

**Experiment Number:** 88070-01

**Test Type:** 90-DAY

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

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

**Test Compound:** Isobutene

**CAS Number:** 115-11-7

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:09:23

**First Dose M/F:** NA / NA

**Lab:** BNW

<b>C Number:</b>	C88070
<b>Lock Date:</b>	09/04/1992
<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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F 344/N Rat MALE	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
<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)
Lymphoid Tiss, Hyperplasia, Lymphoid						1 [2.0]
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)	(0)	(2)	(0)	(1)	(10)
Hepatodiaphragmatic Nodule	2		1		1	
Pancreas	(10)	(0)	(0)	(0)	(0)	(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)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	4 [1.3]					1 [1.0]
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)

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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F 344/N Rat MALE	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(7)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(9)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
<b>GENERAL BODY SYSTEM</b>						
Tissue NOS	(1)	(0)	(0)	(0)	(0)	(1)
<b>GENITAL SYSTEM</b>						
Coagulating Gland	(0)	(0)	(0)	(0)	(0)	(1)
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Granulomatous	1 [2.0]					
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Hyperplasia						1 [2.0]
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Bronchial	(8)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(8)
Lymph Node, Mediastinal	(9)	(0)	(0)	(0)	(0)	(9)
Hemorrhage						1 [2.0]
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(1)	(0)	(0)	(10)
Accessory Spleen	1		1			
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
<b>INTEGUMENTARY SYSTEM</b>						

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F 344/N Rat MALE	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
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						
Larynx	(10)	(0)	(0)	(0)	(0)	(10)
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage	8 [1.1]					7 [1.0]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Goblet Cell, Nasopharyn Dct, Hypertrophy		4 [1.0]	7 [1.0]	9 [1.0]	8 [1.0]	9 [1.0]
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
Lacrimal Gland	(0)	(0)	(0)	(0)	(0)	(1)
Zymbal's Gland	(1)	(0)	(0)	(0)	(0)	(0)
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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

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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)	(0)	(10)
Liver	(10)	(0)	(2)	(2)	(2)	(10)
Fibrosis					1 [3.0]	
Hepatodiaphragmatic Nodule	1		1	2	2	2
Serosa, Fibrosis			1 [2.0]			
Mesentery	(0)	(0)	(2)	(1)	(1)	(0)
Fat, Necrosis			2 [2.0]	1 [3.0]		
Fibrosis					1 [1.0]	
Pancreas	(10)	(0)	(0)	(0)	(0)	(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)
Heart	(10)	(0)	(0)	(0)	(0)	(10)

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<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)	(10)
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)
Ovary	(10)	(1)	(0)	(2)	(1)	(10)
Cyst	3 [2.0]	1 [2.0]		2 [1.0]	1 [1.0]	
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
Lymph Node, Bronchial	(8)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mediastinal	(10)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(1)	(0)	(0)	(0)	(10)
Hemorrhage		1 [2.0]				
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)

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

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<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>						
Larynx	(10)	(0)	(0)	(0)	(0)	(10)
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage	3 [1.0]					4 [1.0]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Goblet Cell, Nasopharyn Dct, Hypertrophy		4 [1.0]	8 [1.0]	8 [1.0]	7 [1.0]	10 [1.0]
Goblet Cell, Respirat Epith, Hypertrophy						1 [1.0]
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(1)	(10)
Atrophy					1 [4.0]	
Renal Tubule, Mineralization	6 [1.0]				1 [3.0]	4 [1.3]
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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

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b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)