

TDMs No. 20114 - 07

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

Date Report Reqsted: 10/04/2007

Test Type: CHRONIC

Sodium dichromate dihydrate (VI)

Time Report Reqsted: 10:38:19

Route: DOSED WATER

CAS Number: 7789-12-0

First Dose M/F: 10/02/02 / 10/02/02

Species/Strain: RATS/F 344

Lab: SRI

F2_R2

C Number: C20114

Lock Date: 10/04/2005

Cage Range: ALL

Date Range: ALL

Reasons For Removal: 25021 TSAC 25020 NATD 25019 MSAC

Removal Date Range: ALL

Treatment Groups: Include ALL

TDMSE Version: 1.8.0

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Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Disposition Summary					
Animals Initially in Study	50	50	50	50	50
Early Deaths					
Moribund Sacrifice	16	15	16	9	16
Natural Death	6	5	3	5	4
Survivors					
Terminal Sacrifice	28	30	30	36	29
Animals Examined Microscopically	50	50	49	50	49
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(45)	(48)	(46)	(47)	(48)
Edema		1 [2.0]	1 [2.0]	2 [2.5]	2 [2.0]
Erosion				1 [3.0]	
Ulcer			1 [3.0]		1 [1.0]
Intestine Large, Colon	(47)	(49)	(49)	(48)	(48)
Edema	1 [2.0]				
Infiltration Cellular, Lymphocyte					1 [2.0]
Intestine Small, Duodenum	(48)	(48)	(47)	(46)	(48)
Erosion	1 [2.0]			1 [2.0]	
Infiltration Cellular, Histiocyte			6 [1.2]	36 [1.1]	47 [1.5]
Ulcer		1 [3.0]			
Intestine Small, Ileum	(45)	(46)	(46)	(45)	(47)
Hyperplasia	1 [2.0]				
Lymphoid Tissue, Hyperplasia	10 [2.3]	11 [1.8]	9 [2.0]	7 [1.9]	10 [2.0]
Intestine Small, Jejunum	(44)	(47)	(45)	(46)	(46)
Hyperplasia					1 [2.0]
Epithelium, Hyperplasia	1 [3.0]				
Liver	(50)	(50)	(49)	(50)	(49)
Angiectasis	1 [2.0]	1 [2.0]			
Basophilic Focus	22	28	29	32	30
Clear Cell Focus	23	19	16	29	25
Degeneration, Cystic	7 [2.0]	3 [1.7]	2 [2.0]		2 [1.0]
Eosinophilic Focus	10	5	4	8	9
Fatty Change	12 [3.0]	10 [2.4]	10 [2.5]	8 [2.9]	12 [2.5]
Hematopoietic Cell Proliferation	1 [1.0]		3 [1.7]		
Hemorrhage		2 [2.0]	1 [1.0]	4 [1.8]	3 [1.3]

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FISCHER 344 RATS MALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Hepatodiaphragmatic Nodule	5	6	6	7	10
Infiltration Cellular, Histiocyte	1 [1.0]		2 [1.0]	5 [1.4]	34 [1.4]
Inflammation, Chronic	19 [1.1]	25 [1.2]	21 [1.3]	28 [1.1]	26 [1.3]
Mixed Cell Focus	11	7	5	13	10
Necrosis	3 [1.3]	3 [1.3]		2 [1.0]	1 [1.0]
Regeneration	2	2			
Syncytial Alteration					1 [2.0]
Thrombosis	1 [2.0]				
Bile Duct, Hyperplasia	47 [1.9]	38 [1.9]	33 [1.6]	22 [1.8]	15 [1.7]
Centrilobular, Necrosis	8 [2.6]	1 [1.0]	3 [1.7]	2 [1.5]	5 [2.0]
Hepatocyte, Hyperplasia, Focal		1 [3.0]			
Intima, Vein, Hyperplasia					1 [2.0]
Kupffer Cell, Pigmentation	2 [1.5]		1 [3.0]		
Mesentery	(12)	(4)	(15)	(14)	(15)
Accessory Spleen	1		1	1	1
Hemorrhage					1 [3.0]
Fat, Necrosis	11 [3.0]	3 [3.7]	10 [2.9]	12 [3.0]	13 [3.0]
Oral Mucosa	(50)	(50)	(49)	(50)	(49)
Pancreas	(50)	(50)	(49)	(50)	(49)
Atrophy	25 [1.8]	16 [2.1]	24 [2.0]	24 [1.7]	31 [2.0]
Cyst	9 [3.0]	7 [3.1]	9 [3.0]	9 [3.0]	12 [3.0]
Acinus, Cytoplasmic Alteration			1 [3.0]		3 [3.0]
Acinus, Hyperplasia, Focal	6 [2.5]	10 [1.8]	9 [2.2]	7 [2.4]	9 [1.9]
Salivary Glands	(50)	(50)	(49)	(49)	(49)
Atrophy	3 [1.3]	1 [1.0]	2 [1.0]	4 [1.3]	3 [2.0]
Necrosis			1 [2.0]		2 [2.0]
Duct, Cyst		1 [4.0]			
Stomach, Forestomach	(50)	(50)	(49)	(50)	(49)
Edema	3 [2.7]			3 [3.0]	3 [2.0]
Erosion				1 [1.0]	1 [1.0]
Inflammation, Chronic Active		1 [3.0]		1 [3.0]	1 [3.0]
Ulcer	1 [4.0]	3 [2.7]	3 [3.0]	2 [4.0]	1 [3.0]
Epithelium, Hyperplasia	1 [2.0]	2 [2.0]	2 [2.0]	5 [2.2]	1 [3.0]
Stomach, Glandular	(50)	(50)	(49)	(50)	(49)
Cyst					1
Edema		1 [2.0]		1 [3.0]	
Erosion	8 [2.6]	4 [2.8]	6 [2.3]	5 [2.0]	2 [1.0]
Hyperplasia	8 [1.1]	4 [1.0]	9 [1.1]	12 [1.1]	12 [1.1]
Infiltration Cellular, Lymphocyte					1 [2.0]
Ulcer	1 [3.0]	3 [3.0]	1 [3.0]	1 [2.0]	

