Experiment Number: 10472 - 04

Species/Strain: MICE/B6C3F1

Test Type: CHRONIC

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/25/2016

AVERAGE SEVERITY GRADES[b]

p-Chloro-a,a,a-trifluorotoluene

CAS Number: 98-56-6

Time Report Requested: 09:19:23

First Dose M/F: 01/31/11 / 01/31/11

Lab: BNW

F1 Revision1_M3

NTP Study Number: C10472B

08/29/2013 Lock Date:

ALL Cage Range:

Route: RESPIRATORY EXPOSURE WHOLE BODY

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Include ALL **Treatment Groups:**

Study Gender: Both

TDMSE Version: 3.0.2.3_002

PWG Approval Date: 02/01/2016

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

Lab: BNW

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Test Type: CHRONIC

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm
Disposition Summary				
Animals Initially In Study Early Deaths	50	50	50	50
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	,	1 [2.0]	,	, ,
Epithelium, Vacuolization Cytoplasmic		1 [1.0]	1 [2.0]	
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Inflammation	,	2 [1.0]	,	, ,
Intestine Large, Colon	(50)	(50)	(50)	(50)
Intestine Large, Rectum	(50)	(50)	(50)	(49)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Inflammation	, ,	, ,	, ,	1 [3.0]
Necrosis			1 [3.0]	
Thrombosis			1 [1.0]	1 [2.0]
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Perforation	1			•
Peyer's Patch, Hyperplasia			1 [2.0]	1 [1.0]
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Perforation	1			•
Peyer's Patch, Hyperplasia	1 [4.0]			1 [1.0]
Liver	(50)	(50)	(50)	(50)
Basophilic Focus	4	10	10	1
Clear Cell Focus	15	16	23	15
Cyst		1		
Eosinophilic Focus	11	14	18	21
Fatty Change			1 [1.0]	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Time Report Requested: 09:19:23

First Dose M/F: 01/31/11 / 01/31/11

Lab: BNW

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

Experiment Number: 10472 - 04

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
Fibrosis			1 [2.0]		
Hepatodiaphragmatic Nodule			1		
Inflammation	3 [1.0]	1 [1.0]			
Intrahepatocellular Erythrocytes		1 [1.0]	6 [1.0]	15 [1.3]	
Mixed Cell Focus	15	15	13	11	
Pigmentation		1 [2.0]			
Regeneration	2 [1.0]				
Centrilobular, Hepatocyte, Hypertrophy		8 [1.0]	19 [1.1]	49 [1.5]	
Hepatocyte, Multinucleated	2 [1.0]	8 [1.0]	19 [1.1]	49 [1.4]	
Hepatocyte, Necrosis	3 [1.0]	4 [2.5]	3 [2.0]	15 [1.5]	
Mesentery	(6)	(5)	(2)	(5)	
Angiectasis		1 [1.0]			
Thrombosis		1 [1.0]			
Fat, Necrosis	4 [1.5]	2 [1.0]	1 [1.0]	4 [1.5]	
Pancreas	(50)	(50)	(50)	(50)	
Inflammation	2 [1.0]				
Acinus, Atrophy	1 [2.0]		2 [2.0]	3 [1.3]	
Acinus, Hypertrophy		1 [1.0]			
Duct, Cyst			1 [3.0]		
Salivary Glands	(50)	(50)	(50)	(49)	
Atrophy	, ,	1 [2.0]	, ,	,	
Inflammation		1 [2.0]			
Stomach, Forestomach	(50)	(50)	(50)	(48)	
Inflammation	4 [1.0]	12 [1.2]	7 [1.3]	12 [1.4]	
Mineralization	2 [1.0]		1 [1.0]	1 [1.0]	
Epithelium, Cyst, Squamous				1	
Epithelium, Hyperplasia	5 [1.0]	9 [1.6]	9 [1.7]	10 [2.2]	
Epithelium, Ulcer	2 [1.0]	1 [2.0]	2 [2.0]	1 [2.0]	
Stomach, Glandular	(50)	(50)	(49)	(49)	
Hyperplasia				1 [2.0]	
Inflammation	1 [1.0]		1 [1.0]	2 [1.5]	
Mineralization		1 [1.0]	- ·	2 [1.0]	
Tongue	(1)	(0)	(0)	(0)	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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

