Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

#### **Toxicology Data Management System**

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Report Date: 11/11/2014

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

# Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
					Male		
Battelle Northwest	056031106	05/15/06	729	50(5)	39(715)	54.3	Cobalt
Battelle Northwest	052051504	05/05/08	729	50(5)	39(709)	52.6	Metal working fluids (CIMSTAR 3800)
Battelle Northwest	052030306	06/20/05	729	50(5)	29(680)	53.1	Vinylidene chloride
					Female		
Battelle Northwest	056031106	05/15/06	731	50(5)	36(686)	66.7	Cobalt
Battelle Northwest	052051504	05/05/08	731	50(5)	39(696)	59.2	Metal working fluids (CIMSTAR 3800)
Battelle Northwest	052030306	06/20/05	731	50(5)	36(687)	66.0	Vinylidene chloride

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#All Organs: Benign Tumors								
		35/50 (70%)	39/50 (78%)	43/50 (86%)		29/50 (58%)	26/50 (52%)	32/50 (64%)
Overall Incidence	Total	117/150 (78%)	Mean 78%	SD 8%	Total	87/150 (58%)	Mean 58%	SD 6%
#All Organs: Malignant Tumors								
		36/50 (72%)	26/50 (52%)	37/50 (74%)		31/50 (62%)	30/50 (60%)	33/50 (66%)
Overall Incidence	Total	99/150 (66%)	Mean 66%	SD 12.17%	Total	94/150 (62.67%)	Mean 62.67%	SD 3.06%
#All Organs: Malignant and Benign Tu	mors	45/50 (90%)	46/50 (92%)	49/50 (98%)		40/50 (80%)	41/50 (82%)	45/50 (90%)
Overall Incidence	Total	140/150 (93.33%)	Mean 93.33%	SD 4.16%	Total	126/150 (84%)	Mean 84%	SD 5.29%
All Organs: Hemangioma		0/50 (0%)	1/50 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
#All Organs: Hemangiosarcoma								
		7/50 (14%)	1/50 (2%)	2/50 (4%)		3/50 (6%)	3/50 (6%)	4/50 (8%)
Overall Incidence	Total	10/150 (6.67%)	Mean 6.67%	SD 6.43%	Total	10/150 (6.67%)	Mean 6.67%	SD 1.15%
#All Organs: Hemangiosarcoma or Hei	mangioma							
		7/50 (14%)	2/50 (4%)	3/50 (6%)		3/50 (6%)	3/50 (6%)	4/50 (8%)
Overall Incidence	Total	12/150 (8%)	Mean 8%	SD 5.29%	Total	10/150 (6.67%)	Mean 6.67%	SD 1.15%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