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Epithelium, Glands, Dilatation				1 [2.0]	
Glands, Dilatation	1 [2.0]		1 [2.0]		1 [2.0]
Tongue	(49)	(50)	(47)	(49)	(48)
Fibrosis					1 [2.0]
Hemorrhage	1 [2.0]				1 [1.0]
Hemorrhage, Chronic					1 [1.0]
Inflammation, Chronic	2 [1.0]	5 [1.2]	6 [1.0]	6 [1.0]	3 [1.0]
Epithelium, Hyperplasia	2 [2.5]			2 [1.0]	1 [2.0]
Vein, Thrombosis					1 [3.0]
Tooth	(0)	(0)	(0)	(1)	(4)
Malformation					1
CARDIOVASCULAR SYSTEM					
Blood Vessel	(0)	(4)	(0)	(0)	(3)
Dilatation					1 [3.0]
Heart	(50)	(50)	(49)	(50)	(49)
Cardiomyopathy	46 [2.3]	44 [2.5]	44 [2.3]	45 [2.5]	45 [1.8]
Inflammation, Chronic					1 [2.0]
Thrombosis	5 [3.6]	3 [3.3]	1 [2.0]	2 [3.5]	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(49)	(50)	(49)
Accessory Adrenal Cortical Nodule	17 [3.0]	18 [3.0]	13 [3.0]	17 [3.0]	8 [3.0]
Angiectasis	1 [3.0]		1 [3.0]	1 [3.0]	
Degeneration, Fatty	7 [2.1]	10 [1.5]	9 [1.7]	7 [1.4]	11 [1.5]
Hyperplasia, Focal	2 [2.0]	1 [2.0]	6 [1.2]		3 [1.0]
Hyperplasia, Diffuse	1 [3.0]		1 [3.0]		
Hypertrophy	1 [3.0]				
Hypertrophy, Focal		2 [1.5]		4 [1.5]	4 [2.0]
Necrosis		2 [3.5]	1 [4.0]	1 [3.0]	1 [3.0]
Adrenal Medulla	(49)	(50)	(49)	(50)	(49)
Hyperplasia	12 [1.4]	11 [1.6]	17 [1.8]	9 [1.6]	14 [1.6]
Islets, Pancreatic	(50)	(50)	(49)	(50)	(49)
Hyperplasia	2 [2.0]			1 [3.0]	1 [2.0]
Parathyroid Gland	(46)	(46)	(46)	(49)	(48)
Hyperplasia					1 [2.0]
Pituitary Gland	(50)	(50)	(49)	(50)	(49)

