

TDMS No. 93025 - 07

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

Date Report Requested: 11/17/2008

Test Type: CHRONIC

Tetralin

Time Report Requested: 08:56:08

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 119-64-2

First Dose M/F: 06/16/03 / 06/16/03

Species/Strain: RATS/F 344/N

Lab: BNW

F2_R2

C Number: C93025
Lock Date: 03/22/2006
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.1.0

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Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	24	14	20	19
Natural Death	6	7	5	3
Survivors				
Natural Death		1		
Terminal Sacrifice	20	28	25	28
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Small, Duodenum	(49)	(47)	(48)	(50)
Intestine Small, Ileum	(44)	(46)	(45)	(48)
Muscularis, Hyperplasia		1 [3.0]		
Liver	(50)	(50)	(50)	(50)
Angiectasis		1 [4.0]		1 [4.0]
Basophilic Focus	2 [1.0]		5 [1.0]	
Basophilic Focus, Multiple	4 [1.0]	1 [2.0]	1 [1.0]	3 [2.0]
Clear Cell Focus	5 [1.2]	3 [3.3]	3 [1.5]	6 [2.2]
Clear Cell Focus, Multiple	7 [1.6]	11 [1.5]	8 [1.8]	7 [2.3]
Degeneration, Cystic	1 [1.0]	2 [2.0]	1 [1.0]	2 [1.5]
Hematopoietic Cell Proliferation			1 [3.0]	
Hemorrhage				1 [1.0]
Hepatodiaphragmatic Nodule	4 [4.0]	4 [4.0]	4 [4.0]	4 [4.0]
Infarct		1 [4.0]		
Mixed Cell Focus				1 [1.0]
Necrosis	3 [3.3]	3 [3.7]	1 [4.0]	
Vacuolization Cytoplasmic	4 [2.8]	5 [1.4]	4 [1.5]	8 [1.8]
Bile Duct, Hyperplasia	15 [1.6]	3 [1.3]	4 [1.0]	9 [1.2]
Centrilobular, Degeneration				2 [3.0]
Hepatocyte, Regeneration	2 [4.0]			
Periportal, Inflammation, Chronic	3 [1.3]	3 [1.3]	2 [2.5]	5 [1.8]
Serosa, Fibrosis			1 [4.0]	
Mesentery	(15)	(13)	(12)	(11)
Hemorrhage	1 [2.0]			1 [2.0]
Necrosis	12 [2.1]	13 [2.5]	12 [2.0]	11 [2.4]

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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Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Fat, Hemorrhage	2 [2.0]			1 [1.0]
Oral Mucosa	(1)	(0)	(3)	(0)
Hyperplasia, Squamous	1 [4.0]			
Pharyngeal, Fibrosis			1 [4.0]	
Pharyngeal, Hyperplasia, Squamous			2 [3.0]	
Pancreas	(50)	(50)	(50)	(50)
Cyst	1 [1.0]	1 [4.0]		
Inflammation, Chronic			1 [3.0]	
Acinus, Atrophy	9 [2.4]	5 [2.6]	3 [2.0]	5 [2.6]
Artery, Inflammation				1 [4.0]
Stomach, Forestomach	(50)	(50)	(50)	(50)
Diverticulum		1		
Erosion		1 [4.0]		
Hyperplasia, Squamous	2 [3.5]		1 [3.0]	
Inflammation, Suppurative	2 [3.5]	1 [4.0]	1 [2.0]	
Ulcer	5 [3.8]	1 [4.0]	3 [3.3]	2 [4.0]
Stomach, Glandular	(50)	(50)	(50)	(50)
Erosion		2 [3.0]		1 [1.0]
Ulcer	1 [4.0]			1 [3.0]
Tongue	(1)	(3)	(3)	(1)
Epithelium, Hyperplasia	1 [2.0]	2 [2.0]	3 [3.0]	1 [3.0]
Tooth	(3)	(2)	(1)	(0)
Inflammation, Suppurative		2 [3.5]	1 [4.0]	
Malformation	2 [3.5]			
Epithelium Alveolus, Hyperplasia	1 [4.0]			
Peridontal Tissue, Inflammation	1 [2.0]			
CARDIOVASCULAR SYSTEM				
Blood Vessel	(0)	(0)	(0)	(1)
Inflammation, Chronic Active				1 [4.0]
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	35 [1.4]	35 [1.3]	38 [1.4]	32 [1.4]
Atrium, Thrombosis	1 [4.0]	2 [4.0]	1 [4.0]	3 [4.0]
Ventricle, Inflammation, Suppurative		1 [4.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(49)	(50)

