Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

Tim

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

F1_RD_Rev. 1

NTP Study Number: C96014B

Lock Date: 11/17/2009

Cage Range: ALL

Date Range: ALL

Reasons For Removal: 25021 TSAC 25020 NATD 25019 MSAC

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

TDMSE Version: 3.0.1.1_001

PWG Approval Date: NONE

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Disposition Summary				
Animals Initially In Study	66	66	66	66
Early Deaths				
Moribund Sacrifice	26	23	20	27
Natural Death	5	6	5	4
Survivors				
Terminal Sacrifice	19	21	25	19
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Intestine Large, Cecum	(50)	(50)	(49)	(50)
Erosion			1 [1.0]	
Inflammation			2 [1.5]	
Intestine Large, Colon	(50)	(50)	(50)	(50)
Amyloid Deposition		1 [3.0]		
Inflammation	1 [2.0]	1 [3.0]		
Parasite Metazoan	6	8	10	8
Thrombosis		1 [1.0]		
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Intestine Small, Duodenum	(50)	(50)	(49)	(50)
Intestine Small, Ileum	(50)	(50)	(49)	(50)
Intestine Small, Jejunum	(50)	(50)	(49)	(50)
Liver	(50)	(50)	(50)	(50)
Angiectasis		1 [1.0]	3 [1.3]	4 [1.0]
Basophilic Focus	13	23	17	20
Clear Cell Focus	19	20	21	16
Congestion				1 [4.0]
Degeneration, Cystic	12 [1.0]	12 [1.1]	11 [1.3]	14 [1.1]
Eosinophilic Focus	6	10	7	14
Fatty Change	8 [2.3]	7 [2.3]	4 [1.8]	1 [2.0]
Fatty Change, Focal			1 [1.0]	4 [1.0]
Fibrosis			1 [2.0]	
Hematopoietic Cell Proliferation	1 [1.0]			3 [1.0]

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)

Experiment Number: 96014 - 05

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54
First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Route: DOSED WATER
Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Experiment Number: 96014 - 05

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L	
1 ISCHEL SAA-TACOHIC NATS WALE	v ilig/∟	250 IIIg/L	Jou mg/L	1000 Hig/L	
Hemorrhage		1 [2.0]	1 [4.0]		
Hepatodiaphragmatic Nodule	9	4	3	2	
Inflammation, Chronic Active	32 [1.0]	36 [1.0]	36 [1.1]	36 [1.1]	
Mixed Cell Focus	3	2	6	1	
Necrosis	2 [2.0]	1 [3.0]	4 [2.8]	5 [2.2]	
Pigmentation, Hemosiderin	1 [1.0]		2 [1.5]	1 [1.0]	
Regeneration			1 [3.0]		
Tension Lipidosis			1 [1.0]	2 [2.0]	
Thrombosis				1 [2.0]	
Bile Duct, Cyst	1 [1.0]			1 [3.0]	
Bile Duct, Hyperplasia	49 [1.4]	48 [1.7]	49 [1.8]	48 [1.9]	
Hepatocyte, Degeneration			1 [1.0]	3 [1.0]	
Oval Cell, Hyperplasia			1 [1.0]		
Mesentery	(7)	(4)	(9)	(10)	
Fat, Necrosis	7 [1.4]	3 [2.3]	3 [2.3]	3 [1.3]	
Oral Mucosa	(50)	(50)	(50)	(50)	
Pancreas	(50)	(50)	(49)	(50)	
Atrophy	18 [1.5]	19 [1.4]	15 [1.5]	21 [1.7]	
Cytoplasmic Alteration	1 [2.0]				
Acinus, Hyperplasia	4 [2.5]	1 [2.0]	3 [3.7]	4 [2.3]	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy			1 [2.0]		
Metaplasia, Serous	1 [2.0]				
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Erosion				1 [2.0]	
Inflammation	13 [2.6]	8 [2.3]	4 [2.0]		
Perforation	1				
Ulcer	6 [3.0]	3 [2.3]	1 [3.0]		
Epithelium, Dysplasia	1 [1.0]				
Epithelium, Hyperplasia	12 [2.6]	8 [2.1]	4 [2.0]	1 [1.0]	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Erosion	1 [2.0]		1 [2.0]		
Hyperplasia, Focal	1 [1.0]				
Inflammation	7 [1.3]	1 [2.0]	2 [1.5]		
Mineralization	1 [2.0]		1 [2.0]	1 [1.0]	
Ulcer	2 [1.0]				