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Pars Distalis, Angiectasis	2 [3.5]	3 [3.3]	2 [3.0]	5 [2.4]	3 [3.0]
Pars Distalis, Cyst	3 [3.0]	4 [3.0]	7 [3.0]	5 [3.2]	5 [3.0]
Pars Distalis, Cytoplasmic Alteration, Focal	2 [2.0]	2 [2.0]	3 [2.0]	2 [1.0]	2 [2.0]
Pars Distalis, Hyperplasia		1 [3.0]		1 [2.0]	1 [3.0]
Pars Distalis, Hyperplasia, Focal	12 [1.6]	6 [2.0]	12 [1.9]	14 [2.1]	11 [2.1]
Pars Intermedia, Angiectasis	1 [2.0]			1 [2.0]	2 [2.0]
Pars Intermedia, Cyst	1 [3.0]	1 [3.0]	2 [3.0]	1 [3.0]	1 [3.0]
Pars Intermedia, Metaplasia, Atypical		1 [3.0]			
Pars Intermedia, Pars Nervosa, Metaplasia, Atypical				1 [3.0]	
Thyroid Gland	(50)	(50)	(49)	(50)	(49)
Ultimobranchial Cyst			1 [3.0]		2 [3.0]
C-cell, Hyperplasia	11 [1.6]	13 [1.4]	18 [1.3]	14 [1.5]	5 [1.2]
Follicle, Cyst	1 [3.0]	1 [3.0]			2 [3.5]
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Epididymis	(50)	(50)	(49)	(50)	(49)
Granuloma Sperm	2 [2.5]				1 [3.0]
Inflammation, Chronic	1 [2.0]		2 [2.0]	2 [2.5]	2 [2.0]
Preputial Gland	(50)	(50)	(49)	(50)	(49)
Cyst	1 [3.0]	1 [3.0]			1 [3.0]
Hyperplasia	1 [2.0]	1 [1.0]	2 [3.0]		1 [2.0]
Inflammation, Chronic	16 [2.3]	11 [2.4]	13 [2.2]	17 [2.2]	16 [2.3]
Prostate	(50)	(50)	(49)	(50)	(49)
Cyst			1 [3.0]		
Inflammation, Chronic	19 [2.3]	17 [2.4]	14 [2.3]	8 [2.1]	14 [2.1]
Epithelium, Hyperplasia	7 [1.3]	11 [1.1]	7 [1.6]	7 [1.4]	8 [1.1]
Seminal Vesicle	(50)	(50)	(49)	(50)	(49)
Inflammation, Chronic				1 [4.0]	
Testes	(50)	(50)	(49)	(50)	(49)
Germinal Epithelium, Atrophy	5 [3.0]	4 [2.8]	6 [3.2]	4 [2.8]	8 [2.9]
Interstitial Cell, Hyperplasia	4 [2.0]	5 [1.8]	3 [1.7]	4 [2.0]	4 [1.8]

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HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(49)	(50)	(49)
Hemorrhage	1 [4.0]				
Hyperplasia	4 [3.0]	12 [3.1]	7 [2.9]	7 [2.7]	6 [3.0]
Myelofibrosis	2 [2.5]			1 [2.0]	2 [3.0]
Lymph Node	(14)	(7)	(6)	(11)	(9)
Deep Cervical, Ectasia					2 [3.5]
Deep Cervical, Hyperplasia, Lymphoid					2 [2.0]
Mediastinal, Ectasia	2 [3.0]	1 [4.0]		1 [4.0]	1 [3.0]
Mediastinal, Hemorrhage	1 [2.0]	2 [1.5]	1 [2.0]	1 [2.0]	1 [1.0]
Mediastinal, Hyperplasia, Lymphoid	1 [2.0]	1 [2.0]	1 [3.0]	3 [2.7]	2 [2.5]
Mediastinal, Pigmentation			1 [2.0]		
Lymph Node, Mandibular	(0)	(0)	(5)	(2)	(2)
Ectasia			1 [2.0]	1 [3.0]	2 [2.5]
Lymph Node, Mesenteric	(49)	(50)	(49)	(50)	(49)
Hemorrhage	2 [1.5]	7 [1.1]	9 [1.3]	8 [1.1]	17 [1.3]
Hyperplasia, Lymphoid	1 [2.0]	6 [2.2]	2 [2.0]	1 [2.0]	
Infiltration Cellular, Histiocyte	13 [2.0]	11 [1.5]	30 [1.9]	39 [2.1]	41 [2.1]
Lymph Node, Pancreatic	(32)	(34)	(34)	(36)	(33)
Congestion			1 [3.0]		
Ectasia	1 [4.0]	1 [3.0]	1 [3.0]		
Hemorrhage		3 [1.0]	4 [2.8]	2 [1.5]	1 [1.0]
Hyperplasia, Lymphoid					1 [2.0]
Infiltration Cellular, Histiocyte	17 [2.0]	22 [1.6]	17 [2.0]	17 [2.1]	25 [2.1]
Pigmentation			1 [2.0]	1 [2.0]	
Spleen	(50)	(50)	(49)	(50)	(49)
Accessory Spleen	1		2	1	
Fibrosis	2 [2.5]	3 [2.3]	2 [2.0]	1 [3.0]	
Hematopoietic Cell Proliferation	18 [1.9]	25 [1.8]	20 [1.9]	20 [1.8]	16 [2.0]
Hemorrhage			1 [4.0]	1 [3.0]	1 [2.0]
Metaplasia, Lipocyte	1 [2.0]				
Necrosis	4 [2.8]		4 [3.8]	2 [3.0]	
Pigmentation	3 [2.7]	2 [3.5]	1 [4.0]		3 [3.3]
Lymphoid Follicle, Atrophy	1 [3.0]				
Lymphoid Follicle, Hyperplasia		1 [2.0]			
Thymus	(48)	(50)	(46)	(49)	(47)
Atrophy		1 [3.0]	1 [4.0]		1 [3.0]