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

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Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Atrophy			1 [4.0]	
Hemorrhage	1 [2.0]			
Hyperplasia	13 [1.7]	17 [2.5]	18 [2.1]	14 [1.9]
Vacuolization Cytoplasmic	17 [1.4]	11 [1.5]	19 [1.2]	15 [1.5]
Adrenal Medulla	(50)	(50)	(49)	(50)
Hyperplasia	16 [1.9]	15 [2.7]	15 [2.2]	13 [2.1]
Infiltration Cellular, Lymphocyte			1 [3.0]	
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia		2 [4.0]	1 [4.0]	
Pituitary Gland	(50)	(49)	(49)	(49)
Cyst	2 [4.0]	3 [4.0]		
Hemorrhage		2 [4.0]	4 [3.8]	4 [2.8]
Hyperplasia	7 [3.1]	8 [3.3]	4 [3.0]	6 [2.7]
Pars Intermedia, Cyst				1 [3.0]
Thyroid Gland	(50)	(50)	(50)	(50)
C-cell, Hyperplasia	23 [1.7]	17 [1.9]	16 [1.2]	10 [1.9]
Follicle, Cyst	1 [2.0]			
Follicular Cell, Hyperplasia		1 [4.0]	1 [1.0]	1 [1.0]
GENERAL BODY SYSTEM				
Peritoneum	(0)	(2)	(0)	(3)
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Necrosis, Fatty				1 [2.0]
Preputial Gland	(50)	(50)	(50)	(49)
Cyst	1 [2.0]	1 [3.0]	3 [3.7]	
Hyperplasia	2 [3.0]	2 [3.0]	3 [4.0]	3 [3.3]
Inflammation, Suppurative	1 [2.0]			1 [3.0]
Prostate	(50)	(50)	(50)	(50)
Hyperplasia	2 [1.0]	1 [1.0]	5 [1.4]	5 [1.2]
Inflammation, Suppurative	40 [1.4]	36 [1.6]	38 [1.7]	34 [1.5]
Inflammation, Chronic				1 [3.0]
Seminal Vesicle	(50)	(50)	(50)	(50)
Dilatation			1 [3.0]	
Inflammation, Suppurative			1 [1.0]	
Inflammation, Chronic				1 [2.0]

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Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Testes	(50)	(50)	(50)	(50)
Mineralization		2 [2.5]		1 [3.0]
Artery, Inflammation, Chronic Active	1 [2.0]	1 [1.0]	6 [2.0]	2 [2.5]
Germinal Epithelium, Atrophy	32 [2.2]	42 [2.4]	34 [2.4]	45 [2.3]
Interstitial Cell, Hyperplasia	4 [2.5]	4 [2.8]	4 [2.0]	3 [2.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia, Reticulum Cell	2 [3.0]		1 [4.0]	
Lymph Node	(8)	(2)	(7)	(1)
Deep Cervical, Ectasia			1 [3.0]	
Pancreatic, Ectasia			1 [4.0]	
Pancreatic, Hyperplasia, Lymphoid				1 [2.0]
Pancreatic, Pigmentation, Hemosiderin		1 [3.0]		
Lymph Node, Bronchial	(7)	(5)	(4)	(4)
Angiectasis	1 [3.0]		2 [3.5]	
Ectasia	1 [4.0]	1 [4.0]		
Hemorrhage		1 [2.0]		1 [1.0]
Hyperplasia, Lymphoid				1 [4.0]
Infiltration Cellular, Histiocyte				1 [3.0]
Inflammation, Chronic	1 [4.0]			
Inflammation, Chronic Active	1 [3.0]			
Pigmentation, Hemosiderin		1 [2.0]		
Lymph Node, Mandibular	(0)	(1)	(3)	(0)
Inflammation, Chronic Active			1 [3.0]	
Lymph Node, Mediastinal	(33)	(36)	(36)	(31)
Angiectasis		1 [4.0]		
Ectasia	1 [4.0]		1 [2.0]	1 [3.0]
Hemorrhage	1 [2.0]	1 [4.0]		2 [2.5]
Hyperplasia, Lymphoid		1 [4.0]	1 [3.0]	1 [4.0]
Inflammation, Suppurative			1 [2.0]	
Inflammation, Chronic	1 [4.0]			
Inflammation, Chronic Active	1 [3.0]			
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Ectasia	1 [2.0]			
Fibrosis			1 [2.0]	
Necrosis		1 [4.0]		
Spleen	(50)	(50)	(50)	(50)

