TDMS No. 88006 - 03	P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]	Date Report Reqsted: 02/02/2006
Test Type: CHRONIC	ALPHA-METHYLSTYRENE	Time Report Reqsted: 13:44:41
Route: RESPIRATORY EXPOSURE WHOLE BODY	CAS Number: 98-83-9	First Dose M/F: 08/06/01 / 08/06/01
Species/Strain: RATS/F 344	Pathologist: RENNE, R.	Lab: BNW
	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

S No. 88006 - 03 Type: CHRONIC e: RESPIRATORY EXPOSURE WHOLE BODY cies/Strain: RATS/F 344	P18: INCIDENCE 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	
Disposition Summary					
Animals Initially in Study Early Deaths	50	50	50	50	
Accidently Killed Moribund Sacrifice Natural Death	19 4	15 3	1 21 5	1 25 2	
Survivors Natural Death Terminal Sacrifice	27	32	23	1 21	
Animals Examined Microscopically	50	50	50	50	
LIMENTARY SYSTEM					
Intestine Large, Cecum Ulcer	(48)	(47) 1 [3.0] 1 [2.0]	(46)	(47)	
Epithelium, Atrophy Intestine Small, Duodenum Ulcer	(49)	1 [3.0] (48) 1 [4.0]	(47)	(47)	
Intestine Small, Jejunum Inflammation, Chronic Active Epithelium, Ulcer	(46)	(47) 1 [3.0] 1 [4.0]	(44)	(47)	
Liver Angiectasis	(50)	(50) 1 [4.0]	(50) 1 [3.0]	(50) 4 [3.8]	
Basophilic Focus Basophilic Focus, Multiple Bile Stasis	2	8 1 1 [4.0]	3	1	
Clear Cell Focus Clear Cell Focus, Multiple	8 1	7	5	3	
Degeneration, Cystic Hemorrhage Hepatodiaphragmatic Nodule	2 [2.5]	2 [2.5] 2 [4.0]	3 [2.3] 5 [4.0]	1 [3.0] 1 [4.0] 10 [4.0]	
Necrosis Thrombosis Vacuolization Cytoplasmic	2 [3.5] 3 [3.3]	2 [4.0] 2 [2.5] 1 [3.0] 1 [2.0]	3 [4.0] 3 [3.3] 1 [3.0] 4 [2.5]	4 [3.3] 1 [4.0]	
Bile Duct, Dilatation Bile Duct, Hyperplasia	30 [1.6]	2 [4.0] 42 [1.7]	39 [1.9]	30 [2.1]	

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

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

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	
Necrosis	15 [2.9]	14 [2.9]	8 [3.1]	5 [3.0]	
Fat, Hemorrhage		1 [3.0]			
Oral Mucosa	(1)	(0)	(0)	(1)	
Gingival, Hyperplasia, Squamous, Focal	1 [3.0]	(EO)	(50)	1 [4.0]	
Pancreas Acinus, Atrophy	(50) 2 [3.0]	(50) 2 [3.0]	(50) 1 [3.0]	(50)	
Stomach, Forestomach	2 [3.0] (50)	(50)	(49)	(50)	
Hyperplasia, Squamous	1 [3.0]	(50)	1 [4.0]	1 [4.0]	
Inflammation, Suppurative	1 [0.0]		1 [4.0]	1 [3.0]	
Necrosis	1 [4.0]			1 [0:0]	
Ulcer	4 [4.0]	1 [4.0]	2 [4.0]		
Epithelium, Mineralization	.[]	1 [3.0]	_ []		
Stomach, Glandular	(50)	(50)	(49)	(50)	
Erosion	2 [1.5]		2 [2.5]	3 [1.3]	
Ulcer	1 [4.0]				
Epithelium, Mineralization		1 [3.0]			
Tongue	(0)	(1)	(0)	(1)	
Epithelium, Hyperplasia				1 [3.0]	
Tooth	(0)	(0)	(2)	(0)	
Inflammation, Suppurative			1 [4.0]		
Peridontal Tissue, Inflammation			1 [4.0]		
CARDIOVASCULAR SYSTEM					
Blood Vessel	(0)	(1)	(2)	(0)	
Pulmonary Artery, Infiltration Cellular,	(-)	(-)	1 [4.0]	(-)	
Polymorphonuclear					
Pulmonary Artery, Mineralization			1 [3.0]		
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	7 [1.9]	3 [1.7]	4 [1.5]	6 [2.8]	
Atrium, Myocardium, Hypertrophy		1 [3.0]			
Atrium, Necrosis				1 [4.0]	
Atrium, Thrombosis	3 [4.0]	1 [4.0]	5 [3.8]	5 [3.8]	
Myocardium, Hypertrophy		1 [3.0]			
Valve, Thrombosis	1 [3.0]				
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
	x /	(<i>)</i>	()	× /	

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

CAS Number: 98-83-9 Pathologist: RENNE, R. 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	
Atrophy Hyperplasia Hypertrophy Mineralization	1 [4.0] 14 [2.4] 2 [2.0] 1 [3.0]	1 [4.0] 10 [2.7] 2 [2.5]	12 [2.8]	9 [2.8]	
Necrosis Vacuolization Cytoplasmic Adrenal Medulla Atrophy	9 [2.2] (50) 1 [4.0]	21 [2.0] (50)	1 [2.0] 10 [2.2] (50)	5 [2.8] (50)	
Hyperplasia Islets, Pancreatic Hyperplasia	15 [3.0] (50) 1 [3.0]	13 [2.5] (50) 3 [4.0]	9 [2.7] (50)	14 [3.3] (50)	
Parathyroid Gland Hyperplasia Pituitary Gland	(47) 1 [2.0] (49)	(49) (49)	(48) 1 [3.0] (49)	(47) (49)	
Cyst Hemorrhage Hyperplasia	9 [2.6]	1 [4.0] 1 [4.0] 8 [3.4]	1 [2.0] 6 [2.5]	1 [4.0] 14 [3.0]	
Thyroid Gland Cyst C-cell, Hyperplasia	(49) 8 [1.9]	(50) 9 [2.7]	(50) 9 [1.8]	(50) 1 [3.0] 6 [1.8]	
Follicle, Cyst Follicular Cell, Hyperplasia		3 [2.3]	1 [1.0]	1 [3.0] 2 [2.0]	
GENERAL BODY SYSTEM					
Peritoneum	(0)	(2)	(0)	(3)	
GENITAL SYSTEM					
Epididymis Penis Inflammation, Chronic Active Preputial Gland Cyst Hyperplasia Inflammation, Suppurative	(50) (1) 1 [3.0] (50) 1 [4.0] 2 [3.5]	(50) (0) (50) 2 [3.5] 4 [3.8]	(50) (0) 2 [4.0] 1 [4.0] 1 [4.0]	(50) (0) (50) 1 [4.0] 2 [3.5]	
Prostate Cyst Hyperplasia	(50) 6 [2.0]	(50)	(50) 1 [4.0] 1 [1.0]	(50) 2 [1.0]	