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)

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Epithelium, Hyperplasia			1 [1.0]	
Tongue	(50)	(50)	(50)	(50)
Inflammation	1 [1.0]		, ,	, ,
Epithelium, Hyperplasia			1 [2.0]	2 [2.5]
Tooth	(1)	(0)	(0)	(0)
Degeneration	1 [1.0]			
CARDIOVASCULAR SYSTEM				
Blood Vessel	(50)	(50)	(50)	(50)
Aneurysm			1 [3.0]	
Inflammation	5 [2.0]		3 [1.3]	
Aorta, Mineralization		1 [2.0]		
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	47 [2.0]	48 [2.0]	48 [1.9]	48 [1.8]
Mineralization		3 [1.7]		
Atrium, Inflammation		1 [1.0]		
Atrium, Thrombosis	5 [2.0]	6 [2.3]	7 [1.9]	5 [2.6]
Pericardium, Inflammation, Chronic Active	1 [3.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Atrophy	1 [2.0]			
Degeneration, Cystic	1 [2.0]	1 [1.0]	1 [1.0]	1 [1.0]
Hyperplasia	5 [1.4]	2 [1.5]	2 [1.0]	
Hypertrophy	1 [2.0]	3 [1.7]		
Mineralization			1 [1.0]	
Vacuolization Cytoplasmic	14 [1.7]	9 [1.3]	17 [1.1]	13 [1.2]
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	15 [1.9]	18 [1.9]	15 [1.9]	9 [2.2]
Islets, Pancreatic	(50)	(50)	(49)	(50)
Hyperplasia		2 [2.0]		1 [1.0]
Parathyroid Gland	(49)	(48)	(46)	(44)
Hyperplasia	6 [2.8]	1 [2.0]	1 [1.0]	1 [1.0]

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)

Experiment Number: 96014 - 05

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 **AVERAGE SEVERITY GRADES[b]**

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Pituitary Gland	(50)	(49)	(49)	(48)
Atrophy	2 [4.0]			
Pars Distalis, Atrophy	1 [3.0]			
Pars Distalis, Hyperplasia	12 [2.3]	14 [2.3]	18 [2.1]	21 [1.8]
Thyroid Gland	(50)	(50)	(50)	(50)
C-cell, Hyperplasia	22 [1.9]	20 [1.4]	21 [1.8]	24 [1.8]
Follicle, Cyst				2 [1.0]
Follicular Cell, Hyperplasia	2 [1.5]			1 [4.0]

GENERAL BODY SYSTEM

None

ENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Atrophy	8 [2.0]	7 [1.6]	5 [1.4]	4 [1.5]
Inflammation	1 [1.0]			1 [1.0]
Mesothelium, Hyperplasia			1 [2.0]	
Preputial Gland	(50)	(50)	(50)	(49)
Hyperplasia	1 [2.0]	2 [2.0]	2 [2.0]	
Inflammation	2 [3.0]			
Duct, Hyperplasia, Squamous			1 [2.0]	
Duct, Inflammation			1 [4.0]	
Prostate	(50)	(50)	(50)	(50)
Atrophy	1 [2.0]			
Cyst			1 [2.0]	
Inflammation	42 [1.9]	41 [1.9]	45 [1.6]	35 [1.8]
Epithelium, Hyperplasia	11 [1.4]	17 [1.6]	12 [1.7]	14 [1.8]
Seminal Vesicle	(50)	(50)	(50)	(50)
Atrophy	1 [3.0]			
Hyperplasia			1 [2.0]	1 [3.0]
Inflammation	3 [1.0]	3 [2.3]	2 [3.0]	1 [3.0]
Testes	(50)	(50)	(50)	(50)
Atrophy	15 [2.5]	16 [2.9]	16 [2.8]	17 [2.6]

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)