# **Toxicology Data Management System**

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Report Date: 11/11/2014

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

			Male				Female	
#All Organs: Histiocytic Sarcoma								
Overall Incidence	Total	1/50 (2%) 4/150 (2.67%)	1/50 (2%) Mean 2.67%	2/50 (4%) SD 1.15%	Total	1/50 (2%) 5/150 (3.33%)	2/50 (4%) Mean 3.33%	2/50 (4%) SD 1.15%
		, ,				,		
‡All Organs: Malignant Lymphoma: Hi	stiocytic, Lyn			• •				
		4/50 (8%)	3/50 (6%)	2/50 (4%)		14/50 (28%)	18/50 (36%)	14/50 (28%)
Overall Incidence	Total	9/150 (6%)	Mean 6%	SD 2%	Total	46/150 (30.67%)	Mean 30.67%	SD 4.62%
#All Organs: Mesothelioma: Benign								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#All Organs: Mesothelioma: Benign, M			0/50 (0%)	0/50 (0%)		0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/30 (0%)	0/50 (0%) Mean 0%	SD 0%
#All Organs: Mesothelioma: Malignant								
-		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#All Organs: Osteoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male		Female			
#All Organs: Osteosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#All Organs: Osteosarcoma or Osteoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Adrenal Cortex: Adenoma								
	<b>-</b>	1/50 (2%)	9/49 (18%)	1/50 (2%)	<b>.</b>	0/50 (0%)	0/49 (0%)	1/50 (2%)
Overall Incidence	Total	11/149 (7.38%)	Mean 7.46%	SD 9.45%	Total	1/149 (0.67%)	Mean 0.67%	SD 1.15%
Adrenal Medulla: Pheochromocytoma Benigr	1							
		0/50 (0%)	1/48 (2%)	1/50 (2%)		1/50 (2%)	1/49 (2%)	1/50 (2%)
Overall Incidence	Total	2/148 (1.35%)	Mean 1.36%	SD 1.18%	Total	3/149 (2.01%)	Mean 2.01%	SD 0.02%
Adrenal Medulla: Pheochromocytoma Malign	ant							
		0/50 (0%)	0/48 (0%)	1/50 (2%)		0/50 (0%)	0/49 (0%)	1/50 (2%)
Overall Incidence	Total	1/148 (0.68%)	Mean 0.67%	SD 1.15%	Total	1/149 (0.67%)	Mean 0.67%	SD 1.15%
Adrenal Medulla: Pheochromocytoma: Benig	n, Complex	x, Malignant, NOS						
		0/50 (0%)	1/48 (2%)	2/50 (4%)		1/50 (2%)	1/49 (2%)	2/50 (4%)
Overall Incidence	Total	3/148 (2.03%)	Mean 2.03%	SD 2%	Total	4/149 (2.68%)	Mean 2.68%	SD 1.14%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

### **Toxicology Data Management System**

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Report Date: 11/11/2014

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

			Male				Female	
#Blood Vessel: Hemangioma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
*Bone Marrow: Hemangioma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
*Bone Marrow: Hemangiosarcoma								
		1/50 (2%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
*Bone Marrow: Mast Cell Tumor Malignant		2/22 (221)	2(72 (224)			(20)	2/52 (221)	2/22 (221)
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	1/50 (2%)	0/50 (0%)	0/50 (0%) SD 1.15%
Overall incidence	Total	0/150 (0%)		3D 0%	Total	1/150 (0.67%)	Mean 0.67%	
*Bone Marrow: Sarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Bone: Fibroma			•••••				•••••	
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

# **Toxicology Data Management System**

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

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Report Date: 11/11/2014

			Male				Female	
#Bone: Hemangiosarcoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0 SD 0%	0%) Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Bone: Osteoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0 SD 0%	0%) Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Bone: Osteosarcoma		- (ac)	(00)	0/20		(0.00)		(201)
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0 SD 0%	0%) Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Bone: Osteosarcoma or Osteoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	SD 0%	0%) Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Bone: Sarcoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0 SD 0%	0%) Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%
*Brain: Granular Cell Tumor Benign								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0 SD 0%	0%) Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

# Toxicology Data Management System

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
*Brain: Meningioma Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%	6)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Brain: Meningioma: Benign, Mal	ignant. NOS							
	.g,	0/50 (0%)	0/50 (0%)	0/50 (0%	6)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Brain: Oligodendroglioma Malig	nant	0/50 (0%)	0/50 (0%)	0/50 (0%	······································	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/30 (0%)	Mean 0%	SD 0%	o) Total	0/150 (0%)	Mean 0%	SD 0%
Brain: Oligodendroglioma, Glion	na, or Astrocy	toma						
		0/50 (0%)	0/50 (0%)	0/50 (0%	6)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Clitoral/Preputial Gland: Hemangioma								
		0/49 (0%)	0/50 (0%)	0/50 (0%	6)	0/43 (0%)	0/44 (0%)	0/45 (0%)
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/132 (0%)	Mean 0%	SD 0%
Clitoral/Preputial Gland: Hemangiosarcoma								
		0/49 (0%)	0/50 (0%)	0/50 (0%	,	0/43 (0%)	0/44 (0%)	0/45 (0%)
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/132 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#Coagulating Gland: Granular Cell Tumor								
	<b>-</b>	0/50 (0%)	0/50 (0%)	0/50 (0%)	<b>T</b>	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Coagulating Gland:								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Eye: Melanoma Malignant		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Harderian Gland: Adenoma		6/50 (12%)	7/50 (14%)	7/50 (14%)		3/50 (6%)	2/50 (4%)	1/50 (2%)
Overall Incidence	Total	20/150 (13.33%)	Mean 13.33%	SD 1.15%	Total	6/150 (4%)	Mean 4%	SD 2%
Harderian Gland: Carcinoma								
		2/50 (4%)	5/50 (10%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	3/50 (6%)
Overall Incidence	Total	7/150 (4.67%)	Mean 4.67%	SD 5.03%	Total	3/150 (2%)	Mean 2%	SD 3.46%
#Harderian Gland: Carcinoma or Adenoma								
		8/50 (16%)	12/50 (24%)	7/50 (14%)		3/50 (6%)	2/50 (4%)	4/50 (8%)
Overall Incidence	Total	27/150 (18%)	Mean 18%	SD 5.29%	Total	9/150 (6%)	Mean 6%	SD 2%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