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Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Accessory Spleen	2 [2.0]	1 [2.0]		
Fibrosis		3 [2.7]		
Hematopoietic Cell Proliferation	1 [4.0]	1 [4.0]	4 [3.5]	1 [3.0]
Hemorrhage	2 [4.0]	2 [3.0]		1 [4.0]
Hyperplasia, Lymphoid	1 [4.0]		1 [3.0]	
Necrosis	2 [4.0]	2 [4.0]	1 [4.0]	
Pigmentation, Hemosiderin		1 [4.0]		
Thymus	(47)	(43)	(44)	(43)
Ectopic Thyroid				1 [2.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	2 [4.0]	3 [3.0]	2 [2.5]	2 [1.0]
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	4 [4.0]	3 [4.0]		3 [4.0]
Hyperkeratosis		1 [3.0]	2 [4.0]	
Hyperplasia, Squamous			2 [4.0]	
Inflammation, Chronic	1 [3.0]	1 [2.0]		
Ulcer	5 [3.8]	1 [4.0]		
Subcutaneous Tissue, Fibrosis		1 [2.0]		
Subcutaneous Tissue, Hemorrhage			1 [4.0]	
Subcutaneous Tissue, Metaplasia, Osseous		1 [3.0]		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	13 [2.8]	13 [2.7]	17 [2.8]	4 [2.3]
Hemorrhage	6 [2.5]	5 [3.0]	4 [2.3]	2 [3.0]
Cerebrum, Mineralization	1 [1.0]			
RESPIRATORY SYSTEM				

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Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Larynx	(50)	(50)	(50)	(50)
Foreign Body	6 [4.0]	2 [4.0]	4 [4.0]	3 [4.0]
Inflammation, Suppurative	5 [1.2]	2 [1.5]	7 [1.0]	7 [1.1]
Inflammation, Chronic	1 [1.0]			
Epiglottis, Metaplasia, Squamous Respiratory Epithelium, Hyperplasia	1 [1.0]			1 [1.0]
Respiratory Epithelium, Metaplasia, Squamous		1 [1.0]		
Lung	(50)	(50)	(50)	(50)
Congestion	1 [3.0]		1 [2.0]	
Hemorrhage	5 [1.4]	3 [2.3]	5 [1.2]	3 [1.7]
Inflammation, Suppurative			2 [1.0]	
Inflammation, Chronic	8 [1.6]	10 [1.5]	7 [1.6]	9 [1.7]
Alveolar Epithelium, Hyperplasia	12 [2.0]	7 [1.9]	11 [3.0]	15 [2.7]
Alveolar Epithelium, Metaplasia, Squamous	1 [4.0]		1 [4.0]	1 [2.0]
Alveolar Epithelium, Metaplasia, Mucous	1 [3.0]		2 [2.5]	2 [3.0]
Alveolus, Emphysema				1 [2.0]
Alveolus, Foreign Body				2 [1.0]
Alveolus, Infiltration Cellular, Histiocyte	13 [1.5]	16 [1.5]	14 [1.3]	15 [1.3]
Alveolus, Proteinosis	3 [2.0]	1 [1.0]	3 [2.0]	4 [3.3]
Artery, Mineralization			1 [2.0]	1 [2.0]
Bronchiole, Hyperplasia		1 [1.0]		1 [1.0]
Bronchiole, Inflammation, Suppurative				1 [3.0]
Bronchiole, Glands, Degeneration, Muroid	5 [1.2]		1 [3.0]	4 [1.5]
Bronchiole, Goblet Cell, Hyperplasia	1 [3.0]			
Interstitialium, Fibrosis	1 [1.0]	1 [2.0]	1 [1.0]	
Mediastinum, Fibrosis			2 [2.5]	
Mediastinum, Hyperplasia, Lymphoid, Focal			1 [2.0]	
Nose	(50)	(50)	(49)	(50)
Foreign Body	11 [2.6]	5 [3.0]	5 [3.0]	3 [3.0]
Inflammation, Suppurative	6 [1.3]	6 [1.3]	5 [1.8]	4 [1.8]
Inflammation, Chronic	1 [1.0]			
Inflammation, Chronic Active	1 [1.0]			
Glands, Dilatation		3 [1.3]	3 [1.3]	16 [1.8]
Goblet Cell, Hyperplasia		1 [2.0]		
Nasolacrimal Duct, Inflammation, Suppurative	1 [1.0]	3 [1.3]		

