

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Final 1 Mice

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

C Number: C88006B

Lock Date: 03/08/2004

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

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	DAY ON TEST	7	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	5	7	7	7	7	5	4	7	7
		3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	2	5	5	1	2
		0	0	0	0	9	0	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9
B6C3F1 MICE MALE CONTROL	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males
(cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gallbladder	+	+	M	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	A	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	A	+
Intestine Small, Ileum	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	A	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	A
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hepatocellular Adenoma, Multiple		X	X								X						X	X	X						
Hepatocellular Carcinoma, Multiple								X																	
Hepatocellular Adenoma									X					X							X		X		X
Ito Cell Tumor Malignant																						X			
Hepatocellular Carcinoma																							X		
Hemangiosarcoma																								X	X

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

B6C3F1 MICE MALE CONTROL	DAY ON TEST	7 3 0	7 3 0	7 3 0	7 3 0	7 2 9	7 3 0	7 3 0	6 9 0	7 3 0	7 3 0	7 2 9	7 2 9	6 8 4	7 2 9	7 3 1	7 2 9	5 7 9	7 3 0	7 2 9	7 3 0	7 2 9	5 5 5	4 5 6	7 1 5	7 2 9	males (cont...)	
	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 2	0 0 0 0 2	0 0 0 0 2	0 0 0 0 2	0 0 0 0 2	0 0 0 0 2		
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		

Mesentery	+ +																									
Pancreas	+ +																									
Salivary Glands	+ +																									
Stomach, Forestomach	+ +																									
Stomach, Glandular	+ +																									

CARDIOVASCULAR SYSTEM

Heart	+ +																									
Hemangiosarcoma	X																									

ENDOCRINE SYSTEM

Adrenal Cortex	+ +																									
Adrenal Medulla	+ +																									
Islets, Pancreatic Carcinoma	+ X																									

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		DAY ON TEST																											
		7 3 0	7 3 0	7 3 0	7 3 0	7 2 9	7 3 0	7 3 0	6 9 0	7 3 0	7 3 0	7 2 9	7 2 9	6 8 4	7 2 9	7 3 1	7 2 9	5 7 9	7 3 0	7 2 9	7 3 0	7 2 9	5 5 5	4 5 6	7 1 5	7 2 9			
																													
B6C3F1 MICE MALE		ANIMAL ID																											
CONTROL		0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	males (cont...)	
Parathyroid Gland		+	+	M	+	+	+	+	+	+	+	+	M	+	+	+	M	+	M	+	M	M	+	+	+	+			
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Pars Intermedia, Adenoma																													
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Follicular Cell, Adenoma			X		X																								
GENERAL BODY SYSTEM																													
NONE																													
GENITAL SYSTEM																													
.....																													
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
.....																													
Penis																													
.....																													
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
.....																													
Prostate		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
.....																													
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
.....																													
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Penis																										
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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		3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	2	5	5	1	2
		0	0	0	0	9	0	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
		males (cont...)																								

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Bronchial	+	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+
Lymph Node, Mandibular	+	+	+	M	+	M	M	M	M	M	+	+	M	+	M	+	+	M	+	M	+	M	+	M	M
Lymph Node, Mediastinal	M	M	+	+	M	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemangiosarcoma																									X
Thymus	+	+	+	+	+	+	+	M	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	M	+

INTEGUMENTARY SYSTEM

Mammary Gland	M	M	M	M	M	M	M	M	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Subcutaneous Tissue, Hemangiosarcoma																									X

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		3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	2	5	5	1	2
		0	0	0	0	9	0	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9
B6C3F1 MICE MALE CONTROL	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males
(cont...)

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
--------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Alveolar/Bronchiolar Adenoma	X	X							X					X					X				X		
------------------------------	---	---	--	--	--	--	--	--	---	--	--	--	--	---	--	--	--	--	---	--	--	--	---	--	--

Hepatocellular Carcinoma, Metastatic, Liver									X																
---	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Alveolar/Bronchiolar Carcinoma																		X				X			X
--------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	---	--	--	---

Hemangiosarcoma																								X	
-----------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	--

Alveolar/Bronchiolar Adenoma, Multiple																									
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
---------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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		3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	2	5	5	1	2
		0	0	0	0	9	0	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
		males (cont...)																								

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenoma				X			X				X	X	X	X											
Carcinoma																							X		

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

SYSTEMIC LESIONS

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 5 9		
Parathyroid Gland		M	+	M	+	M	+	+	+	+	+	+	I	M	+	+	+	M	M	I	+	+	+	M	+	+	35
Pituitary Gland		I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Pars Intermedia, Adenoma																X											1
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Follicular Cell, Adenoma																								X			3
GENERAL BODY SYSTEM																											
NONE																											
GENITAL SYSTEM																											
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Penis																				+							1
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Prostate		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A		49
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Penis																											1
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A		49
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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I .. Insufficient tissue

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

B6C3F1 MICE MALE CONTROL	DAY ON TEST	7 2 9	7 3 0	7 3 1	7 2 9	7 3 1	7 3 0	6 5 9	7 2 9	6 9 4	7 2 9	5 7 0	7 2 9	7 3 0	7 3 0	7 3 0	6 8 3	7 3 0	7 2 4	7 1 0	7 3 0	4 8 6	7 3 0	7 2 9	6 3 5	5 4 9
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node, Bronchial	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	M	+	+	+	M	+	+	M	M	+	42
Lymph Node, Mandibular	M	M	+	M	M	M	M	+	+	M	+	+	+	M	M	M	+	M	M	M	M	M	M	+	+	21
Lymph Node, Mediastinal	M	+	+	+	+	+	+	+	A	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	M	41
Lymph Node, Mesenteric	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemangiosarcoma																										1
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	M	+	M	+	M	+	+	+	M	+	41

INTEGUMENTARY SYSTEM

Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	1
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Subcutaneous Tissue, Hemangiosarcoma																										1

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TDMS No. 88006 - 04

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Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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B6C3F1 MICE MALE CONTROL	DAY ON TEST	7 2 9	7 3 0	7 3 1	7 2 9	7 3 1	7 3 0	6 5 9	7 2 9	6 9 4	7 2 9	5 7 0	7 2 9	7 3 0	7 3 0	6 8 3	7 3 0	7 2 4	7 1 0	7 3 0	4 8 6	7 3 0	7 2 9	6 3 5	5 4 9
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9
	* TOTALS																								

MUSCULOSKELETAL SYSTEM

		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bone		50																								

NERVOUS SYSTEM

		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Brain		50																								

RESPIRATORY SYSTEM

		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Larynx		50																								
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar/Bronchiolar Adenoma																					X					7
Hepatocellular Carcinoma, Metastatic, Liver				X			X									X										4
Alveolar/Bronchiolar Carcinoma			X											X												5
Hemangiosarcoma																										1
Alveolar/Bronchiolar Adenoma, Multiple																		X								1
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Trachea		+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

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B6C3F1 MICE MALE CONTROL	DAY ON TEST	7 2 9	7 3 0	7 3 1	7 2 9	7 3 1	7 3 0	6 5 9	7 2 9	6 4 9	7 2 9	5 7 0	7 2 9	7 3 0	7 3 0	7 3 0	6 8 3	7 3 0	7 2 4	7 1 0	4 3 6	7 3 0	7 2 9	6 3 5	5 4 9
	ANIMAL ID	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 2 9	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2	0 0 0 3 3	0 0 0 3 4	0 0 0 3 5	0 0 0 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 7	0 0 0 4 8	0 0 0 4 9
																									* TOTALS

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	48
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma			X										X			X								X		10
Carcinoma																										1

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

SYSTEMIC LESIONS

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

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TDMS No. 88006 - 04

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Requested: 07/28/2005

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Lab: BNW

B6C3F1 MICE MALE 100 PPM	DAY ON TEST	7 2 9	2 3 6	7 3 0	3 4 8	5 3 7	7 3 0	4 8 1	7 3 1	7 1 0	7 3 0	7 3 1	7 0 4	5 5 0	6 6 0	6 1 2	7 2 9	7 2 9	7 3 0	7 2 9	4 6 4	7 3 0	4 5 3	7 2 9	7 3 1	
	ANIMAL ID	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 1 0	0 0 2 1 1	0 0 2 1 2	0 0 2 1 3	0 0 2 1 4	0 0 2 1 5	0 0 2 1 6	0 0 2 1 7	0 0 2 1 8	0 0 2 1 9	0 0 2 2 0	0 0 2 2 1	0 0 2 2 2	0 0 2 2 3	0 0 2 2 4	0 0 2 2 5
males (cont...)																										

males
(cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gallbladder	+	+	+	+	+	+	+	+	+	+	+	M	A	M	A	+	+	+	+	+	A	+	M	+	+	
Intestine Large, Cecum Histiocytic Sarcoma	+	A	+	+	+	+	+	+	+	+	+	A	A	A	A	+	+	+	+	+	+	+	A	+	+	
Intestine Large, Colon Histiocytic Sarcoma	+	A	+	+	+	+	+	+	+	+	+	A	A	A	A	+	+	+	+	+	+	+	A	+	+	
Intestine Large, Rectum	+	A	+	+	I	+	+	+	+	+	+	A	A	A	A	+	+	+	+	+	+	+	A	+	+	
Intestine Small, Duodenum	+	A	+	+	+	+	+	+	+	+	+	A	A	A	A	+	+	+	+	+	+	A	+	A	+	+
Intestine Small, Ileum Histiocytic Sarcoma	+	A	+	+	+	+	+	+	+	+	+	A	A	A	A	+	+	+	+	+	+	A	+	A	+	+
Intestine Small, Jejunum Adenoma Carcinoma	+	A	+	+	+	+	+	+	+	+	+	A	A	A	A	+	+	+	+	+	+	A	+	A	+	+
Liver Hepatocellular Carcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	X				X				X			X	X	X												

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	DAY ON TEST	7	2	7	3	5	7	4	7	7	7	7	7	5	6	6	7	7	7	7	7	4	7	4	7	7
		2	3	3	4	3	3	8	3	1	3	3	0	5	6	1	2	2	3	2	2	6	3	5	2	3
		9	6	0	8	7	0	1	1	0	0	1	4	0	0	2	9	9	0	9	9	4	0	3	9	1
B6C3F1 MICE MALE 100 PPM	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
Hepatocellular Adenoma, Multiple				X													X			X	X					
Hepatocellular Adenoma							X		X			X	X	X		X	X		X	X			X	X		X
Hepatocellular Carcinoma, Multiple																										
Histiocytic Sarcoma																										
Hepatocholangiocarcinoma																										
Mesentery																										
Histiocytic Sarcoma																										
Pancreas																										
Histiocytic Sarcoma																										
Hepatocholangiocarcinoma, Metastatic, Liver																										
Salivary Glands																										
Stomach, Forestomach																										
Histiocytic Sarcoma																										
Squamous Cell Papilloma																										
Stomach, Glandular																										
Histiocytic Sarcoma																										
Tooth																										
Odontoma																										

males
(cont...)

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B6C3F1 MICE MALE 100 PPM	DAY ON TEST	7	2	7	3	5	7	4	7	7	7	7	7	5	6	6	7	7	7	7	7	4	7	4	7	7
		2	3	3	4	3	3	8	3	1	3	3	0	5	6	1	2	2	3	2	2	6	3	5	2	3
		9	6	0	8	7	0	1	1	0	0	1	4	0	0	2	9	9	0	9	9	4	0	3	9	1
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
		males (cont...)																								

CARDIOVASCULAR SYSTEM

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Histiocytic Sarcoma																									

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Capsule, Adenoma															X										
Histiocytic Sarcoma																									
Capsule, Carcinoma																									
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Pheochromocytoma Benign																									
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+
Histiocytic Sarcoma																									
Parathyroid Gland	+	+	+	M	+	+	+	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	M	+
Pituitary Gland	+	I	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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		2	3	3	4	3	3	8	3	1	3	3	0	5	6	1	2	2	3	2	2	6	3	5	2	3
		9	6	0	8	7	0	1	1	0	0	1	4	0	0	2	9	9	0	9	9	4	0	3	9	1
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males
(cont...)