Lab: BNW

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
CARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Inflammation	,	,	2 [2.0]	,	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	10 [1.0]	14 [1.1]	13 [1.2]	11 [1.5]	
Inflammation	1 [1.0]	1 [1.0]	3 [1.7]		
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Angiectasis	,	,	1 [1.0]	,	
Hyperplasia	2 [1.5]	1 [1.0]	1 [1.0]	1 [1.0]	
Hypertrophy	20 [1.3]	34 [1.1]	24 [1.2]	17 [1.1]	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	1 [1.0]	1 [2.0]		1 [1.0]	
Islets, Pancreatic	(50)	(49)	(50)	(50)	
Hyperplasia	4 [1.3]	1 [1.0]	5 [1.2]	, ,	
Necrosis	1 [1.0]				
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 [1.0]	4 [1.0]	(/	2 [1.5]	
Granuloma Sperm	2 [1.5]	2 [1.0]	1 [2.0]	2 [2.0]	
Penis	(0)	(0)	(1)	(0)	
Congestion	(-)	\ - /	1 [1.0]	· ,	
0			. []		

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Experiment Number: 10472 - 04

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Lab: BNW

Route:	RESPIRATORY	/ FXPOSURF	WHO! F	BODY

Species/Strain: MICE/B6C3F1

Test Type: CHRONIC

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
Preputial Gland	(50)	(50)	(49)	(50)	
Ectasia	2 [1.5]	5 [1.6]	6 [1.7]	4 [2.0]	
Inflammation	2 [1.5]	1 [1.0]	2 [2.0]		
Prostate	(50)	(50)	(50)	(50)	
Inflammation	1 [1.0]		1 [2.0]	1 [3.0]	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Dilatation	,	1 [1.0]	2 [2.0]	,	
Inflammation			2 [1.0]	1 [1.0]	
Testes	(50)	(50)	(50)	(50)	
Germinal Epithelium, Degeneration	7 [1.3]	10 [1.4]	10 [1.2]	8 [1.4]	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Atrophy		1 [2.0]	1 [3.0]		
Fibrosis			1 [2.0]		
Hyperplasia	24 [1.0]	26 [1.0]	27 [1.0]	27 [1.0]	
Necrosis				1 [3.0]	
Lymph Node	(4)	(0)	(3)	(4)	
Pancreatic, Angiectasis				1 [1.0]	
Lymph Node, Bronchial	(49)	(47)	(47)	(48)	
Ectasia				1 [2.0]	
Hyperplasia, Lymphoid	1 [3.0]		1 [2.0]		
Lymph Node, Mandibular	(36)	(41)	(43)	(45)	
Hyperplasia, Lymphoid	2 [2.0]	1 [2.0]	, ,	, ,	
Lymph Node, Mediastinal	(46)	(47)	(44)	(42)	
Necrosis, Fatty	()	1 [1.0]	,	,	
Lymph Node, Mesenteric	(49)	(50)	(49)	(49)	
Angiectasis	1 [2.0]	(/	(- /	1 [1.0]	
Ectasia	1 [3.0]			1	
Hematopoietic Cell Proliferation	. []	2 [1.0]	1 [1.0]		
Hyperplasia, Lymphoid	3 [1.7]	2 [1.5]	. [110]	1 [1.0]	
Infiltration Cellular, Histiocyte	Ç[1.1]	-[1.0]	2 [1.5]	. []	
Inflammation			2 [1.0]	1 [1.0]	
Spleen	(50)	(50)	(50)	(50)	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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