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

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

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	
Inflammation, Suppurative Seminal Vesicle Cyst Dilatation	34 [1.6] (50)	35 [1.6] (50)	31 [1.7] (50) 1 [4.0] 1 [4.0]	24 [1.5] (50)	
Inflammation, Suppurative Testes Artery, Inflammation, Chronic Active	(50)	1 [3.0] (50)	1 [4.0] 1 [4.0] (50) 1 [3.0]	(50)	
Germinal Epithelium, Atrophy Germinal Epithelium, Mineralization	5 [3.6]	5 [4.0] 1 [4.0]	8 [4.0]	6 [3.3]	
Interstitial Cell, Hyperplasia	6 [2.2]	7 [1.6]	10 [1.9]	7 [1.9]	
HEMATOPOIETIC SYSTEM					
Bone Marrow Lymph Node Deep Cervical, Hemorrhage	(50) (6)	(50) (3)	(50) (6)	(50) (12) 1 [3.0]	
Lymph Node, Bronchial Hyperplasia, Histiocytic Infiltration Cellular, Histiocyte	(10)	(8)	(14) 1 [3.0] 1 [3.0]	(15)	
Lymph Node, Mediastinal Angiectasis Hemorrhage	(17) 1 [3.0]	(25) 1 [4.0]	(20) 1 [4.0]	(18)	
Hyperplasia, Lymphoid Infiltration Cellular, Histiocyte		2 [2.5]	1 [3.0]	1 [2.0]	
Pigmentation Lymph Node, Mesenteric Spleen	(50) (50)	(49) (50)	1 [3.0] (49) (49)	1 [3.0] (50) (50)	
Accessory Spleen Fibrosis Hematopoietic Cell Proliferation	1 2 [3.5] 1 [4.0]	1 [3.0] 1 [3.0]	1 [4.0] 1 [3.0]	1 1 [3.0]	
Hemorrhage Hyperplasia, Lymphoid Necrosis	3 [3.3]	1 [4.0] 1 [2.0] 3 [3.7]	5 [4.0]	2 [4.0] 1 [4.0] 8 [3.9]	
Thymus Cyst	(42)	(49) 1 [3.0]	(47)	(47)	
Inflammation Thrombosis			1 [4.0] 1 [4.0]		

INTEGUMENTARY SYSTEM

IS No. 88006 - 03 Type: CHRONIC te: RESPIRATORY EXPOSURE WHOLE BODY cies/Strain: RATS/F 344	P18: INCIDENCE R	Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/0 Lab: BNW			
FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Mammary Gland	(48)	(49)	(50)	(50)	
Galactocele	2 [4.0]	1 [4.0]	3 [4.0]	2 [4.0]	
Hyperplasia Skin	(50)	1 [2.0]	(50)	(50)	
Cyst Epithelial Inclusion	(50) 2 [4.0]	(50) 3 [4.0]	(50)	(50)	
Hyperkeratosis	2 [4.0]	2 [3.5]	1 [3.0]	2 [4.0]	
Hyperplasia, Squamous		1 [3.0]	r1	L - J	
Inflammation, Chronic		1 [3.0]	1 [4.0]		
Ulcer	1 [4.0]	2 [4.0]	2 [3.0]	3 [3.7]	
Subcutaneous Tissue, Metaplasia, Osseous			1 [3.0]		
Subcutaneous Tissue, Mineralization	1 [3.0]				
Bone Hyperostosis Maxilla, Fracture Skeletal Muscle	(50) 1 [3.0] (2)	(50)	(50) 1 (1)	(50) (0)	
IERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Compression	11 [3.9]	11 [3.6]	8 [2.6]	2 [2.5]	
Gliosis				1 [2.0]	
Hemorrhage	7 [3.3]	2 [3.5]	4 [3.0]	2 [4.0]	
Cerebrum, Demyelination, Focal Cerebrum, Necrosis, Focal	1 [2 0]			1 [4.0]	
Cerebrum, Necrosis, Focal Choroid Plexus, Hemorrhage	1 [3.0]		1 [4.0]		
Meninges, Hemorrhage			. []	1 [1.0]	
RESPIRATORY SYSTEM					
Larynx	(50)	(49)	(50)	(50)	
Foreign Body	4 [2.8]	5 [4.0]	2 [4.0]	5 [4.0]	
Inflammation, Suppurative	6 [1.2]	- []	4 [1.5]	2 [2.0]	
Inflammation, Chronic	4 [1.8]	11 [1.5]	6 [1.3]	10 [2.1]	
Epiglottis, Hyperplasia				1 [1.0]	

TDMS No. 88006 - 03 Test Type: CHRONIC

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b]

