TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

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

FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 Pathologist: RYAN, M. - Blackshear, P.

F1_M3

C Number:

C88123B

Lock Date:

05/24/2004

Cage Range:

ALL

Date Range:

ALL

Reasons For Removal:

ALL

Removal Date Range:

ALL

Treatment Groups:

Include ALL

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Species/Strain: MICE/B6C3F1

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
isposition Summary					
Animals Initially in Study Early Deaths	50	50	50	50	
Moribund Sacrifice	4	8	6	14	
Natural Death	7	· ·	8	3	
Survivors					
Terminal Sacrifice	39	42	36	33	
Animals Examined Microscopically	50	50	50	50	
LIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Artery, Inflammation, Chronic	, ,	, ,	1 (2%)	, ,	
Muscularis, Inflammation, Chronic	1 (2%)		, ,		
Gallbladder	(45)	(48)	(45)	(46)	
Cyst		1 (2%)			
Inflammation, Chronic		1 (2%)	1 (2%)	3 (7%)	
Ulcer				1 (2%)	
Epithelium, Cytoplasmic Alteration		1 (2%)		2 (4%)	
Epithelium, Hyperplasia		1 (2%)	2 (4%)		
Intestine Large, Cecum	(50)	(50)	(50)	(50)	
Edema		1 (2%)			
Hemorrhage			1 (2%)		
Artery, Inflammation, Chronic			1 (2%)		
Intestine Large, Colon	(50)	(50)	(50)	(50)	
Hemorrhage			1 (2%)		
Artery, Inflammation, Chronic	1 (2%)	(50)	(50)	(50)	
Intestine Large, Rectum	(50)	(50)	(50)	(50)	
Artery, Inflammation, Chronic	(50)	1 (2%)	(50)	(50)	
Intestine Small, Duodenum	(50)	(50)	(50)	(50)	
Artery, Inflammation, Chronic	1 (2%)			4 (20/)	
Epithelium, Hyperplasia, Focal Intestine Small, Ileum	(50)	(50)	(50)	1 (2%)	
Intestine Small, lieum Intestine Small, Jejunum	(50) (50)	(50) (50)	(50) (50)	(50) (50)	
Inflammation, Granulomatous	(30)	1 (2%)	(30)	(30)	
Inflammation, Grandomatous		1 (2/0)		1 (2%)	
Peyer's Patch, Hyperplasia, Lymphoid	2 (4%)			1 (2%)	
i cycl a i aloli, i lypelpiasia, Lyllipilolu	(50)		(50)	ı (∠ /0)	

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

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE
Species/Strain: MICE/B6C3F1

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Angiectasis			1 (2%)		
Basophilic Focus	2 (4%)	4 (8%)	3 (6%)	4 (8%)	
Clear Cell Focus	29 (58%)	4 (6%) 27 (54%)	21 (42%)	8 (16%)	
Eosinophilic Focus	16 (32%)	21 (42%)	14 (28%)	9 (18%)	
Fatty Change	31 (62%)	25 (50%)	15 (30%)	1 (2%)	
Fibrosis	31 (62%)	25 (50%)	15 (50%)	1 (2%)	
Hematopoietic Cell Proliferation	1 (2%)			1 (270)	
Hepatodiaphragmatic Nodule	1 (270)			1 (2%)	
Inflammation, Acute	1 (2%)			1 (2%)	
Inflammation, Acute Inflammation, Chronic	16 (32%)	40 (220()	44 (220()		
		16 (32%)	11 (22%)	15 (30%)	
Mineralization	1 (2%)	1 (2%)	42 (200/)	44 (220/)	
Mixed Cell Focus	10 (20%)	12 (24%)	13 (26%)	11 (22%)	
Necrosis	5 (10%)	9 (18%)	7 (14%)	11 (22%)	
Tension Lipidosis	4 (8%)	5 (10%)	1 (2%)	6 (12%)	
Bile Duct, Dilatation		1 (2%)			
Bile Duct, Hyperplasia	4 (00()	1 (2%)			
Centrilobular, Degeneration	1 (2%)			4 (00()	
Centrilobular, Necrosis	1 (2%)	4 (00()		1 (2%)	
Serosa, Hyperplasia		1 (2%)		((224)	
Vein, Thrombosis	(5)	(4)	440	1 (2%)	
Mesentery	(3)	(1)	(1)	(1)	
Inflammation, Chronic	1 (33%)				
Artery, Inflammation, Chronic	1 (33%)		1 (100%)		
Fat, Necrosis	1 (33%)	1 (100%)			
Oral Mucosa	(7)	(5)	(5)	(7)	
Inflammation, Chronic				1 (14%)	
Gingival, Inflammation, Chronic	7 (100%)	5 (100%)	5 (100%)	6 (86%)	
Pancreas	(50)	(50)	(50)	(50)	
Acinus, Atrophy	1 (2%)	3 (6%)		2 (4%)	
Acinus, Cytoplasmic Alteration		1 (2%)	1 (2%)	1 (2%)	
Duct, Cyst			1 (2%)	1 (2%)	
Duct, Inflammation, Chronic		1 (2%)			
Salivary Glands	(50)	(50)	(50)	(50)	
Inflammation, Granulomatous	1 (2%)	·			
Artery, Parotid Gland, Inflammation, Chronic			1 (2%)		
Artery, Parotid Gland, Mineralization			1 (2%)	1 (2%)	
Parotid Gland, Atrophy			, ,	1 (2%)	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Hemorrhage	` '	` '	1 (2%)	` '	
Inflammation, Chronic	1 (2%)		,		
Ulcer	1 (2%)		1 (2%)	1 (2%)	