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Hemorrhage

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Inflammation	1 [2.0]			
Germinal Epithelium, Degeneration	8 [2.6]	10 [2.3]	8 [2.1]	9 [2.1]
Interstitial Cell, Hyperplasia	23 [2.5]	26 [2.5]	24 [2.4]	19 [2.1]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Angiectasis	4 [1.3]	29 [1.7]	34 [2.1]	40 [2.1]
Hemorrhage		5 [1.8]	1 [2.0]	
Hyperplasia	17 [3.1]	19 [2.7]	20 [2.9]	30 [2.7]
Myelofibrosis	1 [2.0]			2 [1.0]
Necrosis		1 [2.0]		
Thrombosis		4 [1.8]		1 [1.0]
Lymph Node	(5)	(2)	(8)	(7)
Iliac, Ectasia				1 [2.0]
Iliac, Hyperplasia, Lymphoid				1 [3.0]
Iliac, Necrosis, Lymphoid				1 [2.0]
Inguinal, Ectasia				1 [3.0]
Lumbar, Ectasia			1 [4.0]	
Lumbar, Infiltration Cellular, Histiocyte			1 [2.0]	
Mediastinal, Hyperplasia			1 [2.0]	
Mediastinal, Hyperplasia, Lymphoid		1 [2.0]		
Mediastinal, Infiltration Cellular, Histiocyte				1 [2.0]
Mediastinal, Infiltration Cellular, Mast Cell		1 [2.0]		
Mediastinal, Infiltration Cellular, Plasma Cell				1 [2.0]
Pancreatic, Inflammation, Histiocytic				1 [3.0]
Renal, Hyperplasia, Lymphoid			1 [3.0]	
Renal, Infiltration Cellular, Histiocyte				1 [2.0]
Renal, Infiltration Cellular, Plasma Cell	2 [2.0]			
Lymph Node, Mandibular	(50)	(50)	(50)	(50)
Ectasia	4 [2.0]	1 [2.0]	2 [2.5]	
Lymph Node, Mesenteric	(50)	(50)	(49)	(50)
Atrophy	2 [2.5]			4 [2.8]
Ectasia			1 [3.0]	1 [3.0]
				0.50.01

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)

2 [2.0]

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Bone

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L	
Necrosis				1 [2.0]	
Spleen	(50)	(50)	(49)	(50)	
Hematopoietic Cell Proliferation	32 [1.3]	31 [1.5]	31 [1.3]	32 [1.8]	
Hemorrhage				1 [2.0]	
Hyperplasia, Lymphoid		1 [2.0]			
Infarct	2 [2.0]	1 [2.0]		1 [4.0]	
Pigmentation, Hemosiderin	35 [1.1]	36 [1.1]	32 [1.0]	28 [1.0]	
Stromal Hyperplasia	1		1	2	
Thrombosis				1 [4.0]	
Capsule, Fibrosis				1 [2.0]	
Lymphoid Follicle, Atrophy			3 [2.0]	r - 1	
Red Pulp, Atrophy		1 [2.0]	1 [4.0]		
Thymus	(48)	(47)	(48)	(49)	
Atrophy	47 [3.1]	46 [3.1]	46 [3.2]	49 [3.2]	
NTEGUMENTARY SYSTEM					
Mammary Gland	(49)	(50)	(49)	(49)	
Hyperplasia	6 [1.2]	1 [1.0]	2 [1.0]	1 [1.0]	
Inflammation, Chronic	1 [2.0]			. ,	
Inflammation, Chronic Active	1 [2.0]				
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion	1	()	2	,	
Hyperplasia, Squamous		1 [3.0]			
Inflammation	3 [2.7]	5 [2.6]	5 [2.4]	5 [3.4]	
Ulcer	2 [2.5]	3 [3.0]	1 [2.0]	3 [3.0]	
Dermis, Fibrosis				1 [2.0]	
Epidermis, Hyperkeratosis	2 [3.0]	1 [3.0]	2 [4.0]	2 [2.0]	
Epidermis, Hyperplasia	3 [2.3]	5 [2.2]	5 [2.0]	2 [2.0]	
	1 -1		1	1 [4.0]	
				r -1	
Epidermis, Hyperplasia, Basal Cell Epidermis, Hyperplasia, Squamous	1 [2.0]				

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)

(50)

(50)

(50)

(50)