ALPHA-METHYLSTYRENE

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

CAS Number: 98-83-9 Pathologist: RENNE, R. 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	
Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Metaplasia,	1 [2.0]	2 [2.0]			
Squamous	. [=:0]				
Lung	(50)	(50)	(50)	(50)	
Hemorrhage	7 [2.1]	3 [2.7]	1 [2.0]	7 [2.9]	
Inflammation, Suppurative			1 [4.0]		
Inflammation, Chronic	4 [2.0]	1 [2.0]	3 [1.7]	2 [2.0]	
Thrombosis	1 [3.0]				
Alveolar Epithelium, Degeneration, Mucoid, Focal			1 [3.0]		
Alveolar Epithelium, Hyperplasia	3 [2.3]	6 [2.7]	6 [3.3]	3 [3.0]	
Alveolus, Emphysema		2 [2.0]	1 [4.0]		
Alveolus, Infiltration Cellular, Histiocyte	11 [1.4]	12 [1.5]	10 [2.0]	4 [1.8]	
Interstitium, Fibrosis	3 [1.7]		2 [2.5]	1 [2.0]	
Mediastinum, Inflammation, Suppurative			1 [4.0]		
Nose	(50)	(50)	(50)	(49)	
Foreign Body	6	4	3	2	
Hemorrhage			1 [2.0]		
Inflammation, Suppurative	10 [2.0]	8 [2.1]	7 [2.4]	5 [2.4]	
Inflammation, Chronic		1 [1.0]	2 [2.0]		
Glands, Dilatation	3 [2.0]	7 [2.1]	6 [2.0]		
Goblet Cell, Hyperplasia	5 [2.2]	5 [1.8]	5 [2.4]	5 [2.2]	
Nasolacrimal Duct, Inflammation, Suppurative	2 [1.5]	1 [2.0]	1 [2.0]		
Nerve, Olfactory Epithelium, Degeneration				1 [2.0]	
Olfactory Epithelium, Degeneration Olfactory Epithelium, Degeneration,	1 [2.0] 1 [2.0]	3 [1.3] 1 [1.0]	3 [1.7] 1 [2.0]	16 [1.0]	
Hyaline	.[]	.[]	. [=]		
Olfactory Epithelium, Hyperplasia, Basal Cell		17 [1.0]	18 [1.2]	43 [1.8]	
Olfactory Epithelium, Metaplasia	2 [1.5]	1 [2.0]	3 [1.7]	2 [2.0]	
Respiratory Epithelium, Degeneration, Hyaline	2 [1.5]	[2.0]	2 [1.5]	2 [2.0]	
Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Metaplasia,		1 [2.0]		2 [1.0] 1 [3.0]	
Squamous					
Pleura	(6)	(5)	(6)	(5)	
Inflammation, Chronic Mesothelium, Hyperplasia	5 [1.8]	5 [1.2] 1 [1.0]	6 [2.0]	5 [1.6]	

DMS No. 88006 - 03 est Type: CHRONIC oute: RESPIRATORY EXPOSURE WHOLE BODY pecies/Strain: RATS/F 344	P18: INCIDENCE 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	
SPECIAL SENSES SYSTEM					
Eye Atrophy Cornea, Fibrosis Cornea, Hyperplasia, Squamous Cornea, Mineralization	(49) 1 [4.0]	(49) 1 [1.0]	(50) 1 [4.0]	(49) 1 [4.0] 1 [3.0] 1 [2.0]	
Lens, Cataract Retina, Atrophy Sclera, Metaplasia, Osseous Harderian Gland Inflammation, Chronic	3 [3.0] 1 [4.0] 32 [1.8] (50)	32 [1.8] (50)	5 [3.4] 1 [4.0] 32 [1.9] (50) 2 [2.0]	1 [4.0] 25 [2.2] (50)	
Zymbal's Gland Inflammation	(0)	(1)	(2) 1 [3.0]	(2)	
URINARY SYSTEM					
Kidney Cyst Infarct	(50) 2 3	(50) 2	(50) 2	(50) 5	
Nephropathy Thrombosis	41 [2.2]	46 [2.3]	46 [2.4]	45 [2.4] 1 [4.0]	
Bilateral, Pelvis, Dilatation Bilateral, Infarct Bilateral, Infarct, Multiple		1 [2.0]	1 [2.0]	1 1	
Cortex, Renal Tubule, Accumulation, Hyaline Droplet Glomerulus, Fibrosis	1 [4.0]		1 [4.0]	1 [3.0]	
Papilla, Mineralization Pelvis, Transitional Epithelium, Hyperplasia	12 [1.1] 1 [3.0]	16 [1.0] 2 [2.5]	10 [1.0] 1 [2.0]	33 [1.4] 1 [1.0]	
Pelvis, Transitional Epithelium, Mineralization Pelvis, Dilatation Pelvis, Hemorrhage Renal Tubule, Casts	1 [3.0]	1 [2.0] 1 [1.0]	1 [2.0] 1 [3.0]		
Renal Tubule, Mineralization Urinary Bladder	(50)	1 [4.0] (50)	(50)	(50)	

MS No. 88006 - 03 st Type: CHRONIC ute: RESPIRATORY EXPOSURE WHOLE BODY ecies/Strain: RATS/F 344	P18: INCIDENCE R	ATES OF NON-NEOF WITH AVERAGE S ALPHA-MET CAS Num Pathologis	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	
Calculus Micro Observation Only Cyst	2 [3.0]	1 [3.0]	1 [3.0] 1 [4.0]	1	
Hemorrhage Inflammation, Suppurative	1 [4.0] 1 [3.0]	2 [4.0]	2 [4.0]	1 [4.0]	
Inflammation, Chronic Necrosis		1 [3.0]	2 [4.0]		
Transitional Epithelium, Hyperplasia	1 [2.0]	2 [3.0]	1 [2.0]	2 [2.0]	

*** END OF MALE ***

MS No. 88006 - 03 at Type: CHRONIC ute: RESPIRATORY EXPOSURE WHOLE BODY acies/Strain: RATS/F 344	P18: INCIDENCE R	Date Report Reqsted: 02/02/2006 Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/0 Lab: BNW			
FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Disposition Summary					
Animals Initially in Study Early Deaths	50	50	50	50	
Accidently Killed Moribund Sacrifice Natural Death	2 15 6	21 5	12 2	20 4	
Survivors Terminal Sacrifice Animals Examined Microscopically	27 50	24 50	36 50	26 50	
ALIMENTARY SYSTEM					
Intestine Large, Rectum Intestine Small, Ileum Necrosis	(49) (45)	(48) (46) 1 [4.0]	(50) (48)	(50) (47)	
Intestine Small, Jejunum Diverticulum	(45)	(46) 2 [4.0]	(48)	(48)	
Liver Angiectasis Basophilic Focus	(50) 3 [3.3] 21	(50) 1 [4.0] 23	(50) 2 [3.5] 21	(50) 1 [4.0] 21	
Basophilic Focus, Multiple Clear Cell Focus Clear Cell Focus, Multiple	5 6 3	5 6	10 6 1	8 2	
Eosinophilic Focus Hematopoietic Cell Proliferation	1	0.14.01	2	1 1 [3.0]	
Hepatodiaphragmatic Nodule Inflammation, Suppurative Necrosis	2 [4.0] 2 [3.0]	6 [4.0] 1 [4.0]	6 [4.0] 1 [4.0] 3 [3.0]	7 [4.0] 1 [2.0]	
Thrombosis Vacuolization Cytoplasmic Bile Duct, Bile Stasis	1 [2.0] 8 [2.4] 1 [4.0]	5 [2.6]	1 [3.0] 1 [3.0]	. [0]	
Bile Duct, Hyperplasia Hepatocyte, Regeneration Serosa, Fibrosis		/ - - \	2 [3.5] 1 [3.0] 1 [2.0]		
Mesentery Necrosis Oral Mucosa	(14) 14 [3.0] (1)	(17) 17 [3.0] (0)	(12) 12 [3.0] (1)	(10) 10 [3.0] (0)	