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

Test Type: CHRONIC

Route: GAVAGE

TDMS No. 88123 - 07

Species/Strain: MICE/B6C3F1

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Artery, Inflammation, Chronic	1 (2%)				
Epithelium, Hyperplasia, Focal	1 (2%)		1 (2%)		
Epithelium, Vacuolization Cytoplasmic		1 (2%)			
Stomach, Glandular	(50)	(50)	(50)	(50)	
Hemorrhage, Acute Inflammation, Chronic		1 (2%)	4 (90/)	4 (20/)	
Mineralization			4 (8%) 1 (2%)	1 (2%)	
Ulcer			1 (2%)	3 (6%)	
Epithelium, Glands, Ectasia		1 (2%)	1 (270)	3 (070)	
Epithelium, Glands, Hyperplasia, Focal		. (270)	1 (2%)		
Epithelium, Hyperplasia, Focal		1 (2%)	(/		
Glands, Ectasia		1 (2%)	2 (4%)	2 (4%)	
Tooth	(15)	(14)	(9)	(2)	
Dysplasia	2 (13%)	1 (7%)	2 (22%)		
Malformation	14 (93%)	13 (93%)	7 (78%)	2 (100%)	
ARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Aorta, Inflammation, Chronic	1 (2%)	()	()	()	
Heart	(50)	(50)	(50)	(50)	
Thrombosis	4 (20/)	4 (20/)	2 (40/)	1 (2%)	
Artery, Inflammation, Chronic Atrium, Thrombosis	1 (2%) 1 (2%)	1 (2%) 1 (2%)	2 (4%)	3 (6%)	
Epicardium, Hyperplasia	1 (2%)	1 (276)		3 (0 %)	
Epicardium, Infiltration Cellular, Mononuclear	1 (2%)				
Cell	. (270)				
Myocardium, Infiltration Cellular,	9 (18%)	10 (20%)	2 (4%)	12 (24%)	
Mononuclear Cell	,	,	,	,	
Myocardium, Mineralization			2 (4%)	2 (4%)	
Myocardium, Necrosis	3 (6%)	1 (2%)	1 (2%)	4 (8%)	
Myocardium, Necrosis, Focal		1 (2%)			
Nerve, Inflammation, Chronic				1 (2%)	
Ventricle, Atrophy			1 (2%)		
NDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(49)	(50)	
Angiectasis		1 (2%)	1 (2%)	1 (2%)	
Hyperplasia	2 (4%)			2 (4%)	

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

FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

Lab: BAT

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Hypertrophy	15 (30%)	17 (34%)	17 (35%)	13 (26%)	
Pigmentation	1 (2%)	(=,	(,	2 (4%)	
Vacuolization Cytoplasmic	(/			1 (2%)	
Vacuolization Cytoplasmic, Focal	17 (34%)	14 (28%)	11 (22%)	16 (32%)	
Subcapsular, Hyperplasia	50 (Ì00%́)	49 (98%)	42 (86%)	45 (90%)	
Subcapsular, Hypertrophy, Focal	1 (2%)	,	,	,	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia, Focal	2 (4%)	1 (2%)	1 (2%)	3 (6%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Hyperplasia	35 (70%)	24 (48%)	24 (48%)	9 (18%)	
Parathyroid Gland	(43)	(39)	(46)	(47)	
Right, Atrophy				1 (2%)	
Pituitary Gland	(50)	(50)	(50)	(49)	
Angiectasis	1 (2%)				
Cyst	5 (10%)	2 (4%)	2 (4%)	2 (4%)	
Pars Distalis, Hyperplasia, Focal	3 (6%)	4 (8%)	1 (2%)		
Thyroid Gland	(50)	(50)	(50)	(50)	
Cyst	2 (4%)	3 (6%)	2 (4%)	5 (10%)	
Inflammation, Granulomatous	1 (2%)				
Inflammation, Chronic		1 (2%)		1 (2%)	
C-cell, Hyperplasia				1 (2%)	
Follicle, Hyperplasia	1 (2%)				
Follicle, Hyperplasia, Focal	12 (24%)	15 (30%)	8 (16%)	8 (16%)	