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INTEGUMENTARY SYSTEM					
Mammary Gland	(50)	(49)	(48)	(50)	(49)
Hyperplasia	25 [2.6]	17 [2.4]	19 [2.9]	11 [2.2]	14 [2.6]
Inflammation, Granulomatous				1 [3.0]	
Skin	(50)	(50)	(49)	(50)	(49)
Angiectasis				1 [4.0]	1 [4.0]
Cyst	1 [3.0]			1 [4.0]	
Cyst Epithelial Inclusion	5	3	2	3	6
Edema			1 [3.0]		
Hyperkeratosis	5 [3.0]	2 [2.5]	1 [3.0]	4 [2.5]	1 [2.0]
Epidermis, Hyperplasia			1 [3.0]	1 [2.0]	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(49)	(50)	(49)
Cranium, Osteopetrosis	1 [2.0]		2 [2.5]	1 [2.0]	
Femur, Osteopetrosis					1 [3.0]
Skeletal Muscle	(3)	(2)	(2)	(0)	(1)
Atrophy					1 [1.0]
NERVOUS SYSTEM					
Brain	(50)	(50)	(49)	(50)	(49)
Compression	7 [3.1]	6 [3.3]	9 [3.4]	3 [3.0]	3 [3.3]
Hemorrhage	1 [1.0]				
Hydrocephalus		1 [2.0]			1 [2.0]
Peripheral Nerve	(4)	(6)	(5)	(2)	(5)
Atrophy		1 [1.0]			
Spinal Cord	(4)	(6)	(5)	(2)	(5)
Vacuolization Cytoplasmic	1 [3.0]				
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(49)	(50)	(49)
Edema	1 [2.0]				
Foreign Body					1
Hemorrhage	10 [1.1]	7 [1.1]	7 [1.3]	6 [1.3]	8 [1.4]

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Infiltration Cellular, Histiocyte Inflammation, Suppurative	28 [1.4]	27 [1.1]	32 [1.0]	29 [1.1] 1 [1.0]	33 [1.1] 1 [1.0]
Inflammation, Granulomatous		1 [3.0]			
Inflammation, Chronic	1 [1.0]			1 [1.0]	1 [3.0]
Metaplasia, Osseous		1 [1.0]	1 [2.0]	1 [1.0]	1 [1.0]
Thrombosis	1 [1.0]	1 [2.0]		1 [1.0]	
Alveolar Epithelium, Hyperplasia	11 [1.8]	6 [1.7]	4 [2.5]	8 [1.5]	5 [1.4]
Alveolar Epithelium, Metaplasia, Squamous			1 [3.0]		
Nose	(50)	(50)	(49)	(50)	(49)
Foreign Body	9	11	9	15	1
Hemorrhage		1 [3.0]			
Inflammation, Chronic	8 [1.6]	11 [1.6]	8 [1.8]	16 [2.1]	7 [1.4]
Thrombosis	1 [4.0]				
Nasolacrimal Duct, Cyst				2 [3.5]	1 [3.0]
Respiratory Epithelium, Hyperplasia	5 [1.6]	5 [1.6]	4 [1.8]	11 [1.8]	4 [1.5]
Respiratory Epithelium, Metaplasia, Squamous		1 [2.0]		3 [2.3]	1 [1.0]
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(49)	(50)	(49)
Cataract	1 [2.0]	3 [3.0]	2 [3.0]	1 [3.0]	3 [3.0]
Hemorrhage					1 [3.0]
Inflammation, Chronic		1 [1.0]			3 [3.0]
Cornea, Hyperplasia					1 [2.0]
Retina, Degeneration	2 [3.0]	3 [2.7]	4 [2.8]	2 [3.0]	4 [3.5]
Harderian Gland	(50)	(50)	(49)	(50)	(49)
Inflammation, Chronic	2 [2.5]	1 [2.0]			
Pigmentation					1 [4.0]
URINARY SYSTEM					
Kidney	(50)	(50)	(49)	(50)	(49)
Cyst		2 [3.0]	1 [3.0]	4 [3.0]	1 [3.0]
Hydronephrosis					1 [3.0]
Infarct				1 [2.0]	
Infiltration Cellular, Lipocyte			1 [3.0]		
Inflammation, Chronic	5 [2.6]	9 [2.3]	8 [2.1]	2 [3.0]	2 [1.5]