Lab: BNW

Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
Angiectasis			1 [1.0]		
Hematopoietic Cell Proliferation	17 [1.5]	16 [1.4]	10 [1.7]	18 [1.9]	
Lymphoid Follicle, Hyperplasia	8 [1.0]	4 [1.0]	6 [1.0]	4 [1.0]	
Red Pulp, Infiltration Cellular, Mast Cell	0 [0]	. [•]	1 [1.0]	. []	
Thymus	(48)	(48)	(48)	(48)	
Atrophy	21 [1.5]	20 [1.8]	15 [1.8]	22 [2.0]	
Ectopic Parathyroid Gland	12	9	15	9	
NTEGUMENTARY SYSTEM					
Mammary Gland	(2)	(1)	(3)	(1)	
Skin	(50)	(50)	(50)	(50)	
Inflammation	1 [1.0]	2 [1.0]	1 [3.0]	3 [3.0]	
Ulcer			1 [2.0]	3 [3.0]	
Epidermis, Hyperplasia	1 [2.0]				
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibro-Osseous Lesion	2 [1.0]		2 [2.0]	2 [1.0]	
Skeletal Muscle	(2)	(1)	(1)	(2)	
Degeneration			1 [1.0]		
Inflammation			1 [1.0]		
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Degeneration			2 [1.0]		
Gliosis			1 [1.0]		
Inflammation	1 [2.0]		2 [1.5]		
Peripheral Nerve	(0)	(0)	(1)	(0)	
Degeneration			1 [1.0]		
Spinal Cord	(0)	(0)	(1)	(0)	
Inflammation			1 [1.0]	• •	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 Time Report Requested: 09:19:23

First Dose M/F: 01/31/11 / 01/31/11

Lab: BNW

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
RESPIRATORY SYSTEM					
Larynx	(50)	(50)	(50)	(50)	
Epiglottis, Inflammation			1 [1.0]		
Squamous Epithelium, Hyperplasia	3 [1.0]	4 [1.0]	6 [1.2]	11 [1.1]	
Squamous Epithelium, Inflammation		1 [1.0]	3 [1.0]	2 [1.5]	
Squamous Epithelium, Necrosis				1 [1.0]	
Squamous Epithelium, Ulcer			1 [1.0]	2 [1.5]	
Lung	(50)	(50)	(50)	(50)	
Hemorrhage	2 [1.0]		1 [1.0]		
Hyperplasia, Lymphoid			1 [2.0]		
Inflammation		2 [1.0]		2 [1.0]	
Metaplasia, Osseous			1 [1.0]		
Pigmentation, Hemosiderin	1 [3.0]				
Thrombosis		2 [1.0]	1 [1.0]	1 [1.0]	
Alveolar/bronchiolar Epithelium, Hyperplasia		49 [1.8]	50 [2.4]	48 [2.8]	
Alveolar Epithelium, Hyperplasia	2 [1.0]	1 [1.0]	1 [1.0]	3 [1.7]	
Alveolus, Infiltration Cellular, Histiocyte	2 [2.5]	2 [1.0]	3 [1.3]	3 [1.0]	
Bronchiole, Epithelium, Hyperplasia	2 [1.0]				
Peribronchiolar, Fibrosis		45 [1.0]	47 [1.0]	44 [1.0]	
Pleura, Inflammation	1 [1.0]				
Nose	(50)	(50)	(50)	(50)	
Inflammation, Suppurative	1 [1.0]	3 [1.0]	5 [1.0]	4 [2.5]	
Necrosis				1 [4.0]	
Polyp, Inflammatory			1 [4.0]		
Olfactory Epithelium, Accumulation, Hyaline Droplet	11 [1.1]	9 [1.0]	7 [1.0]	13 [1.0]	
Olfactory Epithelium, Atrophy			1 [2.0]		
Olfactory Epithelium, Hyperplasia			1 [1.0]		
Olfactory Epithelium, Mineralization		1 [1.0]			
Respiratory Epithelium, Accumulation, Hyaline Droplet	9 [1.1]	8 [1.0]	3 [1.0]	12 [1.0]	
Respiratory Epithelium, Metaplasia, Squamous		1 [1.0]	2 [1.0]	1 [2.0]	
Turbinate, Atrophy				1 [2.0]	
Trachea	(50)	(50)	(50)	(50)	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Experiment Number: 10472 - 04

