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

p-Chloro-a,a,a-trifluorotoluene

Species/Strain: MICE/B6C3F1

Test Type: CHRONIC

**CAS Number:** 98-56-6

**Time Report Requested:** 09:19:23 **First Dose M/F:** 01/31/11 / 01/31/11

Date Report Requested: 03/25/2016

Lab: BNW

F1 Revision1\_M3

NTP Study Number: C10472B

**Lock Date:** 08/29/2013

Cage Range: ALL

Route: RESPIRATORY EXPOSURE WHOLE BODY

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

**TDMSE Version:** 3.0.2.3\_002

**PWG Approval Date:** 02/01/2016

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Experiment Number: 10472 - 04

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm
Disposition Summary				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	8	5	11	12
Natural Death	2	5	4	10
Survivors				
Terminal Sacrifice	40	40	35	28
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Gallbladder	(50)	(49)	(44)	(44)
Inflammation	ζ/	1 (2%)	\	, ,
Epithelium, Vacuolization Cytoplasmic		1 (2%)	1 (2%)	
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Inflammation	, ,	2 (4%)	, ,	
Intestine Large, Colon	(50)	(50)	(50)	(50)
Intestine Large, Rectum	(50)	(50)	(50)	(49)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Inflammation				1 (2%)
Necrosis			1 (2%)	
Thrombosis			1 (2%)	1 (2%)
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Perforation	1 (2%)			
Peyer's Patch, Hyperplasia			1 (2%)	1 (2%)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Perforation	1 (2%)			
Peyer's Patch, Hyperplasia	1 (2%)			1 (2%)
Liver	(50)	(50)	(50)	(50)
Basophilic Focus	4 (8%)	10 (20%)	10 (20%)	1 (2%)
Clear Cell Focus	15 (30%)	16 (32%)	23 (46%)	15 (30%)
Cyst		1 (2%)		
Eosinophilic Focus	11 (22%)	14 (28%)	18 (36%)	21 (42%)
Fatty Change			1 (2%)	

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

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
Fibrosis			1 (2%)		
Hepatodiaphragmatic Nodule			1 (2%)		
Inflammation	3 (6%)	1 (2%)			
Intrahepatocellular Erythrocytes		1 (2%)	6 (12%)	15 (30%)	
Mixed Cell Focus	15 (30%)	15 (30%)	13 (26%)	11 (22%)	
Pigmentation		1 (2%)			
Regeneration	2 (4%)				
Centrilobular, Hepatocyte, Hypertrophy		8 (16%)	19 (38%)	49 (98%)	
Hepatocyte, Multinucleated	2 (4%)	8 (16%)	19 (38%)	49 (98%)	
Hepatocyte, Necrosis	3 (6%)	4 (8%)	3 (6%)	15 (30%)	
Mesentery	(6)	(5)	(2)	(5)	
Angiectasis		1 (20%)			
Thrombosis		1 (20%)			
Fat, Necrosis	4 (67%)	2 (40%)	1 (50%)	4 (80%)	
Pancreas	(50)	(50)	(50)	(50)	
Inflammation	2 (4%)				
Acinus, Atrophy	1 (2%)		2 (4%)	3 (6%)	
Acinus, Hypertrophy		1 (2%)			
Duct, Cyst			1 (2%)		
Salivary Glands	(50)	(50)	(50)	(49)	
Atrophy		1 (2%)			
Inflammation		1 (2%)			
Stomach, Forestomach	(50)	(50)	(50)	(48)	
Inflammation	4 (8%)	12 (24%)	7 (14%)	12 (25%)	
Mineralization	2 (4%)	•	1 (2%)	1 (2%)	
Epithelium, Cyst, Squamous			·	1 (2%)	
Epithelium, Hyperplasia	5 (10%)	9 (18%)	9 (18%)	10 (21%)	
Epithelium, Ulcer	2 (4%)	1 (2%)	2 (4%)	1 (2%)	
Stomach, Glandular	(50)	(50)	(49)	(49)	
Hyperplasia				1 (2%)	
Inflammation	1 (2%)		1 (2%)	2 (4%)	
Mineralization		1 (2%)		2 (4%)	
Tongue	(1)	(0)	(0)	(0)	