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Nephropathy	45 [1.8]	43 [2.1]	45 [2.0]	43 [1.5]	41 [1.6]
Renal Tubule, Accumulation, Hyaline Droplet			2 [3.0]		
Renal Tubule, Dilatation			3 [2.7]		1 [2.0]
Renal Tubule, Hyperplasia				2 [1.0]	
Renal Tubule, Necrosis	2 [1.0]	1 [3.0]	1 [2.0]	1 [2.0]	1 [3.0]
Renal Tubule, Pigmentation	5 [3.0]	1 [2.0]	1 [3.0]		3 [2.7]
Transitional Epithelium, Hyperplasia			1 [3.0]		
Urinary Bladder	(50)	(50)	(49)	(50)	(49)
Calculus Micro Observation Only			1		
Edema			1 [3.0]		
Hemorrhage		1 [3.0]	1 [2.0]		
Inflammation, Chronic			1 [3.0]		
Necrosis		1 [3.0]			
Transitional Epithelium, Hyperplasia		1 [2.0]			1 [2.0]

*** END OF MALE ***

Test Type: CHRONIC

Sodium dichromate dihydrate (VI)

Time Report Requested: 10:38:19

Route: DOSED WATER

CAS Number: 7789-12-0

First Dose M/F: 10/02/02 / 10/02/02

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Disposition Summary					
Animals Initially in Study	50	50	50	50	50
Early Deaths					
Moribund Sacrifice	12	15	9	10	18
Natural Death	5	3	9	4	1
Survivors					
Natural Death	1				
Terminal Sacrifice	32	32	32	36	31
Animals Examined Microscopically	50	50	50	50	50
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(46)	(47)	(48)	(47)	(50)
Edema	2 [2.0]	1 [2.0]	1 [2.0]		1 [2.0]
Hemorrhage			1 [2.0]		
Intestine Large, Colon	(49)	(49)	(49)	(48)	(50)
Intestine Small, Duodenum	(46)	(49)	(48)	(46)	(50)
Infiltration Cellular, Histiocyte			1 [1.0]	30 [1.0]	47 [1.2]
Intestine Small, Ileum	(45)	(47)	(44)	(47)	(50)
Lymphatic, Hyperplasia				1 [3.0]	
Lymphoid Tissue, Hyperplasia	16 [1.8]	10 [1.7]	8 [1.9]	6 [1.7]	12 [1.3]
Intestine Small, Jejunum	(46)	(46)	(44)	(45)	(49)
Liver	(50)	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]	4 [2.5]	2 [2.5]		
Basophilic Focus	45	41	44	47	43
Clear Cell Focus	7	5	7	20	7
Eosinophilic Focus	5	5	5	3	3
Fatty Change	3 [3.3]	7 [3.6]	10 [2.5]	13 [2.5]	16 [2.8]
Hematopoietic Cell Proliferation	1 [1.0]	2 [1.5]		3 [1.3]	
Hemorrhage		1 [3.0]	1 [1.0]	1 [2.0]	
Hepatodiaphragmatic Nodule	5	3	9	10	9
Infiltration Cellular, Histiocyte	1 [1.0]	5 [1.0]	21 [1.3]	42 [2.0]	47 [2.6]
Inflammation, Chronic	12 [1.3]	21 [1.2]	28 [1.3]	35 [1.6]	39 [2.1]
Mixed Cell Focus	9	6	10	20	18
Necrosis	5 [1.2]	7 [1.9]	4 [1.0]		1 [1.0]
Regeneration		1	1		
Bile Duct, Hyperplasia	2 [2.0]		5 [1.2]	3 [1.7]	4 [2.0]

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b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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Sodium dichromate dihydrate (VI)