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Fibrous Osteodystrophy	1 [2.0]			
Osteopetrosis	3 [1.7]	1 [2.0]		4 [2.0]
Cartilage, Sternum, Degeneration				1 [2.0]
Tibia, Fracture				1
Skeletal Muscle	(4)	(0)	(2)	(0)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Gliosis		1 [1.0]		
Hemorrhage		2 [2.0]		
Infiltration Cellular, Lymphocyte		1 [1.0]		
Meninges, Hyperplasia				1 [2.0]
Peripheral Nerve	(0)	(2)	(0)	(0)
Degeneration		1 [2.0]		
Spinal Cord	(0)	(2)	(0)	(0)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Fibrosis				1 [2.0]
Inflammation, Chronic Active	15 [1.3]	11 [1.0]	11 [1.0]	19 [1.5]
Metaplasia, Osseous			1 [1.0]	
Mineralization	1 [1.0]			
Thrombosis	1 [1.0]			
Alveolar Epithelium, Hyperplasia	5 [1.4]	7 [2.1]	12 [2.3]	10 [2.1]
Alveolar Epithelium, Hypertrophy				2 [1.5]
Alveolus, Infiltration Cellular, Histiocyte	20 [1.0]	22 [1.0]	25 [1.0]	22 [1.2]
Bronchiole, Hyperplasia	1 [2.0]			
Nose	(50)	(50)	(50)	(50)
Foreign Body	12	16	10	17 [1.0]
Inflammation	15 [1.5]	21 [1.5]	14 [1.3]	22 [1.5]
Glands, Olfactory Epithelium, Hyperplasia		1 [3.0]		
Glands, Respiratory Epithelium, Hyperplasia	1 [1.0]			
Olfactory Epithelium, Metaplasia				1 [1.0]

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)

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Fischer 344-Taconic RATS MALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L	
Respiratory Epithelium, Hyperplasia Trachea	4 [1.5] (50)	(50)	(50)	(50)	
SPECIAL SENSES SYSTEM					
Ear	(1)	(0)	(0)	(0)	
Eye	(50)	(50)	(50)	(50)	
Anterior Chamber, Inflammation			1 [4.0]	1 [3.0]	
Cornea, Inflammation				1 [3.0]	
Iris, Inflammation	1 [1.0]	1 [2.0]			
Lens, Cataract	2 [2.0]	5 [1.2]	1 [1.0]	6 [1.7]	
Retina, Degeneration	4 [2.3]	2 [1.5]	3 [1.0]	5 [2.4]	
Retina, Dysplasia				1 [2.0]	
Retina, Gliosis		2 [1.5]			
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Squamous				1 [3.0]	
Inflammation	1 [3.0]		1 [3.0]		
Metaplasia, Squamous				1 [2.0]	
Zymbal's Gland	(1)	(2)	(0)	(2)	
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Accumulation, Hyaline Droplet	3 [2.3]		1 [1.0]		
Mineralization	16 [1.0]	21 [1.1]	25 [1.0]	23 [1.0]	
Nephropathy	48 [3.1]	49 [2.8]	49 [2.4]	49 [1.6]	
Cortex, Cyst	1 [4.0]	1 [3.0]			
Cortex, Inflammation, Focal	1 [1.0]				
Pelvis, Dilatation		2 [2.0]			
Renal Tubule, Dilatation		2 [1.5]			
Renal Tubule, Hyperplasia, Atypical				1 [1.0]	
Renal Tubule, Necrosis				1 [2.0]	
Urinary Bladder	(50)	(50)	(50)	(50)	
Inflammation	1 [2.0]	2 [2.5]			

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)

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 **AVERAGE SEVERITY GRADES[b]**

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS MALE 0 mg/L 250 mg/L 500 mg/L 1000 mg/L

