TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

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

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

Lab: BAT

F1\_M3

C Number: C20107

**Lock Date:** 02/26/2008

Cage Range: ALL

Date Range: ALL

**Reasons For Removal:** ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

**TDMSE Version:** 2.3.0

**PWG Approval Date:** NONE

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG
Disposition Summary				
Animals Initially In Study	50	50	50	50
Early Deaths	30	30	30	30
Dosing Accident	2			
Moribund Sacrifice	5	4	11	14
Natural Death	9	10	8	17
Survivors	ŭ	.•	•	
Natural Death	1			
Terminal Sacrifice	33	36	31	36
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Necrosis	1 (2%)			
Perforation	1 (2%)			
Periesophageal Tissue, Inflammation	2 (4%)			
Gallbladder	(49)	(50)	(47)	(49)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Intestine Large, Colon	(50)	(50)	(50)	(50)
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Peyer's Patch, Hyperplasia		1 (2%)		
Liver	(50)	(50)	(50)	(50)
Angiectasis	3 (6%)	1 (2%)		
Basophilic Focus	5 (10%)	11 (22%)	8 (16%)	2 (4%)
Clear Cell Focus	15 (30%)	22 (44%)	15 (30%)	7 (14%)
Eosinophilic Focus	25 (50%)	30 (60%)	39 (78%)	43 (86%)
Fatty Change		3 (6%)	1 (2%)	2 (4%)
Hematopoietic Cell Proliferation	4 (8%)	1 (2%)	4 (8%)	1 (2%)
Inflammation, Chronic Active	23 (46%)	22 (44%)	18 (36%)	19 (38%)
Mineralization		1 (2%)	1 (2%)	1 (2%)
Mitotic Alteration	1 (2%)	1 (2%)	2 (4%)	1 (2%)

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

Test Type: CHRONIC Route: GAVAGE

**TDMS No.** 20107 - 04

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine CAS Number: 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

50%)	25 (50%) 8 (16%) 3 (6%) 1 (2%) 1 (2%) 9 (18%)	17 (34%) 7 (14%) 2 (4%) 1 (2%) 2 (4%) 1 (2%) 11 (22%)	12 (24%) 10 (20%) 2 (4%) 16 (32%) 1 (2%) 2 (4%) (2)	
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(2%) (2%) (2%) (2%) (2%) (2%) (4) 25%) 50%)	3 (6%) 1 (2%) 1 (2%) 9 (18%)	2 (4%) 1 (2%) 2 (4%) 1 (2%) 11 (22%)	2 (4%)  16 (32%)  1 (2%) 2 (4%)	
(2%) (2%) (2%) (2%) (4) (25%) 50%)	1 (2%) 1 (2%) 9 (18%)	1 (2%) 2 (4%) 1 (2%) 11 (22%)	16 (32%) 1 (2%) 2 (4%)	
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(2%) (2%) (2%) (2%) (4) (25%) 50%)	9 (18%)	1 (2%) 11 (22%) 1 (2%)	1 (2%) 2 (4%)	
(2%) (2%) (2%) (4) (25%) 50%)	(3)	11 (22%) 1 (2%)	1 (2%) 2 (4%)	
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(4) 25%) 50%)				
25%) 50%)		(5)	(2)	
50%)				
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	3 (100%)	5 (100%)	2 (100%)	
50)				
	1 (2%)		1 (2%)	
		1 (2%)		
		1 (2%)		
			1 (2%)	
		1 (2%)	2 (4%)	
50)	(50)	(50)	(50)	
(2%)				
	(50)	(50)	(50)	
		,	,	
` ,	,		1 (2%)	
(26%)	12 (24%)	13 (26%)		
(== / - /	( , , )	(==7.5)		
10%)	4 (8%)	5 (10%)		
00)			(00)	
	1 (2/0)			
(2%)	1 (2%)			
			(0)	
	(0)	(0)	(0)	
•				
	50%) (25%) (50) (2%) (50) (4%) (26%) (10%) (28%) (50) (2%) (2) (2%) (2) (50%) (50%)	50%)       3 (100%)         25%)       (50)         (50)       1 (2%)         (50)       (50)         (2%)       (50)         (4%)       1 (2%)         (26%)       12 (24%)         10%)       4 (8%)         (28%)       14 (28%)         (50)       (50)         1 (2%)         (2%)       1 (2%)         (2%)       (0)         50%)	50%)       3 (100%)       5 (100%)         25%)       (50)       (50)         1 (2%)       1 (2%)         1 (2%)       1 (2%)         1 (2%)       1 (2%)         50)       (50)       (50)         (2%)       (50)       (50)         (26%)       1 (2%)         (26%)       12 (24%)       13 (26%)         10%)       4 (8%)       5 (10%)         (28%)       14 (28%)       17 (34%)         (50)       (50)       (50)         1 (2%)       1 (2%)         (2%)       1 (2%)         (2%)       1 (2%)         (2%)       1 (2%)         (2%)       0       0	25%) 50%)