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

CAS Number: 98-83-9 Pathologist: RENNE, R. 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	
Inflammation, Suppurative Pancreas Acinus, Atrophy	1 [3.0] (50) 1 [3.0]	(50)	(50)	(50)	
Duct, Cyst Stomach, Forestomach Diverticulum Hyperplasia, Squamous	(50)	1 [4.0] (50) 1 [4.0] 4 [3.3]	(50) 2 [3.0]	(50) 2 [2.0]	
Inflammation, Suppurative Ulcer Epithelium, Muscularis, Inflammation, Suppurative	5 [3.8]	5 [3.8] 1 [4.0]	3 [4.0]	1 [2.0] 2 [4.0]	
Stomach, Glandular Erosion Hyperplasia	(49) 2 [3.0]	(50)	(50)	(50) 2 [2.0] 1 [2.0]	
Ulcer Tongue Epithelium, Hyperplasia	(0)	1 [4.0] (1) 1 [1.0]	1 [4.0] (2) 1 [2.0]	(0)	
CARDIOVASCULAR SYSTEM					
Blood Vessel Infiltration Cellular, Polymorphonuclear Inflammation	(0)	(1) 1 [4.0]	(0)	(1) 1 [4.0]	
Thrombosis Heart Cardiomyopathy Atrium, Thrombosis	(50) 1 [4.0]	(50) 1 [4.0]	(50) 1 [2.0]	1 [4.0] (50)	
ENDOCRINE SYSTEM					
Adrenal Cortex Angiectasis Hyperplasia Hypertrophy Necrosis Thrombosis Vacuolization Cytoplasmic	(50) 3 [3.7] 7 [2.3] 1 [3.0] 18 [1.8]	(50) 5 [2.4] 1 [2.0] 1 [4.0] 18 [1.9]	(50) 10 [2.4] 1 [2.0] 18 [1.8]	(50) 8 [3.1] 2 [2.5] 1 [3.0] 12 [2.3]	
Adrenal Medulla Hemorrhage	(49)	(50) 1 [4.0]	(50)	(50)	

Type: CHRONIC te: RESPIRATORY EXPOSURE WHOLE BODY cies/Strain: RATS/F 344	P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] 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	
Hyperplasia			2 [2.0]	3 [3.0]	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Pituitary Gland	(50)	(49)	(50)	(50)	
Cyst	4 [3.3]	5 [3.2]	3 [3.7]	2 [2.0]	
Hemorrhage	2 [4.0]	0 [0.2]	1 [4.0]	1 [4.0]	
Hyperplasia	7 [3.0]	8 [3.1]	8 [3.3]	14 [3.6]	
Thyroid Gland	(50)	(50)	(50)	(50)	
C-cell, Hyperplasia	8 [1.6]	5 [2.2]	9 [2.0]	6 [1.5]	
Follicle, Cyst	0[1:0]	0 [2.2]	5 [2:0]	1 [3.0]	
Follicular Cell, Hyperplasia				2 [2.5]	
None					
None GENITAL SYSTEM					
GENITAL SYSTEM Clitoral Gland	(50)	(50)	(50)	(50)	
GENITAL SYSTEM Clitoral Gland Cyst	2 [2.5]				
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia	2 [2.5] 7 [3.9]	(50) 6 [3.7]	3 [4.0]	(50) 4 [3.8]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic	2 [2.5] 7 [3.9] 2 [4.0]	6 [3.7]	3 [4.0] 1 [3.0]	4 [3.8]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary	2 [2.5] 7 [3.9] 2 [4.0] (50)		3 [4.0]		
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0]	6 [3.7] (50)	3 [4.0] 1 [3.0] (50)	4 [3.8] (50)	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6]	6 [3.7] (50) 2 [3.5]	3 [4.0] 1 [3.0] (50) 9 [3.3]	4 [3.8] (50) 8 [3.6]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0]	6 [3.7] (50)	3 [4.0] 1 [3.0] (50) 9 [3.3] (50)	4 [3.8] (50)	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50)	6 [3.7] (50) 2 [3.5] (50)	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1	4 [3.8] (50) 8 [3.6] (50)	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6]	6 [3.7] (50) 2 [3.5]	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0]	4 [3.8] (50) 8 [3.6]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0]	6 [3.7] (50) 2 [3.5] (50)	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1	4 [3.8] (50) 8 [3.6] (50)	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50)	6 [3.7] (50) 2 [3.5] (50)	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0] 1 [3.0]	4 [3.8] (50) 8 [3.6] (50) 2 [4.0]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis Thrombosis	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0] 1 [4.0]	6 [3.7] (50) 2 [3.5] (50)	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0]	4 [3.8] (50) 8 [3.6] (50)	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis Thrombosis Cervix, Myometrium, Hyperplasia	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0] 1 [4.0] 2 [3.0]	6 [3.7] (50) 2 [3.5] (50) 1 [4.0]	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0] 1 [3.0] 1 [4.0]	4 [3.8] (50) 8 [3.6] (50) 2 [4.0] 1 [4.0]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis Thrombosis Cervix, Myometrium, Hyperplasia Endometrium, Hyperplasia	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0] 1 [4.0]	6 [3.7] (50) 2 [3.5] (50)	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0] 1 [4.0] 1 [4.0] 4 [3.0]	4 [3.8] (50) 8 [3.6] (50) 2 [4.0]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis Thrombosis Cervix, Myometrium, Hyperplasia Endometrium, Hyperplasia Endometrium, Inflammation, Suppurative	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0] 1 [4.0] 2 [3.0]	6 [3.7] (50) 2 [3.5] (50) 1 [4.0] 3 [3.0]	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0] 1 [3.0] 1 [4.0]	4 [3.8] (50) 8 [3.6] (50) 2 [4.0] 1 [4.0]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis Thrombosis Cervix, Myometrium, Hyperplasia Endometrium, Hyperplasia Endometrium, Inflammation, Suppurative Myometrium, Hyperplasia	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0] 1 [4.0] 2 [3.0] 6 [2.5]	6 [3.7] (50) 2 [3.5] (50) 1 [4.0] 3 [3.0] 1 [4.0]	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0] 1 [4.0] 1 [4.0] 4 [3.0] 1 [4.0]	4 [3.8] (50) 8 [3.6] (50) 2 [4.0] 1 [4.0] 5 [2.0]	
GENITAL SYSTEM Clitoral Gland Cyst Hyperplasia Inflammation, Chronic Ovary Atrophy Cyst Uterus Cyst Hemorrhage Hydrometra Necrosis Thrombosis Cervix, Myometrium, Hyperplasia Endometrium, Hyperplasia Endometrium, Inflammation, Suppurative	2 [2.5] 7 [3.9] 2 [4.0] (50) 1 [4.0] 9 [3.6] (50) 1 [4.0] 1 [4.0] 2 [3.0]	6 [3.7] (50) 2 [3.5] (50) 1 [4.0] 3 [3.0]	3 [4.0] 1 [3.0] (50) 9 [3.3] (50) 1 1 [4.0] 1 [4.0] 1 [4.0] 4 [3.0]	4 [3.8] (50) 8 [3.6] (50) 2 [4.0] 1 [4.0]	

