

**TDMS No.** 97003 - 08  
**Test Type:** CHRONIC  
**Route:** SKIN APPLICATION  
**Species/Strain:** MICE/B6C3F1

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

1,2-Dibromo-2,4-dicyanobutane

**CAS Number:** 35691-65-7

**Date Report Requested:** 08/21/2007

**Time Report Requested:** 13:25:49

**First Dose M/F:** 06/25/02 / 06/24/02

**Lab:** BAT

F\_1.Rev.1\_M3

**C Number:** C97003D  
**Lock Date:** 01/31/2005  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**TDMSE Version:** 1.8.0

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B6C3F1 MICE MALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
<b>Disposition Summary</b>				
Animals Initially in Study	50	50	50	50
Early Deaths				
Accidentally Killed		1		
Moribund Sacrifice	8	12	8	7
Natural Death	7	7	3	3
Survivors				
Moribund Sacrifice	1			
Terminal Sacrifice	34	30	39	40
Animals Examined Microscopically	50	50	50	50

**ALIMENTARY SYSTEM**

Esophagus	(50)	(50)	(50)	(50)
Gallbladder	(49)	(49)	(48)	(49)
Inflammation	3 (6%)		3 (6%)	2 (4%)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid				1 (2%)
Intestine Large, Colon	(50)	(50)	(50)	(50)
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Ectopic Tissue			1 (2%)	
Intestine Small, Ileum	(50)	(49)	(50)	(50)
Inflammation	1 (2%)			
Ulcer	1 (2%)			
Peyer's Patch, Hyperplasia, Lymphoid	1 (2%)			
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Peyer's Patch, Hyperplasia, Lymphoid		1 (2%)	4 (8%)	2 (4%)
Liver	(50)	(50)	(50)	(50)
Basophilic Focus	1 (2%)	4 (8%)	5 (10%)	4 (8%)
Clear Cell Focus	34 (68%)	22 (44%)	29 (58%)	24 (48%)
Eosinophilic Focus	21 (42%)	9 (18%)	16 (32%)	16 (32%)
Fatty Change, Focal	11 (22%)		4 (8%)	6 (12%)
Fatty Change, Diffuse	19 (38%)	15 (30%)	11 (22%)	14 (28%)
Hematopoietic Cell Proliferation	3 (6%)	9 (18%)	2 (4%)	1 (2%)
Infarct	1 (2%)			
Infiltration Cellular, Mononuclear Cell	1 (2%)			
Inflammation	31 (62%)	19 (38%)	27 (54%)	28 (56%)
Mineralization	1 (2%)			
Mixed Cell Focus	14 (28%)	9 (18%)	13 (26%)	12 (24%)
Necrosis	3 (6%)	9 (18%)	5 (10%)	7 (14%)
Pigmentation	4 (8%)	3 (6%)		

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B6C3F1 MICE MALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Tension Lipidosis	3 (6%)	5 (10%)	3 (6%)	3 (6%)
Bile Duct, Cyst	1 (2%)			
Hepatocyte, Hypertrophy		1 (2%)		
Mesentery	(10)	(3)	(4)	(2)
Fat, Necrosis	9 (90%)	3 (100%)	3 (75%)	1 (50%)
Pancreas	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)			
Infiltration Cellular, Mononuclear Cell	7 (14%)		3 (6%)	6 (12%)
Inflammation	2 (4%)			
Vacuolization Cytoplasmic				1 (2%)
Acinus, Atrophy		2 (4%)		1 (2%)
Duct, Cyst				1 (2%)
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy		1 (2%)		1 (2%)
Infiltration Cellular, Mononuclear Cell	35 (70%)	28 (56%)	39 (78%)	40 (80%)
Necrosis		1 (2%)		
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperplasia, Squamous	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Inflammation	2 (4%)			
Ulcer				2 (4%)
Stomach, Glandular	(50)	(50)	(50)	(50)
Cyst			1 (2%)	
Erosion		1 (2%)	1 (2%)	1 (2%)
Inflammation	1 (2%)	1 (2%)		
Mineralization				1 (2%)
Glands, Cyst	1 (2%)	1 (2%)		2 (4%)
Glands, Hyperplasia	1 (2%)	1 (2%)	2 (4%)	
Tooth	(31)	(32)	(37)	(35)
Dysplasia			2 (5%)	1 (3%)
Malformation	29 (94%)	32 (100%)	36 (97%)	33 (94%)
Peridental Tissue, Inflammation	7 (23%)	2 (6%)	1 (3%)	9 (26%)
Pulp, Inflammation	2 (6%)			