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Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
Olfactory Epithelium, Atrophy				1 [3.0]
Olfactory Epithelium, Degeneration	1 [1.0]	40 [1.9]	43 [1.6]	42 [2.0]
Olfactory Epithelium, Degeneration, Hyaline	1 [2.0]			
Olfactory Epithelium, Hyperplasia, Basal Cell		38 [1.8]	48 [1.9]	48 [2.0]
Olfactory Epithelium, Inflammation, Suppurative		12 [1.1]	8 [1.4]	10 [1.9]
Olfactory Epithelium, Metaplasia		17 [1.6]	31 [1.6]	37 [1.8]
Olfactory Epithelium, Mineralization		5 [1.2]	12 [1.5]	17 [1.3]
Respiratory Epithelium, Degeneration, Hyaline	1 [1.0]			
Respiratory Epithelium, Hyperplasia	1 [2.0]	2 [2.5]	3 [2.7]	3 [1.3]
Respiratory Epithelium, Inflammation, Chronic	4 [1.0]	4 [1.3]	18 [1.2]	16 [1.1]
Respiratory Epithelium, Metaplasia, Squamous		1 [1.0]		
Pleura	(2)	(1)	(3)	(10)
Fibrosis	2 [1.5]		1 [1.0]	2 [1.0]
Inflammation, Chronic				1 [2.0]
SPECIAL SENSES SYSTEM				
Eye	(50)	(49)	(48)	(50)
Atrophy	1 [4.0]			
Inflammation, Chronic	1 [3.0]			
Anterior Chamber, Edema			1 [4.0]	
Anterior Chamber, Inflammation, Suppurative	1 [1.0]			
Cornea, Degeneration		1 [1.0]		
Cornea, Inflammation, Suppurative		1 [1.0]		1 [1.0]
Cornea, Mineralization	1 [1.0]	1 [1.0]		1 [1.0]
Lens, Cataract	9 [2.6]	10 [2.4]	10 [2.4]	10 [1.5]
Retina, Atrophy	2 [4.0]	3 [3.3]	5 [2.4]	4 [3.3]
Sclera, Metaplasia, Osseous	4 [2.3]	11 [1.5]	3 [2.3]	7 [2.1]
Harderian Gland	(50)	(50)	(50)	(50)
Infiltration Cellular, Lymphocyte			1 [2.0]	
Inflammation, Chronic		1 [1.0]	2 [1.5]	3 [2.0]
Zymbal's Gland	(0)	(0)	(1)	(1)