HEMATOPOIETIC SYSTEM

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

CAS Number: 98-83-9 Pathologist: RENNE, R. Time Report Reqsted: 13:44:41 First Dose M/F: 08/06/01 / 08/06/01 Lab: BNW

Lymph Node Inflammation, Chronic Active (2) (3) (2) (5) Lymph Node, Bronchial (4) (7) 1[3,0] 1[4,0] Compession 1[4,0] (8) (3) Compession 1[4,0] (14,0) (14,0) Hemorphical Strand (26) (25) (21) (28) Hymph Node, Mardibular (26) (25) (21) (28) Hymph Node, Mardibular (30) (50) (50) (50) Lymph Node, Mardibular (26) (25) (21) (28) Hymph Node, Mardibular (30) (50) (50) (50) (50) Lymph Node, Mardibular (26) (25) 1[4,0] (28) (28) Hymph Node, Mardibular (26) (50) (50) (50) (50) Lymph Node, Mardibular (30) (50) (50) (50) (50) Lymph Node, Mardibular (26) (50) (50) (50) (50) Congestion 1[4,0]	FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM	
Pancreatic, Hemorrhage 1 [3.0] Lymph Node, Bronchial (4) (7) (8) (3) Angliectasis 1 [4.0] 1 (3) (14.0) Hemorrhage 1 [3.0] 1 (3) (1) (1) Hyperplasia, Lymphoid 1 [4.0] 1 [4.0] (1) (1) (1) Lymph Node, Mediasinal (26) (25) (21) (28) (28) Hyperplasia, Lymphoid 1 [4.0] 1 [3.0] 1 (3.0) (50) Lymph Node, Mediasinal (26) (25) (21) (28) (28) Hyperplasia, Lymphoid 1 (40) 1 (3.0) (50) <t< td=""><td>Lymph Node</td><td>(2)</td><td>(3)</td><td>(2)</td><td>(5)</td><td></td></t<>	Lymph Node	(2)	(3)	(2)	(5)	
Lymph Node, Branchial (4) (7) (8) (3) Angietcasis 1 [4.0] 1 1 1 1 1 3.0 1				4 [0 0]	1 [4.0]	
Anglectasis 1 [4,0] Congestion 1 [4,0] Hemorrhage 1 [3,0] Hyperplasia, Lymphoid 1 [4,0] Lymph Node, Mandibular (3) (0) 1 [4,0] Lymph Node, Mandibular (26) (25) (21) (28) Hyperplasia, Lymphoid 1 [3,0] 1 [3,0] 1 [3,0] Pigmentation 1 [3,0] 1 [3,0] 1 [3,0] Lymph Node, Mesenteric (50) (50) (50) (50) Congestion 1 [4,0] 2 [3,5] 1 [4,0] 1 [4,0] Spleen (50) (50) (50) (50) (50) Accessory Splen 1 [4,0] 2 [3,5] 1 [4,0] 1 [4,0] Hematopoietic Cell Proliferation 2 [3,5] 2 [4,0] 2 [3,5] 3 [4,0] Pigmentation 1 [4,0] 1 [4,0] 1 [4,0] 1 [4,0] Thymus (50) (50) (50) (50) Good 2 [2,0] 3 [3,0] 4 [3,5] 1 [4,0] Infl		(4)	(7)	1 [3.0] (8)	(3)	
$\begin{array}{c} \text{Congestion} & 1 \left[4.0 \right] & & 1 \left[4.0 \right] & & 1 \left[4.0 \right] & 1 \left[3.0 \right] & 1 \left$		1 [4.0]	(r)	(0)	(3)	
Hemorrhage 1 [4.0] 1 [4.0] 1 [4.0] Hyperplasia, Lymphoid (3) (0) (1) (1) Lymph Node, Mandibular (3) (0) (1) (1) Lymph Node, Mandibular (26) (25) (21) (28) Hyperplasia, Lymphoid 1 [3.0] 1 [3.0] (28) Hyperplasia, Lymphoid 1 [3.0] (28) (50) Congestion 1 [4.0] (50) (50) (50) Spleen (50) (50) (50) (50) Accessory Spleen 1 [4.0] 2 [3.5] 3 [4.0] Hematopoietic Cell Proliferation 2 [3.5] 2 [4.0] 2 [3.5] 3 [4.0] Pigmentation 2 [3.5] 2 [4.0] 2 [3.5] 1 [4.0] Thymus (50) (50) (50) (50) Vyst 1 [4.0] 1 [4.0] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] 1 [4.0] Necrosis 0 1 [4.0] 1 [4.0] 1 [4.0] <		1 [4.0]				
Lymph Node, Mandibular (3) (0) (1) (1) Lymph Node, Mediastinal (26) (25) (21) (28) Hyperplasia, Lymphoid 1 1 1 1 1 Pigmentation 1	Hemorrhage				1 [3.0]	
Lymph Node, Mediastinal (26) (25) (21) (28) Hyperplasia, Lymphoid 1 1 3.0] 1 3.0] Pigmentation 1 1 3.0] 1 3.0] Lymph Node, Mesenteric (50) (50) (50) (50) (50) Congestion 1 1 4.0] 7 7 7 Spleen (50) (50) (50) (50) (50) 7 Hematopoietic Cell Proliferation 2 3.5] 3 1 4.0] Pigmentation 2 3.5] 2 1 4.0] 1	Hyperplasia, Lymphoid	1 [4.0]				
Hyperplasia 1 [3.0] 1 [3.0] Pigmentation 1 [4.0] 1 [3.0] Lymph Node, Mesenteric (50) (50) (50) Congestion 1 [4.0] (50) (50) Spleen (50) (50) (50) Accessory Spleen 1 [4.0] 2 [3.5] 1 [4.0] Hematopoietic Cell Proliferation 2 [3.5] 2 [4.0] 2 [3.5] 3 [4.0] Pigmentation 1 [4.0] (48) (48) (48) (48) Cyst 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Thymus (50) (48) (48) (48) (48) Marmary Gland (50) (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Skin (50) (50) (50) (50) (50) Cyst Epithelial Inclusion 1 [4.0] 1 [3.0] 1 [3.0]		(3)			(1)	
Pigmentation 113.01 Lymph Node, Mesenteric (50) (50) (50) Congestion 1 [4.0] (50) (50) (50) Spleen (50) (50) (50) (50) Accessory Spleen 1 [4.0] 2 [3.5] 1 [4.0] Fibrosis 1 [4.0] 2 [3.5] 3 [4.0] Hematopoletic Cell Proliferation 2 [3.5] 2 [4.0] 2 [3.5] 3 [4.0] Pigmentation 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Thymus (50) (48) (48) (48) Vest 1 [4.0] 1 [4.0] 1 [4.0] Thymus (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Skin (50) (50) (50) (50) Cyst 1 [3.0] <t< td=""><td></td><td>(26)</td><td>(25)</td><td></td><td>(28)</td><td></td></t<>		(26)	(25)		(28)	
Lymph Node, Mesenteric (50) (50) (50) (50) Congestion 1 [4,0] 1 600 600 600 Spleen (50) (50) (50) (50) (50) Accessory Spleen 1 [4,0] 2 [3,5] 1 [4,0] 1 [4,0] Hematopoietic Cell Proliferation 2 [3,5] 2 [4,0] 2 [3,5] 3 [4,0] Pigmentation 1 [4,0] 1 [4,0] 1 [4,0] 1 [4,0] Thymus (50) (48) (48) (48) Cyst 1 [4,0] 1 [4,0] 1 [4,0] INTEGUMENTARY SYSTEM 1 [4,0] 1 [4,0] 1 [4,0] Marmary Gland (50) (50) (50) (50) Galatocele 2 [2,0] 3 [3,0] 4 [3,5] 1 [4,0] Necrosis 1 [4,0] 1 [4,0] 1 [4,0] 1 [4,0] Duct, Cyst 1 [4,0] 1 [4,0] 1 [4,0] 1 [4,0] Skin (50) (50) (50) (50) (50)				1 [3.0]	1 [2 0]	
Congestion 1 [4,0] Spleen (50) (50) (50) Accessory Spleen 1 [4,0] 2 [3,5] 1 [4,0] Fibrosis 1 [4,0] 2 [3,5] 3 [4,0] Pigmentation 2 [3,5] 2 [4,0] 2 [3,5] 1 [4,0] Pigmentation 2 [3,5] 2 [4,0] 2 [3,5] 1 [4,0] Thymus (50) (48) (48) (48) Cyst 1 [4,0] 1 [4,0] 1 [4,0] INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) Galactocele 2 [2,0] 3 [3,0] 4 [3,5] 1 [4,0] Necrosis 1 [4,0] 1 [4,0] 1 [4,0] Duct, Cyst 1 [4,0] 1 [4,0] 1 [4,0] Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 [4,0] 1 [3,0] 1 [3,0] Inflammation, Chronic 1 [4,0] 1 [3,0] 1 [3,0] Ulcer 1 [4,0] 3 [3,7] 1		(50)	(50)	(50)		