Test Type: CHRONIC

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 03/25/2016 AVERAGE SEVERITY GRADES[b]

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

Lab: BNW

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

B6C3F1 MICE MALE	Control	100 ppm	200 ppm	400 ppm	
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(50)	
Atrophy	, ,	1 [2.0]	, ,	2 [4.0]	
Cataract	1 [2.0]	1 [3.0]	1 [3.0]	1 [2.0]	
Inflammation		3 [1.7]	1 [3.0]	1 [1.0]	
Cornea, Hyperplasia	2 [1.0]				
Retina, Pigmentation, Melanin				1 [2.0]	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia	1 [2.0]	5 [2.0]	1 [1.0]	1 [3.0]	
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	, ,	1	1	2	
Infarct	6 [1.2]	4 [1.8]	6 [1.0]	4 [1.0]	
Metaplasia, Osseous	1 [1.0]	1 [1.0]	1 [1.0]	1 [1.0]	
Nephropathy	43 [1.5]	41 [1.5]	38 [1.5]	41 [1.6]	
Pigmentation		1 [1.0]		4 [1.8]	
Pelvis, Dilatation				1 [2.0]	
Urethra	(0)	(0)	(0)	(1)	
Urinary Bladder	(50)	(50)	(50)	(50)	
Inflammation				1 [2.0]	

^{***} END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 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	
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 [2.0]	1 [2.0]	
Epithelium, Hyperplasia	1 [3.0]				
Intestine Large, Colon	(50)	(50)	(50)	(50)	
Intestine Large, Rectum	(48)	(50)	(48)	(50)	
Intestine Small, Duodenum	(50)	(50)	(50)	(50)	
Inflammation				1 [2.0]	
Intestine Small, Ileum	(50)	(50)	(50)	(50)	
Intestine Small, Jejunum	(50)	(50)	(50)	(50)	
Inflammation			1 [2.0]		
Liver	(50)	(50)	(50)	(50)	
Angiectasis		1 [1.0]			
Basophilic Focus	1	4	6	1	
Clear Cell Focus	3	3	5	5	
Cyst			1 [1.0]		
Eosinophilic Focus	4	8	24	31	
Fatty Change			1 [2.0]		
F1 .		4 [0 0]	4 [0 0]		

1 [1.0]

10

Experiment Number: 10472 - 04

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

Test Type: CHRONIC

Fibrosis

Inflammation
Mixed Cell Focus

1 [2.0]

2 [1.0]

6

5

1 [2.0]