*** END OF MALE ***

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS FEMALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Disposition Summary				
Animals Initially In Study	66	66	66	66
Early Deaths				
Moribund Sacrifice	10	22	42	44
Natural Death	6	2	1	4
Survivors				
Terminal Sacrifice	34	26	7	2
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Inflammation	,	1 [2.0]	,	,
Intestine Large, Colon	(50)	(50)	(50)	(50)
Parasite Metazoan	6	9	5	4
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Liver	(50)	(50)	(50)	(50)
Angiectasis	3 [1.0]		1 [1.0]	2 [3.0]
Basophilic Focus	42	46	46	46
Clear Cell Focus	14	10	5	8
Degeneration, Cystic	1 [1.0]	1 [1.0]		
Eosinophilic Focus	6	13	21	22
Fatty Change	10 [1.5]	7 [1.1]	5 [1.6]	5 [1.4]
Fatty Change, Focal	1 [2.0]	2 [1.0]		
Hematopoietic Cell Proliferation	3 [1.0]	7 [1.1]	14 [1.0]	9 [1.1]
Hepatodiaphragmatic Nodule	5	9	12	15
Inflammation, Chronic Active	36 [1.0]	33 [1.1]	40 [1.0]	35 [1.1]
Mixed Cell Focus	2	3	2	3
Necrosis	2 [1.0]	1 [2.0]	1 [1.0]	2 [2.5]
Necrosis, Multifocal	1 [1.0]			
Tension Lipidosis	1 [2.0]			

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)

Experiment Number: 96014 - 05

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Fischer 344-Taconic RATS FEMALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L	
Bile Duct, Hyperplasia	28 [1.1]	27 [1.2]	28 [1.0]	22 [1.3]	
Oval Cell, Hyperplasia	2 [1.0]				
Serosa, Fibrosis				1 [1.0]	
Mesentery	(3)	(4)	(3)	(2)	
Fat, Necrosis	3 [1.0]	4 [1.5]	3 [1.0]	2 [1.0]	
Oral Mucosa	(0)	(0)	(0)	(1)	
Pancreas	(50)	(50)	(50)	(50)	
Atrophy	9 [1.2]	13 [1.0]	11 [1.2]	14 [1.1]	
Acinus, Hyperplasia	6 [1.3]	1 [1.0]			
Salivary Glands	(50)	(50)	(50)	(50)	
Degeneration		1 [2.0]			
Inflammation		1 [2.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Inflammation	2 [2.5]	1 [4.0]	1 [2.0]		
Ulcer	1 [4.0]	1 [2.0]	1 [3.0]		
Epithelium, Dysplasia				1 [1.0]	
Epithelium, Hyperplasia	2 [3.0]	1 [2.0]	4 [1.5]		
Stomach, Glandular	(50)	(50)	(50)	(50)	
Erosion				1 [2.0]	
Mineralization	1 [1.0]				
Tongue	(50)	(50)	(50)	(50)	
Foreign Body	1				
Inflammation	1 [1.0]				
Ulcer	1 [1.0]				
Epithelium, Hyperplasia	1 [1.0]				
CARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	45 [1.5]	42 [1.5]	39 [1.2]	35 [1.1]	
Atrium, Thrombosis	[]	1 [3.0]	[]	22 []	
Epicardium, Inflammation		. [0.0]		1 [2.0]	
1				. [1	

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)

Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 **AVERAGE SEVERITY GRADES[b]**

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS FEMALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Degeneration, Cystic	4 [1.5]	2 [1.0]	2 [1.5]	6 [1.0]	
Hematopoietic Cell Proliferation	1 [2.0]				
Hyperplasia		1 [2.0]			
Hypertrophy	5 [1.4]	• •	1 [1.0]	5 [1.4]	
Necrosis				2 [1.5]	
Vacuolization Cytoplasmic	3 [1.0]	6 [1.8]	2 [1.0]		
Zona Fasciculata, Hyperplasia		4 [1.8]	1 [1.0]	1 [1.0]	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	2 [1.0]	,	5 [1.2]	1 [1.0]	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Parathyroid Gland	(47)	(46)	(49)	(49)	
Pituitary Gland	(50)	(50)	(49)	(50)	
Cyst	()	1 [3.0]	(- /	()	
Inflammation		1 [1.0]			
Pars Distalis, Angiectasis			1 [2.0]	1 [1.0]	
Pars Distalis, Cyst			1	,	
Pars Distalis, Hyperplasia	15 [2.6]	18 [2.5]	22 [2.0]	17 [1.8]	
Pars Distalis, Vacuolization Cytoplasmic		- 1 - 1	1 [1.0]	,	
Thyroid Gland	(50)	(50)	(50)	(50)	
Atrophy	(/	(/	1 [4.0]	(/	
Cyst		1 [4.0]	. []		
C-cell, Hyperplasia	33 [1.6]	31 [1.6]	26 [1.9]	26 [1.7]	
Follicular Cell, Hyperplasia	1 [1.0]	2 [2.0]	20[0]	1 [2.0]	