Spleen (50) (50) (50) (50) (50) Accessory Spleen 1 [4.0] 2 [3.5] 1 [4.0] Hematopoietic Cell Proliferation 2 [3.5] 2 [4.0] 2 [3.5] 3 [4.0] Pigmentation 1 [4.0] 2 [3.5] 3 [4.0] 1 [4.0] Thymus (50) (48) (48) 1 [4.0] Cyst 1 [4.0] 1 [4.0] 1 [4.0] INTEGUMENTARY SYSTEM Marmary Gland (50) (50) (50) (50) Inflammation, Suppurative 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] 1 [4.0] Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 [4.0] 1 [4.0] 1 [4.0] Hyperkeratosis 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Hemorrhage 1 [4.			(00)	(00)	(00)	
Accessory Spleen 1 [4.0] 2 [3.5] 1 [4.0] Fibrosis 1 [4.0] 2 [3.5] 3 [4.0] Pigmentation 2 [3.5] 2 [4.0] 2 [3.5] 3 [4.0] Pigmentation 1 [4.0] 48 (48) (48) INTEGUMENTARY SYSTEM INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] 1 [4.0] Skin (50) (50) (50) (50) Skin (50) (50) (50) 1 [4.0] Hemmation, Chronic 1 [4.0] 1 [4.0] 1 [4.0] Hornmation, Chronic 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Hemorrhage 1 [4.0] 1 [4.0] 1 [4.0]		(50)	(50)	(50)	(50)	
Hematopoletic Cell Proliferation 2 [3.5] 2 [4.0] 2 [3.5] 3 [4.0] Pigmentation 1 [4.0] 1 [4.0] 1 [4.0] Thymus (50) (48) (48) (48) INTEGUMENTARY SYSTEM 1 [4.0] 1 [4.0] 1 Mammary Gland (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] 1 [4.0] Hyperkaratosis 1 [3.0] 1 [4.0] 1 [4.0] Hyperkaratosis 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Ulcer 1 [4.0] 1 [3.0] 1 [4.0] Ulcer 1 [4.0] 1 [3.0] 1 [4.0] Subcutaneous Tissue, Hemorrhage 1 [4.0] 1 [3.0] 1 [4.0]			1 [4.0]			
Pigmentation 1 [4.0] Thymus (50) (48) (48) (50) 1 [4.0] (48) INTEGUMENTARY SYSTEM Image: Constraint of the system Mammary Gland (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 1 [1.0] 1 [4.0] 1 [4.0] Skin (50) (50) (50) (50) Oyst Epithelial Inclusion 1 [4.0] 1 [4.0] 1 [4.0] Hyperkeratosis 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Inflammation, 1 [3.0] 1 [4.0] 1 [4.0]				2 [3.5]		
Thymus Cyst (50) (48) 1 [4.0] (48) (48) INTEGUMENTARY SYSTEM Intraction (50) (50) (50) (50) (50) Mammary Gland (50) (50) (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 500 (50) (50) (50) Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 [4.0] 1 [4.0] 1 [4.0] Hyperkeratosis 1 [3.0] 1 [3.0] 1 [4.0] Ulcer 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Inflammation, 1 [3.0] 1 [4.0]		2 [3.5]	2 [4.0]	2 [3.5]		
Čyst 1 [4.0] INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] 1 [4.0] Skin (50) (50) (50) (50) Ocyst Epithelial Inclusion 1 [4.0] 1 [4.0] 1 [4.0] Hyperkeratosis 1 [3.0] 1 [3.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Inflammation, 1 [4.0] 1 [4.0] 1 [4.0]		(EO)	(40)	(40)		
INTEGUMENTARY SYSTEM Mammary Gland (50) (50) (50) Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] Epithelium, Hyperplasia 1 [1.0] 1 [4.0] Skin (50) (50) (50) Cyst Epithelial Inclusion 1 [4.0] 1 Hyperkeratosis 1 [3.0] 1 [3.0] Inflammation, Chronic 1 [4.0] 1 [3.0] Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Hemorrhage 1 [4.0] 1 [4.0] Subcutaneous Tissue, Inflammation, 1 [3.0] 1 [4.0]		(50)		(40)	(40)	
Galactocele 2 [2.0] 3 [3.0] 4 [3.5] 1 [4.0] Inflammation, Suppurative 1 [4.0] 1 [4.0] Necrosis 1 [4.0] 1 [4.0] Duct, Cyst 1 [4.0] 1 [4.0] Epithelium, Hyperplasia 1 [1.0] 1 [4.0] Skin (50) (50) (50) Cyst Epithelial Inclusion 1 [4.0] 1 Hyperkeratosis 1 [3.0] 1 Inflammation, Chronic 1 [3.0] 1 Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Hemorrhage 1 [4.0] 1 [4.0] Subcutaneous Tissue, Inflammation, 1 [3.0] 1 [4.0]		(50)	(50)	(50)	(50)	
Inflammation, Suppurative1 [4.0]1 [4.0]Necrosis1 [4.0]Duct, Cyst1 [4.0]Epithelium, Hyperplasia1 [1.0]Skin(50)Cyst Epithelial Inclusion1 [4.0]Hyperkeratosis1 [3.0]Inflammation, Chronic1 [4.0]Ulcer1 [4.0]Subcutaneous Tissue, Hemorrhage1 [3.0]Subcutaneous Tissue, Inflammation,1 [3.0]					(50)	
Necrosis1 [4.0]Duct, Cyst1 [1.0]Epithelium, Hyperplasia1 [1.0]Skin(50)(50)(50)Cyst Epithelial Inclusion1 [4.0]Hyperkeratosis1 [3.0]Inflammation, Chronic1 [3.0]Ulcer1 [4.0]Subcutaneous Tissue, Hemorrhage1 [3.0]Subcutaneous Tissue, Inflammation,1 [3.0]		2 [2:0]	1 [4.0]	1 [4.0]	1 [4:0]	
Duct, Cyst1 [4.0]Epithelium, Hyperplasia1 [1.0]Skin(50)Cyst Epithelial Inclusion1 [4.0]Hyperkeratosis1 [3.0]Inflammation, Chronic1 [3.0]Ulcer1 [4.0]Subcutaneous Tissue, Hemorrhage1 [3.0]Subcutaneous Tissue, Inflammation,1 [3.0]			.[]	.[]	1 [4.0]	
Skin (50) (50) (50) (50) Cyst Epithelial Inclusion 1 [4.0] 1 1 Hyperkeratosis 1 [3.0] 1 [3.0] 1 Inflammation, Chronic 1 [3.0] 1 1 Ulcer 1 [4.0] 3 [3.7] 1 [3.0] Subcutaneous Tissue, Hemorrhage 1 1 1 Subcutaneous Tissue, Inflammation, 1 1 1						
Cyst Epithelial Inclusion1 [4.0]Hyperkeratosis1 [3.0]Inflammation, Chronic1 [3.0]Ulcer1 [4.0]Subcutaneous Tissue, Hemorrhage1 [3.0]Subcutaneous Tissue, Inflammation,1 [3.0]		1 [1.0]				
Hyperkeratosis1 [3.0]1 [3.0]Inflammation, Chronic1 [3.0]Ulcer1 [4.0]Subcutaneous Tissue, Hemorrhage1 [4.0]Subcutaneous Tissue, Inflammation,1 [3.0]		(50)		(50)	(50)	
Inflammation, Chronic1 [3.0]Ulcer1 [4.0]3 [3.7]1 [3.0]Subcutaneous Tissue, Hemorrhage1 [4.0]1 [4.0]Subcutaneous Tissue, Inflammation,1 [3.0]1 [3.0]		1 [2 0]				
Ulcer1 [4.0]3 [3.7]1 [3.0]Subcutaneous Tissue, Hemorrhage1 [4.0]Subcutaneous Tissue, Inflammation,1 [3.0]		i [3.0]	i [3.0]		1 [3 0]	
Subcutaneous Tissue, Hemorrhage 1 [4.0] Subcutaneous Tissue, Inflammation, 1 [3.0]			1 [4.0]	3 [3,7]	1 [3.0]	
Subcutaneous Tissue, Inflammation, 1 [3.0]			.[]	0 [0.1]	1 [4.0]	
Granulomatous	Subcutaneous Tissue, Inflammation,		1 [3.0]		L - J	
	Granulomatous					