**CARDIOVASCULAR SYSTEM**

Blood Vessel	(50)	(50)	(50)	(50)
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	9 (18%)	6 (12%)	5 (10%)	3 (6%)
Infiltration Cellular, Mononuclear Cell	1 (2%)			
Inflammation		1 (2%)		
Mineralization		1 (2%)		
Capillary, Hyperplasia			1 (2%)	

**ENDOCRINE SYSTEM**

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

Test Type: CHRONIC

1,2-Dibromo-2,4-dicyanobutane

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Route: SKIN APPLICATION

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Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE MALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Adrenal Cortex	(50)	(50)	(50)	(50)
Cytoplasmic Alteration		1 (2%)		
Degeneration	1 (2%)			
Hypertrophy	22 (44%)	16 (32%)	23 (46%)	21 (42%)
Pigmentation	2 (4%)			
Vacuolization Cytoplasmic	1 (2%)	1 (2%)	1 (2%)	
Subcapsular, Hyperplasia	45 (90%)	46 (92%)	46 (92%)	44 (88%)
Zona Fasciculata, Hyperplasia	6 (12%)		1 (2%)	5 (10%)
Adrenal Medulla	(50)	(49)	(50)	(50)
Hyperplasia		2 (4%)		
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	26 (52%)	23 (46%)	28 (56%)	25 (50%)
Parathyroid Gland	(42)	(40)	(43)	(41)
Cyst			1 (2%)	
Pituitary Gland	(50)	(50)	(49)	(50)
Cyst	3 (6%)	3 (6%)	4 (8%)	6 (12%)
Hyperplasia	1 (2%)	1 (2%)	1 (2%)	
Thyroid Gland	(50)	(50)	(50)	(50)
Cyst	1 (2%)			
Infiltration Cellular, Mononuclear Cell			1 (2%)	
C-cell, Hyperplasia				1 (2%)
Follicle, Cyst	1 (2%)		2 (4%)	
Follicular Cell, Hyperplasia		3 (6%)	2 (4%)	1 (2%)

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Coagulating Gland	(0)	(1)	(2)	(1)
Hyperplasia			1 (50%)	
Inflammation			1 (50%)	
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm			2 (4%)	2 (4%)
Inflammation	37 (74%)	35 (70%)	35 (70%)	34 (68%)
Penis	(0)	(2)	(0)	(0)
Congestion		1 (50%)		
Preputial Gland	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell				1 (2%)
Inflammation	38 (76%)	30 (60%)	26 (52%)	28 (56%)
Duct, Ectasia	2 (4%)	2 (4%)	1 (2%)	4 (8%)
Prostate	(50)	(50)	(50)	(50)
Atrophy				1 (2%)

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Lab: BAT

B6C3F1 MICE MALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Infiltration Cellular, Mononuclear Cell Inflammation, Suppurative	20 (40%)	17 (34%)	18 (36%)	14 (28%)
Seminal Vesicle	(50)	(50)	(50)	(50)
Atrophy				1 (2%)
Testes	(50)	(50)	(50)	(50)
Mineralization	1 (2%)		3 (6%)	1 (2%)
Germinal Epithelium, Atrophy	4 (8%)		3 (6%)	5 (10%)
<b>HEMATOPOIETIC SYSTEM</b>				
Bone Marrow	(50)	(50)	(50)	(50)
Angiectasis	1 (2%)			
Myelofibrosis		2 (4%)	2 (4%)	1 (2%)
Myeloid Cell, Hyperplasia	3 (6%)	4 (8%)	3 (6%)	3 (6%)
Lymph Node	(0)	(1)	(3)	(1)
Renal, Hyperplasia, Lymphoid			1 (33%)	
Lymph Node, Mandibular	(50)	(50)	(50)	(50)
Atrophy	1 (2%)			1 (2%)
Hemorrhage		1 (2%)		
Hyperplasia, Lymphoid	2 (4%)	1 (2%)		1 (2%)
Hyperplasia, Plasma Cell		4 (8%)	1 (2%)	
Pigmentation	1 (2%)	1 (2%)		
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Atrophy	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Hemorrhage	1 (2%)		1 (2%)	1 (2%)
Hyperplasia, Histiocytic			1 (2%)	
Hyperplasia, Lymphoid	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Hyperplasia, Plasma Cell		2 (4%)		
Inflammation, Suppurative	1 (2%)			
Inflammation, Granulomatous	1 (2%)			
Spleen	(50)	(49)	(50)	(50)
Hematopoietic Cell Proliferation	19 (38%)	13 (27%)	20 (40%)	13 (26%)
Hyperplasia, Histiocytic				1 (2%)
Hyperplasia, Lymphoid	8 (16%)	12 (24%)	12 (24%)	11 (22%)
Infiltration Cellular, Polymorphonuclear			1 (2%)	
Capsule, Degeneration	1 (2%)			
Lymphoid Follicle, Atrophy	2 (4%)	4 (8%)		1 (2%)
Red Pulp, Atrophy	1 (2%)	4 (8%)	1 (2%)	2 (4%)
Thymus	(47)	(48)	(46)	(46)
Atrophy	22 (47%)	19 (40%)	27 (59%)	23 (50%)
Cyst		2 (4%)		1 (2%)
<b>INTEGUMENTARY SYSTEM</b>				