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

(49)Clitoral Gland (50)(49)(48)

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Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Fischer 344-Taconic RATS FEMALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Cyst	1 [4.0]	1 [2.0]		
Hyperplasia	1 [2.0]	5 [2.0]	3 [2.7]	
Inflammation	2 [4.0]	• •		
Ovary	(50)	(50)	(50)	(50)
Atrophy	9 [2.9]	9 [1.9]	6 [2.8]	3 [2.0]
Cyst	10 [1.5]	12 [1.3]	10 [1.3]	6 [1.3]
Infiltration Cellular, Histiocyte	1 [3.0]			
Uterus	(50)	(50)	(50)	(50)
Atrophy		1 [4.0]		
Cervix, Hypertrophy		1 [2.0]	1 [2.0]	
Cervix, Inflammation	2 [3.0]	3 [2.3]		1 [4.0]
Cervix, Metaplasia, Squamous	2 [2.0]	1 [1.0]		1 [2.0]
Cervix, Epithelium, Hyperplasia	1 [2.0]			
Endometrium, Hyperplasia, Adenomatous			1 [2.0]	
Endometrium, Hyperplasia, Cystic	10 [2.0]	9 [1.4]	12 [1.6]	9 [1.4]
Vagina	(1)	(0)	(0)	(0)
Epithelium, Hyperplasia	1 [2.0]			
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Angiectasis	1 [1.0]	19 [1.5]	32 [1.7]	39 [1.7]
Atrophy				1 [2.0]
Hemorrhage	1 [3.0]	1 [1.0]		
Hyperplasia	23 [2.5]	35 [2.7]	40 [2.7]	43 [2.7]
Infiltration Cellular, Histiocyte		1 [2.0]	1 [1.0]	1 [1.0]
Myelofibrosis				1 [1.0]
Necrosis	1 [3.0]			1 [2.0]
Lymph Node	(4)	(4)	(2)	(2)
Inguinal, Infiltration Cellular, Plasma Cell	1 [2.0]			
Lumbar, Ectasia		1 [3.0]		
Mediastinal, Hyperplasia, Lymphoid		1 [2.0]		
Mediastinal, Infiltration Cellular, Histiocyte	1 [2.0]			
Mediastinal, Infiltration Cellular, Plasma Cell				1 [2.0]
Pancreatic, Infiltration Cellular, Histiocyte	1 [2.0]			

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Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Bone

Fibrous Osteodystrophy

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54

First Dose M/F: 10/26/06 / 10/27/06

Lab: BAT

Fischer 344-Taconic RATS FEMALE 0 mg/L 250 mg/L 500 mg/L 1000 mg/L Lymph Node, Mandibular (50)(50)(50)(50)Atrophy 1 [3.0] Infiltration Cellular, Plasma Cell 1 [2.0] 1 [3.0] Lymph Node, Mesenteric (50)(50)(50)(50)Atrophy 4 [2.5] 2 [1.5] Ectasia 1 [2.0] Infiltration Cellular, Histiocyte 1 [2.0] Spleen (50)(50)(50)(50)Hematopoietic Cell Proliferation 13 [2.4] 6 [1.8] 29 [2.1] 31 [2.1] Hyperplasia, Lymphoid 1 [3.0] Pigmentation, Hemosiderin 39 [1.2] 43 [1.2] 41 [1.1] 39 [1.1] **Thrombosis** 2 [2.0] Capsule, Mineralization 1 [2.0] Lymphoid Follicle, Atrophy 5 [2.2] 1 [2.0] 1 [2.0] 3 [1.7] **Thymus** (48)(49)(47)(48)Atrophy 45 [3.2] 48 [3.0] 44 [3.0] 45 [3.0] INTEGUMENTARY SYSTEM Mammary Gland (50)(50)(50)(50)Galactocele 1 [4.0] Hyperplasia 4 [1.3] 2 [1.5] 10 [1.2] Inflammation 1 [4.0] (50)(50)Skin (50)(50)Cyst Epithelial Inclusion 1 1 Inflammation 3 [2.0] 2 [2.0] Ulcer 2 [2.0] Epidermis, Hyperkeratosis 1 [3.0] Epidermis, Hyperplasia, Squamous 2 [2.0] 1 [1.0] Sebaceous Gland, Hyperplasia 1 [2.0] MUSCULOSKELETAL SYSTEM