#### **Toxicology Data Management System**

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Report Date: 11/11/2014

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Male **Female** \*Heart: Hemangiosarcoma 1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/150 (0.67%) Mean 0.67% SD 1.15% Total 0/150 (0%) Mean 0% SD 0% #Intestine Large: Cecum: Adenoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Intestine Large: Cecum: Carcinoma 0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 1/150 (0.67%) Mean 0.67% SD 1.15% 1/150 (0.67%) Mean 0.67% SD 1.15% Total ...... #Intestine Large: Cecum: Carcinoma or Adenoma 0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total Mean 0.67% SD 1.15% Total 1/150 (0.67%) Mean 0.67% SD 1.15% 1/150 (0.67%) #Intestine Large: Cecum: Leiomyosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Intestine Small: Duodenum: Adenoma 1/50 (2%)1/50 (2%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total Mean 1.33% Mean 0.67% SD 1.15% 2/150 (1.33%) SD 1.15% Total 1/150 (0.67%)

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#Intestine Small: Duodenum Carcinoma	n:							
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Intestine Small: Ileum:								
Overall Incidence	Total	1/50 (2%) 2/150 (1.33%)	0/50 (0%) Mean 1.33%	1/50 (2%) SD 1.15%	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%
Intestine Small: Ileum: Carcinoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	1/50 (2%) 2/150 (1.33%)	0/50 (0%) Mean 1.33%	1/50 (2%) SD 1.15%
Intestine Small: Jejunum: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Intestine Small: Jejunum: Carcinoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
fIntestine Small: Jejunum: Leiomyosarcoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

#### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

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Report Date: 11/11/2014

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female** #Intestine Small: Site Unspecified: Adenoma 2/50 (4%)1/50 (2%)1/50 (2%)0/50 (0%)1/50 (2%)1/50 (2%)**Overall Incidence** Total 4/150 (2.67%) Mean 2.67% SD 1.15% 2/150 (1.33%) Mean 1.33% SD 1.15% Total #Intestine Small: Site Unspecified: Carcinoma 0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% 2/150 (1.33%) Mean 1.33% SD 1.15% Total #Intestine Small: Site Unspecified: Carcinoma or Adenoma 2/50 (4%)1/50 (2%)1/50 (2%)1/50 (2%)1/50 (2%)2/50 (4%)**Overall Incidence** 4/150 (2.67%) Mean 2.67% SD 1.15% 4/150 (2.67%) Mean 2.67% SD 1.15% Total Total ..... #Intestine Small: Site Unspecified: Leiomyosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% 0/150 (0%) \*Islets, Pancreatic: Adenoma 0/49 (0%)2/50 (4%)2/50 (4%)0/50 (0%)1/50 (2%)1/50 (2%)**Overall Incidence** Total 4/149 (2.68%) Mean 2.67% SD 2.31% Total 2/150 (1.33%) Mean 1.33% SD 1.15% \*Islets, Pancreatic: Carcinoma 0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total Mean 0% SD 0% 0/150 (0%) Mean 0% SD 0% 0/149 (0%) Total

