

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

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

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

Date Report Requested: 10/19/2014
Time Report Requested: 01:37:52
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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F 344/N Rat MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	160 MG/KG
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)	(1)	(10)
Peyers Patch, Hyperplasia, Lymphoid	1 [1.0]				1 [1.0]	
Liver	(10)	(0)	(0)	(1)	(2)	(10)
Hepatodiaphragmatic Nodule	2			1	2	1
Inflammation	2 [1.0]				1 [1.0]	1 [1.0]
Inflammation, Chronic	1 [1.0]					4 [1.0]
Vacuolization Cytoplasmic	1 [1.0]					
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Lymphocyte	1 [2.0]					1 [1.0]
Infiltration Cellular, Mononuclear Cl	1 [1.0]					
Inflammation	2 [1.5]					1 [1.0]
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
CARDIOVASCULAR SYSTEM						

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)

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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
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	9 [1.3]					7 [1.0]
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	(9)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst						2 [1.0]
Infiltration Cellular, Lymphocyte						1 [1.0]
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(10)	(10)	(10)	(10)	(10)
Epithelium, Degeneration		1 [1.0]				9 [1.0]
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Acute						1 [1.0]
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 [2.0]		1 [1.0]		
Germinal Epith, Degeneration						7 [1.3]
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(0)	(1)	(2)

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Mediastinal, Ectasia						2 [2.0]
Mediastinal, Hyperplasia, Lymphoid					1 [2.0]	
Lymph Node, Mandibular	(9)	(0)	(0)	(0)	(0)	(8)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Pigmentation	1 [1.0]					
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage						1 [1.0]
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 [1.0]					
Inflammation, Chronic Active	2 [1.0]					
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 [1.0]					
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 [1.0]					
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						

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First Dose M/F: NA / NA

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
Kidney	(10)	(10)	(10)	(10)	(9)	(10)
Inflammation, Chronic Active	3 [1.0]					3 [1.0]
Mineralization	1 [1.0]					
Nephropathy	7 [1.0]	9 [1.0]	8 [1.0]	8 [1.0]	6 [1.0]	2 [1.0]
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

END OF MALE DATA

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

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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	1	1	2	1	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)
Parasite Metazoan						1
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		1	1		3
Inflammation	4 [1.3]	1 [1.0]		1 [1.0]		4 [1.5]
Inflammation, Chronic	6 [2.0]					6 [1.2]
Vacuolization Cytoplasmic		1 [1.0]				
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation	2 [1.0]					
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 [2.0]
CARDIOVASCULAR SYSTEM						

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Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	1 [1.0]					1 [1.0]
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 [2.0]
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	1 [1.0]					
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(10)
Ovary	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	1 [2.0]					
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
Hydrometra	3 [1.3]					3 [1.3]
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(1)	(0)	(0)
Mediastinal, Ectasia				1 [2.0]		
Lymph Node, Mandibular	(8)	(0)	(0)	(0)	(0)	(8)
Hemorrhage	1 [1.0]					
Hyperplasia, Histiocytic						1 [1.0]

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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
Lymph Node, Mesenteric Atrophy	(10)	(0)	(0)	(0)	(1)	(10)
Hyperplasia, Histiocytic	6 [1.0]					1 [2.0]
Hyperplasia, Lymphoid					1 [2.0]	3 [2.0]
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage						1 [1.0]
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 [1.0]					
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 [1.0]
Inflammation, Chronic Active	2 [1.0]					2 [1.0]
Mineralization	7 [1.0]					5 [1.0]
Nephropathy	1 [1.0]					

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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
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

**** END OF REPORT ****

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)