5

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 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	
Bile Duct, Hyperplasia		1 [1.0]			
Capsule, Inflammation, Suppurative			1 [3.0]		
Centrilobular, Hepatocyte, Hypertrophy		4 [1.0]	5 [1.2]	40 [1.2]	
Hepatocyte, Multinucleated		2 [1.0]	2 [1.0]	25 [1.0]	
Hepatocyte, Necrosis	2 [2.0]	1 [1.0]	3 [1.7]	10 [1.3]	
Mesentery	(9)	(13)	(15)	(12)	
Fat, Necrosis	8 [1.8]	9 [1.6]	15 [1.6]	12 [1.7]	
Pancreas	(50)	(50)	(50)	(50)	
Acinus, Atrophy	1 [1.0]	1 [1.0]	4 [1.5]	2 [1.5]	
Acinus, Hypertrophy		2 [1.0]	• •	1 [1.0]	
Duct, Cyst			2 [2.5]		
Salivary Glands	(50)	(50)	(50)	(50)	
Infiltration Cellular, Mononuclear Cell	()	()	()	1 [2.0]	
Duct, Hyperplasia		1 [1.0]		,	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Angiectasis	()	()	1 [1.0]	()	
Inflammation	3 [1.0]	5 [1.0]	5 [1.2]	9 [1.2]	
Mineralization	- []	- []	1 [1.0]	2 [=]	
Epithelium, Hyperplasia	1 [1.0]	3 [1.7]	5 [1.0]	14 [1.1]	
Epithelium, Ulcer	. [•]	1 [1.0]	0[0]	2 [1.5]	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Hyperplasia, Mast Cell	(00)	(00)	(00)	1 [1.0]	
Inflammation		1 [1.0]		. []	
Tongue	(0)	(0)	(0)	(1)	
CARDIOVASCULAR SYSTEM					
Blood Vessel	(50)	(50)	(50)	(50)	
Inflammation	2 [2.0]	2 [1.0]	2 [2.0]	2 [1.5]	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	14 [1.1]	13 [1.2]	8 [1.0]	12 [1.3]	
Inflammation	2 [2.5]	3 [2.0]	5 [2.0]	5 [2.2]	
Necrosis	r -1	1 [1.0]	1 [2.0]	2 [3.0]	
T		. []	. []	- []	

Experiment Number: 10472 - 04

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

Test Type: CHRONIC

Thrombosis

Endocardium, Fibrosis

2 [2.5]

1 [1.0]

2 [4.0]

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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

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

Lab: BNW

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Experiment Number: 10472 - 04

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm	
Valve, Angiectasis				1 [1.0]	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Angiectasis			1 [1.0]		
Cyst			1		
Degeneration	2 [1.0]			1 [1.0]	
Hyperplasia	1 [2.0]	1 [2.0]		1 [1.0]	
Hypertrophy	12 [1.0]	12 [1.3]	10 [1.0]	16 [1.4]	
Vacuolization Cytoplasmic	2 [1.0]	2 [1.5]	2 [2.5]	3 [1.0]	
Adrenal Medulla	(50)	(50)	(50)	(50)	
Hyperplasia	6 [1.2]	6 [1.0]	8 [1.0]	1 [1.0]	
Vacuolization Cytoplasmic		1 [3.0]			
Islets, Pancreatic	(50)	(50)	(49)	(50)	
Hyperplasia				1 [1.0]	
Parathyroid Gland	(36)	(29)	(30)	(34)	
Pituitary Gland	(50)	(50)	(50)	(50)	
Pars Distalis, Angiectasis	• •	2 [1.0]	` ,	1 [1.0]	
Pars Distalis, Hyperplasia	12 [1.2]	4 [1.3]	5 [1.0]	6 [1.2]	
Thyroid Gland	(50)	(50)	(49)	(49)	
Follicular Cell, Hyperplasia	• •	2 [2.0]	1 [1.0]	, ,	

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(48)	(46)	(49)	(48)
Ovary	(50)	(50)	(50)	(50)
Angiectasis	, ,	, ,	1 [2.0]	, ,
Cyst	8 [1.6]	8 [1.6]	7 [1.6]	4 [1.5]
Hemorrhage			1 [4.0]	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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