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

TDMS No. 88123 - 07

Test Type: CHRONIC

Route: GAVAGE

Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm	1 (2%)	1 (2%)	, ,	3 (6%)
Inflammation, Chronic	1 (2%)			1 (2%)
Artery, Inflammation, Chronic		1 (2%)		
Preputial Gland	(50)	(50)	(50)	(50)
Cyst	19 (38%)	11 (22%)	11 (22%)	10 (20%)
Infiltration Cellular, Lymphoid			1 (2%)	
Infiltration Cellular, Chronic				1 (2%)
Inflammation, Suppurative				1 (2%)
Inflammation, Granulomatous	1 (2%)	1 (2%)		

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

FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Inflammation, Chronic	1 (2%)	4 (8%)		1 (2%)	
Duct, Cyst	(/	1 (2%)		(/	
Prostate	(50)	(50)	(50)	(50)	
Infiltration Cellular, Lymphoid			1 (2%)		
Inflammation, Suppurative	1 (2%)	1 (2%)		1 (2%)	
Inflammation, Chronic		1 (2%)	1 (2%)		
Seminal Vesicle	(50)	(50)	(50)	(50)	
Atrophy				2 (4%)	
Fibrosis	1 (2%)		1 (2%)		
Inflammation, Suppurative	1 (2%)				
_Inflammation, Chronic		1 (2%)	4	4	
Testes	(50)	(50)	(50)	(50)	
Granuloma Sperm	. (55)			1 (2%)	
Artery, Inflammation, Chronic	1 (2%)	0 (40()	1 (2%)	05 (700()	
Artery, Mineralization		2 (4%)	5 (10%)	35 (70%)	
Artery, Thrombosis	4 (00()	4 (00()	1 (2%)	4 (00()	
Germinal Epithelium, Degeneration	1 (2%)	4 (8%)	1 (2%)	4 (8%)	
Germinal Epithelium, Inflammation, Chronic		4 (00()	4 (00()	1 (2%)	
Germinal Epithelium, Mineralization	4 (00()	1 (2%)	1 (2%)	4 (00()	
Tunic, Inflammation, Chronic	1 (2%)		F (400()	1 (2%)	
Tunic, Mineralization	1 (2%)		5 (10%)	27 (54%)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Hyperplasia	34 (68%)	39 (78%)	35 (70%)	34 (68%)	
Lymph Node	(4)	(2)	(1)	(1)	
Bronchial, Hyperplasia, Lymphoid	1 (25%)				
Lumbar, Hyperplasia, Lymphoid	1 (25%)				
Mediastinal, Hyperplasia, Lymphoid	2 (50%)				
Pancreatic, Hyperplasia		1 (50%)			
Renal, Hyperplasia, Lymphoid	2 (50%)				
Lymph Node, Mandibular	(49)	(48)	(49)	(48)	
Atrophy	11 (22%)	5 (10%)	6 (12%)	13 (27%)	
Hematopoietic Cell Proliferation	1 (2%)				
Hyperplasia, Lymphoid	2 (4%)	5 (10%)	5 (10%)	2 (4%)	
Necrosis, Lymphoid	2 (4%)			1 (2%)	
Lymph Node, Mesenteric	(50)	(47)	(50)	(49)	
Atrophy	10 (20%)	3 (6%)	6 (12%)	14 (29%)	
Hyperplasia, Lymphoid	4 (8%)	1 (2%)	4 (8%)		
Necrosis, Lymphoid	1 (2%)		1 (2%)	1 (2%)	

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

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE
Species/Strain: MICE/B6C3F1