MS No. 88006 - 03 st Type: CHRONIC ute: RESPIRATORY EXPOSURE WHOLE BODY ecies/Strain: RATS/F 344	P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] 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	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Maxilla, Fracture	1				
Skeletal Muscle Infiltration Cellular, Lipocyte	(2) 1 [4.0]	(1)	(0)	(0)	
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Compression	7 [3.4]	7 [3.7]	11 [3.3]	8 [3.5]	
Hemorrhage	6 [3.5]	4 [3.8]	5 [3.2]	1 [4.0]	
Cerebellum, Hydrocephalus		1 [4.0]			
Cerebrum, Infiltration Cellular, Mononuclear Cell, Focal	1 [2.0]				
RESPIRATORY SYSTEM					
Larynx	(50)	(50)	(50)	(50)	
Foreign Body	1 [4.0]	1 [4.0]	2 [4.0]	3 [4.0]	
Inflammation, Suppurative	2 [3.5]		1 [2.0]		
Inflammation, Chronic	1 [1.0]	1 [1.0]		4 [1.5]	
Epiglottis, Metaplasia, Squamous	1 [1.0]	4 [0 0]		1 [1.0]	
Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Metaplasia,	1 [4.0]	1 [2.0]	2 [2.5] 1 [2.0]	2 [2.5]	
Squamous			1 [2.0]		
Lung	(50)	(50)	(50)	(50)	
Hemorrhage	1 [4.0]	\/	1 [2.0]	1 [4.0]	
Infiltration Cellular, Polymorphonuclear		1 [4.0]			
Inflammation, Suppurative			1 [3.0]		
Inflammation, Granulomatous		1 [3.0]			
Inflammation, Chronic	5 [1.8]	1 [2.0]	6 [1.5]	5 [1.8]	
Alveolar Epithelium, Hyperplasia	3 [4.0]	6 [3.5]	2 [2.5]	5 [3.2]	
Alveolar Epithelium, Metaplasia, Squamous	1 [3.0]				
Alveolus, Infiltration Cellular, Histiocyte	20 [1.1]	19 [1.1]	22 [1.0]	30 [1.0]	
Bronchiole, Foreign Body	20[1.1]	1	22 [1.0]	00[1.0]	
Bronchiole, Hyperplasia	1 [2.0]	•		1 [2.0]	
Bronchiole, Inflammation, Chronic	[]	1 [3.0]		[-···]	