Follicular Cell, Carcinoma

GENERAL BODY SYSTEM

Peritoneum

+

Hepatocellular Carcinoma, Metastatic,
Liver

X

Histiocytic Sarcoma

Hepatocholangiocarcinoma, Metastatic,
Liver

GENITAL SYSTEM

Epididymis

+ +

Histiocytic Sarcoma

Penis

+

Preputial Gland

+ +

Prostate

+ + + + + + + + + + + + + + A + + + + + + + + + +

Histiocytic Sarcoma

Seminal Vesicle

+ + + + + + + + + + + + + + A + + + + + + + + + +

Histiocytic Sarcoma

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| | | |
|-----------------------------|-------------|--------------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
2
9 | 2
3
6 | 7
3
0 | 3
4
8 | 5
3
7 | 7
3
0 | 4
8
1 | 7
3
1 | 7
1
0 | 7
3
0 | 7
3
1 | 7
0
4 | 5
5
0 | 6
6
0 | 6
1
2 | 7
2
9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
2
9 | 4
6
4 | 7
3
0 | 4
5
3 | 7
2
9 | 7
3
1 | males
(cont...) |
| | ANIMAL ID | 0
0
2
0
1 | 0
0
2
0
2 | 0
0
2
0
3 | 0
0
2
0
4 | 0
0
2
0
5 | 0
0
2
0
6 | 0
0
2
0
7 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
1
0 | 0
0
2
1
1 | 0
0
2
1
2 | 0
0
2
1
3 | 0
0
2
1
4 | 0
0
2
1
5 | 0
0
2
1
6 | 0
0
2
1
7 | 0
0
2
1
8 | 0
0
2
1
9 | 0
0
2
2
0 | 0
0
2
2
1 | 0
0
2
2
2 | 0
0
2
2
3 | 0
0
2
2
4 | 0
0
2
2
5 | |

| |
|----------------------------|
| Testes | + |
| Interstitial Cell, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| Histiocytic Sarcoma |

HEMATOPOIETIC SYSTEM

| | |
|--|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node | | | | | | | | | | | | | | | + | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Pancreatic, Histiocytic Sarcoma |
| Renal, Histiocytic Sarcoma |
| Renal, Hepatocholangiocarcinoma, Metastatic, Liver | |
| Lymph Node, Bronchial | + | + | + | M | + | + | + | + | M | + | + | M | + | M | M | + | + | + | + | + | + | + | + | + | M | + |
| Histiocytic Sarcoma |
| Lymph Node, Mandibular | + | + | + | M | + | + | + | M | + | + | + | M | + | + | M | + | M | + | M | + | + | + | M | + | M | + |
| Lymph Node, Mediastinal | + | M | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | |
| Histiocytic Sarcoma |
| Hepatocholangiocarcinoma, Metastatic, Liver |

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| | | |
|-----------------------------|-------------|--------------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
2
9 | 2
3
6 | 7
3
0 | 3
4
8 | 5
3
7 | 7
3
0 | 4
8
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4 | 5
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9 | 7
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1 | males
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| | ANIMAL ID | 0
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5 | |

| | |
|---|---|
| Lymph Node, Mesenteric | + | + | + | + | + | M | + | + | + | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Histiocytic Sarcoma |
| Hepatocholangiocarcinoma, Metastatic, Liver | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Histiocytic Sarcoma |
| Thymus | + |
| Histiocytic Sarcoma |

INTEGUMENTARY SYSTEM

| |
|---------------|
| Mammary Gland | M |
| Skin | + |

MUSCULOSKELETAL SYSTEM

| |
|-----------------|
| Bone | + |
| Skeletal Muscle | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7 | 2 | 7 | 3 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 |
|-----------------------------|-------------|
| | | 2 | 3 | 3 | 4 | 3 | 3 | 8 | 3 | 1 | 3 | 3 | 0 | 5 | 6 | 1 | 2 | 2 | 3 | 2 | 2 | 6 | 3 | 5 | 2 | 3 |
| | | 9 | 6 | 0 | 8 | 7 | 0 | 1 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 2 | 9 | 9 | 0 | 9 | 9 | 4 | 0 | 3 | 9 | 1 |
| | | 0 |
| ANIMAL ID | | 0 |
| | | 0 |
| | | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | |
| | |
| | |

males
(cont...)

Histiocytic Sarcoma

Hepatocolangiocarcinoma, Metastatic,
Liver

NERVOUS SYSTEM

| |
|-------|
| Brain | + |
|-------|

RESPIRATORY SYSTEM

| |
|--------|
| Larynx | + |
|--------|

| |
|------|
| Lung | + |
|------|

| | |
|--|---|
| Hepatocellular Carcinoma, Metastatic,
Liver | X | |
|--|---|

| |
|--------------------------------|
| Alveolar/Bronchiolar Carcinoma | |
|--------------------------------|

| |
|------------------------------|
| Alveolar/Bronchiolar Adenoma | |
|------------------------------|

| |
|---------------------|
| Histiocytic Sarcoma | |
|---------------------|

| | |
|---|--|
| Hepatocolangiocarcinoma, Metastatic,
Liver | |
|---|--|

| |
|------|
| Nose | + |
|------|

| |
|---------|
| Trachea | + |
|---------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7 | 2 | 7 | 3 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 7 | 7 |
| | | 2 | 3 | 3 | 4 | 3 | 3 | 8 | 3 | 1 | 3 | 3 | 0 | 5 | 6 | 1 | 2 | 2 | 3 | 2 | 2 | 6 | 3 | 5 | 2 | 3 |
| | | 9 | 6 | 0 | 8 | 7 | 0 | 1 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 2 | 9 | 9 | 0 | 9 | 9 | 4 | 0 | 3 | 9 | 1 |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males (cont...)

SPECIAL SENSES SYSTEM

| |
|-----------------|
| Eye | + | A | + | + | + | + | + | + | + | + | + | + | A | A | A | A | + | + | + | + | + | + | + | + | + |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | X | | | | | X | | | | | | | X |

URINARY SYSTEM

| |
|---------------------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma | |
| Urethra | | | | + | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + |

SYSTEMIC LESIONS

| |
|---------------------|
| Multiple Organ | + |
| Histiocytic Sarcoma | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

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TDMS No. 88006 - 04

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Species/Strain: MICE/B6C3F1

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CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
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9 | 7
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4
5 | 7
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0 | 7
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9 | 7
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9 | 7
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8 | 7
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| | ANIMAL ID | 0
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7 | 0
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8 | 0
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9 | |
| | * TOTALS | | |

ALIMENTARY SYSTEM

| | | |
|---------------------------|----|----|
| Esophagus | + | 50 | |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | A | + | + | M | + | + | + | A | + | + | + | + | + | + | 41 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | 42 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 42 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | 41 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | 41 |
| Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Carcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | X | | X | X | | | X | | | | 10 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | DAY ON TEST | | | |
|---|--|-----------------------|--|--|
| | | 7
2
9 | 7
3
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0 | 7
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9 | | |
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| | | ANIMAL ID | | | |
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| B6C3F1 MICE MALE
100 PPM | | | * TOTALS | | |
| Hepatocellular Adenoma, Multiple | | | 11 | | |
| Hepatocellular Adenoma | | | 16 | | |
| Hepatocellular Carcinoma, Multiple | | | 2 | | |
| Histiocytic Sarcoma | | | 2 | | |
| Hepatocholangiocarcinoma | | | 1 | | |
| Mesentery | | | 3 | | |
| Histiocytic Sarcoma | | | 1 | | |
| Pancreas | | | 48 | | |
| Histiocytic Sarcoma | | | 2 | | |
| Hepatocholangiocarcinoma, Metastatic, Liver | | | 1 | | |
| Salivary Glands | | | 50 | | |
| Stomach, Forestomach | | | 49 | | |
| Histiocytic Sarcoma | | | 2 | | |
| Squamous Cell Papilloma | | | 1 | | |
| Stomach, Glandular | | | 47 | | |
| Histiocytic Sarcoma | | | 1 | | |
| Tooth | | | 1 | | |
| Odontoma | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
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| | * TOTALS | | |

CARDIOVASCULAR SYSTEM

| | |
|---------------------|----|
| Heart | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |

ENDOCRINE SYSTEM

| | |
|-------------------------|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Capsule, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Capsule, Carcinoma | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pheochromocytoma Benign |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Parathyroid Gland | M | M | + | + | + | M | + | + | + | + | M | + | M | M | M | M | M | + | + | M | M | + | M | M | + | 33 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 x .. Lesion present
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| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
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9 | |
| | * TOTALS | | |

Follicular Cell, Carcinoma

X

1

GENERAL BODY SYSTEM

Peritoneum

+

+

+

4

Hepatocellular Carcinoma, Metastatic,
Liver

1

Histiocytic Sarcoma

X

X

2

Hepatocholangiocarcinoma, Metastatic,
Liver

X

1

GENITAL SYSTEM

Epididymis

+

+

+

+

+

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50

Histiocytic Sarcoma

X

1

Penis

1

Preputial Gland

+

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49

Histiocytic Sarcoma

X

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Seminal Vesicle

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49

Histiocytic Sarcoma

X

1

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
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9 | 7
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6 | 0
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7 | 0
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2
4
8 | 0
0
2
4
9 | |
| | * TOTALS | | |

| | |
|----------------------------|----|
| Testes | + | 50 |
| Interstitial Cell, Adenoma | | 1 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | |
|--|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymph Node | | | | | | | | | | | | | | + | | + | | | | | | | | + | | 4 |
| Pancreatic, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Pancreatic, Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Renal, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Renal, Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |
| Lymph Node, Bronchial | M | M | M | + | + | M | + | + | + | + | + | M | M | + | + | + | + | M | M | M | + | + | + | M | + | 34 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | M | + | M | + | M | M | M | M | + | M | M | M | M | + | + | + | M | M | M | M | M | M | + | M | 25 |
| Lymph Node, Mediastinal | M | + | M | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 41 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | X | | | | | | | | | | 2 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
2
9 | 7
3
0 | 7
2
9 | 7
3
0 | 3
4
5 | 7
3
0 | 7
2
9 | 7
3
0 | 7
3
1 | 7
3
0 | 7
3
0 | 7
1
1 | 7
3
0 | 6
7
5 | 7
3
0 | 7
3
1 | 5
3
2 | 7
3
0 | 6
2
6 | 7
3
0 | 7
2
9 | 7
2
6 | 7
3
0 | 7
2
8 | 7
2
9 |
| | ANIMAL ID | 0
0
2
2
6 | 0
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7 | 0
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8 | 0
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9 | 0
0
2
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8 | 0
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9 | |
| | * TOTALS | | |

| | |
|---|----|
| Lymph Node, Mesenteric | + | 47 |
| Lymphoma Malignant | 1 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | M | + | + | + | + | M | + | 46 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | |
|---------------|----|
| Mammary Gland | M | 0 |
| Skin | + | 50 |

MUSCULOSKELETAL SYSTEM

| | |
|-----------------|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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ALPHA-METHYLSTYRENE

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Lab: BNW

| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
2
9 | 7
3
0 | 7
2
9 | 7
3
0 | 3
4
5 | 7
3
0 | 7
2
9 | 7
3
0 | 7
3
1 | 7
3
0 | 7
3
0 | 7
1
1 | 7
3
0 | 6
7
5 | 7
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3
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9 | 7
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9 |
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| | ANIMAL ID | 0
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7 | 0
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8 | 0
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4
9 | |
| | * TOTALS | | |

Histiocytic Sarcoma X 1

Hepatocholangiocarcinoma, Metastatic, Liver X 1

NERVOUS SYSTEM

Brain + 50

RESPIRATORY SYSTEM

Larynx + 50

Lung + 50

Hepatocellular Carcinoma, Metastatic, Liver X X X X 6

Alveolar/Bronchiolar Carcinoma X 2

Alveolar/Bronchiolar Adenoma X 4

Histiocytic Sarcoma X X 2

Hepatocholangiocarcinoma, Metastatic, Liver X 1

Nose + 50

Trachea + 50

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | | |
|-----------------------------|-------------|-----------------------|--|
| B6C3F1 MICE MALE
100 PPM | DAY ON TEST | 7
2
9 | 7
3
0 | 7
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0 | 3
4
5 | 7
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5 | 7
3
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| | ANIMAL ID | 0
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6 | 0
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7 | 0
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2
4
8 | 0
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2
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9 | |
| | * TOTALS | | |

SPECIAL SENSES SYSTEM

| | |
|-----------------|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 44 |
| Harderian Gland | + | 49 |
| Adenoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 4 |

URINARY SYSTEM

| | |
|---------------------|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Urethra |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

SYSTEMIC LESIONS

| | |
|---------------------|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | X | | X | | | | | | | | | 2 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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Lab: BNW

| | | |
|-----------------------------|-------------|--------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
3
1 | 7
2
9 | 7
3
0 | 6
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8 | 7
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9 | 7
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9 | 7
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1 | 7
2
9 | 7
3
0 | 7
3
0 | 6
9
8 | 7
2
9 | 7
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0 | 7
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8
3 | 7
2
9 | males
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| | ANIMAL ID | 0
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3 | 0
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4
0
4 | |
| | | |
| | | |

males
(cont...)

ALIMENTARY SYSTEM

| |
|------------------------------------|
| Esophagus | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | M | + | + | A | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Liver | + |
| Hepatocellular Adenoma, Multiple | | X | | | | X | | | | | X | X | X | | | X | | | X | | X | | | X | |
| Hepatocellular Carcinoma | | | X | | | | | | | | | | | | | | | | | X | | | | | |
| Hepatocellular Adenoma | | | | | | | X | | | X | | | | | X | | X | X | | X | | X | | | |
| Hepatocholangiocarcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Histiocytic Sarcoma |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
3
1 | 7
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9 | 7
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8 | 7
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3 | 7
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3 | 7
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3 | 7
3
3 | 7
2
3 | 7
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3 | 6
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8 | 7
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3 | 7
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9 |
| | ANIMAL ID | 0
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4 | 0
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7 | 0
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4 | 0
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5 |
| | | |
| | | | males
(cont...) |

| |
|--------------------------|
| Adrenal Medulla | + | |
| Islets, Pancreatic | + | |
| Parathyroid Gland | M | + | + | M | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | + | + | M |
| Pituitary Gland | + | |
| Pars Intermedia, Adenoma | |
| Thyroid Gland | + | |
| Follicular Cell, Adenoma | | | | | | | | | | | X | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| |
|-----------------|
| Epididymis | + |
| Preputial Gland | + |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + |
| Seminal Vesicle | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Lab: BNW

| | | | |
|-----------------------------|-----------------|-----------------------|--|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
3
1 | 7
2
9 | 7
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8 | 7
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8 | 7
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| | ANIMAL ID | 0
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| | | | |
| | | | |
| | males (cont...) | | |

males
(cont...)

