

Experiment Number: 03038 - 04

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

Date Report Requested: 06/26/2019

Test Type: CHRONIC

Sodium Tungstate Dihydrate

Time Report Requested: 10:11:56

Route: DOSED WATER

CAS Number: 10213-10-2

First Dose M/F: 01/17/12 / 01/16/12

Species/Strain: MICE/B6C3F1/N

Lab: BAT

Final Version 2

**NTP Study Number:** C03038  
**Lock Date:** 05/25/2016  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

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Lab: BAT

B6C3F1/N MICE MALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Early Deaths</b>				
<b>Accidentally Killed</b>	<b>1</b>			
<b>Moribund Sacrifice</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Natural Death</b>	<b>18</b>	<b>16</b>	<b>9</b>	<b>9</b>
<b>Survivors</b>				
<b>Moribund Sacrifice</b>				<b>1</b>
<b>Natural Death</b>			<b>2</b>	
<b>Terminal Sacrifice</b>	<b>26</b>	<b>31</b>	<b>35</b>	<b>35</b>
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

## ALIMENTARY SYSTEM

Esophagus	(50)	(50)	(50)	(50)
Inflammation, Chronic Active	1 [2.0]	1 [1.0]		
Gallbladder	(48)	(47)	(50)	(49)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Edema			1 [4.0]	
Hemorrhage		1 [4.0]		
Pigment	3 [1.0]	7 [1.0]	17 [1.0]	32 [1.0]
Intestine Large, Colon	(50)	(50)	(50)	(50)
Edema			1 [3.0]	
Ulcer			1 [2.0]	
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Inflammation, Acute		1 [1.0]		
Intestine Small, Duodenum	(49)	(50)	(50)	(50)
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Edema			1 [2.0]	
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Inflammation, Chronic Active	1 [4.0]			
Ulcer	1 [4.0]			
Peyer's Patch, Hyperplasia	1 [4.0]		1 [4.0]	1 [2.0]
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]	1 [2.0]		

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Lab: BAT

B6C3F1/N MICE MALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Atypia Cellular				2 [1.5]
Basophilic Focus	2	5	5	7
Clear Cell Focus	16	14	12	13
Eosinophilic Focus	23	20	25	14
Extramedullary Hematopoiesis	4 [1.0]	1 [1.0]	3 [1.0]	1 [1.0]
Fatty Change, Diffuse	2 [2.5]		4 [1.3]	2 [1.5]
Hemorrhage			1 [1.0]	1 [4.0]
Hepatodiaphragmatic Nodule				1
Hyperplasia, Nodular			2 [3.5]	
Infiltration Cellular, Mixed Cell	1 [1.0]	6 [1.0]	5 [1.0]	4 [1.0]
Karyomegaly				1 [2.0]
Mineral	1 [2.0]			
Mixed Cell Focus	8	4	11	9
Bile Duct, Cyst	1			1
Bile Duct, Inflammation, Chronic		1 [1.0]		
Hepatocyte, Fatty Change, Focal	2 [1.5]	5 [1.8]	4 [1.0]	5 [1.2]
Hepatocyte, Multinucleated				1 [1.0]
Hepatocyte, Necrosis	9 [1.9]	8 [1.3]	3 [2.3]	8 [1.6]
Mesentery	(8)	(3)	(6)	(4)
Inflammation, Chronic Active	3 [3.0]			
Polyarteritis Nodosa		1 [4.0]		
Artery, Inflammation, Chronic Active			1 [2.0]	
Fat, Necrosis	2 [3.5]	2 [3.5]	3 [3.3]	2 [4.0]
Oral Mucosa	(0)	(1)	(0)	(0)
Pancreas	(50)	(50)	(50)	(50)
Acinus, Atrophy	2 [2.5]	2 [1.0]		
Duct, Cyst	1			
Salivary Glands	(50)	(50)	(50)	(50)
Duct, Hyperplasia	1 [1.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)
Cyst		1	1	
Hyperkeratosis			1 [3.0]	
Infiltration Cellular, Mast Cell			1 [4.0]	
Ulcer	2 [1.0]		1 [2.0]	
Epithelium, Hyperplasia	2 [3.0]	2 [1.0]	3 [2.7]	
Stomach, Glandular	(50)	(50)	(50)	(50)

