

**Experiment Number:** 88038-01  
**Test Type:** 90-DAY  
**Route:** DOSED WATER  
**Species/Strain:** Rat/F 344/N

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)**

**Test Compound:** Glyoxal  
**CAS Number:** 107-22-2

**Date Report Requested:** 10/17/2014  
**Time Report Requested:** 13:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>C Number:</b>	C88038
<b>Lock Date:</b>	01/24/1992
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

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Species/Strain: Rat/F 344/N

Lab: SRI

F 344/N Rat MALE	VEHICLE CONTROL	1 MG/ML	2 MG/ML	4 MG/ML	8 MG/ML	16 MG/ML
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Moribund Sacrifice						10
Survivors						
Terminal Sacrifice	10	10	10	10	10	
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Cecum	(9)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Colon	(9)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(10)	(9)
Intestine Small, Ileum	(9)	(0)	(0)	(0)	(9)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(10)	(10)
Liver	(10)	(0)	(1)	(0)	(10)	(10)
Hepatodiaphragmatic Nodule	1 (10%)		1 (100%)			1 (10%)
Mesentery	(0)	(0)	(1)	(0)	(1)	(0)
Accessory Spleen			1 (100%)		1 (100%)	
Pancreas	(10)	(0)	(0)	(0)	(10)	(10)
Salivary Glands	(10)	(10)	(10)	(10)	(10)	(10)
Atrophy					10 (100%)	9 (90%)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(10)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(10)	(10)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(10)	(10)
Heart	(10)	(0)	(0)	(0)	(10)	(10)
Cardiomyopathy	4 (40%)				5 (50%)	

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

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F 344/N Rat MALE	VEHICLE CONTROL	1 MG/ML	2 MG/ML	4 MG/ML	8 MG/ML	16 MG/ML
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(10)	(10)
Accessory Adrenal Cortical Nodule					1 (10%)	3 (30%)
Adrenal Medulla	(10)	(0)	(0)	(0)	(10)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(10)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(10)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(10)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(10)	(10)
Ultimobranchial Cyst	1 (10%)					
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Epididymis	(10)	(0)	(0)	(0)	(10)	(10)
Atypia Cellular						10 (100%)
Hypospermia						10 (100%)
Preputial Gland	(10)	(0)	(0)	(0)	(10)	(10)
Prostate	(10)	(0)	(0)	(0)	(10)	(10)
Fibrosis	1 (10%)					
Inflammation, Chronic	2 (20%)					3 (30%)
Inflammation, Suppurative	2 (20%)				2 (20%)	
Seminal Vesicle	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation, Chronic						1 (10%)
Testes	(10)	(0)	(0)	(0)	(10)	(10)
Degeneration						1 (10%)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(10)	(10)
Lymph Node, Mandibular	(10)	(10)	(8)	(10)	(10)	(10)
Hemorrhage						1 (10%)

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F 344/N Rat MALE	VEHICLE CONTROL	1 MG/ML	2 MG/ML	4 MG/ML	8 MG/ML	16 MG/ML
Lymph Node, Mesenteric Hemorrhage	(10) 1 (10%)	(10)	(10)	(10)	(10)	(10)
Spleen Fibrosis	(10) 1 (10%)	(0)	(0)	(0)	(10)	(10)
Thymus Hemorrhage	(10)	(0)	(0)	(0)	(10)	(10) 1 (10%)
INTEGUMENTARY SYSTEM						
Mammary Gland	(9)	(0)	(0)	(0)	(7)	(7)
Skin Acanthosis	(10)	(0)	(0)	(0)	(10) 1 (10%)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(0)	(10)	(10)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(10)	(10)
RESPIRATORY SYSTEM						
Lung Alveolar Epith, Hyperplasia Infiltration Cellular, Histiocyte	(10)	(0)	(0)	(0)	(10) 1 (10%) 1 (10%)	(10)
Nose	(10)	(0)	(0)	(0)	(10)	(10)
Trachea	(10)	(0)	(0)	(0)	(10)	(10)
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney Inflammation, Chronic Mineralization Nephropathy	(10)  5 (50%)	(10)  4 (40%)	(10)  5 (50%)	(10)  4 (40%)	(10)  5 (50%)	(10)  5 (50%)

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F 344/N Rat MALE	VEHICLE CONTROL	1 MG/ML	2 MG/ML	4 MG/ML	8 MG/ML	16 MG/ML
Papilla, Cytoplasmic Alteration				1 (10%)	6 (60%)	
Renal Tubule, Dilatation				1 (10%)	3 (30%)	
Urinary Bladder	(10)	(0)	(0)	(0)	(10)	(10)

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

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F 344/N Rat FEMALE	VEHICLE CONTROL	1 MG/ML	2 MG/ML	4 MG/ML	8 MG/ML	16 MG/ML
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Moribund Sacrifice						10
Survivors						
Terminal Sacrifice	10	10	10	10	10	
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(9)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Colon	(9)	(0)	(0)	(0)	(9)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(10)	(10)
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)	(2)	(1)	(0)	(10)	(10)
Hepatodiaphragmatic Nodule		2 (100%)	1 (100%)		1 (10%)	
Inflammation, Chronic	1 (10%)				1 (10%)	
Pancreas	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy	1 (10%)					
Salivary Glands	(10)	(0)	(0)	(0)	(10)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(10)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(10)	(10)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(10)	(10)
Heart	(10)	(0)	(0)	(0)	(10)	(10)
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(10)	(10)

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Accessory Adrenal Cortical Nodule Developmental Malformation	3 (30%)					1 (10%)
Adrenal Medulla	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation, Chronic	1 (10%)					
Islets, Pancreatic	(10)	(0)	(0)	(0)	(10)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(9)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(10)	(10)
Pars Distalis, Cyst					1 (10%)	
Thyroid Gland	(10)	(0)	(0)	(0)	(10)	(10)
Ultimobranchial Cyst	1 (10%)				3 (30%)	
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Clitoral Gland	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation, Chronic	1 (10%)					
Ovary	(10)	(1)	(1)	(0)	(10)	(10)
Cyst		1 (100%)	1 (100%)		1 (10%)	
Uterus	(10)	(2)	(1)	(3)	(10)	(10)
Hydrometra	2 (20%)	2 (100%)	1 (100%)	3 (100%)	4 (40%)	
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(10)	(10)
Myelofibrosis					1 (10%)	
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(10)	(10)
Lymph Node, Mesenteric	(10)	(10)	(10)	(10)	(10)	(10)
Hemorrhage			4 (40%)	7 (70%)	6 (60%)	
Spleen	(10)	(0)	(0)	(0)	(10)	(10)
Thymus	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						2 (20%)

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F 344/N Rat FEMALE	VEHICLE CONTROL	1 MG/ML	2 MG/ML	4 MG/ML	8 MG/ML	16 MG/ML
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(10)	(8)
Skin	(10)	(0)	(0)	(0)	(10)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(10)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation, Chronic	1 (10%)					
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(1)	(10)	(10)
Nose	(10)	(0)	(0)	(0)	(10)	(10)
Exudate	1 (10%)					
Trachea	(10)	(0)	(0)	(0)	(10)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation, Chronic	1 (10%)					
Mineralization	7 (70%)				6 (60%)	6 (60%)
Nephropathy					1 (10%)	
Urinary Bladder	(10)	(0)	(0)	(0)	(10)	(10)

\*\* END OF REPORT \*\*