Testes

+ +

HEMATOPOIETIC SYSTEM

Bone Marrow

+ +

Lymph Node

+

Iliac, Lymphoma Malignant

X

Renal, Lymphoma Malignant

X

Lymphoma Malignant

X

Lymph Node, Bronchial

M + + M + M + M + + + + + M M + + + + + M + + + +

Hepatobiliarycarcinoma, Metastatic,
Liver

X

Lymph Node, Mandibular

M M M + M + + + + + + + M + + M M + + + M M M M +

Lymphoma Malignant

X

Lymph Node, Mediastinal

M M M + + M + M + + + + M + M + + + + M M + M + M +

Lymphoma Malignant

X

Hepatobiliarycarcinoma, Metastatic,
Liver

X

Lymph Node, Mesenteric

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|--------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
3
1 | 7
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9 | 7
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8 | 7
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9 | males
(cont...) |
| | ANIMAL ID | 0
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| | | |
| Lymphoma Malignant | | | | | X | | X | | | | | | | | | | | | | | | | | | | |
| Spleen | | + | |
| Lymphoma Malignant | | | | | X | | X | | | | | | | | | X | | | | | | | | | | |
| Thymus | | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | |
| INTEGUMENTARY SYSTEM | | |
| Mammary Gland | | M | |
| Skin | | + | |
| MUSCULOSKELETAL SYSTEM | | |
| Bone | | + | |
| NERVOUS SYSTEM | | |
| Brain | | + | |
| RESPIRATORY SYSTEM | | |
| Larynx | | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
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Lab: BNW

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
3
1 | 7
2
9 | 7
3
0 | 6
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8 | 7
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9 | 7
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0 | 7
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9 | 7
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9 | 7
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8 | 7
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9 | 7
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1 | 7
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9 | 7
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0 | 7
3
0 | 6
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8 | 7
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9 | 7
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0 | 7
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0 | 3
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3 | 7
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| | ANIMAL ID | 0
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7 | 0
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2 | 0
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3 | 0
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2
4 | 0
0
4
2
5 |
| | | |
| | | males (cont...) | |

males
(cont...)

| | |
|---|---|
| Lung | + |
| Alveolar/Bronchiolar Adenoma, Multiple | | | | X | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | X | | | | | | | | | | | | | | | X | | | | | | |
| Hepatocholangiocarcinoma, Metastatic, Liver | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | X | | | X | | | | | X | | |
| Bronchiole, Adenoma, Multiple |
| Alveolar/Bronchiolar Carcinoma |
| Nose | + |
| Pleura | | | | | | | | | | | | + | | | | | | | | | | | | | |
| Hepatocholangiocarcinoma, Metastatic, Liver | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Trachea | + |

SPECIAL SENSES SYSTEM

| |
|-----------------|
| Eye | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Harderian Gland | + |
| Adenoma | | | | | | | | | | | X | | | | | | | | X | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|--------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
3
1 | 7
2
9 | 7
3
0 | 6
0
8 | 7
2
9 | 7
3
0 | 7
2
9 | 7
2
9 | 7
3
0 | 7
3
0 | 7
2
8 | 7
2
9 | 7
3
0 | 7
3
1 | 7
3
1 | 7
3
1 | 7
2
9 | 7
3
0 | 6
9
8 | 7
2
9 | 7
3
0 | 7
3
0 | 3
8
3 | 7
2
9 | males
(cont...) |
| | ANIMAL ID | 0
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3 | 0
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2
5 | |

Carcinoma

URINARY SYSTEM

| |
|-----------------------|
| Kidney | + |
| Renal Tubule, Adenoma | | | | X | |
| Urinary Bladder | + |

SYSTEMIC LESIONS

| |
|---------------------|
| Multiple Organ | + |
| Histiocytic Sarcoma | |
| Lymphoma Malignant | | | | X | | X | | | | | | | | | | X | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
1
0 | 7
2
8 | 7
3
1 | 6
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8 | 7
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0 | 7
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9 | 7
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9 | 7
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0 | 7
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1 | 7
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9 | 7
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9 | 7
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0 | 7
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9 | 5
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| | ANIMAL ID | 0
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6 | 0
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8 | 0
0
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9 |
| | * TOTALS | |

ALIMENTARY SYSTEM

| | |
|------------------------------------|----|
| Esophagus | + | 50 |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | A | + | + | + | + | 45 |
| Intestine Large, Cecum | + | A | + | + | + | + | 47 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma, Multiple | | | | | | | | | X | X | X | | | | X | | | | | | | | | X | | 14 |
| Hepatocellular Carcinoma | | | | | X | | | | | X | | | | X | | | | | X | | | | | X | | 7 |
| Hepatocellular Adenoma | | | | | | X | | | | | | X | X | | | | | X | | | X | X | | | | 13 |
| Hepatocholangiocarcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocellular Carcinoma, Multiple | | | X | | X | | | | | | | | | | | | | | | | | | | X | | 4 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
1
0 | 7
2
8 | 7
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1 | 6
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8 | 7
3
0 | 7
2
9 | 7
2
9 | 7
3
0 | 7
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1 | 7
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9 | 7
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9 | 7
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9 | 7
3
0 | 7
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9 | 7
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6 | 7
3
0 | 7
2
9 | 7
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1 | 7
3
0 | 6
6
8 | 7
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0 | 7
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0 | 7
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9 | 5
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5 |
| | ANIMAL ID | 0
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6 | 0
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8 | 0
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9 |
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| | | | * TOTALS |

| | |
|----------------------|----|
| Mesentery | 2 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |
| Salivary Glands | + | 50 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |
| Tongue |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  | 1 |
| Tooth | | | | | | | | + | | + | | | | | | | | | | | | | | | 2 |

CARDIOVASCULAR SYSTEM

| | |
|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

ENDOCRINE SYSTEM

| | |
|------------------|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |
| Capsule, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
1
0 | 7
2
8 | 7
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1 | 6
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8 | 7
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0 | 7
2
9 | 7
2
9 | 7
3
0 | 7
3
1 | 7
2
9 | 7
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9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
2
3 | 7
2
3 | 7
2
3 | 7
3
3 | 6
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8 | 7
3
0 | 7
3
0 | 7
2
9 | 5
6
5 | | |
| | | |
| | ANIMAL ID | 0
0
4
2
6 | 0
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7 | 0
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9 | 0
0
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|--------------------------|----|
| Adrenal Medulla | + | A | + | + | + | + | 49 |
| Islets, Pancreatic | + | A | + | + | + | + | 49 |
| Parathyroid Gland | + | M | M | M | M | M | + | M | + | M | + | + | + | M | M | M | + | + | M | M | M | + | M | + | + | 29 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |
| Pars Intermedia, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Follicular Cell, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | |
|-----------------|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 710 | 728 | 731 | 698 | 730 | 729 | 722 | 730 | 731 | 722 | 729 | 722 | 730 | 722 | 729 | 722 | 729 | 722 | 729 | 722 | 638 | 730 | 722 | 729 | 526 |
| | |
| | | 004 |
| | | 24 | 24 | 24 | 24 | 34 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 54 |
| | | 67 | 78 | 89 | 90 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 00 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 00 | |
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| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
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| | ANIMAL ID | 0
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| | * TOTALS | | |

| | | |
|--------------------|--|----|
| Lymphoma Malignant | | 2 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | | | 49 |
| Lymphoma Malignant | | 3 |
| Thymus | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | A | + | M | + | + | | 44 |

INTEGUMENTARY SYSTEM

| | | |
|---------------|--|----|
| Mammary Gland | M | | 0 |
| Skin | + | | 50 |

MUSCULOSKELETAL SYSTEM

| | | |
|------|--|----|
| Bone | + | | 50 |
|------|--|----|

NERVOUS SYSTEM

| | | |
|-------|--|----|
| Brain | + | | 50 |
|-------|--|----|

RESPIRATORY SYSTEM

| | | |
|--------|--|----|
| Larynx | + | | 50 |
|--------|--|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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| | | | |
|-----------------------------|-------------|-----------------------|---|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
1
0 | 7
2
8 | 7
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9 | 7
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|---|----|
| Lung | + | 50 |
| Alveolar/Bronchiolar Adenoma, Multiple | 1 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | X | | | X | | | | | | | | | | | | | | | | | | | | 4 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Alveolar/Bronchiolar Adenoma | | | X | | | | | | | | | | | | X | X | X | | | | | | | | | 7 |
| Bronchiole, Adenoma, Multiple | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Alveolar/Bronchiolar Carcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pleura |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

| | |
|-----------------|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 3 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

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|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
300 PPM | DAY ON TEST | 7
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| | | | * TOTALS |

Carcinoma

X

1

URINARY SYSTEM

Kidney

+ +

50

Renal Tubule, Adenoma

1

Urinary Bladder

+ +

50

SYSTEMIC LESIONS

Multiple Organ

+ +

50

Histiocytic Sarcoma

X

1

Lymphoma Malignant

3

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | ANIMAL ID | 0 |
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| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males
(cont...)

ALIMENTARY SYSTEM

| |
|------------------------------------|
| Esophagus | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | M | + | I | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Liver | + |
| Hepatocellular Adenoma | X | | X | | | | | | | | X | | X | | | X | | | X | | X | | | | X |
| Hepatocellular Carcinoma | | X | | | | | | | | | | X | | | | | | | | X | X | | | | |
| Hepatocellular Adenoma, Multiple | | | | X | | X | X | | X | | | | | X | | X | | X | | | | | | X | |
| Hepatocholangiocarcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | | |
| Hepatocellular Carcinoma, Multiple | |
| Lymphoma Malignant |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|-----------------------------|-------------|
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| B6C3F1 MICE MALE
600 PPM | ANIMAL ID | 0 |
| | | 0 |
| | | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males
(cont...)

Histiocytic Sarcoma

Mesentery

+

Oral Mucosa

+

Pancreas

+ +

Hepatocholangiocarcinoma, Metastatic,
Liver

X

Salivary Glands

+ +

Stomach, Forestomach

+ + + + + + + + + + X + + + + + + + + + + + X + + + +

Squamous Cell Papilloma

X

X

Stomach, Glandular

+ + + + + + + + + + + + + + + A + + + + + + + + + +

Tooth

+

CARDIOVASCULAR SYSTEM

Heart

+ +

Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung

Lymphoma Malignant

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | males (cont...) | |

ENDOCRINE SYSTEM

| |
|--------------------------|
| Adrenal Cortex | + | |
| Lymphoma Malignant |
| Adrenal Medulla | + | |
| Pheochromocytoma Benign | |
| Lymphoma Malignant |
| Islets, Pancreatic | + | |
| Parathyroid Gland | M | + | M | + | + | + | + | + | M | M | + | + | + | M | + | + | + | + | + | + | + | M | M | M | M |
| Pituitary Gland | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | + | I |
| Thyroid Gland | + | |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | | X | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| |
|------------|
| Epididymis | + |
|------------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | |
|-----------------------------|-------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males
(cont...)

| | |
|-----------------|--|
| Penis | + | |
| Preputial Gland | + | |
| Prostate | + | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | + | |
| Testes | + | |

HEMATOPOIETIC SYSTEM

| | |
|---|--|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | |
| Lymph Node, Bronchial | + | M | M | M | M | M | + | + | + | + | + | + | + | + | M | M | + | + | + | M | + | M | + | + | + | + | |
| Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung | |
| Lymph Node, Mandibular | M | + | M | + | M | M | + | + | M | M | M | + | + | + | + | M | M | M | + | + | M | M | M | + | + | + | |
| Lymph Node, Mediastinal | M | M | + | + | + | M | + | M | + | + | M | + | + | M | + | A | + | + | + | M | + | + | + | + | + | M | |
| Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung | |
| Lymphoma Malignant | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | males (cont...) | |

| | |
|---|---|
| Lymph Node, Mesenteric | + |
| Lymphoma Malignant |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + |
| Lymphoma Malignant |
| Thymus | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung | |

INTEGUMENTARY SYSTEM

| | |
|--|---|
| Mammary Gland | M |
| Skin | + |
| Subcutaneous Tissue, Granular Cell
Tumor Benign | |

MUSCULOSKELETAL SYSTEM

| |
|------|
| Bone | + |
|------|

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|-----------------------------|-------------|
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | | 0 |
| ANIMAL ID | | 0 |
| | | 0 |
| | | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | |
| | |
| | |

males
(cont...)

Brain +

RESPIRATORY SYSTEM

Larynx +

Lung +

Hepatocellular Carcinoma, Metastatic,
Liver

X

X

Alveolar/Bronchiolar Adenoma

X

X

X

X

Hepatocholangiocarcinoma, Metastatic,
Liver

X

Bronchus, Adenoma

X

Alveolar/Bronchiolar Carcinoma, Multiple

Lymphoma Malignant

Histiocytic Sarcoma

Alveolar/Bronchiolar Carcinoma

Nose +

Pleura

Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
| | | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | males (cont...) | |

Trachea

+ +

SPECIAL SENSES SYSTEM

Eye

+ + + + + + + + + + + + + + + A + + + + A + + + +

Harderian Gland

+ + + + + + + + + + + + + + + + + + + A + + + +

Adenoma

X X X X

Carcinoma

X

URINARY SYSTEM

Kidney

+ +

Hepatocellular Carcinoma, Metastatic, Liver

Lymphoma Malignant

Urethra

+ + + + +

Urinary Bladder

+ + + + + + + + + + + + + + + + + A + + + +

Lymphoma Malignant

SYSTEMIC LESIONS

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | | | |
|-----------------------------|-------------|---|-----------------------|--|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 4
2
9 | 7
1
5 | 7
2
9 | 6
0
5 | 7
2
9 | 7
3
0 | 7
3
1 | 7
2
9 | 7
2
9 | 7
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9 | 7
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9 | 7
3
0 | 7
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9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
3
0 | 5
3
7 | 7
2
9 | 6
0
9 | 7
3
1 | 7
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5 | 6
3
5 | 7
1
9 | 7
3
0 | |
| | | <hr style="border-top: 1px dashed black;"/> | | |
| | ANIMAL ID | 0
0
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8 | 0
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9 | 0
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ALIMENTARY SYSTEM

| | |
|------------------------------------|----|
| Esophagus | + | 50 |
| Gallbladder | + | A | + | A | + | + | + | + | + | + | + | + | + | + | I | + | I | + | I | + | M | + | A | + | M | 39 |
| Intestine Large, Cecum | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 45 |
| Intestine Large, Colon | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 46 |
| Intestine Large, Rectum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | A | + | + | 45 |
| Intestine Small, Duodenum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 46 |
| Intestine Small, Ileum | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 45 |
| Intestine Small, Jejunum | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 45 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | X | | | | | | X | X | | | | | | | X | | | | X | | | | | | | 12 |
| Hepatocellular Carcinoma | X | X | X | | | X | | X | X | | | | | | X | | | X | X | | | | | X | | 14 |
| Hepatocellular Adenoma, Multiple | | | | | X | | | | | | X | X | | X | | | | | | | X | | | | | 13 |
| Hepatocholangiocarcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocellular Carcinoma, Multiple | | | | | X | | | | | | | | | | | | | | | X | | | X | | | 3 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-----------------------------|-------------|-------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 4
2
9 | 7
1
5 | 7
2
9 | 6
0
5 | 7
2
9 | 7
3
0 | 7
3
1 | 7
2
9 | 7
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9 | 7
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9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
3
0 | 5
3
7 | 7
2
9 | 6
0
9 | 7
3
1 | 7
0
5 | 6
3
5 | 7
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9 | 7
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0 |
| | ANIMAL ID | 0
0
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8 | 0
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9 | |
| | * TOTALS | | |

| | | |
|---|--|---|
| Histiocytic Sarcoma | | X | 1 |
| Mesentery | | |
| Oral Mucosa | | 1 |
| Pancreas | | + | A | + |
| Hepatocholangiocarcinoma, Metastatic, Liver | | 1 |
| Salivary Glands | | + |
| Stomach, Forestomach | | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Squamous Cell Papilloma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Stomach, Glandular | | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Tooth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