Lab: BNW

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

Test Type: CHRONIC

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm
Inflammation, Chronic Active			1 [4.0]	
Thrombosis		1 [2.0]	1	
Oviduct	(1)	(0)	(0)	(0)
Uterus	(50)	(50)	(50)	(50)
Angiectasis	()	2 [1.0]	,	\ /
Hyperplasia, Reticulum Cell				1 [2.0]
Inflammation, Chronic Active			1 [2.0]	
Neovascularization			1 [3.0]	
Endometrium, Hyperplasia, Cystic	47 [2.3]	48 [2.1]	46 [2.5]	45 [2.6]
Serosa, Cyst		1 [2.0]		
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Atrophy	1 [1.0]	1 [1.0]		
Hyperplasia	2 [1.0]	2 [1.0]	1 [1.0]	3 [1.0]
Necrosis	1 [1.0]		1 [1.0]	
Lymph Node	(2)	(3)	(4)	(7)
Iliac, Angiectasis				2 [2.0]
Iliac, Ectasia		1 [2.0]		1 [2.0]
Lumbar, Ectasia			1 [3.0]	
Renal, Angiectasis		1 [2.0]		
Renal, Ectasia				2 [2.0]
Lymph Node, Bronchial	(48)	(48)	(50)	(49)
Hyperplasia			1 [1.0]	
Hyperplasia, Lymphoid				1 [1.0]
Inflammation				1 [2.0]
Lymph Node, Mandibular	(47)	(42)	(49)	(46)
Hyperplasia, Lymphoid	2 [1.5]		2 [2.0]	2 [1.0]
Lymph Node, Mediastinal	(48)	(49)	(49)	(47)
Angiectasis			1 [1.0]	
Hyperplasia, Lymphoid		1 [2.0]	1 [3.0]	1 [1.0]
Infiltration Cellular	1 [2.0]			
Pigmentation, Hemosiderin			1 [1.0]	
Lymph Node, Mesenteric	(50)	(49)	(49)	(50)

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p-Chloro-a,a,a-trifluorotoluene CAS Number: 98-56-6 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	
Angiectasis		2 [1.0]	1 [1.0]		
Ectasia	1 [2.0]				
Erythrophagocytosis				1 [3.0]	
Hyperplasia, Lymphoid	3 [2.3]	1 [2.0]	2 [2.0]	2 [1.5]	
Spleen	(50)	(50)	(50)	(50)	
Hematopoietic Cell Proliferation	14 [1.9]	12 [1.4]	13 [2.2]	16 [1.8]	
Lymphoid Follicle, Hyperplasia	17 [1.4]	18 [1.8]	15 [1.6]	19 [1.4]	
Red Pulp, Hyperplasia, Mast Cell				1 [2.0]	
Thymus	(50)	(50)	(50)	(50)	
Atrophy	10 [1.5]	9 [1.9]	11 [2.1]	13 [1.9]	
Ectopic Parathyroid Gland	20	13	13	18	
Hyperplasia, Lymphoid	1 [1.0]	2 [2.0]	1 [2.0]	1 [2.0]	
INTEGUMENTARY SYSTEM					
Mammary Gland	(49)	(50)	(50)	(50)	
Hyperplasia	5 [1.2]	7 [1.1]	2 [1.0]	1 [1.0]	
Inflammation	1 [1.0]				
Skin	(50)	(50)	(50)	(50)	
Dysplasia		1 [2.0]			
Inflammation	2 [3.0]	1 [2.0]	2 [1.0]	2 [3.0]	
Ulcer	1 [2.0]				
Epidermis, Hyperplasia	1 [3.0]				
Eyelid, Sebaceous Gland, Hyperplasia			1 [2.0]		
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibro-Osseous Lesion	13 [1.4]	15 [1.3]	6 [1.5]	10 [1.3]	
Vertebra, Fracture	- 1 1	- 1 -1	1 [3.0]	- 1 - 1	
Skeletal Muscle	(4)	(3)	(1)	(3)	
Degeneration	()	1 [1.0]	` '	1 [1.0]	

Experiment Number: 10472 - 04

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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