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B6C3F1 MICE MALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Skin	(50)	(50)	(50)	(50)
Hyperplasia			1 (2%)	
Inflammation			2 (4%)	
Inflammation, Chronic Active	1 (2%)			
Ulcer	1 (2%)		2 (4%)	
Site Of Application - Dermis, Inflammation, Chronic Active	4 (8%)	1 (2%)	7 (14%)	10 (20%)
Site Of Application - Epidermis, Hyperplasia	6 (12%)	12 (24%)	37 (74%)	50 (100%)
Site Of Application - Epidermis, Ulcer			1 (2%)	3 (6%)
<b>MUSCULOSKELETAL SYSTEM</b>				
Bone	(50)	(50)	(50)	(50)
Osteosclerosis	1 (2%)			
Skeletal Muscle	(0)	(0)	(1)	(0)
<b>NERVOUS SYSTEM</b>				
Brain	(50)	(50)	(50)	(50)
Hemorrhage		1 (2%)		
Meninges, Infiltration Cellular, Mononuclear Cell			1 (2%)	1 (2%)
Spinal Cord	(0)	(0)	(0)	(1)
Atrophy				1 (100%)
<b>RESPIRATORY SYSTEM</b>				
Lung	(50)	(50)	(50)	(50)
Hemorrhage		1 (2%)		1 (2%)
Infiltration Cellular, Mononuclear Cell	1 (2%)			
Inflammation	6 (12%)	5 (10%)		1 (2%)
Pigmentation	1 (2%)	1 (2%)		
Thrombosis	1 (2%)			
Alveolar Epithelium, Hyperplasia	6 (12%)			4 (8%)
Alveolus, Infiltration Cellular, Histiocyte	5 (10%)	8 (16%)	2 (4%)	3 (6%)
Bronchiole, Hyperplasia			1 (2%)	1 (2%)
Nose	(50)	(50)	(50)	(50)
Inflammation, Suppurative		3 (6%)		
Polyp, Inflammatory	1 (2%)		1 (2%)	
Glands, Dilatation			1 (2%)	
Nerve, Atrophy			1 (2%)	
Respiratory Epithelium, Hyperplasia			1 (2%)	
Respiratory Epithelium, Inflammation	7 (14%)		1 (2%)	

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

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B6C3F1 MICE MALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Respiratory Epithelium, Metaplasia		1 (2%)		
Trachea	(50)	(50)	(50)	(50)
Inflammation				1 (2%)
Glands, Cyst	1 (2%)			
<b>SPECIAL SENSES SYSTEM</b>				
Eye	(50)	(50)	(50)	(50)
Atrophy		1 (2%)		
Cornea, Inflammation				2 (4%)
Lens, Degeneration	1 (2%)	1 (2%)		
Retina, Atrophy	2 (4%)	1 (2%)		
Harderian Gland	(50)	(50)	(50)	(50)
Fibrosis, Focal		1 (2%)		
Infiltration Cellular, Mononuclear Cell	31 (62%)	30 (60%)	26 (52%)	30 (60%)
Inflammation	1 (2%)		1 (2%)	
Epithelium, Hyperplasia	2 (4%)	3 (6%)		4 (8%)
<b>URINARY SYSTEM</b>				
Kidney	(50)	(50)	(50)	(50)
Cyst	3 (6%)	8 (16%)	2 (4%)	6 (12%)
Hemorrhage				1 (2%)
Infarct	4 (8%)	1 (2%)	4 (8%)	3 (6%)
Infiltration Cellular, Mononuclear Cell	1 (2%)	1 (2%)		
Inflammation	2 (4%)			
Mineralization	44 (88%)	45 (90%)	46 (92%)	43 (86%)
Nephropathy	48 (96%)	41 (82%)	48 (96%)	48 (96%)
Papilla, Renal Tubule, Necrosis		1 (2%)		
Renal Tubule, Hyperplasia	12 (24%)	12 (24%)	12 (24%)	7 (14%)
Urinary Bladder	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell	22 (44%)	19 (38%)	23 (46%)	27 (54%)
Transitional Epithelium, Hyperplasia			2 (4%)	