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FISCHER 344 RATS MALE	CONTROL	30 PPM	60 PPM	120 PPM
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Infiltration Cellular, Lymphocyte Inflammation, Suppurative		1 [3.0]	1 [3.0]	
Nephropathy, Chronic	48 [2.6]	50 [3.0]	48 [3.0]	50 [3.4]
Artery, Necrosis		1 [3.0]	1 [3.0]	
Cortex, Renal Tubule, Accumulation, Hyaline Droplet	1 [4.0]	2 [4.0]	1 [3.0]	
Cortex, Renal Tubule, Dilatation				1 [1.0]
Cortex, Renal Tubule, Hyperplasia	1 [2.0]	2 [3.0]		3 [3.7]
Cortex, Renal Tubule, Hyperplasia, Oncocytic		1 [4.0]		
Cortex, Renal Tubule, Pigmentation	1 [4.0]			
Medulla, Casts			1 [4.0]	
Papilla, Mineralization	13 [1.2]	11 [1.0]	10 [1.0]	18 [1.2]
Pelvis, Transitional Epithelium, Dilatation				1 [1.0]
Pelvis, Transitional Epithelium, Hyperplasia	1 [1.0]	1 [2.0]		7 [1.7]
Urinary Bladder	(50)	(50)	(50)	(50)
Calculus Micro Observation Only	1		1	
Inflammation, Chronic	1 [2.0]			1 [2.0]
Transitional Epithelium, Hyperplasia			2 [2.0]	1 [2.0]

*** END OF MALE ***

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FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	16	11	15	11
Natural Death	3	3	4	1
Survivors				
Terminal Sacrifice	31	36	31	38
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Intestine Large, Cecum	(49)	(50)	(48)	(49)
Intestine Large, Colon	(50)	(50)	(50)	(49)
Inflammation, Suppurative				1 [4.0]
Ulcer				1 [4.0]
Intestine Large, Rectum	(50)	(50)	(50)	(49)
Intestine Small, Ileum	(49)	(50)	(48)	(49)
Inflammation, Chronic			1 [3.0]	
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 [3.0]	4 [3.0]	1 [1.0]	4 [1.8]
Basophilic Focus	7 [1.4]	7 [2.0]	7 [1.9]	2 [2.0]
Basophilic Focus, Multiple	18 [1.4]	13 [1.0]	16 [1.3]	20 [1.1]
Clear Cell Focus	6 [1.7]	6 [2.2]	7 [1.9]	9 [1.9]
Clear Cell Focus, Multiple	9 [1.6]	2 [1.5]	5 [1.5]	10 [1.4]
Degeneration, Cystic			1 [1.0]	
Hematopoietic Cell Proliferation			2 [3.0]	
Hepatodiaphragmatic Nodule	5 [4.0]	6 [4.0]	9 [4.0]	6 [4.0]
Mixed Cell Focus				1 [2.0]
Mixed Cell Focus, Multiple		1 [1.0]		
Necrosis	2 [3.0]		2 [3.0]	
Vacuolization Cytoplasmic	6 [2.0]	2 [3.0]	2 [2.5]	3 [2.3]
Bile Duct, Hyperplasia	2 [2.0]			1 [1.0]
Periportal, Inflammation, Chronic		2 [2.0]	3 [1.3]	3 [1.3]
Serosa, Fibrosis			1 [1.0]	
Mesentery	(10)	(18)	(18)	(14)
Necrosis	10 [2.1]	18 [2.8]	18 [2.4]	14 [2.6]