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

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

Lab: BAT

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Tooth	(37)	(38)	(34)	(30)	
Dysplasia	34 (92%)	36 (95%)	34 (100%)	26 (87%)	
CARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Inflammation			1 (2%)		
Mineralization				1 (2%)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	8 (16%)	7 (14%)	10 (20%)	13 (26%)	
Inflammation	2 (4%)			1 (2%)	
Mineralization		1 (2%)	2 (4%)	5 (10%)	
Atrium, Thrombosis		1 (2%)			
Valve, Thrombosis	1 (2%)				
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Hypertrophy	3 (6%)	3 (6%)	1 (2%)	1 (2%)	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	1 (2%)			1 (2%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Hyperplasia	12 (24%)	5 (10%)	2 (4%)	1 (2%)	
Parathyroid Gland	(40)	(43)	(45)	(42)	
Amyloid Deposition			1 (2%)		
Pituitary Gland	(50)	(50)	(49)	(50)	
Pars Distalis, Hyperplasia	1 (2%)	1 (2%)			
Thyroid Gland	(50)	(50)	(50)	(50)	

### **GENERAL BODY SYSTEM**

**TDMS No.** 20107 - 04

Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: GAVAGE

None

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

Test Type: CHRONIC Route: GAVAGE

**TDMS No.** 20107 - 04

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
GENITAL SYSTEM					
Coagulating Gland	(0)	(1)	(0)	(0)	
Inflammation		1 (100%)			
Epididymis	(50)	(50)	(50)	(50)	
Angiectasis	, ,	, ,	, ,	1 (2%)	
Granuloma Sperm		2 (4%)		,	
Inflammation		,		1 (2%)	
Preputial Gland	(50)	(50)	(50)	(50)	
Atrophy	1 (2%)	()	()	(/	
Ectasia	7 (14%)	6 (12%)	7 (14%)	8 (16%)	
Inflammation	( ( , , , , , ,	1 (2%)	1 (2%)	1 (2%)	
Prostate	(50)	(50)	(50)	(50)	
Inflammation	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Epithelium, Hyperplasia	1 (2%)	. (= /3)	. (= /0)	. (= /3)	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Inflammation	1 (2%)	1 (2%)	(00)	(66)	
Mineralization	1 (2%)	. (= /3)			
Testes	(50)	(50)	(50)	(50)	
Hyperplasia, Oncocytic	(00)	1 (2%)	(00)	(66)	
Germinal Epithelium, Degeneration		2 (4%)	3 (6%)		
Germinal Epithelium, Mineralization		2 (170)	1 (2%)		
Interstitial Cell, Hyperplasia	1 (2%)		1 (270)	1 (2%)	
interstitial dell, rhyperplasia	1 (270)			1 (270)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Atrophy	3 (6%)	` '	1 (2%)	,	
Hyperplasia	8 (16%)	6 (12%)	9 (18%)	9 (18%)	
Necrosis	(/	·/	1 (2%)	· -/	
Thrombosis		1 (2%)	(/		
Lymph Node	(2)	(3)	(4)	(0)	
Lymph Node, Mandibular	(50)	(50)	(49)	(50)	
Atrophy	5 (10%)	4 (8%)	6 (12%)	3 (6%)	
Hyperplasia, Lymphoid	2 (4%)	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.** 20107 - 04