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

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B6C3F1 MICE FEMALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
<b>Disposition Summary</b>				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	11	14	11
Natural Death	7	3	6	4
Survivors				
Natural Death		1		
Terminal Sacrifice	33	35	30	35
Animals Examined Microscopically	50	50	50	50

**ALIMENTARY SYSTEM**

Esophagus	(50)	(50)	(50)	(50)
Gallbladder	(50)	(49)	(50)	(50)
Cyst		1 (2%)		
Inflammation		3 (6%)	5 (10%)	2 (4%)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid			1 (2%)	
Inflammation	3 (6%)	1 (2%)		
Necrosis, Fatty	1 (2%)			
Liver	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)	1 (2%)	
Basophilic Focus	1 (2%)	3 (6%)		
Clear Cell Focus	14 (28%)	13 (26%)	3 (6%)	8 (16%)
Cyst		1 (2%)		
Eosinophilic Focus	6 (12%)	3 (6%)	4 (8%)	4 (8%)
Fatty Change, Focal	1 (2%)		1 (2%)	
Fatty Change, Diffuse	1 (2%)		4 (8%)	4 (8%)
Fibrosis		1 (2%)		
Hematopoietic Cell Proliferation	6 (12%)	3 (6%)	3 (6%)	5 (10%)
Infiltration Cellular, Lymphocyte			1 (2%)	
Inflammation	35 (70%)	42 (84%)	37 (74%)	41 (82%)
Mixed Cell Focus	13 (26%)	10 (20%)	5 (10%)	7 (14%)
Necrosis	3 (6%)	2 (4%)	8 (16%)	4 (8%)
Pigmentation	4 (8%)	4 (8%)	1 (2%)	1 (2%)
Tension Lipidosis	5 (10%)	2 (4%)	4 (8%)	6 (12%)
Vacuolization Cytoplasmic			1 (2%)	
Hepatocyte, Hypertrophy	1 (2%)			
Mesentery	(10)	(9)	(6)	(10)
Fat, Necrosis	9 (90%)	9 (100%)	6 (100%)	9 (90%)
Pancreas	(50)	(50)	(50)	(50)

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B6C3F1 MICE FEMALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Cyst	1 (2%)	2 (4%)		
Infiltration Cellular, Mononuclear Cell	17 (34%)	15 (30%)	17 (34%)	24 (48%)
Inflammation		3 (6%)		
Acinus, Atrophy	1 (2%)	3 (6%)		
Salivary Glands	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell	31 (62%)	32 (64%)	33 (66%)	36 (72%)
Stomach, Forestomach	(50)	(50)	(50)	(50)
Cyst	1 (2%)			
Hyperkeratosis	1 (2%)			2 (4%)
Hyperplasia, Squamous	2 (4%)			2 (4%)
Inflammation				2 (4%)
Ulcer				2 (4%)
Stomach, Glandular	(50)	(50)	(50)	(50)
Cyst	1 (2%)			
Erosion		2 (4%)		1 (2%)
Mineralization			1 (2%)	1 (2%)
Glands, Cyst	2 (4%)	5 (10%)	4 (8%)	5 (10%)
Glands, Hyperplasia		1 (2%)		
Tooth	(3)	(4)	(4)	(1)
Malformation	3 (100%)	3 (75%)	3 (75%)	1 (100%)
Periodontal Tissue, Inflammation		1 (25%)	1 (25%)	
<b>CARDIOVASCULAR SYSTEM</b>				
Blood Vessel	(50)	(50)	(50)	(50)
Hyperplasia		1 (2%)		
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	10 (20%)	2 (4%)	9 (18%)	14 (28%)
Infiltration Cellular, Mononuclear Cell	1 (2%)		1 (2%)	1 (2%)
Inflammation				2 (4%)
Mineralization	1 (2%)			
Thrombosis				1 (2%)
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	2 (4%)			1 (2%)
Hypertrophy	2 (4%)	2 (4%)		1 (2%)
Inflammation	1 (2%)			1 (2%)
Vacuolization Cytoplasmic			1 (2%)	1 (2%)
Capsule, Necrosis, Fatty	1 (2%)			
Subcapsular, Hyperplasia	50 (100%)	49 (98%)	50 (100%)	49 (98%)
Zona Fasciculata, Hyperplasia	2 (4%)	2 (4%)	1 (2%)	1 (2%)
Adrenal Medulla	(50)	(50)	(50)	(50)