CARDIOVASCULAR SYSTEM

| | | |
|--|--|---|
| Heart | | + |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 4
2
9 | 7
1
5 | 7
2
9 | 6
0
5 | 7
2
9 | 7
3
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| | ANIMAL ID | 0
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8 | 0
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9 |
| | * TOTALS | |

ENDOCRINE SYSTEM

| | | |
|--------------------------|----|----|
| Adrenal Cortex | + | 50 | |
| Lymphoma Malignant | X | | 1 | |
| Adrenal Medulla | + | M | + | + | 49 |
| Pheochromocytoma Benign | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | 1 | |
| Islets, Pancreatic | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Parathyroid Gland | + | + | + | + | M | M | M | + | + | + | + | + | + | + | M | M | + | M | + | M | M | M | M | + | + | 31 |
| Pituitary Gland | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Follicular Cell, Adenoma | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|------------|----|
| Epididymis | + | 50 |
|------------|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 4
2
9 | 7
1
5 | 7
2
9 | 6
0
5 | 7
2
9 | 7
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0 | 7
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| | ANIMAL ID | 0
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6
3
6 | 0
0
6
3
7 | 0
0
6
3
8 | 0
0
6
3
9 | 0
0
6
4
0 | 0
0
6
4
1 | 0
0
6
4
2 | 0
0
6
4
3 | 0
0
6
4
4 | 0
0
6
4
5 | 0
0
6
4
6 | 0
0
6
4
7 | 0
0
6
4
8 | 0
0
6
4
9 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | * TOTALS | |

| | |
|-----------------|----|
| Penis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Seminal Vesicle | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 45 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

HEMATOPOIETIC SYSTEM

| | |
|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |
| Lymph Node, Bronchial | + | A | M | + | + | + | + | + | + | M | + | M | + | M | + | + | + | + | + | + | + | M | M | + | M | 33 |
| Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung | | 1 |
| Lymph Node, Mandibular | M | M | M | M | M | + | + | + | M | M | + | + | + | + | M | + | M | M | M | M | M | M | + | + | M | 22 |
| Lymph Node, Mediastinal | + | A | + | + | + | M | M | + | M | + | + | + | M | + | M | M | + | + | + | M | M | + | + | + | + | 32 |
| Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung | | 1 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|-----------------------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 4
2
9 | 7
1
5 | 7
2
9 | 6
0
5 | 7
2
9 | 7
3
0 | 7
3
1 | 7
2
9 | 7
2
9 | 7
2
9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
2
9 | 7
3
0 | 7
2
9 | 5
3
7 | 7
2
9 | 6
0
9 | 7
3
1 | 7
0
5 | 6
3
5 | 7
1
9 | 7
3
0 |
| | ANIMAL ID | 0
0
6
2
6 | 0
0
6
2
7 | 0
0
6
2
8 | 0
0
6
2
9 | 0
0
6
3
0 | 0
0
6
3
1 | 0
0
6
3
2 | 0
0
6
3
3 | 0
0
6
3
4 | 0
0
6
3
5 | 0
0
6
3
6 | 0
0
6
3
7 | 0
0
6
3
8 | 0
0
6
3
9 | 0
0
6
4
0 | 0
0
6
4
1 | 0
0
6
4
2 | 0
0
6
4
3 | 0
0
6
4
4 | 0
0
6
4
5 | 0
0
6
4
6 | 0
0
6
4
7 | 0
0
6
4
8 | 0
0
6
4
9 |
| | * TOTALS | |

| | | |
|---|----|----|
| Lymph Node, Mesenteric | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 47 | |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | 1 | |
| Spleen | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 47 | |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | 1 | |
| Thymus | + | A | M | + | M | + | + | + | M | + | + | M | + | + | + | + | + | + | + | M | + | M | + | M | + | 40 |
| Alveolar/Bronchiolar Carcinoma,
Metastatic, Lung | | | | | | | | | | | | | | | | | | | X | | | | | | 1 | |

INTEGUMENTARY SYSTEM

| | |
|--|----|
| Mammary Gland | M | 0 |
| Skin | + | 50 |
| Subcutaneous Tissue, Granular Cell
Tumor Benign | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | |
|------|----|
| Bone | + | 50 |
|------|----|

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-----------------------------|-------------|----------|
| B6C3F1 MICE MALE
600 PPM | DAY ON TEST | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 |
| | | 2 | 1 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 0 | 3 | 1 | 3 |
| | | 9 | 5 | 9 | 5 | 9 | 0 | 1 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 0 | 7 | 9 | 9 | 1 | 5 | 5 | 9 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 6 | 6 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | * TOTALS | |

| | |
|---------|----|
| Trachea | + | 50 |
|---------|----|

SPECIAL SENSES SYSTEM

| | |
|-----------------|----|
| Eye | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 46 |
| Harderian Gland | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 47 |
| Adenoma | | | | | | | | X | X | | X | | | | | | | | | | | | | | 7 |
| Carcinoma | | | | | | | | | | | | | | | X | | | | | | | | | | 2 |

URINARY SYSTEM

| | |
|---|----|
| Kidney | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |
| Urethra |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Urinary Bladder | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |

SYSTEMIC LESIONS

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE
600 PPM | | DAY ON TEST | 4
2
9 | 7
1
5 | 7
2
9 | 6
0
5 | 7
2
9 | 7
3
0 | 7
3
1 | 7
2
9 | 7
2
9 | 7
2
9 | 7
3
0 | 7
2
9 | 7
3
0 | 7
2
9 | 7
3
0 | 5
3
7 | 7
2
9 | 6
0
9 | 7
3
1 | 7
0
5 | 6
3
5 | 7
1
9 | 7
3
0 | | | |
|-----------------------------|--|-------------|-------------|-----------------------|
| | | | | |
| | | ANIMAL ID | | 0
0
6
2
6 | 0
0
6
2
7 | 0
0
6
2
8 | 0
0
6
2
9 | 0
0
6
3
0 | 0
0
6
3
1 | 0
0
6
3
2 | 0
0
6
3
3 | 0
0
6
3
4 | 0
0
6
3
5 | 0
0
6
3
6 | 0
0
6
3
7 | 0
0
6
3
8 | 0
0
6
3
9 | 0
0
6
4
0 | 0
0
6
4
1 | 0
0
6
4
2 | 0
0
6
4
3 | 0
0
6
4
4 | 0
0
6
4
5 | 0
0
6
4
6 | 0
0
6
4
7 | 0
0
6
4
8 | 0
0
6
4
9 | 0
0
6
5
0 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | * TOTALS | 50 | 1 | 1 | |
| | | | | |
| | | | | |
| | | | | |
| Multiple Organ | | + | + | + | | |
| | | | | |
| | | | | |
| Histiocytic Sarcoma | | X | | |
| | | | | |
| Lymphoma Malignant | | X | | |
| | | | | |

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | |
|-------------------------------|-------------|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 6
7
0 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
3
4 | 7
3
2 | 7
3
1 | 7
3
2 | 6
8
9 | 1
4
9 | 7
3
2 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
2
1 | 7
3
3 | 7
0
7 | females
(cont...) | |
| | ANIMAL ID | 0
0
1
0
1 | 0
0
1
0
2 | 0
0
1
0
3 | 0
0
1
0
4 | 0
0
1
0
5 | 0
0
1
0
6 | 0
0
1
0
7 | 0
0
1
0
8 | 0
0
1
0
9 | 0
0
1
1
0 | 0
0
1
1
1 | 0
0
1
1
2 | 0
0
1
1
3 | 0
0
1
1
4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | 0
0
1
2
1 | 0
0
1
2
2 | 0
0
1
2
3 | 0
0
1
2
4 | | 0
0
1
2
5 |
| | | | |
| | | | |
| | | | |

ALIMENTARY SYSTEM

| |
|---------------------------|
| Esophagus | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | X | | | | | | | X | | | | | | | | | | |
| Intestine Large, Cecum | + |
| Intestine Large, Colon | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Intestine Small, Ileum | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Intestine Small, Jejunum | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Liver | + |
| Hepatocellular Adenoma | | | | X | | | | | | | | X | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | DAY ON TEST | | | females
(cont...) |
|----------------------------------|-----------|---|----------------------|
| | | 6
7
0 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 6
3
4 | 7
3
2 | 7
3
1 | 7
3
2 | 6
8
9 | 1
4
9 | 7
3
2 | 7
3
3 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
2
1 | 7
3
3 | 7
0
7 | | |
| B6C3F1 MICE FEMALE
CONTROL | ANIMAL ID | 0 | 0 | |
| | | 0 | |
| | | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |
| Hepatocellular Carcinoma | | | | | | | | | X | | | X | | | X | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | X | | | | | | | | | | | |
| Hemangioma | | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Hepatocellular Adenoma, Multiple | | | |
| Hemangiosarcoma | | | |
| Mesentery | | | | | | | | + | + | | | | | + | | | | | | | | + | | | | | |
| Lymphoma Malignant | | | |
| Pancreas | | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Salivary Glands | | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Stomach, Forestomach | | + | |
| Squamous Cell Papilloma | | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Stomach, Glandular | | + | |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | X | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | DAY ON TEST | | females
(cont...) |
|-------------------------------|-----------|-------------|----------------------|
| | | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | | |
| | | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 | |
| | | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 7 |
| B6C3F1 MICE FEMALE
CONTROL | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 1 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

| |
|--------------------|
| Heart | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Hemangiosarcoma |

ENDOCRINE SYSTEM

| |
|--------------------------|
| Adrenal Cortex | + |
| Capsule, Adenoma | | | | X | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Adrenal Medulla | + |
| Pheochromocytoma Benign | | | | | | | | | | | | | | X | | | | | X | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Islets, Pancreatic | + |
| Parathyroid Gland | + | + | + | M | + | + | + | + | M | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | M | + |
| Pituitary Gland | + |
| Pars Distalis, Adenoma | X | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Thyroid Gland | + |
| Follicular Cell, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | | |
|-------------------------------|-------------|----------------------|---|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 6
7
0 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
3
4 | 7
3
2 | 7
3
1 | 7
3
2 | 6
8
9 | 1
4
9 | 7
3
2 | 7
3
3 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
2
1 | 7
3
3 | 7
0
7 | females
(cont...) | |
| | ANIMAL ID | 0
0
1
0
1 | 0
0
1
0
2 | 0
0
1
0
3 | 0
0
1
0
4 | 0
0
1
0
5 | 0
0
1
0
6 | 0
0
1
0
7 | 0
0
1
0
8 | 0
0
1
0
9 | 0
0
1
1
0 | 0
0
1
1
1 | 0
0
1
1
2 | 0
0
1
1
3 | 0
0
1
1
4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | 0
0
1
2
1 | 0
0
1
2
2 | 0
0
1
2
3 | 0
0
1
2
4 | 0
0
1
2
5 | | |
| | | 0 | | |
|  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| |
|-------------------------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | M | + | + | + | + | + | + | + |
| Squamous Cell Carcinoma | |
| Ovary | + | + | + | + | + | + | M | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cystadenoma | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Lymphoma Malignant |
| Uterus | + |
| Polyp Stromal | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Leiomyoma |
| Lymphoma Malignant |
| Hemangiosarcoma |
| Endometrium, Adenoma |