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

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Test Type: CHRONIC

Tetralin

Time Report Requested: 08:56:08

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 119-64-2

First Dose M/F: 06/16/03 / 06/16/03

Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
Fat, Hemorrhage				1 [2.0]
Oral Mucosa	(1)	(0)	(1)	(1)
Pharyngeal, Hyperplasia, Squamous	1 [4.0]		1 [4.0]	1 [4.0]
Pancreas	(50)	(50)	(50)	(50)
Cyst		1 [3.0]		
Inflammation, Chronic		1 [2.0]		
Acinus, Atrophy	2 [2.0]	1 [2.0]		
Salivary Glands	(50)	(50)	(50)	(50)
Inflammation, Chronic				1 [2.0]
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperplasia, Squamous	1 [2.0]		1 [4.0]	
Inflammation, Suppurative	2 [2.0]		1 [4.0]	
Ulcer				1 [4.0]
Stomach, Glandular	(50)	(50)	(50)	(50)
Ulcer	1 [3.0]			
Epithelium, Hyperplasia		1 [4.0]		
Tongue	(1)	(1)	(0)	(3)
Epithelium, Hyperplasia		1 [3.0]		3 [4.0]
CARDIOVASCULAR SYSTEM				
Blood Vessel	(0)	(0)	(0)	(1)
Media, Inflammation, Chronic				1 [3.0]
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	22 [1.3]	24 [1.2]	32 [1.2]	34 [1.2]
Atrium, Thrombosis	1 [3.0]			
Pericardium, Fibrosis	1 [3.0]			
Pericardium, Infiltration Cellular, Mixed	1 [2.0]			
Cell				
Ventricle, Thrombosis		1 [4.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation			2 [2.5]	
Hemorrhage	3 [2.0]	1 [3.0]	1 [2.0]	
Hyperplasia	14 [3.2]	17 [2.4]	14 [2.4]	18 [2.5]
Metaplasia, Osseous			1 [2.0]	
Necrosis		1 [4.0]	1 [2.0]	

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FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
Vacuolization Cytoplasmic Capsule, Hyperplasia	4 [1.8]	7 [1.9]	8 [1.8]	4 [2.3]
Adrenal Medulla	(50)	(50)	(50)	1 [1.0]
Hyperplasia	1 [1.0]	2 [1.0]	3 [2.3]	(50)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 [3.0]	(50)	(48)	(47)
Parathyroid Gland	(49)	(50)	(48)	(47)
Hyperplasia	1 [3.0]	(50)	1 [2.0]	1 [3.0]
Pituitary Gland	(49)	(50)	(50)	(50)
Cyst	3 [3.0]	2 [4.0]	4 [3.8]	4 [4.0]
Hyperplasia	5 [3.0]	11 [2.8]	10 [2.9]	5 [3.0]
Thyroid Gland	(50)	(50)	(50)	(49)
C-cell, Hyperplasia	27 [1.4]	23 [1.4]	17 [1.2]	19 [1.7]
Follicle, Cyst				1 [3.0]
Follicular Cell, Hyperplasia	1 [2.0]		1 [3.0]	

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	2 [3.0]			3 [3.0]
Hyperplasia	4 [3.3]	4 [2.8]	4 [2.3]	2 [3.5]
Inflammation, Suppurative				1 [2.0]
Inflammation, Chronic			1 [1.0]	
Ovary	(50)	(50)	(50)	(50)
Cyst	6 [3.7]	4 [4.0]	7 [3.6]	9 [3.3]
Hyperplasia, Adenomatous				1 [3.0]
Oviduct	(0)	(1)	(0)	(0)
Cyst		1 [2.0]		
Inflammation, Suppurative		1 [1.0]		
Uterus	(50)	(50)	(50)	(50)
Decidual Reaction	1 [4.0]	1 [4.0]		
Hemorrhage	1 [4.0]	1 [4.0]	2 [4.0]	3 [4.0]
Hydrometra		1 [2.0]		
Necrosis		3 [4.0]		2 [4.0]
Thrombosis			1 [4.0]	