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Spleen Atrophy Hematopoietic Cell Proliferation	(50) 2 (4%) 14 (28%)	(50) 6 (12%) 14 (28%)	(50) 3 (6%) 20 (40%)	(50) 7 (14%) 28 (56%)	
Hyperplasia, Plasma Cell Lymphoid Follicle, Hyperplasia Lymphoid Follicle, Necrosis	1 (2%) 4 (8%) 1 (2%)	1 (2%)	4 (8%)		
Thymus Atrophy Cyst Ectopic Parathyroid Gland Hyperplasia, Lymphoid	(47) 41 (87%) 19 (40%) 1 (2%)	(46) 39 (85%) 9 (20%)	(50) 37 (74%) 15 (30%) 1 (2%) 2 (4%)	(46) 44 (96%) 9 (20%)	
Necrosis Epithelial Cell, Hyperplasia	1 (2%)		1 (2%)		
INTEGUMENTARY SYSTEM					
Skin Ulcer Subcutaneous Tissue, Edema Subcutaneous Tissue, Inflammation, Chronic	(50) 1 (2%)	(50)	(50)	(50) 3 (6%) 1 (2%)	
Subcutaneous Tissue, Necrosis	1 (270)		1 (2%)		
MUSCULOSKELETAL SYSTEM					
Bone Hyperostosis Cranium, Hyperplasia	(50) 1 (2%)	(50) 2 (4%) 1 (2%)	(50) 2 (4%)	(50) 3 (6%)	
Skeletal Muscle Inflammation, Granulomatous	(1) 1 (100%)	(1)	(0)	(2)	
NERVOUS SYSTEM					
Brain Compression Cyst Epithelial Inclusion	(50) 1 (2%) 1 (2%)	(50)	(50)	(50)	
Hemorrhage, Acute Hydrocephalus Necrosis	1 (2%)	1 (2%) 1 (2%)			
Artery, Inflammation, Chronic Meninges, Ventricle, Inflammation,	1 (2%)	1 (2%)	1 (2%)		

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FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Cranulamatava					
Granulomatous Meninges, Infiltration Cellular, Lymphocyte		1 (2%)			
Vein, Infiltration Cellular, Mononuclear Cell		1 (2%)			
Peripheral Nerve	(0)	(0)	(1)	(0)	
Axon, Degeneration	(0)	(0)	1 (100%)	(0)	
Spinal Cord	(0)	(0)	(1)	(0)	
Hemorrhage	(0)	(0)	1 (100%)	(0)	
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Fibrosis	1 (2%)	()	()	()	
Inflammation, Chronic	()		3 (6%)	1 (2%)	
Metaplasia, Osseous			2 (4%)	()	
Alveolar Epithelium, Hyperplasia	2 (4%)	1 (2%)	4 (8%)	2 (4%)	
Alveolus, Infiltration Cellular, Histiocyte	1 (2%)	,	1 (2%)	8 (Ì6%)	
Arteriole, Thrombosis	1 (2%)		,	,	
Artery, Mineralization	1 (2%)				
Bronchus, Hypertrophy	1 (2%)				
Serosa, Inflammation, Chronic	,			1 (2%)	
Nose	(50)	(50)	(50)	(50)	
Inflammation, Suppurative	4 (8%)	4 (8%)	1 (2%)	1 (2%)	
Inflammation, Chronic	,	2 (4%)	1 (2%)	1 (2%)	
Polyp, Inflammatory	1 (2%)	1 (2%)	1 (2%)	,	
Glands, Hyperplasia	, ,	, ,	, ,	1 (2%)	
Glands, Hyperplasia, Focal	1 (2%)			, ,	
Glands, Inflammation, Suppurative	4 (8%)	1 (2%)	1 (2%)		
Nasolacrimal Duct, Infiltration Cellular,	2 (4%)	5 (10%)	2 (4%)	2 (4%)	
Polymorphonuclear					
Nasopharyngeal Duct, Inflammation, Chronic				1 (2%)	
Olfactory Epithelium, Amyloid Deposition	1 (2%)				
Olfactory Epithelium, Atrophy, Focal	8 (16%)	5 (10%)	1 (2%)	2 (4%)	
Olfactory Epithelium, Metaplasia	1 (2%)				
Olfactory Epithelium, Metaplasia, Focal		1 (2%)			
Respiratory Epithelium, Atrophy, Focal		2 (4%)			
Respiratory Epithelium, Hyperplasia, Focal	1 (2%)	1 (2%)	1 (2%)		
Respiratory Epithelium, Metaplasia, Squamous		1 (2%)			
Vomeronasal Organ, Infiltration Cellular, Polymorphonuclear	2 (4%)	10 (20%)	3 (6%)	4 (8%)	
Pleura	(1)	(0)	(0)	(0)	