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

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

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	
Interstitium, Fibrosis				1 [2.0]	
Nose	(49)	(49)	(50)	(50)	
Foreign Body	1	2	3	2	
Inflammation, Suppurative Inflammation, Chronic	2 [2.5]	5 [2.6]	6 [2.0]	6 [2.0] 1 [1.0]	
Glands, Dilatation			2 [1.5]		
Goblet Cell, Hyperplasia	1 [2.0]	1 [2.0]	3 [2.0]	3 [1.7]	
Nasolacrimal Duct, Inflammation, Suppurative	1 [2.0]	1 [2.0]	4 [2.3]	2 [2.5]	
Olfactory Epithelium, Degeneration Olfactory Epithelium, Degeneration,	1 [1.0] 4 [1.3]	1 [1.0] 8 [1.4]	7 [1.3] 6 [1.8]	24 [1.1] 4 [1.8]	
Hyaline					
Olfactory Epithelium, Hyperplasia, Basal Cell		14 [1.0]	30 [1.0]	49 [1.6]	
Olfactory Epithelium, Metaplasia	1 [2.0]			1 [3.0]	
Respiratory Epithelium, Degeneration, Hyaline	1 [1.0]	3 [1.7]	2 [1.0]		
Respiratory Epithelium, Hyperplasia		1 [2.0]	1 [2.0]	1 [2.0]	
Respiratory Epithelium, Metaplasia, Squamous	1 [1.0]		2 [2.0]	2 [1.5]	
Pleura	(16)	(13)	(15)	(30)	
Inflammation, Chronic Mesothelium, Hyperplasia	16 [1.1]	13 [1.0]	15 [1.0]	27 [1.0] 1 [4.0]	
SPECIAL SENSES SYSTEM					
Eye	(48)	(49)	(50)	(50)	
Atrophy				2 [4.0]	
Inflammation, Suppurative	1 [4.0]				
Anterior Chamber, Hemorrhage	F [0, 0]	4 [4 0]	4 [0, 0]	1 [4.0]	
Lens, Cataract Lens, Mineralization	5 [3.0]	1 [4.0]	4 [3.8]	5 [3.4]	
Retina, Atrophy	2 [3.0]		3 [4.0]	2 [3.5]	
Sclera, Metaplasia, Osseous	2 [3.0]	1 [2.0]		2 [5.5]	
		1 [2.0]			
URINARY SYSTEM					
Kidney	(49)	(50)	(50)	(50)	
Cyst	x - /	()	1	× /	

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

Date Report Regsted: 02/02/2006

WITH AVERAGE SEVERITY GRADES[b] ALPHA-METHYLSTYRENE

Test Type: CHRONIC Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

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

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	
Infiltration Cellular, Lipocyte			1 [1.0]		
Nephropathy	34 [1.6]	27 [1.3]	35 [1.5]	31 [1.8]	
Capsule, Hemorrhage		1 [4.0]			
Cortex, Infarct		1		1	
Cortex, Infarct, Multiple			1		
Papilla, Mineralization	1 [1.0]	6 [1.0]	8 [1.0]	7 [1.0]	
Pelvis, Transitional Epithelium, Hyperplasia	5 [2.2]	3 [1.7]			
Pelvis, Transitional Epithelium, Mineralization	31 [1.5]	26 [1.0]	31 [1.1]	16 [1.0]	
Pelvis, Dilatation		1 [2.0]			
Renal Tubule, Degeneration	1 [4.0]				
Renal Tubule, Pigmentation				2 [4.0]	
Jreter	(1)	(0)	(0)	(0)	
Transitional Epithelium, Hyperplasia	1 [3.0]	.,			
Jrinary Bladder	(50)	(50)	(50)	(50)	
Serosa, Edema		1 [4.0]	. ,		
Transitional Epithelium, Hyperplasia		1 [1.0]		2 [2.5]	

*** END OF REPORT ***