HEMATOPOIETIC SYSTEM

| |
|--------------------|
| Bone Marrow | + |
| Lymphoma Malignant | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | | | |
|-------------------------------|-------------|---|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 6
7
0 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
3
4 | 7
3
2 | 7
3
1 | 7
3
2 | 6
8
9 | 1
4
9 | 7
3
2 | 7
3
3 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 6
2
1 | 7
3
3 | 7
0
7 | females
(cont...) | |
| | ANIMAL ID | 0
0
1
0
1 | 0
0
1
0
2 | 0
0
1
0
3 | 0
0
1
0
4 | 0
0
1
0
5 | 0
0
1
0
6 | 0
0
1
0
7 | 0
0
1
0
8 | 0
0
1
0
9 | 0
0
1
1
0 | 0
0
1
1
1 | 0
0
1
1
2 | 0
0
1
1
3 | 0
0
1
1
4 | 0
0
1
1
5 | 0
0
1
1
6 | 0
0
1
1
7 | 0
0
1
1
8 | 0
0
1
1
9 | 0
0
1
2
0 | 0
0
1
2
1 | 0
0
1
2
2 | 0
0
1
2
3 | 0
0
1
2
4 | | 0
0
1
2
5 |
| | | | | |
| | | | | |
| | | | | |
| Histiocytic Sarcoma | | X | | |
| Lymph Node | | + | | |
| Iliac, Lymphoma Malignant | | X | | |
| Renal, Lymphoma Malignant | | X | | |
| Lymph Node, Bronchial | | + + + + + M + + + M + + + + + + + + + + + + + M | | |
| Lymphoma Malignant | | X X | | |
| Lymph Node, Mandibular | | + + M M + + + + + + + M + + + + + M + M + | | |
| Lymphoma Malignant | | X X | | |
| Lymph Node, Mediastinal | | + + M + M + + + + + + + + + + M + + M M + + + + | | |
| Lymphoma Malignant | | X X | | |
| Lymph Node, Mesenteric | | + + + + + + + + + I + + + + + + + + + + + + + + | | |
| Lymphoma Malignant | | X X | | |
| Spleen | | + | | |
| Lymphoma Malignant | | X X X | | |
| Thymus | | + | | |
| Lymphoma Malignant | | X X | | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | | |
|-------------------------------|-------------|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 6
7
0 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
3
4 | 7
3
2 | 7
3
1 | 7
3
2 | 6
8
9 | 1
4
9 | 7
3
2 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 6
2
1 | 7
3
3 | 7
0
7 | females
(cont...) | |
| | ANIMAL ID | 0
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5 |

| |
|--------------------------------------|
| Mammary Gland | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Carcinoma |
| Skin | + |
| Subcutaneous Tissue, Sarcoma | X | | | | | X | | | | | | | | | | | | | | | | | | | X |
| Subcutaneous Tissue, Liposarcoma | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Hemangiosarcoma | |

MUSCULOSKELETAL SYSTEM

| |
|------|
| Bone | + |
|------|

NERVOUS SYSTEM

| |
|--------------------|
| Brain | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Peripheral Nerve | + | |
| Spinal Cord | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | | |
|-------------------------------|-------------|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 6
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RESPIRATORY SYSTEM

| | |
|---|---|
| Larynx | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Lung | + |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | X | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma |
| Nose | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Trachea | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | |

SPECIAL SENSES SYSTEM

| |
|--------------------|
| Eye | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Harderian Gland | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 7
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| * TOTALS | | |

ALIMENTARY SYSTEM

| | |
|---------------------------|----|
| Esophagus | + | 50 |
| Gallbladder | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | X | | | 4 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | 2 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | | | | | X | | | | | | | | | X | X | | X | | | | | | 6 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | DAY ON TEST | | |
|----------------------------------|-----------|----|
| | | 7
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2 | |
| | | | | |
| B6C3F1 MICE FEMALE
CONTROL | ANIMAL ID | 0 | |
| | | 0 | |
| | | 1 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | * TOTALS | | | | |
| Hepatocellular Carcinoma | | | 3 | | | | |
| Lymphoma Malignant | | | 9 | | | | |
| Hemangioma | | | 1 | | | | |
| Hepatocellular Adenoma, Multiple | | | 4 | | | | |
| Hemangiosarcoma | | | 1 | | | | |
| | | | | |
| Mesentery | | | 8 | | | | |
| Lymphoma Malignant | | | 1 | | | | |
| | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | 5 | | | | |
| | | | | |
| Salivary Glands | | + | 50 |
| Lymphoma Malignant | | | 2 | | | | |
| | | | | |
| Stomach, Forestomach | | + | 50 |
| Squamous Cell Papilloma | | | 1 | | | | |
| Lymphoma Malignant | | | 2 | | | | |
| | | | | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | 2 | | | | |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 7
3
2 | 7
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2 | 7
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5 | 4
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| | ANIMAL ID | 0
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| | <div></div> | |
| | * TOTALS | |

| | |
|--------------------|----|
| Heart | + | 50 |
| Lymphoma Malignant | | X | | | | 2 |
| Hemangiosarcoma | X | | 1 |

ENDOCRINE SYSTEM

| | |
|--------------------------|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Capsule, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pheochromocytoma Benign |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Parathyroid Gland | + | + | + | M | + | M | M | + | + | M | + | + | M | + | + | + | + | M | + | + | + | + | + | M | + | 38 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Adenoma | | | | X | | | | | | | | | | | | | | X | | | | | | | | 4 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Follicular Cell, Adenoma | | | | | | | | | | X | | | | | | | | | | | | | X | | | 3 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|----------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 1 | 2 | 1 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 1 | 1 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | * TOTALS | |

GENERAL BODY SYSTEM
NONE

GENITAL SYSTEM

| | |
|-------------------------|----|
| Clitoral Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | I | + | + | + | 43 |
| Squamous Cell Carcinoma | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Cystadenoma | | | | | | X | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Polyp Stromal | | | | | | | | | | | | | | X | | | | | | | | | | | | 3 |
| Leiomyoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | 2 |
| Hemangiosarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Endometrium, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | |
|--------------------|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

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Lab: BNW

| | | DAY ON TEST | | |
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| B6C3F1 MICE FEMALE
CONTROL | ANIMAL ID | ----- | | |
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1
2
3
4 | 1
2
3
4
5 | 2
3
4
5
6 | 3
4
5
6
7 | 4
5
6
7
8 | 5
6
7
8
9 | 6
7
8
9
0 | 7
8
9
0
1 | 8
9
0
1
2 | 9
0
1
2
3 | 0
1
2
3
4 | 1
2
3
4
5 | 2
3
4
5
6 | 3
4
5
6
7 | 4
5
6
7
8 | 5
6
7
8
9 | 6
7
8
9
0 | 7
8
9
0
1 | 8
9
0
1
2 | 9
0
1
2
3 | 0
1
2
3
4 | 1
2
3
4
5 | 2
3
4
5
6 | 3
4
5
6
7 | 4
5
6
7
8 | 5
6
7
8
9 | |
| | | ----- | | * TOTALS | |
| Histiocytic Sarcoma | | | | 1 | |
| Lymph Node | | ----- | | 4 | |
| Iliac, Lymphoma Malignant | | + + + + + + + + M M + + + + + M M + + M + M + + | | 2 | |
| Renal, Lymphoma Malignant | | X | | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | * TOTALS | |
|-------------------------------|-------------|-----------------------|
| | | * TOTALS | |
| | | * TOTALS | |
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 7
3
2 | 7
3
2 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
2 | 7
0
5 | 5
3
7 | 4
8
1 | 7
3
2 | 7
2
5 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
2 | 7
3
3 | 6
3
3 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
2 | |
| | ANIMAL ID | 0
0
1
2
6 | 0
0
1
2
7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
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1
3
3 | 0
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1
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3 | 0
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3
4 | 0
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3
5 | 0
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3
6 | 0
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7 | 0
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3
8 | 0
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9 | 0
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1 | 0
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2 | 0
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1
4
9 |
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| | |
|--------------------------------------|----|
| Mammary Gland | + | 50 |
| Lymphoma Malignant | 1 |
| Carcinoma | | | | X | | 1 |
| Skin | + | 50 |
| Subcutaneous Tissue, Sarcoma | | | X | | | | | | | | | | | X | | | | | | | | | X | | | 6 |
| Subcutaneous Tissue, Liposarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Subcutaneous Tissue, Hemangiosarcoma | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | |
|------|----|
| Bone | + | 50 |
|------|----|

NERVOUS SYSTEM

| | |
|--------------------|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Peripheral Nerve |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Spinal Cord |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 7
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RESPIRATORY SYSTEM

| | |
|---|----|
| Larynx | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | 1 |
| Lung | + | 50 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | X | | | | X | | X | | | 6 |
| Alveolar/Bronchiolar Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocellular Carcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Trachea | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

SPECIAL SENSES SYSTEM

| | |
|--------------------|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | * TOTALS | |
|-------------------------------|-------------|-----------------------|
| | | * TOTALS | |
| | | * TOTALS | |
| B6C3F1 MICE FEMALE
CONTROL | DAY ON TEST | 7
3
2 | 7
3
2 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
2 | 7
0
5 | 5
3
7 | 4
8
1 | 7
3
2 | 7
2
5 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
3 | 7
3
2 | 7
3
3 | 6
3
3 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
2 | |
| | | |
| | ANIMAL ID | 0
0
1
2
6 | 0
0
1
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7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
0
1
3
3 | 0
0
1
3
3 | 0
0
1
3
4 | 0
0
1
3
5 | 0
0
1
3
6 | 0
0
1
3
7 | 0
0
1
3
8 | 0
0
1
3
9 | 0
0
1
4
0 | 0
0
1
4
1 | 0
0
1
4
2 | 0
0
1
4
3 | 0
0
1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 |
| | | |
| | | |

| | | |
|--------------------|---|---|
| Adenoma | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Carcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

URINARY SYSTEM

| | |
|--------------------|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | X | | | | | | | | | | | X | | | X | | | | | X | | | | 6 |
| Urinary Bladder | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | X | | | | | | X | | | 4 |

SYSTEMIC LESIONS

| | |
|---------------------|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant | | | X | | | X | | | | X | | X | X | | | X | X | | | | | X | | X | | 15 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE
100 PPM | | DAY ON TEST | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
|-------------------------------|--|-------------|----------------------|
| | | | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| B6C3F1 MICE FEMALE
100 PPM | | ANIMAL ID | |
| | | | 0 | |
| | | | 0 | |
| | | | 3 | |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | females
(cont...) |

ALIMENTARY SYSTEM

| |
|------------------------------------|
| Esophagus | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | I | + | + |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + |
| Carcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + |
| Hepatocellular Adenoma | X | X | | | | X | | | | X | X | X | | X | | | | | | | | | X | X |
| Hemangioma | | | | X | |
| Hepatocellular Carcinoma | | | | | X | | | | | | | | X | X | | | | X | | | | | | |
| Hepatocellular Carcinoma, Multiple | | | | | | | | X | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | DAY ON TEST | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|-------------------------------|-------------|
| | | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| B6C3F1 MICE FEMALE
100 PPM | ANIMAL ID | 0 |
| | | 0 |
| | | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females
(cont...)

Lymphoma Malignant

X

X

X

Hepatocellular Adenoma, Multiple

X

Histiocytic Sarcoma

X

Mesentery

+

Pancreas

+ +

Lymphoma Malignant

Salivary Glands

+ +

Lymphoma Malignant

X

Stomach, Forestomach

+ +

Lymphoma Malignant

X

Stomach, Glandular

+ +

Lymphoma Malignant

X

CARDIOVASCULAR SYSTEM

Heart

+ +

Histiocytic Sarcoma

X

Sarcoma, Metastatic, Skin

Hepatocellular Carcinoma, Metastatic,
Liver

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7
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females
(cont...)

ENDOCRINE SYSTEM

| |
|----------------------------|
| Adrenal Cortex | + |
| Adrenal Medulla | + |
| Pheochromocytoma Benign |
| Islets, Pancreatic | + |
| Parathyroid Gland | M | M | + | + | + | + | M | + | + | M | + | + | + | + | M | + | M | + | + | M | + | + | + | + | M |
| Pituitary Gland | + |
| Pars Distalis, Adenoma |
| Thyroid Gland | + |
| Follicular Cell, Carcinoma | |
| Sarcoma, Metastatic, Skin | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7
3
1 | 7
3
2 | 7
3
2 | 5
0
9 | 7
3
1 | 7
3
2 | 2
6
9 | 7
3
1 | 7
3
3 | 6
7
0 | 6
4
0 | 5
3
7 | 7
3
3 | 5
2
3 | 7
3
1 | 7
0
5 | 7
3
2 | 7
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2 | 7
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3 | 7
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2 | 7
3
2 | 7
3
3 | |
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| | ANIMAL ID | 0
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| | females
(cont...) | | |
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| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | I | + | + | + | + | + | I | + | + | + | |
| Ovary | | + | |
| Cystadenoma | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Lymphoma Malignant | | X | | |
| Luteoma | | |
| Uterus | | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Lymphoma Malignant | | X | | |

females
(cont...)

HEMATOPOIETIC SYSTEM

| |
|-----------------------------|
| Bone Marrow | + |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | + | + | | | | | | + | |
| Renal, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Lumbar, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | X | | | | | | X | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | X | | | | | | X | |
| Lymphoma Malignant |
| Iliac, Lymphoma Malignant |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | DAY ON TEST | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|-------------------------------|-------------|
| | | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| B6C3F1 MICE FEMALE
100 PPM | ANIMAL ID | 0 |
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| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| Lymph Node, Bronchial | | + | + | + | M | + | + | + | M | M | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | X | | | | | | X | |
| Sarcoma, Metastatic, Skin | |
| Lymph Node, Mandibular | | + | + | + | M | + | + | + | + | M | + | + | M | M | M | + | + | + | + | + | M | + | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | | X | |
| Lymph Node, Mediastinal | | + | + | + | M | M | + | + | + | M | M | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | | X | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | X | | | | | | | | | | | | | X | | | | | X | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Spleen | | + |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | X | | | | | X | |
| Thymus | | + | + | + | M | I | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | | X | |
| Sarcoma, Metastatic, Skin | |

females
(cont...)

