

**Experiment Number:** 88123-03  
**Test Type:** 90-DAY  
**Route:** GAVAGE  
**Species/Strain:** Rat/F 344/N

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

**Test Compound:** Formamide  
**CAS Number:** 75-12-7

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 01:38:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**C Number:** C88123  
**Lock Date:** 06/04/1998  
**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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First Dose M/F: NA / NA

Species/Strain: Rat/F 344/N

Lab: BAT

F 344/N Rat MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
<b>Disposition Summary</b>						
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
<b>ALIMENTARY SYSTEM</b>						
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)	(1)	(10)
Peyers Patch, Hyperplasia, Lymphoid	1 (10%)				1 (100%)	
Liver	(10)	(0)	(0)	(1)	(2)	(10)
Hepatodiaphragmatic Nodule	2 (20%)			1 (100%)	2 (100%)	1 (10%)
Inflammation	2 (20%)				1 (50%)	1 (10%)
Inflammation, Chronic	1 (10%)					4 (40%)
Vacuolization Cytoplasmic	1 (10%)					
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Lymphocyte	1 (10%)					1 (10%)
Infiltration Cellular, Mononuclear CI	1 (10%)					
Inflammation	2 (20%)					1 (10%)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)

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

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Species/Strain: Rat/F 344/N

Lab: BAT

F 344/N Rat MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	9 (90%)					7 (70%)
<b>ENDOCRINE SYSTEM</b>						
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	(9)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst						2 (20%)
Infiltration Cellular, Lymphocyte						1 (10%)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Epididymis	(10)	(10)	(10)	(10)	(10)	(10)
Epithelium, Degeneration		1 (10%)				9 (90%)
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Acute						1 (10%)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(10)	(10)	(10)	(10)	(10)
Germinal Epith, Atrophy		1 (10%)		1 (10%)		
Germinal Epith, Degeneration						7 (70%)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(0)	(1)	(2)
Mediastinal, Ectasia						2 (100%)
Mediastinal, Hyperplasia, Lymphoid					1 (100%)	

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Lab: BAT

F 344/N Rat MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
Lymph Node, Mandibular	(9)	(0)	(0)	(0)	(0)	(8)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Pigmentation	1 (10%)					
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage						1 (10%)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(9)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
Skeletal Muscle	(1)	(0)	(0)	(0)	(0)	(0)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage	1 (10%)					
Inflammation, Chronic Active	2 (20%)					
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 (10%)					
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 (10%)					
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(9)	(10)
Inflammation, Chronic Active	3 (30%)					3 (30%)

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

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Species/Strain: Rat/F 344/N

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First Dose M/F: NA / NA

Lab: BAT

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<b>F 344/N Rat MALE</b>	<b>0 MG/KG</b>	<b>10 MG/KG</b>	<b>20 MG/KG</b>	<b>40 MG/KG</b>	<b>80 MG/KG</b>	<b>160 MG/KG</b>
Mineralization	1 (10%)					
Nephropathy	7 (70%)	9 (90%)	8 (80%)	8 (80%)	6 (67%)	2 (20%)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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

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F 344/N Rat FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
<b>Disposition Summary</b>						
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	1	1	2	1	10
<b>ALIMENTARY SYSTEM</b>						
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)
Parasite Metazoan						1 (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)	(1)	(1)	(1)	(0)	(10)
Hepatodiaphragmatic Nodule	1 (10%)		1 (100%)	1 (100%)		3 (30%)
Inflammation	4 (40%)	1 (100%)		1 (100%)		4 (40%)
Inflammation, Chronic	6 (60%)					6 (60%)
Vacuolization Cytoplasmic		1 (100%)				
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation	2 (20%)					
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
Tooth	(0)	(0)	(0)	(0)	(0)	(1)
Peridont Tiss, Inflammation, Chronic Active						1 (100%)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)

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F 344/N Rat FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	1 (10%)					1 (10%)
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)
Pars Intermed, Cyst						1 (10%)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	1 (10%)					
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(10)
Ovary	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	1 (10%)					
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
Hydrometra	3 (30%)					3 (30%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(1)	(0)	(0)
Mediastinal, Ectasia				1 (100%)		
Lymph Node, Mandibular	(8)	(0)	(0)	(0)	(0)	(8)
Hemorrhage	1 (13%)					
Hyperplasia, Histiocytic						1 (13%)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(1)	(10)
Atrophy						1 (10%)

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Lab: BAT

F 344/N Rat FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
Hyperplasia, Histiocytic	6 (60%)					3 (30%)
Hyperplasia, Lymphoid					1 (100%)	
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage						1 (10%)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
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						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 (10%)					
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mononuclear CI						1 (10%)
Inflammation, Chronic Active	2 (20%)					2 (20%)
Mineralization	7 (70%)					5 (50%)
Nephropathy	1 (10%)					
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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



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