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Necrosis	1 (2%)				
Lymph Node, Mesenteric	(50)	(50)	(49)	(50)	
Atrophy	13 (26%)	9 (18%)	14 (29%)	15 (30%)	
Hyperplasia, Lymphoid				2 (4%)	
Spleen	(48)	(50)	(49)	(50)	
Atrophy	4 (8%)	11 (22%)	11 (22%)	6 (12%)	
Hematopoietic Cell Proliferation	15 (31%)	18 (36%)	23 (47%)	22 (44%)	
Hyperplasia, Lymphoid	5 (10%)	9 (18%)	6 (12%)	9 (18%)	
Necrosis, Lymphoid	1 (2%)				
Pigmentation	38 (79%)	34 (68%)	25 (51%)	44 (88%)	
Red Pulp, Atrophy	4 (8%)	1 (2%)	2 (4%)	2 (4%)	
Thymus	(48)	(48)	(48)	(49)	
Atrophy	41 (85%)	47 (98%)	47 (98%)	48 (98%)	
Hyperplasia, Lymphoid	1 (2%)			1 (2%)	
Infiltration Cellular, Mast Cell				1 (2%)	
Necrosis	2 (4%)				
INTEGUMENTARY SYSTEM					
Skin	(50)	(50)	(50)	(50)	
Inflammation	3 (6%)	1 (2%)	1 (2%)	1 (2%)	
Ulcer	4 (8%)	1 (2%)	1 (2%)	2 (4%)	
Dermis, Fibrosis	2 (4%)	. (= /0)	. (= /0)	1 (2%)	
Epidermis, Hyperplasia	1 (2%)		1 (2%)	1 (2%)	
Hair Follicle, Hyperkeratosis	. (=/6)		. (= /3/	1 (2%)	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibrosis	1 (2%)	(30)	(30)	(00)	
Fracture	1 (270)	1 (2%)			
Osteopetrosis		1 (2%)			
Skeletal Muscle	(0)	(1)	(2)	(2)	
Inflammation	(0)	(1)	(4)	1 (50%)	

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

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Respiratory

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Hemorrhage	,	,	1 (2%)	,	
Hydrocephalus			1 (2%)	1 (2%)	
Necrosis			1 (2%)	, ,	
Olfactory Lobe, Atrophy		1 (2%)	, ,	5 (10%)	
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Foreign Body	1 (2%)	,	,	,	
Hemorrhage	, ,			1 (2%)	
Inflammation, Chronic Active				1 (2%)	
Alveolar Epithelium, Hyperplasia	3 (6%)	8 (16%)	3 (6%)	,	
Alveolar Epithelium, Metaplasia	1 (2%)	,	1 (2%)		
Alveolus, Infiltration Cellular, Histiocyte	1 (2%)	2 (4%)	2 (4%)	10 (20%)	
Artery, Inflammation	, ,	1 (2%)	,	,	
Bronchiole, Epithelium, Hyperplasia		1 (2%)			
Bronchiole, Epithelium, Regeneration		,	1 (2%)	1 (2%)	
Bronchus, Necrosis			1 (2%)	,	
Bronchus, Epithelium, Regeneration			( /	1 (2%)	
Mediastinum, Inflammation	1 (2%)			,	
Perivascular, Infiltration Cellular, Lymphoid	,		1 (2%)		
Serosa, Inflammation	1 (2%)		,		
Nose	(49)	(50)	(50)	(50)	
Foreign Body	( - /	1 (2%)	\/	,	
Hyperplasia		1 (2%)			
Inflammation	13 (27%)	12 (24%)	10 (20%)	20 (40%)	
Polyp, Inflammatory	3 (6%)	2 (4%)	- ( /	- ( /	
Glands, Olfactory Epithelium, Dilatation	4 (8%)	11 (22%)	7 (14%)	48 (96%)	
Glands, Olfactory Epithelium, Hyperplasia	4 (8%)	9 (18%)	7 (14%)	49 (98%)	
Glands, Olfactory Epithelium, Metaplasia,	5 (10%)	5 (10%)	6 (12%)	48 (96%)	