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FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Hyperplasia	1 (100%)				
SPECIAL SENSES SYSTEM					
Eye Degeneration Anterior Chamber, Inflammation, Suppurative	(50)	(50)	(50)	(50) 1 (2%) 1 (2%)	
Cornea, Inflammation, Chronic Harderian Gland Hyperplasia, Focal	3 (6%) (50) 4 (8%)	(50) 8 (16%)	2 (4%) (50) 5 (10%)	1 (2%) (50) 10 (20%)	
URINARY SYSTEM					
Kidney Casts Protein	(50) 1 (2%)	(50)	(50)	(50)	
Fibrosis, Focal Infarct Inflammation, Suppurative	1 (2%)	1 (2%)	1 (2%) 3 (6%)	1 (2%)	
Inflammation, Chronic Metaplasia, Osseous Mineralization	1 (2%) 16 (32%)	2 (4%) 1 (2%) 15 (30%)	3 (6%) 2 (4%)	1 (2%) 4 (8%) 5 (10%)	
Necrosis Nephropathy Artery, Inflammation, Chronic	43 (86%) 2 (4%)	46 (92%)	41 (82%) 1 (2%)	1 (2%) 45 (90%)	
Glomerulus, Inflammation, Chronic Glomerulus, Necrosis, Fibrinoid	1 (2%) 1 (2%)	1 (2%)	1 (2%)		
Papilla, Necrosis Pelvis, Inflammation, Suppurative Renal Tubule, Accumulation, Hyaline Droplet	1 (2%) 1 (2%) 1 (2%)			2 (4%)	
Renal Tubule, Cyst Renal Tubule, Hyperplasia Renal Tubule, Mineralization	8 (16%) 1 (2%)	5 (10%) 2 (4%)	4 (8%) 5 (10%) 1 (2%)	5 (10%) 1 (2%)	
Vein, Infiltration Cellular, Lymphocyte Urinary Bladder Infiltration Cellular, Lymphoid	(50) 1 (2%)	1 (2%) (50)	(50) 1 (2%)	(50)	
Inflammation, Suppurative Inflammation, Chronic Artery, Inflammation, Chronic Artery, Mineralization	1 (2%) 1 (2%) 1 (2%)	2 (4%)	1 (2%)	1 (2%)	

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

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Species/Strain: MICE/B6C3F1

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

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

Lab: BAT

B6C3F1 MICE MALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Transitional Epithelium, Hyperplasia	1 (2%)				

*** END OF MALE ***

TDMS No. 88123 - 07 Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: GAVAGE

CAS Number: 75-12-7
Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Dosing Accident	_	_	1		
Moribund Sacrifice	7	8	8	8	
Natural Death	5	3	10	3	
Survivors		4			
Natural Death	00	1	0.4	00	
Terminal Sacrifice	38 50	38	31 50	39	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Inflammation, Suppurative			1 (2%)		
Perforation			1 (2%)		
Gallbladder	(47)	(45)	(46)	(49)	
Cyst	1 (2%)				
Inflammation, Chronic	1 (2%)				
Epithelium, Cytoplasmic Alteration				1 (2%)	
Intestine Large, Cecum	(49)	(50)	(50)	(50)	
Edema	1 (2%)				
Lymphoid Tissue, Hyperplasia, Lymphoid			1 (2%)		
Intestine Large, Colon	(50)	(50)	(50)	(50)	
Intestine Large, Rectum	(50)	(50)	(50)	(50)	
Serosa, Inflammation, Chronic			1 (2%)		
Intestine Small, Duodenum	(50)	(50)	(50)	(50)	
Inflammation, Chronic	1 (2%)				
Epithelium, Hyperplasia, Focal	1 (2%)	/ `	(55)	(=6)	
Intestine Small, Ileum	(50)	(50)	(50)	(50)	
Epithelium, Cyst	1 (2%)	(50)	(50)	(50)	
Intestine Small, Jejunum	(50)	(50)	(50)	(50)	
Artery, Peyer's Patch, Mineralization			1 (2%)	4 (00/)	
Epithelium, Hyperplasia, Focal	(50)	(50)	(50)	1 (2%)	
Liver	(50)	(50)	(50)	(50)	
Angiectasis			2 (4%)	2 (40/)	
Basophilic Focus	2 (00/)	2 /40/\	1 (2%)	2 (4%)	
Clear Cell Focus	3 (6%)	2 (4%)	2 (4%)	2 (4%)	