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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| B6C3F1 MICE FEMALE
100 PPM | | DAY ON TEST | 7
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| females
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INTEGUMENTARY SYSTEM

| |
|-----------------------------------|
| Mammary Gland | + |
| Skin | + |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Subcutaneous Tissue, Lymphoma |
| Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | |

MUSCULOSKELETAL SYSTEM

| |
|------|
| Bone | + |
|------|

NERVOUS SYSTEM

| |
|-------------|
| Brain | + |
| Spinal Cord | |

RESPIRATORY SYSTEM

| |
|--------|
| Larynx | + |
|--------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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| DAY ON TEST | | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | |
| B6C3F1 MICE FEMALE | | 0
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| 100 PPM | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | females
(cont...) |
| Lung | | + | |
| Alveolar/Bronchiolar Adenoma | | | | | | | X | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | X | | | | | X | X | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | X | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | |
| Sarcoma, Metastatic, Skin | | |
| Nose | | + | |
| Trachea | | + | |

SPECIAL SENSES SYSTEM

| | | |
|---------------------|--|---|
| Eye | | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | X | X | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | |

URINARY SYSTEM

| | | |
|--------|--|---|
| Kidney | | + |
|--------|--|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

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l .. Insufficient tissue

M .. Missing tissue

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TDMS No. 88006 - 04

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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Lab: BNW

| | DAY ON TEST | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|-------------------------------|-------------|
| | | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| B6C3F1 MICE FEMALE
100 PPM | ANIMAL ID | 0 |
| | | 0 |
| | | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females
(cont...)

Lymphoma Malignant

X

X

Histiocytic Sarcoma

X

Urinary Bladder

+ +

Lymphoma Malignant

X

SYSTEMIC LESIONS

Multiple Organ

+ +

Histiocytic Sarcoma

X

Lymphoma Malignant

X

X

X

X

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7
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ALIMENTARY SYSTEM

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| Esophagus | + | 50 |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | A | M | + | + | + | + | + | + | A | M | + | M | + | + | 43 |
| Lymphoma Malignant | | | | X | | 2 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 47 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 |
| Carcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 47 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | | | | X | X | X | X | | | | X | | X | | | X | | | | | | | 16 |
| Hemangioma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocellular Carcinoma | | | | | | | | | X | | | | | X | | | | | | | | X | | | | 7 |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | X | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7
3
2 | 7
3
2 | 7
3
1 | 7
3
3 | 7
3
2 | 7
3
3 | 7
3
3 | 7
2
5 | 7
2
6 | 7
3
3 | 4
9
7 | 7
3
1 | 7
3
1 | 7
3
1 | 7
3
3 | 5
5
6 | 7
3
3 | 7
3
3 | 6
6
8 | 7
3
1 | 7
3
3 | 7
3
1 | 7
3
1 | 7
3
2 | |
| | <hr style="border-top: 1px dotted black;"/> | |
| | ANIMAL ID | 0
0
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2
6 | 0
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7 | 0
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9 | 0
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0 |
| | * TOTALS |

| | |
|----------------------------------|---|
| Lymphoma Malignant | 4 |
| Hepatocellular Adenoma, Multiple | 4 |
| Histiocytic Sarcoma | 1 |

| | |
|-----------|---|
| Mesentery | 5 |
|-----------|---|

| | |
|--------------------|----|
| Pancreas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

| | |
|--------------------|----|
| Salivary Glands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

| | |
|----------------------|----|
| Stomach, Forestomach |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

| | |
|--------------------|----|
| Stomach, Glandular |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

CARDIOVASCULAR SYSTEM

| | |
|---|----|
| Heart |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Sarcoma, Metastatic, Skin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocellular Carcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7
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| | * TOTALS | |

ENDOCRINE SYSTEM

| | |
|----------------------------|----|
| Adrenal Cortex | + | 50 |
| Adrenal Medulla | + | 50 |
| Pheochromocytoma Benign | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | M | M | + | + | + | M | M | M | M | + | M | M | M | + | M | + | + | + | + | + | M | + | M | 30 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | X | X | | | | X | | | | 6 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Follicular Cell, Carcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Sarcoma, Metastatic, Skin | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | |
|-------------------------------|-------------|----------|
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | |
| | | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1 | 2 | |
| B6C3F1 MICE FEMALE
100 PPM | ANIMAL ID | 0 | * TOTALS |
| | | 0 | |
| | | 3 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | M | M | M | + | + | + | 41 |
| Ovary |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cystadenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Luteoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | 1 |
| Uterus |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

HEMATOPOIETIC SYSTEM

| | |
|-----------------------------|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 49 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymph Node | | | | + | | | + | | | | | | | | | | | | | | | | | | | 5 |
| Renal, Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lumbar, Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lumbar, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Renal, Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Iliac, Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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Species/Strain: MICE/B6C3F1

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Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | DAY ON TEST | | | |
|-------------------------------|-----------|-------------|----|----------|--|
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | | | |
| | | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1 | 2 | | |
| | | | | | |
| B6C3F1 MICE FEMALE
100 PPM | ANIMAL ID | 0 | 0 | | |
| | | 0 | 0 | | |
| | | 3 | 3 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | * TOTALS | |
| Lymph Node, Bronchial | | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | 41 | | |
| Lymphoma Malignant | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 | | |
| Sarcoma, Metastatic, Skin | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymph Node, Mandibular | | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | M | + | + | + | 39 | | |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | | |
| Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 | | |
| Lymph Node, Mediastinal | | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | M | M | + | + | 40 | | |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | | |
| Lymphoma Malignant | | | | X | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Lymphoma Malignant | | | | X | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 | | |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | | |
| Spleen |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 45 | | |
| Lymphoma Malignant | | | | X | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | | |
| Sarcoma, Metastatic, Skin | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|----------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 |
| | | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1 |
| | | 0 | 0 |
| | ANIMAL ID | 0 | 0 |
| | | 3 | 3 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | * TOTALS | |

INTEGUMENTARY SYSTEM

| | |
|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Subcutaneous Tissue, Fibrosarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Subcutaneous Tissue, Sarcoma | | | | | | | | X | | | | | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

MUSCULOSKELETAL SYSTEM

| | |
|------|----|
| Bone | + | 50 |
|------|----|

NERVOUS SYSTEM

| | |
|-------------|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Spinal Cord |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

RESPIRATORY SYSTEM

| | |
|--------|----|
| Larynx | + | 50 |
|--------|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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TDMS No. 88006 - 04

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ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Requested: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7
3
2 | 7
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3 | 7
3
3 | 7
2
5 | 7
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6 | 7
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6 | 7
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8 | 7
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2 | |
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| | ANIMAL ID | 0
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0 |
| | * TOTALS | |

| | |
|---|----|
| Lung | + | 50 |
| Alveolar/Bronchiolar Adenoma | X | | | | | 2 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | X | | | | | | X | | | | | | | 5 |
| Lymphoma Malignant | | | | | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Alveolar/Bronchiolar Carcinoma | | | | X | X | | | | | X | | | | | | | | | | | | | X | | X | 5 |
| Sarcoma, Metastatic, Skin | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

| | |
|---------------------|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | 47 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 48 |
| Adenoma | | | | | | | | | | | X | | | | | | | | | | | | | | | 3 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

URINARY SYSTEM

| | |
|--------|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 49 |
|--------|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|----------|
| B6C3F1 MICE FEMALE
100 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1 | 2 |
| | | |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 3 | 3 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | * TOTALS | |

| | | | |
|---------------------|--|--|----|
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | | 48 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

SYSTEMIC LESIONS

| | | | |
|---------------------|--|--|----|
| Multiple Organ |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | 50 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Requested: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | | |
|-------------------------------|-------------|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
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ALIMENTARY SYSTEM

| |
|----------------------------------|
| Esophagus | + |
| Gallbladder | + | + | + | + | + | A | A | + | M | + | + | + | + | + | M | + | + | + | + | M | M | + | + | I |
| Lymphoma Malignant |
| Intestine Large, Cecum | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leiomyosarcoma |
| Intestine Small, Duodenum | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Carcinoma |
| Liver | + |
| Hepatocellular Adenoma, Multiple | X | | X | X | | | | | | | X | | | X | | | | X | | | | X | X | |
| Hepatocellular Adenoma | | X | | | X | | | | | | | X | | | | | | | | | X | | | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE
300 PPM | | ANIMAL ID | DAY ON TEST | | females
(cont...) |
|-------------------------------|--|-----------|-----------------------|
| | | | 7
3
1 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 0
3
0 | 0
3
0 | 7
3
2 | 7
3
2 | 7
3
2 | 7
3
2 | 7
3
1 | 7
3
1 | 7
3
3 | 7
3
2 | 6
5
6 | 7
3
1 | 7
3
2 | 7
3
9 | 5
0
7 | 7
3
3 | 7
3
2 | 7
3
3 | 6
6
3 | |
| | | | |
| | | | 0
0
5
0
1 | 0
0
5
0
2 | 0
0
5
0
3 | 0
0
5
0
4 | 0
0
5
0
5 | 0
0
5
0
6 | 0
0
5
0
7 | 0
0
5
0
8 | 0
0
5
0
9 | 0
0
5
1
0 | 0
0
5
1
1 | 0
0
5
1
2 | 0
0
5
1
3 | 0
0
5
1
4 | 0
0
5
1
5 | 0
0
5
1
6 | 0
0
5
1
7 | 0
0
5
1
8 | 0
0
5
1
9 | 0
0
5
2
0 | 0
0
5
2
1 | 0
0
5
2
2 | 0
0
5
2
3 | 0
0
5
2
4 | 0
0
5
2
5 |

Hepatocholangiocarcinoma

X

Hepatocellular Carcinoma

X

Histiocytic Sarcoma

X

Mesentery

+

+

Pancreas

+

+

+

+

+

+

A

+

+

+

+

+

+

+

+

+

+

+

+

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+

+

+

+

Lymphoma Malignant

X

Salivary Glands

+

+

+

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+

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+

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+

+

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+

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+

+

+

Lymphoma Malignant

X

Stomach, Forestomach

+

+

+

+

+

A

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

Squamous Cell Papilloma

X

Lymphoma Malignant

Stomach, Glandular

+

+

+

+

+

A

+

+

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+

+

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Lymphoma Malignant

CARDIOVASCULAR SYSTEM

Heart

+

+

+

+

+

+

+

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+

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+

+

Lymphoma Malignant

X

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | | | | | |
|-------------------------------|-------------|----------------------|-----------------------|-----------------------|-----------------------|--|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
1 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 0
3
0 | 0
3
0 | 7
3
2 | 7
3
2 | 7
3
2 | 7
3
1 | 7
3
1 | 7
3
3 | 7
3
2 | 6
5
6 | 7
3
1 | 7
3
3 | 7
3
2 | 7
1
9 | 5
0
7 | 7
3
3 | 7
3
2 | 7
3
3 | 6
6
3 | females
(cont...) | | | | |
| | ANIMAL ID | 0
0
5
0
1 | 0
0
5
0
2 | 0
0
5
0
3 | 0
0
5
0
4 | 0
0
5
0
5 | 0
0
5
0
6 | 0
0
5
0
7 | 0
0
5
0
8 | 0
0
5
0
9 | 0
0
5
1
0 | 0
0
5
1
1 | 0
0
5
1
1 | 0
0
5
1
1 | 0
0
5
1
2 | 0
0
5
1
3 | 0
0
5
1
4 | 0
0
5
1
5 | 0
0
5
1
6 | 0
0
5
2
7 | 0
0
5
2
8 | 0
0
5
2
9 | 0
0
5
3
0 | 0
0
5
3
1 | 0
0
5
3
2 | | 0
0
5
3
3 | 0
0
5
3
4 | 0
0
5
3
5 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

ENDOCRINE SYSTEM

| |
|--------------------------|
| Adrenal Cortex | + |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Pheochromocytoma Benign | X | | | | | | | | | | | | | X | | | | | | | | | |
| Islets, Pancreatic | + |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | M | + | M | + | M |
| Pituitary Gland | + |
| Pars Intermedia, Adenoma | | | | | | | | | | X | | | | | | | | | X | | | | |
| Pars Distalis, Adenoma |
| Thyroid Gland | + |
| Follicular Cell, Adenoma | | | | | | | | | | | | X | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| |
|----------------|
| Clitoral Gland | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | M | M |
|----------------|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
| | | 1 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 5 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | females (cont...) | |

| |
|---------------------|
| Ovary | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | X | |
| Cystadenoma |
| Uterus | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyp Stromal | X | |
| Histiocytic Sarcoma | |

HEMATOPOIETIC SYSTEM

| | |
|---|---|
| Bone Marrow | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | X | |
| Lymph Node |
| Deep Cervical, Lymphoma Malignant | X | |
| Renal, Lymphoma Malignant | X | |
| Iliac, Lymphoma Malignant | X | |
| Lymph Node, Bronchial | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + |
| Lymphoma Malignant | X | |
| Hepatocholangiocarcinoma, Metastatic, Liver | X | |
| Histiocytic Sarcoma | X | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
| | | 1 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 5 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| | | females (cont...) | |

| | |
|---|---|
| Lymph Node, Mandibular | + | + | + | M | + | M | M | + | + | M | + | M | + | + | + | + | + | M | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | X | | | | X | | | | X | | | | | | | | |
| Lymph Node, Mediastinal | M | M | + | M | M | A | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | M | M | M |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | X | X | | | | | | | X |
| Hepatocholangiocarcinoma, Metastatic, Liver | | | | | | | | | | X | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | X | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | X | | | X | X | | | X | X | | | | | | | | |
| Spleen | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | X | | | X | X | | | X | X | | | | | | | | X |
| Thymus | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | X |

INTEGUMENTARY SYSTEM

| |
|---------------|
| Mammary Gland | + |
| Skin | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
| | | 1 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 |
| | ANIMAL ID | 0 | 0 |
| | | 0 | 0 |
| | | 5 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| | | females (cont...) | |

MUSCULOSKELETAL SYSTEM

| | |
|---|---|
| Bone | + |
| Skeletal Muscle | + | |
| Hepatocholangiocarcinoma, Metastatic, Liver | X | |

NERVOUS SYSTEM

| |
|-------------|
| Brain | + |
| Spinal Cord | |

RESPIRATORY SYSTEM

| | |
|---|---|
| Larynx | + |
| Lung | + |
| Hepatocholangiocarcinoma, Metastatic, Liver | X | |
| Hepatocellular Carcinoma, Metastatic, Liver | X | | | | | | | | | | | | X | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | X | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Species/Strain: MICE/B6C3F1

Pathologist: GRUMBEIN, S.