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Lab: BAT

B6C3F1/N MICE MALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Cyst		3		
Erosion	1 [1.0]	1 [1.0]	1 [1.0]	1 [1.0]
Mineral		2 [1.0]	1 [1.0]	
Polyarteritis Nodosa		1 [4.0]		
Ulcer	1 [1.0]			
Epithelium, Degeneration				1 [1.0]
Glands, Degeneration			1 [1.0]	
Tooth	(42)	(33)	(44)	(35)
Dental Dysplasia	41 [2.1]	31 [2.3]	43 [2.1]	34 [1.8]
Inflammation, Suppurative		1 [3.0]		4 [2.5]
Inflammation, Chronic Active	2 [2.0]		1 [3.0]	

## CARDIOVASCULAR SYSTEM

Blood Vessel	(49)	(50)	(50)	(50)
Polyarteritis Nodosa		1 [4.0]		
Aorta, Necrosis				1 [3.0]
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	7 [1.1]	3 [1.0]	6 [1.0]	4 [1.0]
Hemorrhage	1 [3.0]			
Inflammation, Suppurative			1 [1.0]	
Inflammation, Acute		1 [1.0]		
Mineral			2 [1.0]	1 [1.0]
Polyarteritis Nodosa		1 [4.0]		
Thrombus		1		
Atrium, Thrombus	1	2		
Coronary Artery, Inflammation, Chronic Active	1 [2.0]			
Valve, Inflammation, Suppurative				1 [1.0]

## ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule		2	2	2
Angiectasis			1 [4.0]	
Extramedullary Hematopoiesis		1 [1.0]	1 [1.0]	

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B6C3F1/N MICE MALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Hyperplasia	5 [1.2]	4 [1.8]	3 [1.3]	3 [1.0]
Hypertrophy	19 [1.0]	20 [1.3]	21 [1.2]	17 [1.0]
Necrosis	1 [1.0]	1 [4.0]		
Subcapsular, Hyperplasia	1 [3.0]	6 [2.7]	4 [3.0]	3 [3.7]
Adrenal Medulla	(49)	(50)	(48)	(50)
Hyperplasia		1 [1.0]		
Islets, Pancreatic	(47)	(50)	(49)	(50)
Hyperplasia	37 [1.8]	33 [1.9]	32 [1.7]	28 [1.3]
Parathyroid Gland	(44)	(43)	(48)	(43)
Cyst		1		
Pituitary Gland	(48)	(50)	(49)	(50)
Cyst		2	1	2
Pars Distalis, Hyperplasia	2 [1.0]	2 [2.5]	3 [2.0]	1 [1.0]
Thyroid Gland	(50)	(49)	(50)	(50)
Infiltration Cellular, Lymphocyte			1 [1.0]	
C-cell, Hyperplasia		1 [1.0]		
Follicle, Cyst	1		2	
Follicle, Degeneration	12 [1.0]	8 [1.3]	8 [1.6]	9 [1.0]

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Coagulating Gland	(0)	(0)	(1)	(0)
Epididymis	(50)	(49)	(50)	(50)
Atrophy		1 [2.0]		1 [3.0]
Granuloma Sperm	3 [2.3]	1 [1.0]	1 [1.0]	
Infiltration Cellular, Mononuclear Cell	1 [2.0]			
Inflammation, Chronic Active	1 [1.0]	1 [2.0]		1 [2.0]
Spermatocele		1 [4.0]		
Preputial Gland	(49)	(50)	(50)	(50)
Cyst	14	16	20	15
Hyperplasia				1 [1.0]

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Inflammation, Suppurative	7 [3.1]	13 [3.7]	8 [3.8]	4 [3.3]
Inflammation, Chronic Active	6 [2.0]	2 [2.0]	6 [3.0]	9 [2.0]
Prostate	(50)	(50)	(50)	(50)
Hyperplasia		1 [2.0]	1 [1.0]	
Inflammation, Suppurative	1 [4.0]			1 [3.0]
Inflammation, Chronic Active	5 [1.8]	2 [2.0]	3 [1.3]	
Artery, Inflammation, Chronic Active			1 [2.0]	
Seminal Vesicle	(50)	(50)	(50)	(50)
Atrophy	1 [2.0]			
Inflammation, Suppurative	3 [3.7]			1 [1.0]
Inflammation, Chronic Active	3 [1.0]		1 [1.0]	
Testis	(50)	(50)	(50)	(50)
Inflammation, Suppurative		1 [1.0]		
Germinal Epithelium, Atrophy			1 [2.0]	
Germinal Epithelium, Degeneration	11 [1.5]	20 [1.3]	20 [1.5]	20 [2.2]
Germinal Epithelium, Pigment	1 [1.0]			