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

TDMS No. 88123 - 07
Test Type: CHRONIC

Route: GAVAGE
Species/Strain: MICE/B6C3F1

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Eosinophilic Focus	12 (24%)	15 (30%)	8 (16%)	7 (14%)	
Fatty Change	6 (12%)	7 (14%)	4 (8%)	2 (4%)	
Hematopoietic Cell Proliferation	3 (6%)	4 (8%)	1 (2%)	1 (2%)	
Infarct	3 (070)	+ (070)	1 (2%)	1 (270)	
Inflammation, Chronic	29 (58%)	27 (54%)	21 (42%)	21 (42%)	
Mineralization	29 (3070)	21 (3470)	21 (4270)	1 (2%)	
Mixed Cell Focus	4 (8%)	5 (10%)	4 (8%)	6 (12%)	
Necrosis	1 (2%)	3 (1078)	4 (076)	2 (4%)	
Tension Lipidosis	3 (6%)	9 (18%)	5 (10%)	6 (12%)	
Centrilobular, Necrosis	3 (0 %)	9 (10%)	1 (2%)	0 (1276)	
Centrilobular, Vacuolization Cytoplasmic	1 (2%)		1 (276)		
Mesentery	(8)	(3)	(8)	(2)	
Fat, Necrosis	5 (63%)	3 (100%)	8 (100%)	2 (100%)	
Oral Mucosa					
	(1)	(0)	(0)	(0)	
Gingival, Inflammation, Chronic	1 (100%)	(40)	(50)	(50)	
Pancreas	(49)	(49)	(50)	(50)	
Hyperplasia, Lymphoid			1 (2%)		
Inflammation, Chronic		4 (00()	2 (4%)	0 (40()	
Acinus, Atrophy	4 (00()	1 (2%)	3 (6%)	2 (4%)	
Acinus, Cytoplasmic Alteration	1 (2%)		4 (00()	1 (2%)	
Artery, Thrombosis			1 (2%)	0 (00()	
Duct, Cyst			1 (2%)	3 (6%)	
Duct, Cytoplasmic Alteration				1 (2%)	
Duct, Inflammation, Chronic	1 (2%)	()	1 (2%)	41	
Salivary Glands	(49)	(50)	(50)	(50)	
Atrophy, Diffuse				1 (2%)	
Parotid Gland, Atrophy		1 (2%)	1 (2%)		
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Inflammation, Chronic	1 (2%)				
Epithelium, Hyperplasia	1 (2%)			1 (2%)	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Inflammation, Chronic	1 (2%)	1 (2%)		1 (2%)	
Ulcer		1 (2%)			
Epithelium, Glands, Cytoplasmic Alteration	1 (2%)			1 (2%)	
Epithelium, Glands, Hyperplasia				1 (2%)	
Glands, Ectasia	1 (2%)			• •	
Glands, Hyperplasia	1 (2%)				
Tooth	(0)	(0)	(0)	(1)	
Malformation	. ,	. ,	` '	1 (100%)	

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
CARDIOVASCULAR SYSTEM					
OAKBIO VAGOGLAK GTOTEW					
Heart	(50)	(50)	(50)	(50)	
Artery, Inflammation, Chronic	2 (4%)				
Atrium, Thrombosis	. (==()		1 (2%)	1 (2%)	
Coronary Artery, Inflammation, Chronic	1 (2%)	- ()	. (22()	2 (22()	
Myocardium, Infiltration Cellular,	2 (4%)	7 (14%)	4 (8%)	3 (6%)	
Mononuclear Cell		0 (00()	4 (00()		
Myocardium, Mineralization		3 (6%)	1 (2%)		
Myocardium, Necrosis			1 (2%)	4 (00()	
Ventricle, Thrombosis				1 (2%)	
ENDOCRINE SYSTEM					
Adrenal Cortex	(49)	(50)	(49)	(50)	
Angiectasis		1 (2%)			
Atrophy		. ()		1 (2%)	
Hematopoietic Cell Proliferation	1 (2%)	1 (2%)		((224)	
Hyperplasia	. (55.)	2 (4%)	. (22()	1 (2%)	
Hypertrophy	1 (2%)	1 (2%)	4 (8%)		
Pigmentation	0 (00()	3 (6%)	0 (40()		
Vacuolization Cytoplasmic, Focal	3 (6%)	40 (000()	2 (4%)	40 (000()	
Subcapsular, Hyperplasia	49 (100%)	49 (98%)	48 (98%)	49 (98%)	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Angiectasis	4 (00()	1 (2%)	4 (00()	0 (40()	
Hyperplasia, Focal Islets, Pancreatic	1 (2%)	4 (8%)	1 (2%) (50)	2 (4%)	
	(50)	(50)		(50)	
Hyperplasia	1 (2%)	1 (2%)	4 (8%)	(40)	
Parathyroid Gland Cyst	(42) 1 (2%)	(32)	(35)	(42) 2 (5%)	
Pituitary Gland	(50)	(50)	(49)	(50)	
	2 (4%)	1 (2%)	(49)	(50)	
Angiectasis Cyst	3 (6%)	4 (8%)		1 (2%)	
Fibrosis	3 (0 %)	1 (2%)		1 (270)	
Hemorrhage, Chronic		1 (2%)			
Pars Distalis, Hyperplasia, Focal	11 (22%)	11 (22%)	10 (20%)	10 (20%)	
Pars Intermedia, Hyperplasia, Focal	1 (2%)	11 (22/0)	1 (2%)	1 (2%)	
Thyroid Gland	(49)	(50)	(50)	(50)	
Cyst	1 (2%)	1 (2%)	2 (4%)	(00)	
Infiltration Cellular, Lymphoid	. (270)	1 (2%)	Z (770)		

TDMS No. 88123 - 07 Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: GAVAGE