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
CARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Inflammation			2 (4%)		
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	10 (20%)	14 (28%)	13 (26%)	11 (22%)	
Inflammation	1 (2%)	1 (2%)	3 (6%)		
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Angiectasis	, ,	, ,	1 (2%)	, ,	
Hyperplasia	2 (4%)	1 (2%)	1 (2%)	1 (2%)	
Hypertrophy	20 (40%)	34 (68%)	24 (48%)	17 (34%)	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	1 (2%)	1 (2%)		1 (2%)	
Islets, Pancreatic	(50)	(49)	(50)	(50)	
Hyperplasia	4 (8%)	1 (2%)	5 (10%)	, ,	
Necrosis	1 (2%)	, ,	, ,		
Parathyroid Gland	(36)	(28)	(39)	(38)	
Pituitary Gland	(50)	(50)	(50)	(49)	
Thyroid Gland	(50)	(50)	(50)	(50)	
GENERAL BODY SYSTEM					
Peritoneum	(0)	(0)	(1)	(0)	
GENITAL SYSTEM					
Epididymis	(50)	(50)	(50)	(50)	
Exfoliated Germ Cell	1 (2%)	4 (8%)		2 (4%)	
Granuloma Sperm	2 (4%)	2 (4%)	1 (2%)	2 (4%)	
Penis	(0)	(0)	(1)	(0)	
Congestion			1 (100%)		

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Experiment Number: 10472 - 04

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm
Preputial Gland	(50)	(50)	(49)	(50)
Ectasia	2 (4%)	5 (10%)	6 (12%)	4 (8%)
Inflammation	2 (4%)	1 (2%)	2 (4%)	
Prostate	(50)	(50)	(50)	(50)
Inflammation	1 (2%)	, ,	1 (2%)	1 (2%)
Seminal Vesicle	(50)	(50)	(50)	(50)
Dilatation	, ,	1 (2%)	2 (4%)	, ,
Inflammation		, ,	2 (4%)	1 (2%)
Testes	(50)	(50)	(50)	(50)
Germinal Epithelium, Degeneration	7 (14%)	10 (20%)	10 (20%)	8 (16%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Atrophy		1 (2%)	1 (2%)	
Fibrosis			1 (2%)	
Hyperplasia	24 (48%)	26 (52%)	27 (54%)	27 (54%)
Necrosis				1 (2%)
Lymph Node	(4)	(0)	(3)	(4)
Pancreatic, Angiectasis				1 (25%)
Lymph Node, Bronchial	(49)	(47)	(47)	(48)
Ectasia	. ,	, ,	, ,	1 (2%)
Hyperplasia, Lymphoid	1 (2%)		1 (2%)	` '
Lymph Node, Mandibular	(36)	(41)	(43)	(45)
Hyperplasia, Lymphoid	2 (6%)	1 (2%)	, ,	, ,
Lymph Node, Mediastinal	(46)	(47)	(44)	(42)
Necrosis, Fatty	, ,	1 (2%)	,	, ,
Lymph Node, Mesenteric	(49)	(50)	(49)	(49)
Angiectasis	1 (2%)	,	,	1 (2%)
Ectasia	1 (2%)			(/
Hematopoietic Cell Proliferation	(/	2 (4%)	1 (2%)	
Hyperplasia, Lymphoid	3 (6%)	2 (4%)	,	1 (2%)
Infiltration Cellular, Histiocyte	, ,	,	2 (4%)	` '
Inflammation			, ,	1 (2%)
Spleen	(50)	(50)	(50)	(50)