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

Test Type: CHRONIC Route: GAVAGE

**TDMS No.** 20107 - 04

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Glands, Respiratory Epithelium, Dilatation	17 (35%)	19 (38%)	13 (26%)	41 (82%)	
Glands, Respiratory Epithelium, Hyperplasia	4 (8%)	2 (4%)	2 (4%)	11 (22%)	
Glands, Respiratory Epithelium, Metaplasia, Respiratory	2 (4%)	2 (4%)	2 (4%)	10 (20%)	
Nasolacrimal Duct, Hyperplasia, Regenerative				4 (8%)	
Nerve, Atrophy	2 (4%)	7 (14%)	4 (8%)	42 (84%)	
Olfactory Epithelium, Accumulation, Hyaline Droplet	12 (24%)	14 (28%)	10 (20%)	4 (8%)	
Olfactory Epithelium, Metaplasia, Respiratory	10 (20%)	10 (20%)	5 (10%)	49 (98%)	
Olfactory Epithelium, Necrosis	1 (2%)	3 (6%)	3 (6%)	8 (16%)	
Respiratory Epithelium, Accumulation, Hyaline Droplet	24 (49%)	25 (50%)	24 (48%)	25 (50%)	
Respiratory Epithelium, Hyperplasia	37 (76%)	35 (70%)	32 (64%)	30 (60%)	
Respiratory Epithelium, Necrosis		1 (2%)	1 (2%)	1 (2%)	
Transitional Epithelium, Hyperplasia				1 (2%)	
Transitional Epithelium, Necrosis				1 (2%)	
Vomeronasal Organ, Necrosis		1 (2%)	2 (4%)	3 (6%)	
Trachea	(50)	(50)	(50)	(50)	
Necrosis				1 (2%)	
SPECIAL SENSES SYSTEM					
Ear	(1)	(0)	(0)	(0)	
External Ear, Inflammation	1 (100%)				
External Ear, Necrosis	1 (100%)				
Eye	(50)	(50)	(50)	(50)	
Cornea, Inflammation	3 (6%)	1 (2%)	4 (8%)		
Lens, Cataract			1 (2%)		
Optic Nerve, Atrophy		1 (2%)			
Harderian Gland	(50)	(50)	(50)	(50)	
Atrophy			1 (2%)		
Hyperplasia	1 (2%)	4 (8%)	1 (2%)	1 (2%)	
Zymbal's Gland	(1)	(0)	(0)	(0)	

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

TDMS No. 20107 - 04
Test Type: CHRONIC

Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

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

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE MALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
JRINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Accumulation, Hyaline Droplet	1 (2%)	,	,	` ,	
Infarct	3 (6%)	2 (4%)		2 (4%)	
Inflammation	2 (4%)	1 (2%)		,	
Mineralization	5 (10%)	7 (14%)	9 (18%)	6 (12%)	
Nephropathy	39 (78%)	41 (82%)	43 (86%)	37 (74%)	
Pigmentation	,	,	2 (4%)	,	
Cortex, Cyst	3 (6%)	2 (4%)	1 (2%)	2 (4%)	
Papilla, Necrosis	1 (2%)	1 (2%)			
Pelvis, Dilatation	2 (4%)		1 (2%)	1 (2%)	
Renal Tubule, Dilatation				1 (2%)	
Renal Tubule, Hyperplasia				1 (2%)	
Renal Tubule, Necrosis			2 (4%)	1 (2%)	
Ureter	(1)	(0)	(0)	(0)	
Inflammation	1 (100%)				
Necrosis	1 (100%)				
Urethra	(0)	(1)	(0)	(0)	
Inflammation		1 (100%)			
Necrosis		1 (100%)			
Urinary Bladder	(50)	(50)	(50)	(50)	
Calculus Gross Observation				2 (4%)	
Inflammation				1 (2%)	
Transitional Epithelium, Hyperplasia				1 (2%)	

<sup>\*\*\*</sup> END OF MALE \*\*\*

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Disposition Summary					
Animals Initially In Study	50	50	50	50	
Early Deaths	50	50	50	50	
Dosing Accident		1	1	2	
Moribund Sacrifice	3	1	7	10	
Natural Death	4	8	3	6	
Survivors	7	· ·	3	· ·	
Terminal Sacrifice	43	40	39	32	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Foreign Body	(00)	(00)	(00)	1 (2%)	
Perforation			1 (2%)	1 (2%)	
Epithelium, Inflammation			. (= /0)	1 (2%)	
Muscularis, Degeneration			1 (2%)	1 (2%)	
Muscularis, Inflammation	1 (2%)		. (270)	(270)	
Periesophageal Tissue, Hemorrhage	. (270)		1 (2%)		
Gallbladder	(50)	(50)	(49)	(49)	
Intestine Large, Cecum	(50)	(50)	(50)	(50)	
Fibrosis	(00)	1 (2%)	(00)	(88)	
Lymphoid Tissue, Hyperplasia, Lymphoid	1 (2%)	. (= /0)			
Intestine Large, Colon	(50)	(50)	(50)	(50)	
Fibrosis	(55)	1 (2%)	(30)	(00)	
Intestine Large, Rectum	(50)	(50)	(50)	(50)	
Intestine Small, Duodenum	(50)	(50)	(50)	(50)	
Intestine Small, Ileum	(50)	(50)	(50)	(50)	
Fibrosis	()	1 (2%)	(30)	\/	
Intestine Small, Jejunum	(50)	(50)	(50)	(50)	
Fibrosis	(/	1 (2%)	(/	()	
Peyer's Patch, Hyperplasia, Lymphoid		1 (2%)			
Liver	(50)	(50)	(50)	(50)	
Angiectasis	1 (2%)	(/	()	(/	
Basophilic Focus	7 (14%)	5 (10%)	9 (18%)	11 (22%)	

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

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Clear Cell Focus		2 (4%)	2 (4%)	3 (6%)	
Eosinophilic Focus	20 (40%)	2 (4%) 18 (36%)	45 (90%)	38 (76%)	
Fatty Change	1 (2%)	10 (30%)	45 (90%)	8 (16%)	
The state of the s		4 (00/)	2 (40/)		
Hematopoietic Cell Proliferation	2 (4%)	4 (8%)	2 (4%)	3 (6%)	
Inflammation, Chronic Active	39 (78%)	27 (54%)	33 (66%)	35 (70%)	
Mineralization	0 (00()	0 (400()	7 (4 40()	1 (2%)	
Mixed Cell Focus	3 (6%)	9 (18%)	7 (14%)	7 (14%)	
Necrosis	1 (2%)	8 (16%)	4 (8%)	10 (20%)	
Pigmentation	1 (2%)	1 (2%)	1 (2%)	4 (8%)	
Bile Duct, Cyst	2 (4%)	1 (2%)	1 (2%)	3 (6%)	
Hepatocyte, Hypertrophy		11 (22%)	10 (20%)	17 (34%)	
Kupffer Cell, Hyperplasia		1 (2%)		1 (2%)	
Oval Cell, Hyperplasia				2 (4%)	
Serosa, Fibrosis		1 (2%)			
Serosa, Inflammation, Chronic Active		1 (2%)			
Mesentery	(3)	(8)	(9)	(6)	
Inflammation, Chronic		1 (13%)			
Fat, Necrosis	3 (100%)	5 (63%)	9 (100%)	6 (100%)	
Pancreas	(50)	(50)	(50)	(50)	
Atrophy	1 (2%)		2 (4%)		
Acinus, Hyperplasia	, ,			1 (2%)	
Acinus, Necrosis				1 (2%)	
Duct, Cyst			2 (4%)	,	
Salivary Glands	(50)	(50)	(50)	(48)	
Atrophy	()	()	()	1 (2%)	
Fibrosis				1 (2%)	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Erosion	(00)	1 (2%)	(00)	2 (4%)	
Fibrosis		1 (2%)		2 (170)	
Inflammation	3 (6%)	4 (8%)	7 (14%)	16 (32%)	
Necrosis	1 (2%)	<del>-</del> (0/0)	7 (1770)	10 (02/0)	
Ulcer	2 (4%)	2 (4%)	4 (8%)	7 (14%)	
Epithelium, Cyst	۷ ( <del>۱</del> /٥)	2 (4%) 1 (2%)	+ (O /O)	1 (2%)	
	2 (60/)	5 (10%)	12 (240/)	17 (34%)	
Epithelium, Hyperplasia	3 (6%)		12 (24%)		
Stomach, Glandular	(50)	(50)	(50)	(50)	
Mineralization	1 (2%)				

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

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Epithelium, Necrosis	1 (2%)				
Glands, Dysplasia	,			1 (2%)	
Tongue	(0)	(0)	(0)	(1)	
Cyst				1 (100%)	
Tooth	(13)	(10)	(7)	(4)	
Dysplasia	13 (100%)	10 (100%)	4 (57%)	4 (100%)	
Peridontal Tissue, Pulp, Inflammation	1 (8%)	,	, ,	, ,	
CARDIOVASCULAR SYSTEM					
Blood Vessel Embolus Bacterial	(50)	(49) 1 (2%)	(50)	(50)	
Inflammation		. (270)		3 (6%)	
Media, Pulmonary Artery, Hyperplasia		1 (2%)		C (C/C)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	5 (10%)	2 (4%)	4 (8%)	2 (4%)	
Inflammation	- ( , - )	_ ( · · · · )	(0,70)	1 (2%)	
Mineralization	1 (2%)	2 (4%)	1 (2%)	5 (10%)	
Necrosis	. (=,-,	_ ( · · · · )	2 (4%)	(1273)	
Epicardium, Fibrosis			_ ( · / • /	1 (2%)	
Valve, Thrombosis		1 (2%)	1 (2%)	( )	
Ventricle, Thrombosis		( /	1 (2%)		
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Angiectasis		1 (2%)			
Necrosis			2 (4%)		
Vacuolization Cytoplasmic			1 (2%)		
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	3 (6%)				
Necrosis			1 (2%)		
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Hyperplasia		1 (2%)		2 (4%)	
Parathyroid Gland	(48)	(38)	(38)	(34)	

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

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Pituitary Gland	(48)	(50)	(50)	(49)	
Pars Distalis, Angiectasis				1 (2%)	
Pars Distalis, Hyperplasia	5 (10%)	3 (6%)	3 (6%)	3 (6%)	
Pars Intermedia, Hyperplasia	1 (2%)	1 (2%)	1 (2%)	2 (4%)	
Thyroid Gland	(50)	(50)	(50)	(50)	
Atrophy		2 (4%)			
Inflammation		1 (2%)	1 (2%)		
Follicle, Degeneration			1 (2%)		
Follicular Cell, Hyperplasia		1 (2%)			
Follicular Cell, Hypertrophy		. ,	1 (2%)		

(50)

(49)

### **GENERAL BODY SYSTEM**

**GENITAL SYSTEM** 

None

Clitoral Gland	(50)	(50)	
Ovary	(50)	(49)	

(50)(50)1 (2%) 1 (2%) Angiectasis 2 (4%) 40 (80%) 43 (88%) 40 (80%) Atrophy 45 (90%) Cyst 4 (8%) 6 (12%) 4 (8%) 2 (4%) 2 (4%) 1 (2%) Hemorrhage Inflammation 2 (4%) 2 (4%) 3 (6%) **Thrombosis** Oviduct (0)(1) (0)(0) Uterus (50)(50)(50)(50)2 (4%) Angiectasis 2 (4%) 1 (2%) Atrophy 1 (2%) 13 (26%) 13 (26%) 6 (12%) Dilatation 10 (20%) 1 (2%) 3 (6%) Inflammation 2 (4%) 1 (2%) 1 (2%) **Thrombosis** Endometrium, Hyperplasia, Cystic 25 (50%) 17 (34%) 11 (22%) 9 (18%)

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

Test Type: CHRONIC Route: GAVAGE

**TDMS No.** 20107 - 04

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(49)	
Atrophy	1 (2%)	2 (4%)	2 (4%)	3 (6%)	
Hyperplasia	5 (10%)	14 (28%)	15 (30%)	14 (29%)	
Lymph Node	(7)	(3)	(5)	(4)	
Lumbar, Hemorrhage	( )	( )	( )	1 (25%)	
Mediastinal, Hyperplasia, Lymphoid			1 (20%)	,	
Renal, Ectasia	2 (29%)		,		
Renal, Hemorrhage	(/	1 (33%)			
Lymph Node, Mandibular	(50)	(50)	(50)	(48)	
Atrophy	1 (2%)	4 (8%)	5 (10%)	5 (10%)	
Hyperplasia, Lymphoid	3 (6%)	5 (10%)	- (/	3 (6%)	
Hyperplasia, Plasma Cell	- (- · - /	1 (2%)		- ()	
Lymph Node, Mesenteric	(49)	(49)	(49)	(50)	
Angiectasis	1 (2%)	( /	(10)	V /	
Atrophy	1 (2%)	5 (10%)	5 (10%)	12 (24%)	
Hyperplasia, Lymphoid	7 (14%)	3 (6%)	1 (2%)	_ (_ : ,	
Infiltration Cellular, Plasma Cell	. ( /	- ()	1 (2%)		
Inflammation, Granulomatous			. (= / -/	1 (2%)	
Necrosis				1 (2%)	
Spleen	(49)	(49)	(49)	(50)	
Atrophy	3 (6%)	8 (16%)	1 (2%)	6 (12%)	
Hematopoietic Cell Proliferation	18 (37%)	23 (47%)	24 (49%)	21 (42%)	
Hyperplasia, Lymphoid	14 (29%)	15 (31%)	12 (24%)	15 (30%)	
Infarct	(== /=//	1 (2%)	·= \ <del>-</del> · · · · · /	()	
Infiltration Cellular, Plasma Cell	1 (2%)	. (=,0)			
Pigmentation	37 (76%)	39 (80%)	33 (67%)	43 (86%)	
Capsule, Fibrosis	J. (1070)	1 (2%)	00 (01 /0)	(5575)	
Red Pulp, Atrophy		. (= /0/		5 (10%)	
Thymus	(50)	(50)	(48)	(48)	
Atrophy	46 (92%)	46 (92%)	39 (81%)	43 (90%)	
Hyperplasia, Histiocytic	10 (0270)	1 (2%)	00 (0170)	.5 (5575)	
Hyperplasia, Lymphoid	3 (6%)	. (= /0)			

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

N,N-Dimethyl-p-toluidine CAS Number: 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

Lab: BAT

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
INTEGUMENTARY SYSTEM					
Mammary Gland	(50)	(50)	(50)	(50)	
Skin	(50)	(50)	(50)	(50)	
Hemorrhage			1 (2%)		
Inflammation	1 (2%)	2 (4%)		1 (2%)	
Ulcer		2 (4%)	2 (4%)	1 (2%)	
Dermis, Fibrosis		1 (2%)	1 (2%)		
Epidermis, Hyperplasia	1 (2%)		2 (4%)		
Sebaceous Gland, Hyperplasia			1 (2%)		
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibro-Osseous Lesion	3 (6%)	5 (10%)	6 (12%)	11 (22%)	
Fracture	,	,	,	1 (2%)	
Osteopetrosis	1 (2%)	1 (2%)		1 (2%)	
Skeletal Muscle	(0)	(2)	(1)	(2)	
Inflammation		1 (50%)			
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(49)	
Necrosis	1 (2%)		1 (2%)		
Olfactory Lobe, Atrophy				8 (16%)	
Peripheral Nerve	(0)	(0)	(1)	(0)	
Spinal Cord	(0)	(0)	(1)	(0)	
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Foreign Body	(00)	1 (2%)	(50)	2 (4%)	
Hemorrhage		. (270)	1 (2%)	- (1/3)	
Inflammation		2 (4%)	. (= /0)	2 (4%)	

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

**TDMS No.** 20107 - 04

Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: GAVAGE

Test Type: CHRONIC Route: GAVAGE

**TDMS No.** 20107 - 04

Species/Strain: MICE/B6C3F1

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
Alveolar Epithelium, Hyperplasia	2 (4%)	3 (6%)	8 (16%)	2 (4%)	
Alveolus, Infiltration Cellular, Histiocyte	1 (2%)	,	,	7 (14%)	
Bronchiole, Epithelium, Necrosis	, ,			1 (2%)	
Bronchiole, Epithelium, Regeneration				5 (10%)	
Bronchus, Necrosis				5 (10%)	
Bronchus, Epithelium, Regeneration				5 (10%)	
Nose	(50)	(49)	(50)	(50)	
Inflammation	3 (6%)	7 (14%)	3 (6%)	32 (64%)	
Glands, Lateral Wall, Dilatation				2 (4%)	
Glands, Olfactory Epithelium, Dilatation	13 (26%)	14 (29%)	20 (40%)	46 (92%)	
Glands, Olfactory Epithelium, Hyperplasia	2 (4%)	14 (29%)	14 (28%)	50 (100%)	
Glands, Olfactory Epithelium, Metaplasia, Respiratory	2 (4%)	5 (10%)	7 (14%)	44 (88%)	
Glands, Respiratory Epithelium, Dilatation	10 (20%)	17 (35%)	15 (30%)	33 (66%)	
Glands, Respiratory Epithelium, Hyperplasia		2 (4%)	12 (24%)	13 (26%)	
Glands, Respiratory Epithelium, Metaplasia, Respiratory			10 (20%)	10 (20%)	
Nasolacrimal Duct, Hyperplasia, Regenerative				4 (8%)	
Nerve, Atrophy				41 (82%)	
Olfactory Epithelium, Accumulation, Hyaline Droplet	2 (4%)	5 (10%)	8 (16%)	15 (30%)	
Olfactory Epithelium, Degeneration				1 (2%)	
Olfactory Epithelium, Metaplasia, Respiratory	1 (2%)	6 (12%)	14 (28%)	46 (92%)	
Olfactory Epithelium, Necrosis			3 (6%)	6 (12%)	
Respiratory Epithelium, Accumulation, Hyaline Droplet	33 (66%)	34 (69%)	39 (78%)	36 (72%)	
Respiratory Epithelium, Hyperplasia	11 (22%)	15 (31%)	11 (22%)	30 (60%)	
Respiratory Epithelium, Hyperplasia, Regenerative				3 (6%)	
Respiratory Epithelium, Necrosis				5 (10%)	
Transitional Epithelium, Hyperplasia, Regenerative				1 (2%)	
Transitional Epithelium, Necrosis				2 (4%)	
Vomeronasal Organ, Necrosis				4 (8%)	
Trachea	(50)	(50)	(50)	(50)	
Inflammation				1 (2%)	
Glands, Hyperplasia				1 (2%)	

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

TDMS No. 20107 - 04 Test Type: CHRONIC Route: GAVAGE

Species/Strain: MICE/B6C3F1

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

N,N-Dimethyl-p-toluidine **CAS Number:** 99-97-8

Date Report Requested: 03/10/2011 Time Report Requested: 11:42:39 First Dose M/F: 10/26/04 / 10/25/04

B6C3F1 MICE FEMALE	0 MG/KG	6 MG/KG	20 MG/KG	60 MG/KG	
SPECIAL SENSES SYSTEM					
Eye Fibrosis	(50)	(50)	(50) 1 (2%)	(49)	
Cornea, Inflammation Lens, Cataract Optic Nerve, Atrophy		1 (2%)	1 (2%) 1 (2%) 1 (2%)	3 (6%)	
Harderian Gland Fibrosis	(50)	(50) 1 (2%)	(50)	(49)	
Hyperplasia Inflammation	4 (8%) 1 (2%)	2 (4%)		2 (4%)	
URINARY SYSTEM					
Kidney Accumulation, Hyaline Droplet	(50)	(50) 2 (4%)	(50) 1 (2%)	(50)	
Infarct Inflammation	4 (8%)	3 (6%)	4 (8%) 1 (2%)	2 (4%)	
Mineralization Nephropathy Cortex, Cyst Papilla, Necrosis	13 (26%)	1 (2%) 15 (30%)	15 (30%)	3 (6%) 17 (34%) 1 (2%) 1 (2%)	
Renal Tubule, Necrosis Urinary Bladder	1 (2%) (50)	(50)	2 (4%) (50)	2 (4%) (50)	

<sup>\*\*\*</sup> END OF REPORT \*\*\*

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