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

FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

TDMS No. 88123 - 07

Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Inflammation, Suppurative Inflammation, Granulomatous Inflammation, Chronic Follicle, Hyperplasia, Focal	1 (2%) 14 (29%)	2 (4%) 1 (2%) 6 (12%)	1 (2%) 10 (20%)	1 (2%) 5 (10%)	
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Clitoral Gland Duct, Cyst Ovary Angiectasis Cyst Mineralization Thrombosis Bilateral, Thrombosis Follicle, Atrophy Uterus Angiectasis Dilatation Inflammation, Suppurative Inflammation, Chronic Active Thrombosis Endometrium, Hyperplasia, Cystic	(50) (50) 2 (4%) 24 (48%) 1 (2%) 1 (2%) 33 (66%) (50) 1 (2%) 45 (90%)	(50) (50) 2 (4%) 19 (38%) 1 (2%) 1 (2%) 29 (58%) (50) 2 (4%) 1 (2%) 48 (96%)	(49) (50) 1 (2%) 11 (22%) 2 (4%) 35 (70%) (50) 2 (4%) 1 (2%) 45 (90%)	(50) 1 (2%) (49) 2 (4%) 23 (47%) 2 (4%) 37 (76%) (50) 1 (2%) 2 (4%) 1 (2%) 42 (84%)	
HEMATOPOIETIC SYSTEM Bone Marrow	(50)	(50)	(50)	(50)	
Atrophy Hyperplasia Infiltration Cellular, Histiocyte Lymph Node Bronchial, Hyperplasia, Lymphoid Iliac, Necrosis Lumbar, Hematopoietic Cell Proliferation Lumbar, Hyperplasia, Lymphoid Mediastinal, Hematopoietic Cell Proliferation	(50) 8 (16%) 1 (2%) (8) 1 (13%) 1 (13%) 1 (13%)	(50) 10 (20%) (4) 1 (25%) 1 (25%)	(50) 13 (26%) (6)	(50) 1 (2%) 5 (10%) (5)	

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

FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Mediastinal, Hyperplasia, Lymphoid	2 (25%)				
Mediastinal, Inflammation, Chronic	(,		1 (17%)		
Renal, Hyperplasia, Lymphoid	1 (13%)		,		
Lymph Node, Mandibular	(49)	(50)	(50)	(50)	
Atrophy	3 (6%)	2 (4%)	6 (12%)	4 (8%)	
Hematopoietic Cell Proliferation	1 (2%)	1 (2%)	,	, ,	
Hyperplasia, Lymphoid	8 (16%)	. ,	5 (10%)	6 (12%)	
Necrosis, Lymphoid	1 (2%)		1 (2%)	,	
Lymph Node, Mesenteric	(50)	(50)	(49)	(50)	
Atrophy	7 (14%)	9 (18%)	8 (16%)	7 (14%)	
Hematopoietic Cell Proliferation	1 (2%)	,	,	,	
Hyperplasia, Lymphoid	4 (8%)	1 (2%)	4 (8%)	3 (6%)	
Infiltration Cellular, Polymorphonuclear	()	(/	1 (2%)	- ()	
Inflammation, Suppurative			(=73)	1 (2%)	
Necrosis, Lymphoid	2 (4%)	1 (2%)	1 (2%)	. (=73)	
Spleen	(50)	(49)	(49)	(50)	
Atrophy	1 (2%)	2 (4%)	1 (2%)	2 (4%)	
Hematopoietic Cell Proliferation	17 (34%)	17 (35%)	15 (31%)	8 (16%)	
Hyperplasia, Lymphoid	(0.70)	(6676)	. (0 . 70)	3 (6%)	
Hyperplasia, Plasma Cell	1 (2%)		1 (2%)	3 (373)	
Lymphoid Follicle, Hyperplasia	3 (6%)	4 (8%)	. (= /3)	2 (4%)	
Lymphoid Follicle, Necrosis	3 (6%)	. (373)		1 (2%)	
Thymus	(49)	(50)	(49)	(50)	
Angiectasis	(10)	(55)	(10)	1 (2%)	
Atrophy	16 (33%)	19 (38%)	12 (24%)	17 (34%)	
Cyst	7 (14%)	9 (18%)	7 (14%)	(8176)	
Hyperplasia, Lymphoid	9 (18%)	11 (22%)	7 (14%)	8 (16%)	
Necrosis, Lymphoid	1 (2%)	1 (2%)	1 (2%)	3 (1370)	
TEGUMENTARY SYSTEM					
Mammary Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Cystic	1 (2%)	1 (2%)			
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion			1 (2%)		
Inflammation, Granulomatous			1 (2%)		
Ulcer			2 (4%)		

MUSCULOSKELETAL SYSTEM

TDMS No. 88123 - 07

Test Type: CHRONIC

Route: GAVAGE

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

FORMAMIDE

CAS Number: 75-12-7

Species/Strain: MICE/B6C3F1 **Pathologist:** RYAN, M. - Blackshear, P.

TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Bone	(50)	(50)	(50)	(50)	
Atrophy	0 (00()	0 (400()	0 (00()	1 (2%)	
Hyperostosis Skeletal Muscle	3 (6%) (2)	6 (12%) (5)	3 (6%) (5)	2 (4%)	
Fibrosis	(2)	3 (60%)	(5)	(0)	
Inflammation, Chronic		G (GG 70)	1 (20%)		
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Arteriole, Inflammation, Chronic	1 (2%)			. (224)	
Artery, Meninges, Inflammation, Chronic	4 (20/)	2 (40/)	4 (20/)	1 (2%)	
Hypothalamus, Compression Meninges, Infiltration Cellular, Lymphocyte	1 (2%) 2 (4%)	2 (4%)	1 (2%) 1 (2%)		
Vein, Infiltration Cellular, Lymphocyte	1 (2%)		1 (270)		
Spinal Cord	(1)	(0)	(0)	(0)	
Hemorrhage	1 (100%)	, ,		,	
RESPIRATORY SYSTEM Lung Hematopoietic Cell Proliferation	(50)	(50) 1 (2%)	(50)	(50)	
Inflammation, Granulomatous				1 (2%)	
Inflammation, Focal, Chronic	1 (2%)				
Inflammation, Chronic Metaplasia, Osseous	2 (4%) 1 (2%)		1 (2%)	1 (2%)	
Necrosis	1 (270)		1 (2%)	1 (276)	
Alveolar Epithelium, Hyperplasia	2 (4%)	5 (10%)	2 (4%)		
Alveolus, Infiltration Cellular, Histiocyte	1 (2%)	1 (2%)	1 (2%)	3 (6%)	
Vein, Thrombosis			2 (4%)		
Nose	(50)	(50)	(50)	(50)	
Inflammation, Suppurative	4 (00()	1 (2%)	0 (40)		
Inflammation, Chronic Glands, Hyperplasia	1 (2%) 1 (2%)		2 (4%)		
Glands, Hyperplasia Glands, Inflammation, Suppurative	I (∠%)		2 (4%)		
Nasolacrimal Duct, Infiltration Cellular,	3 (6%)	1 (2%)	2 (4%)	1 (2%)	
Polymorphonuclear		2 (12 ()	4 (00()	4 (22()	
Olfactory Epithelium, Atrophy, Focal	1 (20/)	2 (4%)	1 (2%)	1 (2%)	
Respiratory Epithelium, Hyperplasia, Focal Respiratory Epithelium, Necrosis	1 (2%)		1 (2%)	1 (2%)	
respiratory Epitricilum, Necrosis			1 (2/0)		

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TDMS No. 88123 - 07 Test Type: CHRONIC

Route: GAVAGE

Species/Strain: MICE/B6C3F1

FORMAMIDE

CAS Number: 75-12-7

Pathologist: RYAN, M. - Blackshear, P.

Date Report Reqsted: 05/04/2006 Time Report Reqsted: 11:47:08 First Dose M/F: 10/04/01 / 10/03/01

Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	20 MG/KG	40 MG/KG	80 MG/KG	
Vomeronasal Organ, Infiltration Cellular,	9 (18%)	11 (22%)	2 (4%)	5 (10%)	
Polymorphonuclear Pleura	(0)	(0)	(1)	(0)	
SPECIAL SENSES SYSTEM					
Eye	(49)	(50)	(49)	(50)	
Degeneration Cornea, Inflammation, Chronic Retrobulbar, Inflammation, Chronic	1 (2%) 1 (2%) 1 (2%)	1 (2%)		1 (2%)	
Harderian Gland Fibrosis	(49)	(50)	(50)	(50) 1 (2%)	
Hyperplasia, Focal	7 (14%)	4 (8%)	3 (6%)	5 (10%)	
URINARY SYSTEM					
Kidney Hydronephrosis Hyperplasia, Lymphoid	(50) 1 (2%) 1 (2%)	(50) 1 (2%)	(50)	(50)	
Infarct Infiltration Cellular, Lymphoid	2 (4%)	1 (2%) 1 (2%)	1 (2%)		
Metaplasia, Osseous	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Mineralization Nephropathy Arteriole, Inflammation, Chronic	6 (12%) 35 (70%)	5 (10%) 23 (46%) 1 (2%)	1 (2%) 28 (56%)	3 (6%) 38 (76%)	
Artery, Inflammation, Chronic Glomerulus, Amyloid Deposition	1 (2%)	. (=,-,		1 (2%)	
Renal Tubule, Accumulation, Hyaline Droplet Renal Tubule, Cyst	1 (2%)	2 (4%)		1 (2%)	
Urinary Bladder Artery, Inflammation, Chronic	(50)	(50)	(50)	(50) 1 (2%)	

*** END OF REPORT ***

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