Lab: BNW

| | | |
|-------------------------------|-------------|----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
1 | 7
3
3 | 7
3
3 | 7
3
2 | 7
3
2 | 0
3
0 | 0
3
0 | 7
3
2 | 7
3
2 | 7
0
2 | 7
3
2 | 7
3
1 | 7
3
1 | 7
3
3 | 7
3
2 | 6
5
6 | 7
3
1 | 7
3
2 | 7
1
9 | 5
0
7 | 7
3
3 | 7
3
2 | 7
3
3 | 6
6
3 | females
(cont...) |
| | | |
| | | 0
0
5
0
1 | 0
0
5
0
2 | 0
0
5
0
3 | 0
0
5
0
4 | 0
0
5
0
5 | 0
0
5
0
6 | 0
0
5
0
7 | 0
0
5
0
8 | 0
0
5
0
9 | 0
0
5
1
0 | 0
0
5
1
1 | 0
0
5
1
2 | 0
0
5
1
3 | 0
0
5
1
4 | 0
0
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5 | 0
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5
1
6 | 0
0
5
1
7 | 0
0
5
1
8 | 0
0
5
1
9 | 0
0
5
2
0 | 0
0
5
2
1 | 0
0
5
2
2 | 0
0
5
2
3 | 0
0
5
2
4 | |
| | ANIMAL ID | |
| | | |

[illegible]

SPECIAL SENSES SYSTEM

[illegible]

URINARY SYSTEM

| |
|---------------------|
| Kidney | + |
| Lymphoma Malignant | | | | | | | | | | | X | | | | X | | | | X | | | | | | X |
| Histiocytic Sarcoma | |
| Urinary Bladder | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | X | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
2 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
3 | 7
3
5 | 7
3
3 | 7
3
1 | 7
3
3 | 7
3
1 | 7
3
2 | 6
4
9 | 7
1
9 | 3
0
9 | 7
3
3 | 4
1
6 | 7
3
2 | 7
3
2 | 7
3
2 | 7
3
1 | 6
7
0 | 7
3
3 | 7
3
1 | |
| | <hr style="border-top: 1px dashed black;"/> | |
| | ANIMAL ID | 0
0
5
2
6 | 0
0
5
2
7 | 0
0
5
2
8 | 0
0
5
2
9 | 0
0
5
3
0 | 0
0
5
3
1 | 0
0
5
3
2 | 0
0
5
3
3 | 0
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5
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4 | 0
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5 | 0
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6 | 0
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7 | 0
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8 | 0
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9 | 0
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4
1 | 0
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2 | 0
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5
4
3 | 0
0
5
4
4 | 0
0
5
4
5 | 0
0
5
4
6 | 0
0
5
4
7 | 0
0
5
4
8 | 0
0
5
4
9 |
| | | |
| | | |
| * TOTALS | | |

ALIMENTARY SYSTEM

| | |
|----------------------------------|----|
| Esophagus | + | 50 |
| Gallbladder | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 41 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leiomyosarcoma | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 46 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 46 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 46 |
| Carcinoma | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma, Multiple | | X | | | | | | | | | | | | | | | | X | | | X | X | | | | 12 |
| Hepatocellular Adenoma | | | | | | | | | X | | X | X | X | | | | | | | | | | | X | | 9 |
| Lymphoma Malignant | | | | | X | | | | | | | | | X | | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
2 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
3 | 7
3
0 | 7
3
5 | 7
3
3 | 7
3
1 | 7
3
3 | 7
3
1 | 7
3
2 | 6
4
9 | 7
1
9 | 3
0
9 | 7
3
3 | 4
1
6 | 7
3
2 | 7
3
2 | 7
3
2 | 7
3
2 | 6
7
0 | 7
3
3 | 7
3
1 |
| | <hr style="border-top: 1px dotted black;"/> | |
| | ANIMAL ID | 0
0
5
2
6 | 0
0
5
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7 | 0
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8 | 0
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9 | 0
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| * TOTALS | | |

Hepatocholangiocarcinoma 1

Hepatocellular Carcinoma X X X 6

Histiocytic Sarcoma X 2

Mesentery + + + 5

Pancreas + 49

Lymphoma Malignant 1

Salivary Glands + 50

Lymphoma Malignant 1

Stomach, Forestomach + 49

Squamous Cell Papilloma 1

Lymphoma Malignant X 1

Stomach, Glandular + 49

Lymphoma Malignant X 1

CARDIOVASCULAR SYSTEM

Heart + 50

Lymphoma Malignant X 2

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
2 | 7
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2 | 7
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3 | 7
3
1 | 7
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3 | 7
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3 | 7
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5 | 7
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3 | 7
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1 | 7
3
3 | 7
3
1 | 7
3
2 | 6
4
9 | 7
1
9 | 3
0
9 | 7
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3 | 4
1
6 | 7
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2 | 7
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2 | 7
3
2 | 7
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1 | 6
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3 | 7
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1 |
| | ANIMAL ID | 0
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| | | |
| | | | * TOTALS |

ENDOCRINE SYSTEM

| | | |
|--------------------------|----|----|
| Adrenal Cortex | + | 50 | |
| Adrenal Medulla | + | 49 | |
| Pheochromocytoma Benign | 2 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parathyroid Gland | M | + | + | M | M | M | M | + | M | + | + | + | + | M | + | + | M | + | M | + | + | M | M | + | + | 33 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Pars Intermedia, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 | |
| Pars Distalis, Adenoma | | | | X | | | | | | | | | X | X | | | | | | | | X | | | 4 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Follicular Cell, Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|----------------|----|
| Clitoral Gland | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | 42 |
|----------------|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
2 | 7
3
2 | 7
3
3 | 7
3
1 | 7
3
3 | 7
3
0 | 7
3
5 | 7
3
3 | 7
3
1 | 7
3
3 | 7
3
1 | 7
3
2 | 6
4
9 | 7
1
9 | 3
0
9 | 7
3
3 | 4
1
6 | 7
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2 | 7
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3 | 7
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1 |
| | <hr style="border-top: 1px dotted black;"/> | |
| | ANIMAL ID | 0
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| | | |
| * TOTALS | | |

| | |
|---------------------|----|
| Ovary | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | | 2 |
| Cystadenoma | | | | | | | | | | | | X | | | | | | X | | | | | X | | | 3 |
| Uterus | + | 49 |
| Polyp Stromal | X | | | | | | | | | | | | | | | | | X | | | | | | | | 3 |
| Histiocytic Sarcoma | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | |
|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | | 2 |
| Lymph Node |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Deep Cervical, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Renal, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Iliac, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymph Node, Bronchial | + | + | + | + | + | M | + | + | + | + | + | M | M | + | M | + | M | + | M | + | + | M | + | M | + | 39 |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | | | | | 5 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

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Species/Strain: MICE/B6C3F1

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | | |
|-------------------------------|-------------|-----------------------|--|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
2 | 7
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3
3 | 7
3
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3 | 7
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1 | 7
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2 | 6
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9 | 7
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9 | 3
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9 | 7
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| | ANIMAL ID | 0
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| | | | |
| | * TOTALS | | |

Lymph Node, Mandibular

Lymphoma Malignant

| |
|----|
| + | + | + | + | M | + | + | + | M | + | + | M | M | I | + | + | + | M | + | + | + | + | + | + | M | 37 |
| | 3 |

Lymph Node, Mediastinal

Lymphoma Malignant

Hepatocholangiocarcinoma, Metastatic,
Liver

Histiocytic Sarcoma

| |
|----|
| + | + | + | + | + | M | M | + | + | + | + | + | M | + | M | + | + | + | + | M | + | M | + | + | + | 34 |
| | | | | | | | | | | | | | X | | | | | | | | | | | | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

Lymph Node, Mesenteric

Lymphoma Malignant

| |
|----|
| + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| | | | | | | | | | | | | | X | | | | | | | | | | | | 6 |

Spleen

Lymphoma Malignant

| |
|----|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| X | | X | | | | | | | | | | | X | | X | | | | | | | | | | 10 |

Thymus

Lymphoma Malignant

| |
|----|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| | | | | | | | | | | | | | X | | | | | | | | | | | | 3 |

INTEGUMENTARY SYSTEM

Mammary Gland

| |
|----|
| + | 50 |
|----|

Skin

| |
|----|
| + | 50 |
|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
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2 | 6
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9 |
| | * TOTALS | |

MUSCULOSKELETAL SYSTEM

| | |
|---|----|
| Bone | + | 50 |
| Skeletal Muscle | 1 |
| Hepatocholangiocarcinoma, Metastatic, Liver | | 1 |

NERVOUS SYSTEM

| | |
|-------------|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Spinal Cord |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

RESPIRATORY SYSTEM

| | |
|---|----|
| Larynx | + | + | + | \| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocholangiocarcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatocellular Carcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Alveolar/Bronchiolar Carcinoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
2 | 7
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2 | 6
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9 | 7
1
9 | 3
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9 | 7
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3 | 4
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| | ANIMAL ID | 0
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| * TOTALS | | |

| | |
|--|---|
| Lymphoma Malignant | 4 |
| Histiocytic Sarcoma | 2 |
| Alveolar/Bronchiolar Adenoma | 4 |
| Alveolar/Bronchiolar Carcinoma, Multiple |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

| | |
|---------|----|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

| | |
|-----------------|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 46 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |

URINARY SYSTEM

| | |
|---------------------|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |
| Histiocytic Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
300 PPM | DAY ON TEST | 7
3
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9 | 7
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9 |
| | * TOTALS | |

SYSTEMIC LESIONS

| | |
|---------------------|----|
| Multiple Organ | + | 50 |
| Histiocytic Sarcoma | | | | | | | X | | | | | | | | | | | | | | | | | | | 3 |
| Lymphoma Malignant | X | | X | | X | | | | | | | | | | X | | X | | | | | | | | | 11 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | | |
|-------------------------------|-------------|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
3 | 7
0
9 | 7
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1 | 7
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3 | 7
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2 | 7
3
3 | 7
3
1 | 7
3
1 | 7
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2 | 7
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3
2 | 7
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3 | 7
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8
6 | 7
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3 | females
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| | ANIMAL ID | 0
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5 |

females
(cont...)

ALIMENTARY SYSTEM

| |
|------------------------------------|
| Esophagus | + |
| Gallbladder | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Cecum | + | A | + |
| Intestine Large, Colon | + |
| Intestine Large, Rectum | + |
| Intestine Small, Duodenum | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Peyer's Patch, Lymphoma Malignant | |
| Liver | + |
| Hepatocellular Adenoma, Multiple | | X | | X | | | | X | | X | | X | | X | | | | X | X | X | | | | X | |
| Hepatocellular Carcinoma | | X | | X | | X | | | | | | X | | | | | | | | | | | X | X | X |
| Hepatocellular Adenoma | | | | | | | | X | | | | | | X | | X | | | | | | | X | | |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Hepatoblastoma |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | | |
|-------------------------------|--|-------------|----------------------|
| B6C3F1 MICE FEMALE
600 PPM | | DAY ON TEST | 7
3
3 | 7
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9 | 7
3
1 | 7
3
3 | 7
3
2 | 7
3
3 | 7
3
3 | 7
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1 | 7
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1 | 7
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2 | 7
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2 | 7
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2 | 7
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3 | 7
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1 | 7
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1 | 7
3
2 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
1 | 7
3
2 | 6
8
6 | 7
3
3 | females
(cont...) |
| | | | |
| | | ANIMAL ID | 0
0
7
0
1 | 0
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7
0
2 | 0
0
7
0
3 | 0
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7
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4 | 0
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9 | 0
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3 | 0
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4 | 0
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7
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5 | 0
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7
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6 | 0
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7
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7 | 0
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8 | 0
0
7
1
9 | 0
0
7
2
0 | 0
0
7
2
1 | 0
0
7
2
2 | 0
0
7
2
3 | |
| | | | |
| | | | |

| | | |
|-------------------------|---|--|
| Lymphoma Malignant | | |
| Mesentery | + | |
| Pancreas | + | |
| Salivary Glands | + | |
| Stomach, Forestomach | + | |
| Squamous Cell Papilloma | | |
| Stomach, Glandular | + | |

CARDIOVASCULAR SYSTEM

| | | |
|-------|---|--|
| Heart | + | |
|-------|---|--|

ENDOCRINE SYSTEM

| | | |
|---|---|--|
| Adrenal Cortex | + |
| Hepatocellular Carcinoma, Metastatic, Liver | | |
| Adrenal Medulla | + + + + + + + + + + + + + + + + M + + + + + + + + + + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | DAY ON TEST | | |
|-------------------------------|-----------|---|
| | | 7
3
3 | 7
0
9 | 7
3
1 | 7
3
3 | 7
3
3 | 7
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2 | 7
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3 | 7
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2 | 7
3
1 | 7
3
3 | 7
3
3 | 7
3
1 | 7
3
2 | 6
8
6 | 7
3
3 | |
| B6C3F1 MICE FEMALE
600 PPM | ANIMAL ID | 0 | 0 |
| | | 0 |
| | | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| Islets, Pancreatic | | + | |
| Parathyroid Gland | | + | M | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | M | + | + | M | M | + | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | | X | |
| Thyroid Gland | | + | |
| Follicular Cell, Adenoma | | X | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|---|---|
| Clitoral Gland | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + |
| | + |
| Ovary | + |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | | X | | | | | | | | | | |
| Cystadenoma | | | | | | | | | | | | | | | X | | | | | X | | | | |
| Tubulostromal Adenoma |
| Oviduct |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
3 | 7
0
9 | 7
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1 | 7
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3
3 | 7
3
2 | 7
3
3 | 7
3
1 | 7
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3
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1 | 7
3
2 | 7
3
3 | 7
3
3 | 7
3
3 | 7
3
3 | 6
8
6 | 7
3
3 | |
| | | |
| | ANIMAL ID | 0
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| | | |
| | | |

females
(cont...)

