

**Experiment Number:** 20009-01  
**Test Type:** 90-DAY  
**Route:** DOSED WATER  
**Species/Strain:** Rat/F 344/N

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

**Test Compound:** beta-Picoline  
**CAS Number:** 108-99-6

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 15:39:45  
**First Dose M/F:** NA / NA  
**Lab:** BAT

<b>C Number:</b>	C20009
<b>Lock Date:</b>	07/30/2004
<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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F 344/N Rat MALE	0 MG/L	78 MG/L	156 MG/L	312 MG/L	625 MG/L	1250 MG/L
<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)
Inflammation, Chronic Active						1 [1.0]
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)	(0)	(0)	(0)	(0)	(10)
Hematopoietic Cell Proliferation	8 [1.0]					9 [1.0]
Inflammation, Chronic Active	10 [1.0]					10 [1.2]
Mesentery	(1)	(0)	(0)	(0)	(0)	(0)
Inflammation, Chronic Active	1 [1.0]					
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Lymphocyte	7 [1.0]					4 [1.3]
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
Glands, Ectasia						1 [1.0]
Inflammation, Chronic Active						1 [1.0]
Tooth	(0)	(0)	(0)	(0)	(0)	(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)

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<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	10 [2.0]					10 [1.3]
<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)	(9)
Pituitary Gland	(9)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mononuclear CI						1 [1.0]
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Coagulating Gland	(1)	(0)	(0)	(0)	(0)	(1)
Inflammation, Chronic Active						1 [1.0]
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Epithelium, Degeneration						1 [1.0]
Infiltration Cellular, Mononuclear CI	1 [1.0]					3 [1.0]
Mesothelium, Hyperplasia	1 [3.0]					
Preputial Gland	(10)	(1)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	8 [1.0]					10 [1.1]
Inflammation, Granulomatous	1 [1.0]					
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 [1.0]					
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)

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Testes	(10)	(0)	(0)	(0)	(0)	(10)
Tunic, Inflammation, Chronic Active						1 [1.0]
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(9)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
Cartilage, Atypia Cellular						1 [1.0]
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	6 [1.0]					6 [1.0]
Metaplasia, Osseous						1 [1.0]
Metaplasia, Squamous						1 [2.0]
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Suppurative	1 [1.0]					
Pleura	(0)	(0)	(0)	(0)	(0)	(1)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)

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Infiltration Cellular, Mononuclear CI						1 [1.0]
<b>URINARY SYSTEM</b>						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Medulla, Mineralization	5 [1.0]	7 [1.0]	6 [1.0]	6 [1.0]	3 [1.0]	7 [1.0]
Nephropathy	10 [1.2]	10 [1.0]	10 [1.0]	10 [1.2]	10 [2.2]	10 [2.9]
Renal Tubule, Accumulation, Hyaline Droplet	10 [1.3]	10 [1.1]	10 [1.2]	10 [1.1]	10 [1.0]	10 [2.0]
Renal Tubule, Pigmentation						1 [1.0]
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mononuclear CI						2 [1.0]

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

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<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)
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)	(10)	(10)	(10)	(10)	(10)
Hematopoietic Cell Proliferation	3 [1.0]				1 [1.0]	1 [1.0]
Hepatodiaphragmatic Nodule	2	1			1	1
Inflammation, Chronic Active	10 [1.1]	9 [1.2]	10 [1.3]	9 [1.2]	7 [1.0]	10 [1.7]
Mesentery	(0)	(0)	(0)	(0)	(1)	(0)
Fat, Inflammation, Chronic Active					1 [2.0]	
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Acinus, Atrophy						1 [2.0]
Infiltration Cellular, Lymphocyte	6 [1.2]					6 [1.0]
Inflammation, Chronic Active						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)

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<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	9 [1.0]					9 [1.0]
<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	(8)	(0)	(0)	(0)	(0)	(9)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	6 [1.0]					8 [1.0]
Ovary	(10)	(0)	(0)	(0)	(0)	(10)
Oviduct	(1)	(0)	(0)	(0)	(0)	(0)
Infiltration Cellular, Mixed Cell	1 [1.0]					
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)

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F 344/N Rat FEMALE	0 MG/L	78 MG/L	156 MG/L	312 MG/L	625 MG/L	1250 MG/L
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mixed Cell	1 [1.0]					
Skin	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active						1 [1.0]
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	3 [1.0]					7 [1.0]
Interstitial, Infiltration Cellular, Mononuclear CI	1 [1.0]					
Metaplasia, Osseous	2 [1.0]					
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Olfactory Epi, Foreign Body	1 [1.0]					
Trachea	(9)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active						1 [1.0]
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mononuclear CI	1 [1.0]					
Inflammation, Chronic Active	2 [3.5]					1 [1.0]
Metaplasia, Squamous	2 [1.5]					
<b>URINARY SYSTEM</b>						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Capsule, Inflammation, Chronic Active	1 [1.0]					

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Cortex, Angiectasis					1 [2.0]	
Medulla, Mineralization	5 [1.0]	6 [1.0]	5 [1.0]	3 [1.0]	4 [1.0]	9 [1.0]
Nephropathy	7 [1.0]	10 [1.0]	7 [1.0]	8 [1.0]	9 [1.0]	10 [1.2]
Papilla, Casts Granular						1 [1.0]
Renal Tubule, Crystals	1 [1.0]					
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 [2.0]					1 [1.0]

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

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