
Nose Foreign Body Inflammation, Suppurative	(49) 1 (2%) 2 (4%)	(49) 2 (4%) 5 (10%)	(50) 3 (6%) 6 (12%)	(50) 2 (4%) 6 (12%)	

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

TDMS No. 88006 - 03 Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Inflammation, Chronic				1 (2%)	
Glands, Dilatation			2 (4%)		
Goblet Cell, Hyperplasia	1 (2%)	1 (2%)	3 (6%)	3 (6%)	
Nasolacrimal Duct, Inflammation,	1 (2%)	1 (2%)	4 (8%)	2 (4%)	
Suppurative Olfactory Epithelium, Degeneration	1 (20/)	1 (2%)	7 (14%)	24 (48%)	
Olfactory Epithelium, Degeneration,	1 (2%) 4 (8%)	8 (16%)	6 (12%)	4 (8%)	
Hyaline	4 (070)	0 (1070)	0 (1278)	4 (078)	
Olfactory Epithelium, Hyperplasia, Basal		14 (29%)	30 (60%)	49 (98%)	
Cell		(=0 /0)	22 (2273)	10 (0070)	
Olfactory Epithelium, Metaplasia	1 (2%)			1 (2%)	
Respiratory Epithelium, Degeneration,	1 (2%)	3 (6%)	2 (4%)	,	
Hyaline					
Respiratory Epithelium, Hyperplasia		1 (2%)	1 (2%)	1 (2%)	
Respiratory Epithelium, Metaplasia,	1 (2%)		2 (4%)	2 (4%)	
Squamous	(40)	(40)	(4.5)	(00)	
Pleura Chronic	(16)	(13)	(15)	(30)	
Inflammation, Chronic Mesothelium, Hyperplasia	16 (100%)	13 (100%)	15 (100%)	27 (90%) 1 (3%)	
PECIAL SENSES SYSTEM					
Eye	(48)	(49)	(50)	(50)	
Atrophy	(40)	(43)	(30)	2 (4%)	
Inflammation, Suppurative	1 (2%)			2 (470)	
Anterior Chamber, Hemorrhage	(=73)			1 (2%)	
Lens, Cataract	5 (10%)	1 (2%)	4 (8%)	5 (10%)	
Lens, Mineralization	, ,	, ,	3 (6%)	` ,	
Retina, Atrophy	2 (4%)			2 (4%)	
Sclera, Metaplasia, Osseous		1 (2%)			
RINARY SYSTEM					
Kidney	(49)	(50)	(50)	(50)	
Cyst	` '	, ,	1 (2%)	, ,	
Infiltration Cellular, Lipocyte			1 (2%)		
Nephropathy	34 (69%)	27 (54%)	35 (70%)	31 (62%)	
Capsule, Hemorrhage		1 (2%)			
Cortex, Infarct Cortex, Infarct, Multiple		1 (2%)	1 (2%)	1 (2%)	

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

TDMS No. 88006 - 03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

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

ALPHA-METHYLSTYRENE CAS Number: 98-83-9 Pathologist: RENNE, R.

Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Papilla, Mineralization	1 (2%)	6 (12%)	8 (16%)	7 (14%)
Pelvis, Transitional Epithelium, Hyperplasia	5 (10%)	3 (6%)	,	, ,
Pelvis, Transitional Epithelium,	31 (63%)	26 (52%)	31 (62%)	16 (32%)
Mineralization	, ,	, ,	,	, ,
Pelvis, Dilatation		1 (2%)		
Renal Tubule, Degeneration	1 (2%)	, ,		
Renal Tubule, Pigmentation	` ,			2 (4%)
Ureter	(1)	(0)	(0)	(0)
Transitional Epithelium, Hyperplasia	1 (100%)	. ,	. ,	
Urinary Bladder	(50)	(50)	(50)	(50)
Serosa, Edema	, ,	1 (2%)	, ,	,
Transitional Epithelium, Hyperplasia		1 (2%)		2 (4%)

*** END OF REPORT ***