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Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Centrilobular, Necrosis Hepatocyte, Syncytial Alteration	4 [2.0]	2 [2.0]	1 [3.0]	2 [2.0]	1 [2.0]
Kupffer Cell, Pigmentation	1 [2.0]	1 [2.0]		1 [2.0]	
Lymphatic, Infiltration Cellular				1 [2.0]	
Mesentery	(11)	(13)	(12)	(15)	(10)
Accessory Spleen		1		1	1
Fat, Necrosis	11 [2.5]	10 [3.4]	11 [2.5]	12 [2.8]	9 [2.9]
Oral Mucosa	(50)	(50)	(50)	(50)	(50)
Pancreas	(50)	(50)	(50)	(50)	(50)
Atrophy	6 [1.7]	12 [1.6]	11 [1.5]	9 [1.4]	5 [1.6]
Cyst	2 [3.0]	4 [3.0]	3 [3.0]	6 [3.0]	4 [3.0]
Acinus, Cytoplasmic Alteration					3 [3.0]
Acinus, Hyperplasia, Focal	1 [1.0]		1 [3.0]		1 [1.0]
Salivary Glands	(50)	(50)	(50)	(50)	(50)
Atrophy	9 [1.3]	7 [1.4]	10 [1.2]	17 [1.4]	17 [2.1]
Fibrosis		1 [1.0]			
Vacuolization Cytoplasmic		1 [2.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)	(50)
Edema	1 [3.0]	3 [2.0]	1 [3.0]	2 [3.5]	2 [3.0]
Erosion			1 [2.0]	1 [1.0]	1 [3.0]
Inflammation, Chronic Active					1 [3.0]
Ulcer	2 [3.5]	3 [2.3]	2 [3.5]	2 [4.0]	3 [3.3]
Epithelium, Hyperplasia	2 [2.5]	3 [2.0]	4 [2.8]	4 [2.0]	4 [2.8]
Stomach, Glandular	(50)	(50)	(50)	(50)	(50)
Edema			1 [3.0]	1 [2.0]	1 [2.0]
Erosion	2 [2.5]	3 [2.7]	2 [2.0]	1 [3.0]	5 [2.2]
Hyperplasia	4 [1.0]	6 [1.0]	4 [1.3]	7 [1.0]	4 [1.3]
Inflammation					1 [2.0]
Ulcer	1 [2.0]	2 [2.5]	1 [3.0]	1 [2.0]	2 [2.5]
Glands, Dilatation			1 [2.0]		
Tongue	(45)	(49)	(48)	(48)	(48)
Granuloma					2
Hemorrhage		1 [1.0]			1 [1.0]
Inflammation, Chronic	8 [1.0]	3 [1.0]	4 [1.0]	14 [1.0]	12 [1.1]
Ulcer					3 [2.0]
Epithelium, Hyperplasia	1 [2.0]	1 [4.0]	1 [1.0]		

CARDIOVASCULAR SYSTEM

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Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Heart	(50)	(50)	(50)	(50)	(50)
Cardiomyopathy	27 [1.7]	32 [2.0]	35 [1.5]	33 [1.5]	28 [1.3]
Inflammation, Chronic		1 [3.0]			
Necrosis			1 [3.0]		
Thrombosis	1 [3.0]	1 [3.0]	2 [2.5]	1 [1.0]	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	6 [3.0]	9 [3.0]	10 [3.0]	6 [3.0]	8 [3.0]
Angiectasis	1 [4.0]	1 [3.0]			
Degeneration, Fatty	12 [2.1]	12 [2.1]	17 [1.8]	14 [2.1]	20 [2.0]
Hyperplasia, Focal	2 [2.0]	6 [1.7]	8 [1.5]	12 [1.7]	6 [1.3]
Hypertrophy	1 [2.0]				
Hypertrophy, Focal	4 [1.5]	4 [1.3]	6 [1.5]	1 [2.0]	7 [1.7]
Necrosis	3 [2.3]			2 [3.0]	
Adrenal Medulla	(49)	(50)	(49)	(50)	(50)
Hyperplasia	2 [1.0]	3 [2.3]	1 [1.0]	2 [1.0]	2 [1.0]
Islets, Pancreatic	(50)	(50)	(50)	(50)	(50)
Hyperplasia			1 [2.0]		
Parathyroid Gland	(46)	(47)	(47)	(45)	(47)
Hyperplasia		1 [2.0]			1 [2.0]
Pituitary Gland	(50)	(50)	(50)	(50)	(49)
Pars Distalis, Angiectasis	11 [3.1]	6 [2.3]	7 [2.9]	4 [2.3]	3 [2.7]
Pars Distalis, Cyst	18 [3.0]	18 [3.0]	18 [3.0]	18 [3.0]	27 [3.0]
Pars Distalis, Cytoplasmic Alteration, Focal				1 [1.0]	
Pars Distalis, Hyperplasia					1 [3.0]
Pars Distalis, Hyperplasia, Focal	9 [2.4]	8 [2.0]	9 [2.1]	8 [2.4]	10 [2.0]
Pars Intermedia, Angiectasis	1 [2.0]	2 [2.5]			
Pars Intermedia, Cyst	1 [3.0]	3 [3.0]	1 [3.0]	1 [3.0]	3 [3.0]
Thyroid Gland	(50)	(50)	(50)	(50)	(50)
Ultimobranchial Cyst			2 [3.0]		2 [3.0]
C-cell, Hyperplasia	28 [1.6]	28 [1.5]	25 [1.8]	23 [1.5]	16 [1.3]
Follicle, Cyst		1 [3.0]			
GENERAL BODY SYSTEM					
Tissue NOS	(0)	(0)	(0)	(0)	(2)