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
Angiectasis			1 (2%)		
Hematopoietic Cell Proliferation	17 (34%)	16 (32%)	10 (20%)	18 (36%)	
Lymphoid Follicle, Hyperplasia	8 (16%)	4 (8%)	6 (12%)	4 (8%)	
Red Pulp, Infiltration Cellular, Mast Cell			1 (2%)		
Thymus	(48)	(48)	(48)	(48)	
Atrophy	21 (44%)	20 (42%)	15 (31%)	22 (46%)	
Ectopic Parathyroid Gland	12 (25%)	9 (19%)	15 (31%)	9 (19%)	
NTEGUMENTARY SYSTEM					
Mammary Gland	(2)	(1)	(3)	(1)	
Skin	(50)	(50)	(50)	(50)	
Inflammation	1 (2%)	2 (4%)	1 (2%)	3 (6%)	
Ulcer	, ,	, ,	1 (2%)	3 (6%)	
Epidermis, Hyperplasia	1 (2%)				
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibro-Osseous Lesion	2 (4%)		2 (4%)	2 (4%)	
Skeletal Muscle	(2)	(1)	(1)	(2)	
Degeneration			1 (100%)		
Inflammation			1 (100%)		
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Degeneration			2 (4%)		
Gliosis			1 (2%)		
Inflammation	1 (2%)		2 (4%)		
Peripheral Nerve	(0)	(0)	(1)	(0)	
Degeneration	. ,		1 (100%)		
Spinal Cord	(0)	(0)	(1)	(0)	
Inflammation	· ,	• •	1 (100%)		

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

**Experiment Number:** 10472 - 04 **Test Type:** CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
RESPIRATORY SYSTEM					
Larynx	(50)	(50)	(50)	(50)	
Epiglottis, Inflammation			1 (2%)		
Squamous Epithelium, Hyperplasia	3 (6%)	4 (8%)	6 (12%)	11 (22%)	
Squamous Epithelium, Inflammation		1 (2%)	3 (6%)	2 (4%)	
Squamous Epithelium, Necrosis				1 (2%)	
Squamous Epithelium, Ulcer			1 (2%)	2 (4%)	
Lung	(50)	(50)	(50)	(50)	
Hemorrhage	2 (4%)		1 (2%)		
Hyperplasia, Lymphoid			1 (2%)		
Inflammation		2 (4%)		2 (4%)	
Metaplasia, Osseous		, ,	1 (2%)	, ,	
Pigmentation, Hemosiderin	1 (2%)				
Thrombosis	, ,	2 (4%)	1 (2%)	1 (2%)	
Alveolar/bronchiolar Epithelium, Hyperplasia		49 (98%)	50 (100%)	48 (96%)	
Alveolar Epithelium, Hyperplasia	2 (4%)	1 (2%)	1 (2%)	3 (6%)	
Alveolus, Infiltration Cellular, Histiocyte	2 (4%)	2 (4%)	3 (6%)	3 (6%)	
Bronchiole, Epithelium, Hyperplasia	2 (4%)	, ,	, ,	, ,	
Peribronchiolar, Fibrosis	,	45 (90%)	47 (94%)	44 (88%)	
Pleura, Inflammation	1 (2%)	,	,	,	
Nose	(50)	(50)	(50)	(50)	
Inflammation, Suppurative	1 (2%)	3 (6%)	5 (10%)	4 (8%)	
Necrosis	` '	, ,	,	1 (2%)	
Polyp, Inflammatory			1 (2%)	, ,	
Olfactory Epithelium, Accumulation, Hyaline Droplet	11 (22%)	9 (18%)	7 (14%)	13 (26%)	
Olfactory Epithelium, Atrophy			1 (2%)		
Olfactory Epithelium, Hyperplasia			1 (2%)		
Olfactory Epithelium, Mineralization		1 (2%)	, ,		
Respiratory Epithelium, Accumulation, Hyaline Droplet	9 (18%)	8 (16%)	3 (6%)	12 (24%)	
Respiratory Epithelium, Metaplasia, Squamous		1 (2%)	2 (4%)	1 (2%)	
Turbinate, Atrophy		, ,	, ,	1 (2%)	
Trachea	(50)	(50)	(50)	(50)	

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(50)	
Atrophy		1 (2%)		2 (4%)	
Cataract	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Inflammation		3 (6%)	1 (2%)	1 (2%)	
Cornea, Hyperplasia	2 (4%)				
Retina, Pigmentation, Melanin				1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia	1 (2%)	5 (10%)	1 (2%)	1 (2%)	
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	` '	1 (2%)	1 (2%)	2 (4%)	
Infarct	6 (12%)	4 (8%)	6 (12%)	4 (8%)	
Metaplasia, Osseous	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Nephropathy	43 (86%)	41 (82%)	38 (76%)	41 (82%)	
Pigmentation		1 (2%)		4 (8%)	
Pelvis, Dilatation				1 (2%)	
Urethra	(0)	(0)	(0)	(1)	
Urinary Bladder	(50)	(50)	(50)	(50)	
Inflammation				1 (2%)	