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

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B6C3F1 MICE FEMALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Hyperplasia	1 (2%)	2 (4%)		3 (6%)
Vacuolization Cytoplasmic				1 (2%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	4 (8%)			1 (2%)
Parathyroid Gland	(38)	(40)	(40)	(41)
Cyst				1 (2%)
Inflammation, Chronic Active				1 (2%)
Pituitary Gland	(50)	(50)	(50)	(50)
Angiectasis	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Cyst	1 (2%)	1 (2%)		2 (4%)
Pars Distalis, Angiectasis		1 (2%)		
Pars Distalis, Hyperplasia	9 (18%)	13 (26%)	16 (32%)	12 (24%)
Pars Intermedia, Hyperplasia		1 (2%)		
Thyroid Gland	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell	3 (6%)	2 (4%)	3 (6%)	3 (6%)
Inflammation, Suppurative	1 (2%)			
C-cell, Hyperplasia		1 (2%)		
Follicle, Cyst	2 (4%)			
Follicular Cell, Hyperplasia	1 (2%)	3 (6%)	1 (2%)	1 (2%)
Follicular Cell, Hypertrophy	1 (2%)			

**GENERAL BODY SYSTEM**

None

**GENITAL SYSTEM**

Clitoral Gland	(50)	(49)	(50)	(50)
Inflammation	18 (36%)	5 (10%)	2 (4%)	7 (14%)
Duct, Cyst			1 (2%)	
Ovary	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)	3 (6%)	1 (2%)
Cyst	7 (14%)	10 (20%)	19 (38%)	13 (26%)
Hemorrhage			1 (2%)	
Inflammation, Granulomatous		1 (2%)		
Mineralization		1 (2%)		
Pigmentation		1 (2%)		
Thrombosis	1 (2%)	1 (2%)	2 (4%)	
Periovarian Tissue, Necrosis	1 (2%)			
Uterus	(50)	(50)	(50)	(50)
Angiectasis	2 (4%)	1 (2%)		
Inflammation, Suppurative				1 (2%)
Thrombosis			1 (2%)	
Endometrium, Hyperplasia, Cystic	50 (100%)	49 (98%)	48 (96%)	48 (96%)

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

TDMS No. 97003 - 08  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: MICE/B6C3F1

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 13:25:49  
 First Dose M/F: 06/25/02 / 06/24/02  
 Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Vagina	(0)	(0)	(3)	(0)
<b>HEMATOPOIETIC SYSTEM</b>				
Bone Marrow	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)	1 (2%)	
Atrophy, Focal	3 (6%)		1 (2%)	2 (4%)
Myelofibrosis	27 (54%)	29 (58%)	27 (54%)	27 (54%)
Myeloid Cell, Hyperplasia	2 (4%)			4 (8%)
Lymph Node	(8)	(6)	(6)	(4)
Hyperplasia, Plasma Cell				1 (25%)
Iliac, Ectasia			1 (17%)	
Inguinal, Ectasia		1 (17%)		
Lumbar, Congestion				1 (25%)
Lumbar, Ectasia		2 (33%)	2 (33%)	
Lumbar, Hyperplasia, Histiocytic				1 (25%)
Mediastinal, Congestion				1 (25%)
Mediastinal, Hyperplasia, Histiocytic				1 (25%)
Renal, Ectasia	2 (25%)		1 (17%)	
Lymph Node, Mandibular	(50)	(50)	(50)	(50)
Atrophy			1 (2%)	
Ectasia		1 (2%)		
Hyperplasia, Lymphoid	1 (2%)	4 (8%)		5 (10%)
Hyperplasia, Plasma Cell	1 (2%)			
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Congestion, Chronic				1 (2%)
Hyperplasia, Histiocytic				1 (2%)
Hyperplasia, Lymphoid		3 (6%)	3 (6%)	2 (4%)
Hyperplasia, Plasma Cell	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Inflammation		1 (2%)		
Spleen	(50)	(50)	(50)	(50)
Fibrosis		1 (2%)		
Hematopoietic Cell Proliferation	16 (32%)	19 (38%)	18 (36%)	22 (44%)
Hyperplasia, Lymphoid	13 (26%)	19 (38%)	19 (38%)	16 (32%)
Pigmentation	7 (14%)	5 (10%)	8 (16%)	6 (12%)
Lymphoid Follicle, Atrophy	1 (2%)		4 (8%)	1 (2%)
Red Pulp, Atrophy	1 (2%)		4 (8%)	3 (6%)
Thymus	(47)	(47)	(48)	(50)
Atrophy	11 (23%)	11 (23%)	13 (27%)	17 (34%)
Hyperplasia, Atypical		1 (2%)		
Hyperplasia, Lymphoid		5 (11%)	7 (15%)	4 (8%)