Lab: BNW

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

Experiment Number: 10472 - 04

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm	
NERVOUS SYSTEM					
NEIX VOOS STSTEW					
Brain	(50)	(50)	(50)	(50)	
Compression		3 [1.7]			
Degeneration		1 [1.0]	1 [1.0]	1 [1.0]	
Gliosis		1 [1.0]			
Inflammation		1 [1.0]	2 [1.5]		
Peripheral Nerve	(1)	(2)	(1)	(2)	
Degeneration	. ,	1 [1.0]	1 [1.0]	2 [1.0]	
Spinal Cord	(1)	(2)	(1)	(2)	
RESPIRATORY SYSTEM					
Larynx	(50)	(50)	(49)	(50)	
Inflammation, Suppurative		1 [1.0]			
Squamous Epithelium, Hyperplasia	9 [1.0]	9 [1.2]	5 [1.2]	5 [1.0]	
Squamous Epithelium, Inflammation	1 [1.0]	4 [1.0]	1 [1.0]	2 [1.0]	
Squamous Epithelium, Ulcer		2 [1.5]			
Lung	(50)	(50)	(50)	(50)	
Hemorrhage	()	3 [1.7]	()	1 [3.0]	
Hyperplasia, Lymphoid		1 [2.0]	1 [2.0]	. []	
Inflammation	2 [1.0]	1 [1.0]	1 [2.0]	3 [1.7]	
Pigmentation	-[]	. []	. []	1 [1.0]	
Thrombosis		3 [1.0]	2 [1.0]	1 [1.0]	
Alveolar/bronchiolar Epithelium, Hyperplasia		49 [2.1]	49 [2.3]	50 [2.9]	
Alveolar Epithelium, Hyperplasia		2 [2.5]	2 [1.0]	55 [=:5]	
Alveolus, Infiltration Cellular, Histiocyte		3 [2.7]	3 [1.3]	2 [2.0]	
Peribronchiolar, Fibrosis		44 [1.0]	44 [1.0]	48 [1.0]	
Nose	(50)	(50)	(50)	(50)	
Hemorrhage	(00)	1 [1.0]	(00)	(00)	
Inflammation, Suppurative	5 [1.0]	5 [1.2]	5 [1.0]	6 [1.0]	
Pigmentation, Hemosiderin	J [1.0]	J [1.2]	1 [1.0]	0 [1.0]	
Ulcer		1 [1.0]	1 [1.0]		
Olfactory Epithelium, Accumulation, Hyaline	15 [1 2]		14 [1 1]	0 [1 0]	
Droplet	15 [1.3]	14 [1.0]	14 [1.1]	8 [1.0]	

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Lab: BNW

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

Experiment Number: 10472 - 04

Test Type: CHRONIC

B6C3F1 MICE FEMALE	Control	100 ppm	200 ppm	400 ppm
Respiratory Epithelium, Accumulation, Hyaline Droplet	21 [1.1]	26 [1.1]	24 [1.2]	25 [1.0]
Respiratory Epithelium, Atrophy		1 [1.0]		
Respiratory Epithelium, Metaplasia, Squamous	1 [1.0]	1 [1.0]	1 [1.0]	5 [1.0]
Pleura	(0)	(0)	(0)	(2)
Inflammation	` ,	,	, ,	2 [2.0]
Trachea	(50)	(50)	(50)	(49)
SPECIAL SENSES SYSTEM				
Ear	(1)	(0)	(0)	(0)
Eye	(50)	(50)	(50)	(50)
Atrophy			1 [4.0]	1 [2.0]
Cataract	1 [2.0]		2 [2.5]	1 [3.0]
Inflammation		1 [1.0]	2 [3.0]	2 [1.5]
Cornea, Hyperplasia				1 [1.0]
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia	2 [2.5]	1 [1.0]		2 [2.0]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Amyloid Deposition		1 [4.0]		
Infarct	7 [1.3]	4 [1.5]	5 [1.4]	4 [1.5]
Inflammation, Suppurative				1 [2.0]
Metaplasia, Osseous	1 [1.0]			2 [1.0]
Necrosis			1 [1.0]	
Nephropathy	17 [1.2]	17 [1.4]	15 [1.4]	19 [1.1]
Pigmentation			1 [2.0]	
Urinary Bladder	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid				1 [2.0]

*** END OF REPORT ***

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