## HEMATOPOIETIC SYSTEM

Bone Marrow	(50)	(50)	(50)	(50)
Angiectasis	1 [3.0]			
Atrophy	1 [2.0]			
Hypercellularity	15 [1.2]	35 [1.7]	26 [1.6]	19 [1.4]
Hypocellularity				1 [2.0]
Lymph Node	(3)	(4)	(6)	(1)
Atrophy	1 [3.0]			
Hyperplasia, Lymphocyte		1 [3.0]	1 [4.0]	
Lymph Node, Mandibular	(48)	(50)	(49)	(48)
Atrophy	1 [3.0]	1 [3.0]		1 [3.0]
Hyperplasia, Lymphocyte	1 [3.0]		2 [3.0]	1 [3.0]
Hyperplasia, Plasma Cell	1 [1.0]	4 [2.5]	2 [4.0]	
Infiltration Cellular, Neutrophil	1 [2.0]	1 [1.0]		
Infiltration Cellular, Histiocyte	2 [3.0]	1 [3.0]		
Infiltration Cellular, Mixed Cell	1 [1.0]			
Pigment	1 [2.0]			

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Lymph Node, Mesenteric	(50)	(46)	(48)	(48)
Angiectasis	2 [1.5]			1 [2.0]
Atrophy	4 [3.3]	4 [3.0]	2 [2.5]	2 [3.0]
Erythrophagocytosis		1 [1.0]		
Extramedullary Hematopoiesis	4 [1.5]	5 [1.2]	5 [1.0]	4 [1.0]
Hemorrhage		2 [2.5]		
Hyperplasia, Lymphocyte	3 [3.7]		1 [4.0]	1 [3.0]
Hyperplasia, Plasma Cell			3 [3.3]	1 [3.0]
Infiltration Cellular, Neutrophil	1 [2.0]			
Infiltration Cellular, Histiocyte	2 [2.5]	1 [4.0]		
Infiltration Cellular, Mixed Cell			1 [1.0]	
Inflammation, Suppurative	1 [4.0]			
Inflammation, Acute				1 [1.0]
Lymphatic Sinus, Ectasia	1 [2.0]			
Spleen	(49)	(50)	(49)	(50)
Amyloid		1 [4.0]		
Extramedullary Hematopoiesis	10 [1.4]	17 [1.4]	10 [1.6]	5 [1.6]
Hemorrhage		1 [3.0]		
Pigment			1 [2.0]	2 [2.0]
Capsule, Fibrosis			1 [1.0]	
Red Pulp, Atrophy	6 [2.5]	3 [4.0]	3 [3.7]	7 [2.9]
White Pulp, Atrophy	8 [2.0]	6 [3.3]	5 [2.8]	8 [2.9]
White Pulp, Hyperplasia	3 [1.7]			2 [2.0]
Thymus	(45)	(44)	(44)	(41)
Atrophy	19 [3.4]	14 [3.5]	10 [3.6]	6 [3.3]
Hyperplasia, Atypical, Lymphocyte	2 [4.0]			
Inflammation, Chronic Active		1 [3.0]		
Polyarteritis Nodosa		1 [4.0]		

## INTEGUMENTARY SYSTEM

Mammary Gland	(1)	(2)	(2)	(4)
Cyst			1	
Inflammation, Suppurative			1 [4.0]	
Skin	(50)	(50)	(50)	(50)

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Cyst			1	
Ulcer	1 [4.0]		2 [4.0]	
Epidermis, Hyperplasia		1 [2.0]		
Subcutaneous Tissue, Edema	1 [4.0]	2 [3.0]		
Subcutaneous Tissue, Inflammation, Chronic Active		1 [2.0]		

## MUSCULOSKELETAL SYSTEM

Bone	(50)	(50)	(50)	(50)
Fibro-Osseous Lesion	4 [1.0]	3 [1.0]	4 [1.0]	4 [1.3]
Increased Bone	2 [1.0]			
Joint, Degeneration	1 [4.0]			
Skeletal Muscle	(1)	(1)	(1)	(0)