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Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
Cervix, Myometrium, Hypertrophy		1 [4.0]		
Endometrium, Hyperplasia	2 [1.0]	5 [1.2]	7 [1.4]	11 [2.3]
Endometrium, Inflammation, Suppurative			3 [1.7]	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia			1 [3.0]	1 [4.0]
Hyperplasia, Reticulum Cell		2 [3.0]	3 [3.7]	
Erythroid Cell, Hyperplasia			1 [4.0]	
Lymph Node	(4)	(3)	(3)	(3)
Pancreatic, Ectasia			1 [2.0]	
Pancreatic, Erythrophagocytosis		1 [4.0]		
Pancreatic, Hemorrhage		1 [3.0]		1 [2.0]
Pancreatic, Infiltration Cellular, Histiocyte	1 [4.0]	1 [4.0]		
Pancreatic, Inflammation, Chronic				1 [2.0]
Pancreatic, Pigmentation		1 [3.0]	1 [2.0]	1 [3.0]
Lymph Node, Bronchial	(3)	(5)	(3)	(2)
Ectasia			1 [3.0]	
Hyperplasia, Lymphoid		1 [4.0]		
Infiltration Cellular, Histiocyte		2 [4.0]		
Pigmentation		1 [4.0]		
Lymph Node, Mediastinal	(33)	(36)	(40)	(34)
Angiectasis	1 [4.0]		1 [3.0]	
Ectasia				1 [4.0]
Hyperplasia, Lymphoid	2 [3.0]			
Inflammation, Chronic	1 [3.0]			
Pigmentation	2 [3.0]		1 [2.0]	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Ectasia				1 [4.0]
Pigmentation				1 [2.0]
Spleen	(50)	(50)	(50)	(50)
Fibrosis	1 [2.0]	1 [4.0]		
Hematopoietic Cell Proliferation	2 [3.5]	4 [3.5]	5 [3.6]	1 [4.0]
Hemorrhage		1 [4.0]		
Necrosis	2 [4.0]			
Thymus	(44)	(45)	(48)	(46)
Cyst		1 [3.0]		
Ectopic Parathyroid Gland				1 [1.0]

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Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	1 [1.0]	2 [1.0]	4 [2.5]	2 [4.0]
Hyperplasia				1 [1.0]
Epithelium, Hyperplasia		1 [1.0]	1 [1.0]	
Skin	(50)	(50)	(50)	(50)
Hyperkeratosis				1 [2.0]
Hyperplasia, Squamous				1 [2.0]
Inflammation, Chronic			1 [3.0]	1 [1.0]
Ulcer	1 [3.0]	1 [4.0]	1 [4.0]	3 [3.0]
Subcutaneous Tissue, Hemorrhage		1 [3.0]		
Subcutaneous Tissue, Inflammation, Chronic	1 [2.0]			
Subcutaneous Tissue, Ulcer			1 [4.0]	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Skeletal Muscle	(1)	(1)	(0)	(0)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	11 [3.1]	6 [3.5]	13 [3.2]	12 [3.1]
Hemorrhage	2 [1.5]	3 [3.7]	4 [2.5]	5 [3.0]
Hydrocephalus				1 [3.0]
Necrosis				1 [4.0]
Thrombosis	1 [4.0]			
Choroid Plexus, Hyperplasia				1 [2.0]
Medulla, Gliosis			1 [3.0]	
Spinal Cord	(0)	(1)	(0)	(0)
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(50)	(50)
Foreign Body	3 [4.0]	4 [4.0]	4 [3.5]	3 [4.0]

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Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
Inflammation, Suppurative	6 [1.2]	2 [1.0]	6 [1.0]	9 [1.1]
Inflammation, Chronic		1 [1.0]	1 [1.0]	1 [1.0]
Epiglottis, Metaplasia, Squamous				1 [1.0]
Respiratory Epithelium, Hyperplasia	3 [1.3]	1 [1.0]		1 [1.0]
Lung	(50)	(50)	(50)	(50)
Hemorrhage	2 [3.0]	1 [4.0]		
Inflammation, Suppurative		1 [3.0]		
Inflammation, Chronic	12 [1.6]	16 [1.4]	14 [1.9]	21 [1.4]
Alveolar Epithelium, Hyperplasia	6 [1.8]	5 [3.0]	4 [2.0]	3 [1.0]
Alveolar Epithelium, Metaplasia, Squamous	1 [3.0]			
Alveolus, Infiltration Cellular, Histiocyte	21 [1.5]	30 [1.3]	24 [1.3]	34 [1.2]
Alveolus, Pigmentation	1 [4.0]			
Alveolus, Proteinosis		5 [1.4]	3 [1.0]	2 [1.0]
Bronchiole, Hyperplasia	1 [1.0]	3 [1.0]	2 [1.0]	3 [1.3]
Bronchiole, Glands, Degeneration, Muroid	2 [1.0]	2 [1.0]	2 [1.5]	
Interstitialium, Fibrosis				1 [1.0]
Mediastinum, Infiltration Cellular, Histiocyte		1 [4.0]		
Nose	(50)	(50)	(50)	(50)
Foreign Body	1 [3.0]	1 [3.0]	2 [3.0]	5 [3.0]
Inflammation, Suppurative	7 [1.3]	1 [2.0]	4 [1.3]	4 [1.8]
Glands, Dilatation		6 [1.0]	10 [1.5]	16 [1.8]
Nasolacrimal Duct, Inflammation, Suppurative	3 [2.7]	2 [1.0]	1 [2.0]	1 [3.0]
Olfactory Epithelium, Degeneration		47 [1.6]	50 [1.6]	46 [1.5]
Olfactory Epithelium, Degeneration, Hyaline	3 [1.0]			
Olfactory Epithelium, Hyperplasia, Basal Cell		48 [1.6]	50 [1.7]	49 [1.6]
Olfactory Epithelium, Inflammation, Suppurative		16 [1.2]	15 [1.1]	19 [1.3]
Olfactory Epithelium, Metaplasia		41 [1.2]	43 [1.2]	49 [1.6]
Olfactory Epithelium, Mineralization		2 [1.0]	8 [1.1]	13 [1.1]
Respiratory Epithelium, Degeneration, Hyaline	1 [1.0]			
Respiratory Epithelium, Hyperplasia	7 [1.6]	1 [2.0]	2 [2.0]	5 [2.2]
Respiratory Epithelium, Inflammation, Chronic	1 [2.0]	7 [1.0]	11 [1.2]	12 [1.2]