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

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Experiment Number: 10472 - 04

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm
			· · · · · · · · · · · · · · · · · · ·	
Disposition Summary				
Animals Initially In Study	50	50	50	50
Early Deaths				
Accidentally Killed			1	
Moribund Sacrifice	7	12	9	16
Natural Death	5	5	1	7
Survivors				
Natural Death			2	1
Terminal Sacrifice	38	33	37	26
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Gallbladder	(47)	(49)	(48)	(47)
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Inflammation	(/	(2-)	2 (4%)	1 (2%)
Epithelium, Hyperplasia	1 (2%)		(/	(/
Intestine Large, Colon	(50)	(50)	(50)	(50)
Intestine Large, Rectum	(48)	(50)	(48)	(50)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Inflammation	, ,	. ,	. ,	1 (2%)
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Inflammation			1 (2%)	
Liver	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)		
Basophilic Focus	1 (2%)	4 (8%)	6 (12%)	1 (2%)
Clear Cell Focus	3 (6%)	3 (6%)	5 (10%)	5 (10%)
Cyst			1 (2%)	
Eosinophilic Focus	4 (8%)	8 (16%)	24 (48%)	31 (62%)
Fatty Change			1 (2%)	
Fibrosis		1 (2%)	1 (2%)	
Inflammation	1 (2%)		2 (4%)	
Mixed Cell Focus	10 (20%)	5 (10%)	6 (12%)	5 (10%)

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Experiment Number: 10472 - 04

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm	
Bile Duct, Hyperplasia		1 (2%)			
Capsule, Inflammation, Suppurative			1 (2%)		
Centrilobular, Hepatocyte, Hypertrophy		4 (8%)	5 (10%)	40 (80%)	
Hepatocyte, Multinucleated		2 (4%)	2 (4%)	25 (50%)	
Hepatocyte, Necrosis	2 (4%)	1 (2%)	3 (6%)	10 (20%)	
Mesentery	(9)	(13)	(15)	(12)	
Fat, Necrosis	8 (89%)	9 (69%)	15 (100%)	12 (100%)	
Pancreas	(50)	(50)	(50)	(50)	
Acinus, Atrophy	1 (2%)	1 (2%)	4 (8%)	2 (4%)	
Acinus, Hypertrophy		2 (4%)		1 (2%)	
Duct, Cyst			2 (4%)		
Salivary Glands	(50)	(50)	(50)	(50)	
Infiltration Cellular, Mononuclear Cell				1 (2%)	
Duct, Hyperplasia		1 (2%)			
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Angiectasis			1 (2%)		
Inflammation	3 (6%)	5 (10%)	5 (10%)	9 (18%)	
Mineralization			1 (2%)		
Epithelium, Hyperplasia	1 (2%)	3 (6%)	5 (10%)	14 (28%)	
Epithelium, Ulcer		1 (2%)		2 (4%)	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Hyperplasia, Mast Cell				1 (2%)	
Inflammation		1 (2%)			
Tongue	(0)	(0)	(0)	(1)	
CARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Inflammation	2 (4%)	2 (4%)	2 (4%)	2 (4%)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	14 (28%)	13 (26%)	8 (16%)	12 (24%)	
Inflammation	2 (4%)	3 (6%)	5 (10%)	5 (10%)	
Necrosis	, ,	1 (2%)	1 (2%)	2 (4%)	
Thrombosis		2 (4%)		2 (4%)	
Endocardium, Fibrosis				1 (2%)	

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

Test Type: CHRONIC

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

p-Chloro-a,a,a-trifluorotoluene

Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1

**CAS Number:** 98-56-6

Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

Lab: BNW

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm	
Valve, Angiectasis				1 (2%)	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Angiectasis			1 (2%)		
Cyst			1 (2%)		
Degeneration	2 (4%)			1 (2%)	
Hyperplasia	1 (2%)	1 (2%)		1 (2%)	
Hypertrophy	12 (24%)	12 (24%)	10 (20%)	16 (32%)	
Vacuolization Cytoplasmic	2 (4%)	2 (4%)	2 (4%)	3 (6%)	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	6 (12%)	6 (12%)	8 (16%)	1 (2%)	
Vacuolization Cytoplasmic		1 (2%)			
Islets, Pancreatic	(50)	(50)	(49)	(50)	
Hyperplasia				1 (2%)	
Parathyroid Gland	(36)	(29)	(30)	(34)	
Pituitary Gland	(50)	(50)	(50)	(50)	
Pars Distalis, Angiectasis		2 (4%)		1 (2%)	
Pars Distalis, Hyperplasia	12 (24%)	4 (8%)	5 (10%)	6 (12%)	
Thyroid Gland	(50)	(50)	(49)	(49)	
Follicular Cell, Hyperplasia		2 (4%)	1 (2%)		