## NERVOUS SYSTEM

Brain	(50)	(50)	(50)	(50)
Hemorrhage	2 [2.0]			
Infiltration Cellular, Lymphocyte			1 [2.0]	1 [1.0]
Necrosis		2 [1.5]	3 [2.0]	
Polyarteritis Nodosa		1 [4.0]		
Thrombus	1			
Artery, Amyloid		1 [4.0]		
Choroid Plexus, Hyperplasia			1 [2.0]	
Brain Trigeminal Ganglion	(0)	(0)	(1)	(0)
Peripheral Nerve	(0)	(0)	(1)	(0)
Spinal Cord	(1)	(0)	(1)	(0)

## RESPIRATORY SYSTEM

Lung	(50)	(50)	(50)	(50)
Infiltration Cellular, Histiocyte				2 [2.5]
Inflammation, Chronic		1 [2.0]		

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Pigment	1 [1.0]			
Thrombus	1			
Alveolar Epithelium, Hyperplasia	1 [1.0]	3 [2.3]	7 [1.3]	5 [1.8]
Alveolus, Pigment		1 [2.0]		
Serosa, Inflammation, Chronic Active			1 [1.0]	
Nose	(50)	(50)	(50)	(50)
Foreign Body		2	1	
Inflammation, Suppurative	1 [1.0]	1 [1.0]		1 [2.0]
Inflammation, Chronic Active		1 [1.0]	1 [1.0]	
Polyp, Inflammatory	1 [2.0]	1 [4.0]	1 [2.0]	
Olfactory Epithelium, Metaplasia, Respiratory	19 [1.1]	16 [1.1]	12 [1.0]	10 [1.0]
Respiratory Epithelium, Accumulation, Hyaline Droplet		5 [1.2]		1 [1.0]
Respiratory Epithelium, Hyperplasia	4 [1.5]	1 [1.0]	4 [1.0]	6 [1.3]
Trachea	(50)	(50)	(50)	(50)

## SPECIAL SENSES SYSTEM

Ear	(1)	(0)	(0)	(0)
Eye	(50)	(50)	(50)	(50)
Phthisis Bulbi		1	1	1
Cornea, Inflammation, Acute		1 [2.0]	1 [2.0]	1 [1.0]
Lens, Cataract		1 [2.0]		2 [2.0]
Retina, Dysplasia			4 [1.5]	
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia		3 [2.3]	1 [3.0]	1 [3.0]
Inflammation, Suppurative				1 [1.0]

## URINARY SYSTEM

Kidney	(50)	(50)	(50)	(50)
Bacteria	2			
Cyst			1	7
Glomerulosclerosis	2 [2.0]			
Infarct	3 [1.7]		4 [1.0]	4 [1.0]

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Infiltration Cellular, Mononuclear Cell	1 [2.0]			
Infiltration Cellular, Plasma Cell	1 [2.0]			
Inflammation, Suppurative	1 [4.0]			
Metaplasia, Osseous	1 [1.0]		1 [1.0]	3 [1.0]
Mineral	18 [1.1]	10 [1.0]	9 [1.0]	6 [1.0]
Nephropathy, Chronic Progressive	43 [1.4]	48 [1.1]	47 [1.3]	47 [1.9]
Pigment	30 [1.0]	10 [1.0]	18 [1.2]	44 [1.0]
Polyarteritis Nodosa		1 [4.0]		
Thrombus				1
Artery, Infiltration Cellular, Lymphocyte				1 [3.0]
Artery, Inflammation, Chronic Active	1 [4.0]		1 [2.0]	1 [3.0]
Glomerulus, Amyloid		1 [2.0]		
Papilla, Mineral			1 [1.0]	
Papilla, Necrosis	1 [4.0]		1 [2.0]	
Pelvis, Dilation	3 [3.0]			
Pelvis, Inflammation, Suppurative	1 [4.0]	1 [4.0]		1 [1.0]
Pelvis, Inflammation, Chronic Active	2 [3.0]	1 [1.0]		
Renal Tubule, Accumulation, Hyaline Droplet			1 [2.0]	
Renal Tubule, Atypia Cellular				1 [2.0]
Renal Tubule, Cyst	5	7	6	9
Renal Tubule, Hyperplasia		3 [1.0]	1 [1.0]	
Renal Tubule, Necrosis				3 [1.3]
Renal Tubule, Regeneration	2 [1.0]	21 [1.4]	32 [1.4]	38 [1.6]
Ureter	(1)	(0)	(0)	(0)
Urethra	(1)	(0)	(0)	(0)
Inflammation, Chronic Active	1 [3.0]			
Urinary Bladder	(50)	(50)	(50)	(50)
Inflammation, Suppurative				1 [2.0]
Inflammation, Chronic Active	1 [1.0]	1 [2.0]		

\*\*\* END OF MALE \*\*\*

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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Early Deaths</b>				
<b>Moribund Sacrifice</b>	<b>2</b>	<b>1</b>	<b>2</b>	
<b>Natural Death</b>	<b>10</b>	<b>8</b>	<b>10</b>	<b>10</b>
<b>Survivors</b>				
<b>Natural Death</b>		<b>1</b>		
<b>Terminal Sacrifice</b>	<b>38</b>	<b>40</b>	<b>38</b>	<b>40</b>
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

## ALIMENTARY SYSTEM

Esophagus	(50)	(50)	(50)	(50)
Inflammation, Chronic Active	1 [1.0]		2 [1.0]	2 [1.0]
Gallbladder	(48)	(50)	(47)	(50)
Cyst		1		
Inflammation, Chronic Active				1 [2.0]
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Pigment		3 [1.0]	7 [1.0]	14 [1.0]
Polyarteritis Nodosa				1 [3.0]
Intestine Large, Colon	(50)	(50)	(50)	(50)
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Polyarteritis Nodosa				1 [3.0]
Intestine Small, Duodenum	(49)	(50)	(50)	(49)
Polyarteritis Nodosa				1 [2.0]
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Polyarteritis Nodosa				1 [2.0]
Intestine Small, Jejunum	(50)	(50)	(49)	(50)
Inflammation, Chronic	1 [1.0]			
Inflammation, Chronic Active	2 [3.5]			
Peyer's Patch, Hyperplasia, Lymphocyte		1 [4.0]		
Peyer's Patch, Inflammation, Granulomatous			1 [3.0]	
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 [3.0]	2 [2.0]	4 [1.8]	1 [2.0]
Basophilic Focus	2	7	5	2

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)

Test Type: CHRONIC

Sodium Tungstate Dihydrate

Time Report Requested: 10:11:56

Route: DOSED WATER

CAS Number: 10213-10-2

First Dose M/F: 01/17/12 / 01/16/12

Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Clear Cell Focus	1	1	1	1
Eosinophilic Focus	8	17	16	10
Erythrophagocytosis	1 [1.0]	1 [2.0]		
Extramedullary Hematopoiesis	1 [1.0]	2 [2.5]	3 [1.3]	1 [2.0]
Fatty Change, Diffuse	6 [1.5]	1 [1.0]	1 [1.0]	2 [4.0]
Infiltration Cellular, Mixed Cell	24 [1.0]	22 [1.0]	27 [1.0]	23 [1.0]
Inflammation, Focal	14 [1.0]	24 [1.0]	21 [1.0]	23 [1.0]
Inflammation, Chronic Active		1 [1.0]		
Mixed Cell Focus	1	3	2	2
Tension Lipidosis		1		
Bile Duct, Cyst			1	
Hepatocyte, Fatty Change, Focal	1 [1.0]	2 [1.0]	1 [1.0]	
Hepatocyte, Necrosis	2 [1.0]	4 [1.0]	1 [1.0]	5 [1.6]
Mesentery	(10)	(12)	(13)	(7)
Inflammation, Granulomatous			1 [4.0]	
Polyarteritis Nodosa				1 [3.0]
Fat, Necrosis	8 [2.9]	9 [3.7]	10 [3.6]	4 [3.5]
Oral Mucosa	(1)	(0)	(1)	(0)
Gingival, Foreign Body			1	
Gingival, Inflammation, Chronic			1 [4.0]	
Pancreas	(50)	(50)	(50)	(50)
Basophilic Focus	1	1		
Inflammation, Chronic Active				1 [1.0]
Acinus, Atrophy	1 [4.0]	1 [1.0]		1 [2.0]
Acinus, Hyperplasia		1 [1.0]		
Duct, Cyst	1		2	2
Salivary Glands	(50)	(50)	(49)	(49)
Pigment	1 [2.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)
Cyst		2	1	
Ulcer				1 [1.0]
Epithelium, Hyperplasia	1 [3.0]	2 [1.5]	1 [1.0]	2 [3.0]
Stomach, Glandular	(50)	(50)	(50)	(50)
Cyst	2	6	6	3
Inflammation, Chronic Active				1 [1.0]
Polyarteritis Nodosa				1 [2.0]

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CAS Number: 10213-10-2

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Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Epithelium, Hyperplasia Glands, Necrosis		1 [1.0]	1 [2.0]	
Tongue	(1)	(1)	(0)	(0)
Tooth	(2)	(5)	(2)	(1)
Dental Dysplasia	2 [1.0]	5 [1.0]	2 [2.0]	1 [1.0]

## CARDIOVASCULAR SYSTEM

Blood Vessel	(47)	(50)	(49)	(50)
Polyarteritis Nodosa				1 [2.0]
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	1 [2.0]	1 [2.0]		3 [1.0]
Inflammation, Suppurative	1 [2.0]			
Inflammation, Chronic Active				1 [1.0]
Mineral	1 [1.0]	1 [1.0]		
Thrombus	1			
Artery, Inflammation, Chronic			1 [1.0]	
Artery, Inflammation, Chronic Active	1 [4.0]			
Artery, Metaplasia, Cartilagenous	1 [1.0]			
Atrium, Thrombus			1	
Coronary Artery, Inflammation, Chronic Active		1 [2.0]		
Epicardium, Inflammation, Chronic Active				1 [3.0]
Valve, Inflammation, Suppurative				1 [2.0]
Valve, Inflammation, Acute				1 [1.0]
Valve, Inflammation, Chronic		1 [1.0]		1 [1.0]
Valve, Inflammation, Chronic Active		2 [1.5]		
Valve, Thrombus		1		2

## ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	3	1	3	2
Angiectasis			1 [4.0]	
Extramedullary Hematopoiesis	1 [2.0]			2 [1.0]
Hemorrhage		1 [4.0]		

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Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Hyperplasia		1 [2.0]		1 [2.0]
Hypertrophy	1 [1.0]		1 [1.0]	3 [1.7]
Necrosis				1 [4.0]
Subcapsular, Hyperplasia	1 [2.0]			1 [3.0]
Adrenal Medulla	(50)	(50)	(50)	(49)
Hyperplasia			1 [4.0]	2 [1.0]
Thrombus		1		
Islets, Pancreatic	(48)	(50)	(49)	(50)
Hyperplasia	5 [1.0]	10 [1.2]	4 [1.5]	4 [1.0]
Parathyroid Gland	(45)	(40)	(42)	(43)
Cyst		2	3	
Pituitary Gland	(50)	(50)	(47)	(50)
Angiectasis	1 [1.0]	2 [1.5]		
Cyst	1	1	1	
Pars Distalis, Hyperplasia	21 [1.4]	23 [1.6]	16 [1.6]	18 [1.7]
Thyroid Gland	(49)	(50)	(49)	(50)
Angiectasis			1 [2.0]	
Inflammation, Chronic Active	1 [4.0]	1 [1.0]		
Follicle, Degeneration	19 [1.6]	17 [1.2]	19 [1.8]	16 [1.4]

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Clitoral Gland	(49)	(49)	(49)	(49)
Ovary	(49)	(49)	(50)	(50)
Angiectasis	2 [3.0]			1 [2.0]
Atrophy	2 [4.0]			
Cyst	8	4	5	3
Corpus Luteum, Hyperplasia		1 [2.0]	1 [4.0]	
Follicle, Cyst	4	7	4	4
Follicle, Hemorrhage				1 [2.0]
Interstitial Cell, Hyperplasia	1 [2.0]			

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Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Paraovarian Tissue, Cyst				2
Uterus	(50)	(50)	(50)	(50)
Angiectasis	3 [3.3]	1 [3.0]	1 [3.0]	2 [4.0]
Fibrosis			1 [2.0]	
Hemorrhage			1 [2.0]	
Infiltration Cellular, Neutrophil	6 [1.0]	3 [1.0]	5 [1.0]	4 [1.0]
Infiltration Cellular, Mixed Cell	1 [2.0]		1 [1.0]	1 [1.0]
Inflammation, Suppurative		2 [2.5]	1 [2.0]	1 [4.0]
Inflammation, Acute	2 [1.0]	2 [1.0]		2 [1.5]
Inflammation, Chronic Active				1 [2.0]
Polyarteritis Nodosa	1 [3.0]			2 [3.0]
Endometrium, Hyperplasia, Cystic	41 [2.3]	36 [2.2]	37 [2.4]	42 [2.3]
Vagina	(50)	(50)	(50)	(50)
Inflammation, Suppurative		2 [1.5]		
Inflammation, Acute	1 [3.0]		2 [1.5]	
Inflammation, Chronic Active	1 [2.0]			
Polyarteritis Nodosa				1 [4.0]

## HEMATOPOIETIC SYSTEM

Bone Marrow	(48)	(50)	(49)	(48)
Hypercellularity	17 [2.1]	24 [1.7]	18 [2.2]	20 [2.2]
Hypocellularity	1 [1.0]	2 [1.0]		1 [1.0]
Lymph Node	(9)	(8)	(8)	(3)
Ectasia		1 [4.0]		
Hemorrhage	2 [4.0]	1 [4.0]	2 [3.0]	
Hyperplasia, Lymphocyte	3 [2.7]			
Infiltration Cellular, Histiocyte	1 [3.0]		1 [4.0]	
Polyarteritis Nodosa	1 [2.0]			
Lymph Node, Mandibular	(49)	(49)	(48)	(50)
Atrophy	2 [3.5]			1 [3.0]
Extramedullary Hematopoiesis	1 [2.0]			
Hemorrhage	1 [4.0]		1 [3.0]	
Hyperplasia, Lymphocyte		2 [3.0]		1 [3.0]
Hyperplasia, Plasma Cell	1 [2.0]	1 [3.0]		

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Sodium Tungstate Dihydrate

Time Report Requested: 10:11:56

Route: DOSED WATER

CAS Number: 10213-10-2

First Dose M/F: 01/17/12 / 01/16/12

Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Infiltration Cellular, Mast Cell	1 [4.0]			
Lymph Node, Mesenteric	(49)	(49)	(49)	(50)
Angiectasis		1 [4.0]		
Atrophy	1 [4.0]	1 [3.0]	1 [4.0]	
Extramedullary Hematopoiesis	3 [1.3]	2 [1.5]	1 [2.0]	3 [1.7]
Hemorrhage	1 [4.0]			
Hyperplasia, Lymphocyte		7 [3.0]	3 [3.0]	4 [2.0]
Hyperplasia, Plasma Cell	1 [3.0]	1 [2.0]		1 [3.0]
Infiltration Cellular, Histiocyte	1 [2.0]			
Inflammation, Chronic Active			1 [2.0]	
Lymphatic Sinus, Ectasia		2 [4.0]		1 [4.0]
Spleen	(50)	(48)	(49)	(50)
Accessory Spleen	1 [1.0]			
Extramedullary Hematopoiesis	5 [1.6]	18 [1.2]	13 [1.5]	8 [1.3]
Hyperplasia, Lymphocyte	2 [2.0]			
Hyperplasia, Plasma Cell	1 [3.0]			
Infiltration Cellular, Histiocyte				2 [4.0]
Pigment	1 [4.0]			
Red Pulp, Atrophy	2 [4.0]		3 [3.3]	1 [3.0]
White Pulp, Atrophy	3 [3.3]	2 [2.5]	3 [2.7]	1 [2.0]
White Pulp, Hyperplasia	7 [1.6]	6 [1.5]	5 [1.8]	6 [2.0]
Thymus	(49)	(48)	(50)	(50)
Atrophy	3 [4.0]	3 [3.0]	4 [3.8]	5 [3.4]
Hyperplasia, Atypical, Lymphocyte	2 [2.0]	2 [2.5]		2 [2.5]

## INTEGUMENTARY SYSTEM

Mammary Gland	(49)	(50)	(50)	(49)
Hyperplasia	2 [2.0]	3 [1.3]		1 [1.0]
Skin	(50)	(50)	(50)	(50)
Infiltration Cellular, Mast Cell				1 [3.0]
Inflammation, Chronic Active				1 [4.0]
Ulcer		1 [1.0]		1 [4.0]
Epidermis, Hyperplasia		1 [4.0]		
Sweat Gland, Hyperplasia			1 [4.0]	

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Sodium Tungstate Dihydrate

Time Report Requested: 10:11:56

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CAS Number: 10213-10-2

First Dose M/F: 01/17/12 / 01/16/12

Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
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## MUSCULOSKELETAL SYSTEM

Bone	(50)	(50)	(50)	(50)
Fibro-Osseous Lesion	15 [1.1]	23 [1.1]	8 [1.0]	8 [1.0]
Fibrous Osteodystrophy				1 [4.0]
Increased Bone	1 [1.0]	2 [1.0]	1 [2.0]	1 [1.0]
Skeletal Muscle	(2)	(0)	(1)	(0)

## NERVOUS SYSTEM

Brain	(50)	(50)	(50)	(50)
Atrophy				1 [4.0]
Compression		1 [4.0]		
Cyst Epithelial Inclusion			1	
Gliosis				1 [1.0]
Necrosis		1 [3.0]	2 [1.5]	
Polyarteritis Nodosa		1 [3.0]		3 [2.0]

## RESPIRATORY SYSTEM

Larynx	(0)	(1)	(0)	(0)
Infiltration Cellular, Mixed Cell		1 [1.0]		
Lung	(50)	(50)	(50)	(50)
Hemorrhage				1 [3.0]
Hyperplasia, Lymphocyte	1 [4.0]			
Infiltration Cellular, Histiocyte				1 [4.0]
Inflammation, Chronic Active		1 [1.0]		
Thrombus		1		
Alveolar Epithelium, Hyperplasia	4 [2.0]	5 [1.8]	3 [1.3]	4 [1.0]
Nose	(50)	(50)	(50)	(50)
Hemorrhage			1 [4.0]	
Inflammation, Suppurative		1 [2.0]		1 [2.0]
Inflammation, Acute			2 [1.0]	1 [1.0]

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Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Nerve, Olfactory Epithelium, Atrophy				1 [1.0]
Olfactory Epithelium, Metaplasia	15 [1.0]	18 [1.0]	15 [1.0]	13 [1.1]
Respiratory Epithelium, Accumulation, Hyaline Droplet	1 [1.0]	2 [1.0]		1 [4.0]
Respiratory Epithelium, Hyperplasia	2 [1.0]	1 [2.0]		
Trachea	(50)	(50)	(48)	(50)
Inflammation, Acute	1 [1.0]			
Polyarteritis Nodosa	1 [3.0]			

## SPECIAL SENSES SYSTEM

Eye	(50)	(50)	(48)	(50)
Phthisis Bulbi			1	
Lens, Cataract	1 [3.0]	1 [2.0]	1 [3.0]	
Retina, Dysplasia			1 [1.0]	
Harderian Gland	(50)	(50)	(48)	(50)
Hyperplasia	1 [2.0]	2 [1.5]	3 [2.0]	3 [2.0]

## URINARY SYSTEM

Kidney	(50)	(50)	(50)	(50)
Glomerulopathy	1 [4.0]			
Glomerulopathy, Hyaline			1 [4.0]	
Infarct	5 [1.0]	2 [1.5]	5 [1.2]	3 [1.3]
Infiltration Cellular, Mononuclear Cell		1 [1.0]	1 [1.0]	
Inflammation, Chronic			1 [1.0]	
Metaplasia, Osseous			1	1 [1.0]
Mineral	2 [1.0]			
Nephropathy, Chronic Progressive	33 [1.0]	26 [1.1]	26 [1.0]	27 [1.0]
Pigment			6 [1.0]	1 [1.0]
Polyarteritis Nodosa				2 [2.0]
Papilla, Necrosis	1 [1.0]			
Pelvis, Dilation		1 [2.0]		
Pelvis, Inflammation, Chronic Active			1 [1.0]	
Renal Tubule, Accumulation, Hyaline Droplet	2 [1.5]	2 [2.5]	1 [2.0]	1 [3.0]

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Experiment Number: 03038 - 04

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

Date Report Requested: 06/26/2019

Test Type: CHRONIC

Sodium Tungstate Dihydrate

Time Report Requested: 10:11:56

Route: DOSED WATER

CAS Number: 10213-10-2

First Dose M/F: 01/17/12 / 01/16/12

Species/Strain: MICE/B6C3F1/N

Lab: BAT

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B6C3F1/N MICE FEMALE	0 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Renal Tubule, Cyst	1			
Renal Tubule, Degeneration			1 [1.0]	
Renal Tubule, Hyperplasia		2 [1.0]		
Renal Tubule, Necrosis	1 [2.0]	5 [1.0]	1 [1.0]	3 [2.7]
Renal Tubule, Regeneration		1 [3.0]	7 [1.1]	7 [1.3]
Urinary Bladder	(50)	(50)	(49)	(50)
Polyarteritis Nodosa				1 [3.0]

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\*\*\* END OF REPORT \*\*\*

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