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Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
GENITAL SYSTEM					
Clitoral Gland	(50)	(50)	(50)	(50)	(50)
Cyst	2 [3.0]		2 [3.0]	4 [3.0]	1 [3.0]
Hyperplasia	4 [1.8]	1 [2.0]	2 [2.5]	3 [2.0]	1 [3.0]
Inflammation				1 [3.0]	
Inflammation, Chronic	3 [2.3]	4 [2.3]	6 [2.3]	8 [2.5]	4 [2.0]
Ovary	(49)	(50)	(50)	(50)	(50)
Angiectasis		1 [3.0]		1 [3.0]	
Cyst	9 [3.0]	6 [3.0]	7 [3.0]	10 [3.0]	5 [3.0]
Uterus	(49)	(50)	(50)	(50)	(50)
Angiectasis					2 [2.5]
Dilatation		1 [4.0]			
Hemorrhage		1 [4.0]			
Hyperplasia, Cystic	5 [2.6]	5 [1.8]	4 [2.3]	9 [2.2]	5 [2.8]
Inflammation, Chronic				1 [2.0]	
Vagina	(8)	(12)	(4)	(4)	(10)
Angiectasis	1 [3.0]				
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(49)	(50)	(50)
Hyperplasia	6 [3.0]	8 [2.6]	7 [2.7]	6 [3.0]	9 [2.6]
Infiltration Cellular, Histiocyte	1 [4.0]		2 [3.0]		
Myelofibrosis		1 [4.0]		1 [2.0]	1 [3.0]
Lymph Node	(8)	(11)	(9)	(4)	(11)
Hemorrhage	1 [2.0]			1 [2.0]	
Hyperplasia, Lymphoid				1 [2.0]	
Deep Cervical, Hemorrhage	1 [2.0]		1 [3.0]		
Mediastinal, Ectasia		1 [3.0]			2 [3.0]
Mediastinal, Hemorrhage	3 [2.7]	4 [2.5]	2 [2.5]	3 [2.0]	4 [2.8]
Mediastinal, Hyperplasia, Lymphoid	2 [2.0]	5 [2.4]	2 [2.0]	1 [2.0]	6 [2.5]
Mediastinal, Pigmentation	1 [4.0]	4 [2.3]		2 [2.0]	1 [2.0]
Lymph Node, Mandibular	(4)	(0)	(3)	(2)	(3)
Ectasia					1 [3.0]
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	(50)
Fibrosis			1 [3.0]		
Hemorrhage	11 [1.1]	13 [1.3]	16 [1.3]	14 [1.1]	21 [1.3]

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b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Test Type: CHRONIC

Sodium dichromate dihydrate (VI)

Time Report Requested: 10:38:19

Route: DOSED WATER

CAS Number: 7789-12-0

First Dose M/F: 10/02/02 / 10/02/02

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Hyperplasia, Lymphoid			2 [2.0]		
Hyperplasia, Reticulum Cell			1 [3.0]		1 [2.0]
Infiltration Cellular, Histiocyte	21 [1.7]	18 [1.4]	27 [1.5]	36 [2.0]	42 [2.4]
Lymph Node, Pancreatic	(29)	(36)	(30)	(34)	(33)
Hemorrhage	3 [2.3]		2 [2.0]		4 [1.5]
Hyperplasia, Lymphoid					2 [2.5]
Infiltration Cellular, Histiocyte	17 [2.0]	20 [1.9]	23 [2.6]	32 [2.8]	27 [3.0]
Pigmentation	2 [3.0]				1 [3.0]
Spleen	(50)	(50)	(50)	(50)	(50)
Accessory Spleen			1		1
Fibrosis		2 [3.0]			
Hematopoietic Cell Proliferation	36 [2.2]	28 [2.3]	38 [2.1]	36 [2.2]	33 [2.0]
Hemorrhage			1 [4.0]		1 [3.0]
Infiltration Cellular, Mixed Cell			3 [4.0]		
Necrosis		3 [3.0]	1 [4.0]	1 [3.0]	2 [3.5]
Pigmentation	26 [3.0]	23 [2.7]	13 [2.3]	6 [2.2]	3 [3.0]
Lymphoid Follicle, Atrophy				1 [3.0]	4 [2.8]
Lymphoid Follicle, Hyperplasia			1 [2.0]		3 [2.7]
Thymus	(50)	(49)	(49)	(48)	(47)
Atrophy					3 [3.0]
INTEGUMENTARY SYSTEM					
Mammary Gland	(50)	(50)	(50)	(50)	(50)
Hyperplasia	47 [3.2]	50 [2.8]	45 [2.9]	49 [2.7]	44 [2.7]
Skin	(50)	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1			1	
Edema		1 [2.0]			
Hyperkeratosis			1 [3.0]		
Ulcer			1 [2.0]		
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	(50)
Cranium, Osteopetrosis			1 [3.0]	1 [2.0]	2 [2.0]
NERVOUS SYSTEM					