### **GENITAL SYSTEM**

None

Clitoral Gland	(48)	(46)	(49)	(48)
Ovary	(50)	(50)	(50)	(50)
Angiectasis		, ,	1 (2%)	
Cyst	8 (16%)	8 (16%)	7 (14%)	4 (8%)
Hemorrhage			1 (2%)	

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

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

Test Type: CHRONIC

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

p-Chloro-a,a,a-trifluorotoluene

**CAS Number:** 98-56-6

Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm
Inflammation, Chronic Active			1 (2%)	
Thrombosis		1 (2%)	,	
Oviduct	(1)	(0)	(0)	(0)
Uterus	(50)	(50)	(50)	(50)
Angiectasis	( )	2 (4%)	,	,
Hyperplasia, Reticulum Cell		,		1 (2%)
Inflammation, Chronic Active			1 (2%)	,
Neovascularization			1 (2%)	
Endometrium, Hyperplasia, Cystic	47 (94%)	48 (96%)	46 (92%)	45 (90%)
Serosa, Cyst	, ,	1 (2%)	,	,
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Atrophy	1 (2%)	1 (2%)		
Hyperplasia	2 (4%)	2 (4%)	1 (2%)	3 (6%)
Necrosis	1 (2%)		1 (2%)	
Lymph Node	(2)	(3)	(4)	(7)
Iliac, Angiectasis				2 (29%)
Iliac, Ectasia		1 (33%)		1 (14%)
Lumbar, Ectasia			1 (25%)	
Renal, Angiectasis		1 (33%)		
Renal, Ectasia				2 (29%)
Lymph Node, Bronchial	(48)	(48)	(50)	(49)
Hyperplasia			1 (2%)	
Hyperplasia, Lymphoid				1 (2%)
Inflammation				1 (2%)
Lymph Node, Mandibular	(47)	(42)	(49)	(46)
Hyperplasia, Lymphoid	2 (4%)		2 (4%)	2 (4%)
Lymph Node, Mediastinal	(48)	(49)	(49)	(47)
Angiectasis			1 (2%)	
Hyperplasia, Lymphoid		1 (2%)	1 (2%)	1 (2%)
Infiltration Cellular	1 (2%)			
Pigmentation, Hemosiderin			1 (2%)	
Lymph Node, Mesenteric	(50)	(49)	(49)	(50)

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

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm	
Angiectasis		2 (4%)	1 (2%)		
Ectasia	1 (2%)				
Erythrophagocytosis				1 (2%)	
Hyperplasia, Lymphoid	3 (6%)	1 (2%)	2 (4%)	2 (4%)	
Spleen	(50)	(50)	(50)	(50)	
Hematopoietic Cell Proliferation	14 (28%)	12 (24%)	13 (26%)	16 (32%)	
Lymphoid Follicle, Hyperplasia	17 (34%)	18 (36%)	15 (30%)	19 (38%)	
Red Pulp, Hyperplasia, Mast Cell				1 (2%)	
Thymus	(50)	(50)	(50)	(50)	
Atrophy	10 (20%)	9 (18%)	11 (22%)	13 (26%)	
Ectopic Parathyroid Gland	20 (40%)	13 (26%)	13 (26%)	18 (36%)	
Hyperplasia, Lymphoid	1 (2%)	2 (4%)	1 (2%)	1 (2%)	
INTEGUMENTARY SYSTEM	,				
Mammary Gland	(49)	(50)	(50)	(50)	
Hyperplasia	5 (10%)	7 (14%)	2 (4%)	1 (2%)	
Inflammation	1 (2%)				
Skin	(50)	(50)	(50)	(50)	
Dysplasia		1 (2%)			
Inflammation	2 (4%)	1 (2%)	2 (4%)	2 (4%)	
Ulcer	1 (2%)				
Epidermis, Hyperplasia	1 (2%)				
Eyelid, Sebaceous Gland, Hyperplasia			1 (2%)		
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibro-Osseous Lesion	13 (26%)	15 (30%)	6 (12%)	10 (20%)	
Vertebra, Fracture	- ( /	- (/	1 (2%)	- ()	
Skeletal Muscle	(4)	(3)	(1)	(3)	
Degeneration	( -/	1 (33%)	V - /	1 (33%)	