| |
|---------------------|
| Uterus | + |
| Histiocytic Sarcoma | |

HEMATOPOIETIC SYSTEM

| | |
|---|---|
| Bone Marrow | + |
| Lymph Node |
| Pancreatic, Lymphoma Malignant |
| Lumbar, Lymphoma Malignant |
| Lymph Node, Bronchial | + | + | + | + | + | + | M | + | + | + | + | M | M | + | + | M | + | + | + | + | + | + | + | + | + |
| Hepatocellular Carcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| Lymphoma Malignant |
| Lymph Node, Mandibular | + | + | M | M | + | + | + | + | M | + | + | + | + | + | M | + | M | + | + | M | + | + | M | + | + |
| Lymphoma Malignant |
| Lymph Node, Mediastinal | + | M | M | M | M | + | M | + | M | + | M | + | + | M | + | + | + | + | + | M | + | + | + | + | + |
| Lymphoma Malignant |
| Fibrosarcoma, Metastatic, Skin |
| Lymph Node, Mesenteric | + |
| Lymphoma Malignant |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
3 | 7
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3
1 | 7
3
1 | 7
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2 | 6
8
6 | 7
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3 |
| | ANIMAL ID | 0
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7
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2 | 0
0
7
2
3 | 0
0
2
2
4 | 0
0
2
2
5 |
| | | |
| | | |
| | | | females
(cont...) |

| |
|--------------------|
| Spleen | + |
| Lymphoma Malignant | |
| Thymus | + | I | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | |

INTEGUMENTARY SYSTEM

| | |
|--|---|
| Mammary Gland | + |
| Skin | + |
| Subcutaneous Tissue, Sarcoma, Multiple | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Subcutaneous Tissue, Sarcoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | |
| Subcutaneous Tissue, Liposarcoma, Multiple | |
| Subcutaneous Tissue, Fibrosarcoma |

MUSCULOSKELETAL SYSTEM

| |
|------|
| Bone | + |
|------|

NERVOUS SYSTEM

| |
|--|
| |
|--|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | 7 | 7 | 6 | 7 | |
|-------------------------------|-----------|-------------------|
| DAY ON TEST | | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | |
| | | 3 | 9 | 1 | 3 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 6 | 3 |
| | | |
| B6C3F1 MICE FEMALE
600 PPM | ANIMAL ID | 0 | 0 | |
| | | 0 | 0 | |
| | | 7 | 7 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | females (cont...) | |

females
(cont...)

| |
|-------|
| Brain | + |
|-------|

RESPIRATORY SYSTEM

| | |
|---|---|
| Larynx | + |
| Lung | + |
| Hepatocellular Carcinoma, Metastatic, Liver | | X | | X | | | | | | | | X | | | | | | | | | | | X | X | |
| Sarcoma, Metastatic, Skin | | | | | | | | | | | | | X | | | | | | | | | | X | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | X | | X | | | | | | | |
| Alveolar/Bronchiolar Carcinoma |
| Fibrosarcoma, Metastatic, Skin |
| Nose | + |
| Trachea | + |

SPECIAL SENSES SYSTEM

| |
|-----------------|
| Eye | + |
| Harderian Gland | + |
| Carcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Adenoma |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | | |
|-------------------------------|-------------|----------------------|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
3 | 7
0
9 | 7
3
1 | 7
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3 | 7
3
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3
3 | 7
3
3 | 7
3
1 | 7
3
1 | 7
3
2 | 7
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2 | 7
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2 | 7
3
1 | 7
3
3 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
2 | 7
3
1 | 7
3
1 | 7
3
2 | 7
3
3 | 6
8
6 | 7
3
3 | females
(cont...) | |
| | | | |
| | ANIMAL ID | 0
0
7
0
1 | 0
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7
0
2 | 0
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7
0
3 | 0
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4 | 0
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5 | 0
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6 | 0
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7 | 0
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8 | 0
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9 | 0
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2 | 0
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4 | 0
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6 | 0
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8 | 0
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9 | 0
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2 | 0
0
7
2
3 | 0
0
7
2
4 | | 0
0
7
2
5 |
| | | | |
| | | | |

URINARY SYSTEM

| |
|-----------------|
| Kidney | + |
| Urinary Bladder | + |

SYSTEMIC LESIONS

| |
|---------------------|
| Multiple Organ | + |
| Histiocytic Sarcoma | |
| Lymphoma Malignant | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
2 | 6
1
2 | 7
3
2 | 6
7
7 | 7
3
1 | 7
3
3 | 7
3
2 | 5
2
3 | 4
6
4 | 7
3
2 | 7
3
3 | 6
4
5 | 7
3
1 | 6
9
4 | 7
3
2 | 7
3
1 | 7
3
1 | 6
8
4 | 6
9
4 | 7
3
2 | 5
2
7 | 7
3
2 | 7
3
3 | 6
8
3 | 7
3
3 |
| | ANIMAL ID | 0
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2
6 | 0
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5 | 0
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4
6 | 0
0
7
4
7 | 0
0
7
4
8 | 0
0
7
4
9 |
| | * TOTALS | |

ALIMENTARY SYSTEM

| | |
|------------------------------------|----|
| Esophagus | + | 50 |
| Gallbladder | + | + | + | + | + | + | I | + | + | M | I | + | + | I | + | + | + | + | + | + | + | + | I | + | + | 43 |
| Intestine Large, Cecum | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Ileum | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Small, Jejunum | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Peyer's Patch, Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma, Multiple | | | | | X | | | | | X | | | X | | X | | | | | | | | | | X | 16 |
| Hepatocellular Carcinoma | | X | | X | | X | X | | | | | X | X | | X | | | X | | | | | X | X | | 17 |
| Hepatocellular Adenoma | | | | | | | | | X | | | | | | | | | | X | | | | X | | | 7 |
| Hepatocellular Carcinoma, Multiple |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Hepatoblastoma | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

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P04: NEOPLASMS BY INDIVIDUAL ANIMAL

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Date Report Reqsted: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
2 | 6
1
2 | 7
3
2 | 6
7
7 | 7
3
1 | 7
3
3 | 7
3
2 | 5
2
3 | 4
6
4 | 7
3
2 | 7
3
3 | 6
4
5 | 7
3
1 | 6
9
4 | 7
3
2 | 7
3
1 | 7
3
1 | 6
8
4 | 6
9
4 | 7
3
2 | 5
2
7 | 7
3
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3 | 6
8
3 | 7
3
3 |
| | <hr style="border-top: 1px dotted black;"/> | |
| | ANIMAL ID | 0
0
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2
6 | 0
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8 | 0
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7
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9 | 0
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7
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0 |
| | * TOTALS |

| | |
|-------------------------|----|
| Lymphoma Malignant | X | | 1 |
| Mesentery | + | | 6 |
| Pancreas | + | 50 |
| Salivary Glands | + | 50 |
| Stomach, Forestomach | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Squamous Cell Papilloma | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

CARDIOVASCULAR SYSTEM

| | |
|-------|----|
| Heart | + | 50 |
|-------|----|

ENDOCRINE SYSTEM

| | |
|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Carcinoma, Metastatic, Liver | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
2 | 6
1
2 | 7
3
2 | 6
7
7 | 7
3
1 | 7
3
3 | 7
3
2 | 5
2
3 | 4
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4 | 7
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2 | 7
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3 | 6
4
5 | 7
3
1 | 6
9
4 | 7
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1 | 7
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4 | 6
9
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2 | 5
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3 | 6
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3 | 7
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3 | |
|-------------------------------|-------------|-----------------------|----|
| | ANIMAL ID | 0
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3 | 0
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7 | 0
0
7
4
8 | 0
0
7
4
9 | |
| | | | |
| | | | |
| | * TOTALS | | |
| Islets, Pancreatic | + | + | 50 |
| Parathyroid Gland | + | M | M | + | + | M | M | + | + | + | M | + | + | + | + | + | + | + | + | M | M | I | + | + | M | 35 |
| Pituitary Gland | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | | | | X | | | | | 2 |
| Thyroid Gland | + | + | 50 |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | X | | | | | | | | | | 2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|---|----|
| Clitoral Gland | + | M | + | + | + | + | I | + | + | + | + | + | + | + | + | M | + | + | I | + | M | + | + | + | + | 41 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Carcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Cystadenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Tubulostromal Adenoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | 1 |
| Oviduct | | | | | | | | | | | + | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| | | |
|-------------------------------|---|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
2 | 6
1
2 | 7
3
2 | 6
7
7 | 7
3
1 | 7
3
3 | 7
3
2 | 5
2
3 | 4
6
4 | 7
3
2 | 7
3
3 | 6
4
5 | 7
3
1 | 6
9
4 | 7
3
2 | 7
3
1 | 7
8
4 | 6
9
4 | 7
3
2 | 5
2
7 | 7
3
2 | 7
3
3 | 6
8
3 | 7
3
3 |
| | <hr style="border-top: 1px dotted black;"/> | |
| | ANIMAL ID | 0
0
7
2
6 | 0
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7
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7 | 0
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7
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8 | 0
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7
2
9 | 0
0
7
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| | | |
| * TOTALS | | |

| | |
|---------------------|----|
| Uterus | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | |
|---|----|
| Bone Marrow | + | 50 |
| Lymph Node | | | | | | | | | | | | | + | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Lymph Node, Bronchial | M | M | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | M | M | M | M | + | + | M | + | 37 |
| Hepatocellular Carcinoma, Metastatic, Liver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | + | + | + | M | + | M | M | + | + | + | + | M | M | + | M | + | + | + | + | + | + | + | M | + | 36 |
| Lymphoma Malignant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | | | | | 1 |
| Lymph Node, Mediastinal | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | M | M | M | + | + | + | 36 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | X | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | |
|-------------------------------|-------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | |
| | | 3 | 1 | 3 | 7 | 3 | 3 | 3 | 2 | 6 | 3 | 3 | 4 | 3 | 9 | 3 | 3 | 3 | 8 | 9 | 3 | 2 | 3 | 3 | 8 | 3 |
| | | 2 | 2 | 2 | 7 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 5 | 1 | 4 | 2 | 1 | 1 | 4 | 4 | 2 | 7 | 2 | 3 | 3 | 3 |
| | |
| | ANIMAL ID | 0 |
| | | 0 |
| | | 7 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | * TOTALS |

| | |
|--------------------|----|
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | X | X | | | X | | | | X | | | | | | | 4 |
| Thymus | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 46 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | |
|--|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Subcutaneous Tissue, Sarcoma, Multiple |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | | X | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Liposarcoma, Multiple | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | |
|------|----|
| Bone | + | 50 |
|------|----|

NERVOUS SYSTEM

| |
|--|
| |
|--|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Requested: 07/28/2005

Time Report Requested: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE
600 PPM | | DAY ON TEST | |
|-------------------------------|--|-----------------------|
| | | 7
3
2 | 6
1
2 | 7
3
2 | 6
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7 | 7
3
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3
3 | 7
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2 | 5
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3 | 4
6
4 | 7
3
2 | 7
3
3 | 6
4
5 | 7
3
1 | 6
9
4 | 7
3
2 | 7
3
1 | 7
3
1 | 6
8
4 | 6
9
4 | 7
3
2 | 5
2
7 | 7
3
2 | 7
3
3 | 6
8
3 | 7
3
3 |
| | | |
| B6C3F1 MICE FEMALE
600 PPM | | ANIMAL ID | |
| | | 0
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| | | |
| | | * TOTALS | |

| | |
|-------|----|
| Brain | + | 50 |
|-------|----|

RESPIRATORY SYSTEM

| | |
|--------|----|
| Larynx | + | 50 |
|--------|----|

| | |
|------|----|
| Lung | + | 50 |
|------|----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|---|---|--|--|--|--|---|--|---|--|--|--|--|--|--|---|---|--|--|--|----|
| Hepatocellular Carcinoma, Metastatic, Liver | | X | | X | | X | X | | | | | X | | X | | | | | | | X | X | | | | 13 |
|---|--|---|--|---|--|---|---|--|--|--|--|---|--|---|--|--|--|--|--|--|---|---|--|--|--|----|

| | |
|---------------------------|---|
| Sarcoma, Metastatic, Skin | 2 |
|---------------------------|---|

| | | | | | | |
|------------------------------|--|--|---|---|--|---|
| Alveolar/Bronchiolar Adenoma | | | X | X | | 4 |
|------------------------------|--|--|---|---|--|---|

| | | | | | | | |
|--------------------------------|--|--|--|---|--|---|---|
| Alveolar/Bronchiolar Carcinoma | | | | X | | X | 2 |
|--------------------------------|--|--|--|---|--|---|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|---|
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|---|

| | |
|------|----|
| Nose | + | 50 |
|------|----|

| | |
|---------|----|
| Trachea | + | 50 |
|---------|----|

SPECIAL SENSES SYSTEM

| | |
|-----|----|
| Eye | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|-----|----|

| | |
|-----------------|----|
| Harderian Gland | + | 50 |
|-----------------|----|

| | |
|-----------|---|
| Carcinoma | 1 |
|-----------|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
|---------|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| | | |
|-------------------------------|-------------|-----------------------|
| B6C3F1 MICE FEMALE
600 PPM | DAY ON TEST | 7
3
2 | 6
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3 | 7
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2 | 5
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| | ANIMAL ID | 0
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| | | |
| | | |
| | | |
| * TOTALS | | |

URINARY SYSTEM

| | |
|-----------------|----|
| Kidney | + | 50 |
| Urinary Bladder | + | 50 |

SYSTEMIC LESIONS

| | |
|---------------------|----|
| Multiple Organ | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | X | X | | | | X | | | | X | | | | | | | 4 |

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically