

Experiment Number: 05197-09

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

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

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/22/2014

Time Report Requested: 19:22:22

First Dose M/F: NA / NA

Lab: BNW

C Number:	C62077D
Lock Date:	11/19/1992
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

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F 344/N Rat MALE	CONTROL	31 PPM	62.5 PPM	125 PPM	250 PPM	500 PPM
Disposition Summary						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10	10
ALIMENTARY SYSTEM						
Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Hepatodiaphragmatic Nodule		3		1		1
Kupffer Cell, Pigmentation				7 [1.0]	10 [1.0]	10 [1.0]
Mesentery	(1)	(0)	(0)	(0)	(0)	(0)
Fat, Necrosis	1 [2.0]					
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(10)	(10)	(10)	(10)	(10)
Epithelium, Hyperplasia					3 [1.7]	2 [1.0]
Inflammation					2 [1.0]	2 [1.0]
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
CARDIOVASCULAR SYSTEM						
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	9 [1.0]					10 [1.0]

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

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ENDOCRINE SYSTEM						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(8)	(0)	(0)	(0)	(0)	(9)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(0)	(0)	(1)	(0)	(10)
Granuloma Sperm				1 [4.0]		
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)
Atrophy						1 [2.0]
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(10)	(10)	(10)	(10)	(10)
Hyperplasia					10 [1.7]	10 [2.7]
Lymph Node, Bronchial	(8)	(0)	(0)	(0)	(0)	(2)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(6)
Lymph Node, Mediastinal	(9)	(0)	(0)	(0)	(0)	(3)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(9)
Spleen	(10)	(10)	(10)	(10)	(10)	(10)
Accessory Spleen					1	
Hematopoietic Cell Proliferation		1 [1.0]			10 [1.0]	10 [1.0]

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Thymus	(10)	(0)	(0)	(0)	(0)	(10)
INTEGUMENTARY SYSTEM						
Mammary Gland	(6)	(0)	(0)	(0)	(0)	(4)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Larynx	(10)	(0)	(0)	(0)	(0)	(10)
Lung	(10)	(0)	(0)	(1)	(0)	(10)
Hemorrhage	1 [1.0]					
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Nephropathy	1 [1.0]					
Renal Tubule, Pigmentation					8 [1.0]	10 [1.0]
Renal Tubule, Regeneration	4 [1.0]		1 [1.0]	1 [1.0]		
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

END OF MALE DATA

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Lab: BNW

F 344/N Rat FEMALE	CONTROL	31 PPM	62.5 PPM	125 PPM	250 PPM	500 PPM
Disposition Summary						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Moribund Sacrifice					1	5
Survivors						
Terminal Sacrifice	10	10	10	10	9	5
Animals Examined Microscopically	10	10	10	10	10	10
ALIMENTARY SYSTEM						
Esophagus	(9)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Rectum	(9)	(0)	(0)	(0)	(10)	(9)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(10)	(10)
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Basophilic Focus			1			
Centrilobular, Degeneration						4 [2.0]
Eosinophilic Focus	1					
Hepatodiaphragmatic Nodule	1	1	4	1		2
Kupffer Cell, Pigmentation			10 [1.0]	10 [1.0]	10 [1.0]	6 [1.0]
Necrosis					1 [1.0]	4 [2.0]
Vein, Thrombosis						3 [1.0]
Pancreas	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						1 [1.0]
Salivary Glands	(10)	(10)	(10)	(10)	(10)	(9)
Necrosis						2 [2.0]
Stomach, Forestomach	(10)	(10)	(10)	(10)	(10)	(10)

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F 344/N Rat FEMALE	CONTROL	31 PPM	62.5 PPM	125 PPM	250 PPM	500 PPM
Epithelium, Hyperplasia					1 [1.0]	2 [1.0]
Inflammation			1 [1.0]			3 [1.7]
Necrosis						2 [1.5]
Ulcer						2 [2.0]
Stomach, Glandular	(10)	(1)	(0)	(0)	(10)	(10)
Tooth, Incisor	(0)	(0)	(0)	(0)	(0)	(4)
Odontoblast, Degeneration						4 [2.0]
Pulp, Thrombosis						4 [2.0]
CARDIOVASCULAR SYSTEM						
Heart	(10)	(0)	(0)	(0)	(10)	(10)
Angiectasis					1 [2.0]	
Atrium, Thrombosis						1 [2.0]
Cardiomyopathy	7 [1.0]				8 [1.0]	8 [1.3]
ENDOCRINE SYSTEM						
Adrenal Cortex	(10)	(0)	(0)	(0)	(10)	(10)
Vacuolization Cytoplasmic						1 [1.0]
Adrenal Medulla	(10)	(0)	(0)	(0)	(10)	(8)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(10)	(10)
Parathyroid Gland	(7)	(0)	(0)	(0)	(9)	(8)
Pituitary Gland	(10)	(0)	(0)	(0)	(10)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(10)	(10)
C Cell, Hyperplasia					1 [1.0]	
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(0)	(10)	(10)
Ovary	(10)	(2)	(0)	(0)	(10)	(10)

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F 344/N Rat FEMALE	CONTROL	31 PPM	62.5 PPM	125 PPM	250 PPM	500 PPM
Cyst		2 [2.0]			1 [2.0]	1 [1.0]
Uterus	(10)	(0)	(0)	(0)	(10)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(10)	(10)	(10)	(10)	(10)
Hyperplasia			8 [1.0]	10 [2.0]	10 [2.5]	6 [2.8]
Inflammation, Granulomatous			3 [1.3]			
Tail, Vertebra, Inflammation						2 [2.0]
Tail, Vertebra, Necrosis						10 [2.0]
Lymph Node	(0)	(0)	(1)	(1)	(0)	(0)
Renal, Inflammation, Granulomatous			1 [2.0]	1 [2.0]		
Lymph Node, Bronchial	(6)	(0)	(0)	(0)	(4)	(3)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(10)	(8)
Lymph Node, Mediastinal	(8)	(0)	(0)	(0)	(1)	(7)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(10)	(10)
Spleen	(10)	(10)	(10)	(10)	(10)	(10)
Atrophy						1 [2.0]
Hematopoietic Cell Proliferation			1 [1.0]	10 [1.0]	8 [1.0]	7 [1.4]
Thymus	(10)	(10)	(10)	(10)	(10)	(10)
Atrophy						4 [2.5]
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(10)	(10)
Skin	(10)	(0)	(0)	(0)	(10)	(10)
Tail, Necrosis						1 [4.0]
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(10)	(10)	(10)	(10)	(9)
Fracture	1					
Bone, Femur	(0)	(0)	(0)	(0)	(0)	(2)
Thrombosis						2 [1.0]

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Bone, Vertebra	(0)	(0)	(0)	(0)	(0)	(10)
Blood Vessel, Tail, Thrombosis						4 [2.0]
Tail, Infarct						10 [3.0]
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(10)	(10)
Developmental Malformation	1					
Inflammation	1 [1.0]					
Mineralization	1 [2.0]					
RESPIRATORY SYSTEM						
Larynx	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation					1 [2.0]	
Metaplasia, Squamous					2 [1.5]	
Lung	(10)	(0)	(0)	(0)	(10)	(10)
Alveolus, Infiltration Cellular, Histiocyte	1 [1.0]					1 [1.0]
Foreign Body					1	
Inflammation, Granulomatous, Focal					1 [2.0]	
Thrombosis						3 [1.0]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Inflammation	2 [1.0]	3 [1.0]	5 [1.2]	2 [1.5]	8 [1.6]	4 [1.5]
Respirat Epith, Metaplasia, Squamous					1 [3.0]	1 [2.0]
Thrombosis						3 [2.0]
Trachea	(10)	(0)	(0)	(0)	(10)	(10)
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Renal Tubule, Degeneration						4 [2.0]

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Renal Tubule, Pigmentation				10 [1.0]	10 [1.0]	7 [1.0]
Renal Tubule, Regeneration					1 [1.0]	
Urinary Bladder	(10)	(0)	(0)	(0)	(9)	(9)

**** END OF REPORT ****

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