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

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

Test Type: CHRONIC

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

p-Chloro-a,a,a-trifluorotoluene **CAS Number:** 98-56-6

Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	, ,	3 (6%)	, ,	, ,
Degeneration		1 (2%)	1 (2%)	1 (2%)
Gliosis		1 (2%)		
Inflammation		1 (2%)	2 (4%)	
Peripheral Nerve	(1)	(2)	(1)	(2)
Degeneration		1 (50%)	1 (100%)	2 (100%)
Spinal Cord	(1)	(2)	(1)	(2)
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(49)	(50)
Inflammation, Suppurative		1 (2%)		
Squamous Epithelium, Hyperplasia	9 (18%)	9 (18%)	5 (10%)	5 (10%)
Squamous Epithelium, Inflammation	1 (2%)	4 (8%)	1 (2%)	2 (4%)
Squamous Epithelium, Ulcer	•	2 (4%)		
Lung	(50)	(50)	(50)	(50)
Hemorrhage		3 (6%)		1 (2%)
Hyperplasia, Lymphoid		1 (2%)	1 (2%)	
Inflammation	2 (4%)	1 (2%)	1 (2%)	3 (6%)
Pigmentation	•	•		1 (2%)
Thrombosis		3 (6%)	2 (4%)	1 (2%)
Alveolar/bronchiolar Epithelium, Hyperplasia		49 (98%)	49 (98%)	50 (100%)
Alveolar Epithelium, Hyperplasia		2 (4%)	2 (4%)	
Alveolus, Infiltration Cellular, Histiocyte		3 (6%)	3 (6%)	2 (4%)
Peribronchiolar, Fibrosis		44 (88%)	44 (88%)	48 (96%)
Nose	(50)	(50)	(50)	(50)
Hemorrhage		1 (2%)		
Inflammation, Suppurative	5 (10%)	5 (10%)	5 (10%)	6 (12%)
Pigmentation, Hemosiderin			1 (2%)	
Ulcer		1 (2%)		
Olfactory Epithelium, Accumulation, Hyaline Droplet	15 (30%)	14 (28%)	14 (28%)	8 (16%)

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Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Date Report Requested: 03/25/2016 Time Report Requested: 09:19:23 First Dose M/F: 01/31/11 / 01/31/11

Lab: BNW

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm
Respiratory Epithelium, Accumulation, Hyaline Droplet	21 (42%)	26 (52%)	24 (48%)	25 (50%)
Respiratory Epithelium, Atrophy		1 (2%)		
Respiratory Epithelium, Metaplasia, Squamous	1 (2%)	1 (2%)	1 (2%)	5 (10%)
Pleura	(0)	(0)	(0)	(2)
Inflammation	• •	, ,		2 (100%)
Trachea	(50)	(50)	(50)	(49)
SPECIAL SENSES SYSTEM				
Ear	(1)	(0)	(0)	(0)
Eye	(50)	(50)	(50)	(50)
Atrophy			1 (2%)	1 (2%)
Cataract	1 (2%)		2 (4%)	1 (2%)
Inflammation		1 (2%)	2 (4%)	2 (4%)
Cornea, Hyperplasia				1 (2%)
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia	2 (4%)	1 (2%)		2 (4%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Amyloid Deposition		1 (2%)		
Infarct	7 (14%)	4 (8%)	5 (10%)	4 (8%)
Inflammation, Suppurative				1 (2%)
Metaplasia, Osseous	1 (2%)			2 (4%)
Necrosis			1 (2%)	
Nephropathy	17 (34%)	17 (34%)	15 (30%)	19 (38%)
Pigmentation			1 (2%)	
Urinary Bladder	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid				1 (2%)

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

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