(50)

1 [1.0]

(50)

(50)

(50)

1 [2.0]

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Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Fischer 344-Taconic RATS FEMALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
Hyperplasia			1 [2.0]	
Osteopetrosis	2 [2.5]	2 [2.0]	8 [2.3]	5 [2.2]
Tibia, Fracture		1		
Vertebra, Fracture				1
Skeletal Muscle	(0)	(1)	(0)	(0)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Hemorrhage	(/	2 [1.5]	(/	ζ/
Necrosis		1 [2.0]		
Spinal Cord	(0)	(0)	(1)	(0)
•				
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Inflammation, Chronic Active	20 [1.1]	26 [1.1]	26 [1.0]	28 [1.1]
Alveolar Epithelium, Hyperplasia	11 [1.3]	4 [1.0]	8 [1.1]	8 [1.6]
Alveolar Epithelium, Hypertrophy	1 [1.0]			
Alveolus, Hyperplasia			1 [1.0]	
Alveolus, Infiltration Cellular, Histiocyte	38 [1.0]	46 [1.0]	43 [1.0]	43 [1.0]
Bronchiole, Hyperplasia		1 [1.0]		1 [1.0]
Mediastinum, Inflammation	1 [2.0]			
Nose	(50)	(50)	(50)	(50)
Foreign Body	2	1	2	1
Inflammation	5 [1.6]	5 [1.2]	9 [1.2]	5 [2.0]
Respiratory Epithelium, Hyperplasia			1 [2.0]	
Trachea	(50)	(50)	(50)	(50)
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Fibrosis	(00)	(00)	1 [2.0]	(00)
Anterior Chamber, Inflammation			1 [3.0]	

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Species/Strain: RATS/F344/N Tac

Test Type: CHRONIC

Route: DOSED WATER

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/05/2013 AVERAGE SEVERITY GRADES[b]

Water disinfection byproducts (Bromodichloroacetic acid)

CAS Number: 71133-14-7

Time Report Requested: 08:30:54 First Dose M/F: 10/26/06 / 10/27/06

Fischer 344-Taconic RATS FEMALE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L	
Ciliary Body, Fibrosis	1 [2.0]				
Cornea, Inflammation		1 [1.0]		1 [2.0]	
Iris, Inflammation	1 [2.0]				
Lens, Cataract	5 [2.8]	1 [2.0]	6 [2.3]	3 [2.3]	
Posterior Chamber, Inflammation	1 [2.0]				
Retina, Degeneration	6 [3.2]	2 [2.0]	5 [2.6]	3 [4.0]	
Retina, Gliosis	1 [1.0]	1 [2.0]	1 [1.0]		
Harderian Gland	(50)	(50)	(50)	(50)	
Inflammation	• •	•	1 [4.0]	1 [4.0]	
Lacrimal Gland	(0)	(2)	(0)	(0)	
Zymbal's Gland	(0)	(0)	(0)	(2)	
JRINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Infarct	1 [2.0]	1 [1.0]		1 [1.0]	
Infiltration Cellular, Lymphoid		1 [2.0]			
Inflammation	1 [3.0]				
Mineralization	28 [1.0]	21 [1.0]	20 [1.0]	27 [1.0]	
Nephropathy	43 [1.6]	40 [1.3]	44 [1.1]	46 [1.4]	
Cortex, Cyst	1 [1.0]		1 [1.0]		
Papilla, Necrosis	1 [1.0]			1 [3.0]	
Pelvis, Calculus Micro Observation Only		3	4		
Pelvis, Inflammation	1 [1.0]		1 [2.0]		
Renal Tubule, Dilatation				1 [2.0]	
Renal Tubule, Hyperplasia, Atypical		1 [1.0]	1 [2.0]	• •	
Renal Tubule, Necrosis				1 [1.0]	
Urinary Bladder	(50)	(50)	(50)	(50)	
Transitional Epithelium, Hyperplasia	(/	1 [2.0]	(/	\ <i>\</i>	

^{***} END OF REPORT ***

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