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Sodium dichromate dihydrate (VI)

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First Dose M/F: 10/02/02 / 10/02/02

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Brain	(50)	(50)	(50)	(50)	(50)
Compression	8 [3.1]	13 [3.4]	15 [3.5]	11 [3.4]	7 [2.9]
Gliosis					1 [1.0]
Hemorrhage	1 [2.0]	3 [1.3]		1 [2.0]	
Hydrocephalus			2 [2.5]	2 [3.0]	
Necrosis					1 [2.0]
Vacuolization Cytoplasmic					1 [2.0]
RESPIRATORY SYSTEM					
Larynx	(0)	(0)	(0)	(1)	(1)
Lung	(50)	(50)	(50)	(50)	(50)
Edema			1 [3.0]		
Foreign Body			1		1
Hemorrhage	2 [1.5]	4 [1.3]	4 [1.8]	1 [1.0]	2 [1.0]
Infiltration Cellular, Histiocyte	45 [1.4]	48 [1.4]	42 [1.4]	46 [1.3]	47 [1.5]
Inflammation, Chronic	2 [1.5]	1 [2.0]	3 [1.7]		1 [3.0]
Alveolar Epithelium, Hyperplasia	11 [1.6]	7 [1.6]	12 [1.7]	9 [1.6]	10 [2.0]
Alveolar Epithelium, Metaplasia, Squamous					1 [2.0]
Nose	(50)	(50)	(50)	(50)	(50)
Foreign Body	3	1	1	1	3
Inflammation, Chronic	3 [1.3]	2 [1.5]		3 [1.3]	3 [2.0]
Nasolacrimal Duct, Cyst		1 [3.0]			
Respiratory Epithelium, Hyperplasia	1 [1.0]	1 [2.0]	1 [1.0]	1 [2.0]	2 [1.0]
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(50)	(50)
Cataract	2 [3.0]	2 [2.0]	4 [3.0]	1 [3.0]	1 [4.0]
Inflammation, Chronic					3 [4.0]
Retina, Degeneration	4 [2.8]	2 [3.5]	3 [4.0]	2 [2.5]	2 [3.0]
Harderian Gland	(50)	(50)	(50)	(50)	(50)
Hemorrhage					1 [4.0]
Inflammation, Chronic				1 [3.0]	
Zymbal's Gland	(1)	(0)	(0)	(0)	(1)
URINARY SYSTEM					

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**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH
AVERAGE SEVERITY GRADES[b]**
Sodium dichromate dihydrate (VI)
CAS Number: 7789-12-0

Date Report Requested: 10/04/2007

Test Type: CHRONIC

Time Report Requested: 10:38:19

Route: DOSED WATER

First Dose M/F: 10/02/02 / 10/02/02

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	14.3 MG/L	57.3 MG/L	172 MG/L	516 MG/L
Kidney	(50)	(50)	(50)	(50)	(50)
Cyst				1 [3.0]	2 [3.0]
Glomerulosclerosis				1 [1.0]	
Hydronephrosis				1 [1.0]	
Infarct	3 [3.0]	1 [3.0]	1 [3.0]	1 [4.0]	4 [2.3]
Inflammation, Chronic	2 [2.0]	1 [2.0]	1 [2.0]		1 [3.0]
Nephropathy	33 [1.1]	23 [1.1]	32 [1.4]	37 [1.2]	41 [1.2]
Renal Tubule, Accumulation, Hyaline Droplet	7 [3.0]	4 [3.0]	2 [2.5]	2 [2.5]	
Renal Tubule, Dilatation				1 [3.0]	
Renal Tubule, Necrosis	3 [3.0]	2 [3.0]			
Renal Tubule, Pigmentation	2 [2.0]	1 [3.0]	1 [4.0]		2 [2.0]
Transitional Epithelium, Hyperplasia	3 [2.3]	2 [2.0]	2 [2.5]		1 [2.0]
Urinary Bladder	(49)	(50)	(50)	(50)	(49)
Hemorrhage			1 [4.0]		

*** END OF REPORT ***