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Tetralin

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Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 119-64-2

First Dose M/F: 06/16/03 / 06/16/03

Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	30 PPM	60 PPM	120 PPM
Pleura	(9)	(16)	(15)	(17)
Fibrosis			2 [2.0]	
Infiltration Cellular, Histiocyte	1 [4.0]			
Mesothelium, Hyperplasia			1 [2.0]	
Trachea	(50)	(50)	(50)	(50)
Inflammation, Chronic			1 [1.0]	
SPECIAL SENSES SYSTEM				
Eye	(49)	(50)	(49)	(50)
Cornea, Inflammation	1 [2.0]			
Cornea, Inflammation, Suppurative		1 [1.0]		
Cornea, Mineralization				1 [2.0]
Lens, Cataract	2 [3.0]	6 [2.7]	7 [2.6]	11 [1.9]
Retina, Atrophy	4 [2.0]	7 [2.6]	7 [2.6]	7 [2.1]
Sclera, Metaplasia, Osseous		1 [2.0]	1 [2.0]	
Harderian Gland	(50)	(50)	(50)	(50)
Inflammation, Chronic	2 [1.0]	1 [1.0]	2 [1.0]	
Zymbal's Gland	(1)	(0)	(0)	(0)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Nephropathy, Chronic	40 [1.6]	41 [1.7]	44 [1.8]	49 [1.9]
Cortex, Infarct, Multiple	1 [3.0]			
Cortex, Renal Tubule, Accumulation, Hyaline Droplet	1 [3.0]		2 [3.5]	
Papilla, Mineralization	28 [1.1]	16 [1.1]	23 [1.0]	20 [1.1]
Pelvis, Inflammation, Suppurative				1 [1.0]
Pelvis, Inflammation, Chronic			1 [2.0]	
Pelvis, Mineralization	1 [1.0]			
Pelvis, Transitional Epithelium, Hyperplasia		4 [1.8]	1 [2.0]	2 [1.5]
Pelvis, Transitional Epithelium, Mineralization	2 [2.0]	1 [1.0]	2 [1.0]	2 [1.0]
Renal Tubule, Dilatation		1 [4.0]		
Urinary Bladder	(50)	(50)	(50)	(50)
Transitional Epithelium, Hyperplasia		2 [2.5]		1 [3.0]

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TDMS No. 93025 - 07

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

Date Report Requested: 11/17/2008

Test Type: CHRONIC

Tetralin

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Route: RESPIRATORY EXPOSURE WHOLE BODY

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Species/Strain: RATS/F 344/N

Lab: BNW

FISCHER 344 RATS FEMALE

CONTROL

30 PPM

60 PPM

120 PPM

*** END OF REPORT ***