**INTEGUMENTARY SYSTEM**

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

Test Type: CHRONIC

1,2-Dibromo-2,4-dicyanobutane

Time Report Requested: 13:25:49

Route: SKIN APPLICATION

CAS Number: 35691-65-7

First Dose M/F: 06/25/02 / 06/24/02

Species/Strain: MICE/B6C3F1

Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Mammary Gland	(50)	(49)	(50)	(50)
Hyperplasia			1 (2%)	
Skin	(50)	(50)	(50)	(50)
Site Of Application - Dermis, Inflammation, Chronic Active		9 (18%)	30 (60%)	28 (56%)
Site Of Application - Epidermis, Hyperplasia		12 (24%)	37 (74%)	49 (98%)
Site Of Application - Epidermis, Ulcer		1 (2%)	2 (4%)	3 (6%)
Subcutaneous Tissue, Inflammation, Granulomatous				1 (2%)
Subcutaneous Tissue, Necrosis, Fatty				1 (2%)
Subcutaneous Tissue, Pigmentation				1 (2%)
<b>MUSCULOSKELETAL SYSTEM</b>				
Bone	(50)	(50)	(50)	(50)
Arthrosis		1 (2%)		
Osteopetrosis				1 (2%)
Skeletal Muscle	(1)	(1)	(1)	(1)
<b>NERVOUS SYSTEM</b>				
Brain	(50)	(50)	(50)	(50)
Hemorrhage				1 (2%)
Pigmentation			1 (2%)	
Neuron, Necrosis				1 (2%)
<b>RESPIRATORY SYSTEM</b>				
Lung	(50)	(50)	(50)	(50)
Hemorrhage		2 (4%)		2 (4%)
Inflammation	1 (2%)	1 (2%)		3 (6%)
Pigmentation				1 (2%)
Alveolar Epithelium, Hyperplasia	1 (2%)	1 (2%)		2 (4%)
Alveolus, Infiltration Cellular, Histocyte	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Mediastinum, Inflammation		1 (2%)		
Serosa, Fibrosis			1 (2%)	
Nose	(50)	(50)	(50)	(50)
Glands, Cyst				1 (2%)
Respiratory Epithelium, Inflammation	2 (4%)			
Trachea	(50)	(50)	(50)	(50)
<b>SPECIAL SENSES SYSTEM</b>				

TDMS No. 97003 - 08  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: MICE/B6C3F1

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
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 Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	0.6 MG/KG	2 MG/KG	6 MG/KG
Eye	(50)	(50)	(50)	(50)
Cornea, Inflammation, Suppurative		1 (2%)		
Lens, Degeneration	2 (4%)	2 (4%)		
Optic Nerve, Degeneration			1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell	31 (62%)	33 (66%)	36 (72%)	36 (72%)
Epithelium, Hyperplasia	1 (2%)	1 (2%)	4 (8%)	3 (6%)
<b>URINARY SYSTEM</b>				
Kidney	(50)	(50)	(50)	(50)
Accumulation, Hyaline Droplet		1 (2%)		
Amyloid Deposition	2 (4%)		1 (2%)	
Cyst			1 (2%)	
Degeneration				1 (2%)
Infarct	3 (6%)	2 (4%)	8 (16%)	4 (8%)
Inflammation	2 (4%)			
Metaplasia, Osseous		1 (2%)		1 (2%)
Mineralization	14 (28%)	8 (16%)	4 (8%)	3 (6%)
Nephropathy	16 (32%)	15 (30%)	16 (32%)	18 (36%)
Pigmentation			1 (2%)	
Pelvis, Dilatation			1 (2%)	
Renal Tubule, Hyperplasia	1 (2%)	2 (4%)		
Renal Tubule, Necrosis	1 (2%)			
Urinary Bladder	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell	33 (66%)	37 (74%)	38 (76%)	38 (76%)

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