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
*Islets, Pancreatic: Carcinoma or Adenoma								
		0/49 (0%)	2/50 (4%)	2/50 (4%)		0/50 (0%)	1/50 (2%)	1/50 (2%)
Overall Incidence	Total	4/149 (2.68%)	Mean 2.67%	SD 2.31%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%
Kidney: Pelvis and Transitio Carcinoma	onal Epithelio	um:						
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Kidney: Pelvis and Transitio Carcinoma or Adenoma	onal Epitheli	um:	•••••					
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Kidney: Renal Tubule: Adenoma								
	<b>.</b>	0/50 (0%)	0/50 (0%)	0/50 (0%)	<b>+</b>	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Kidney: Renal Tubule: Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Kidney: Renal Tubule: Carcinoma or Adenoma		2/22	(25.)	(00)				2/22
Overell In elden ee	Tatal	0/50 (0%)	0/50 (0%)	0/50 (0%)	Tatal	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

**Page:** 90

			Male				Female	
Kidney: Renal Tubule: Hemangioma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
		0/130 (0 /6)						
Kidney: Renal Tubule: Hemangiosarcoma		0/50 (00)	0/50 (00/)	4/50 (00/)		0/50 (00/)	0/50 /00/)	0/50 (00/)
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Liver: Hemangioma		0/50 (0%)	0/50 (0%)	0/50 (0%)	•••••	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
_iver: Hemangiosarcoma								
Overall Incidence	Total	4/50 (8%) 6/150 (4%)	0/50 (0%) Mean 4%	2/50 (4%) SD 4%	Total	2/50 (4%) 3/150 (2%)	0/50 (0%) Mean 2%	1/50 (2%) SD 2%
Liver: Hepatoblastoma								
•		2/50 (4%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Liver: Hepatocellular Adenoma		00/50 /502/	04/50 /400/	27/50 (740/)	•••••	40/50 /200/	44/50 (000()	25/50 /50%
Overall Incidence	Total	28/50 (56%) 89/150 (59.33%)	24/50 (48%) Mean 59.33%	37/50 (74%) SD 13.32%	Total	19/50 (38%) 58/150 (38.67%)	14/50 (28%) Mean 38.67%	25/50 (50%) SD 11.02%
Jverali incidence	rotai	89/150 (59.33%)	wean 59.33%	SD 13.32%	ıotai	58/150 (38.67%)	wean 38.67%	SD 11.02%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

**Page:** 91

			Male				Female	emale		
Liver: Hepatocellular Carcinoma										
		25/50 (50%)	11/50 (22%)	26/50 (52%)		10/50 (20%)	10/50 (20%)	8/50 (16%)		
Overall Incidence	Total	62/150 (41.33%)	Mean 41.33%	SD 16.77%	Total	28/150 (18.67%)	Mean 18.67%	SD 2.31%		
Liver: Hepatocellular Carcinoma c	r Hepatob	olastoma								
·	•	27/50 (54%)	11/50 (22%)	27/50 (54%)		10/50 (20%)	10/50 (20%)	8/50 (16%)		
Overall Incidence	Total	65/150 (43.33%)	Mean 43.33%	SD 18.48%	Total	28/150 (18.67%)	Mean 18.67%	SD 2.31%		
Liver: Hepatocellular Carcinoma c										
		38/50 (76%)	32/50 (64%)	44/50 (88%)		25/50 (50%)	20/50 (40%)	28/50 (56%)		
Overall Incidence	Total	114/150 (76%)	Mean 76%	SD 12%	Total	73/150 (48.67%)	Mean 48.67%	SD 8.08%		
Liver: Hepatocellular Carcinoma, l	Hepatocel	lular Adenoma, or Hepatol 39/50 (78%)	blastoma 32/50 (64%)	45/50 (90%)		25/50 (50%)	20/50 (40%)	28/50 (56%)		
Overall Incidence	Total	116/150 (77.33%)	Mean 77.33%	SD 13.01%	Total	73/150 (48.67%)	Mean 48.67%	SD 8.08%		
Liver: Hepatocholangiocarcinoma										
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		
Liver: Ito Cell Tumor Benign										
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

### **Toxicology Data Management System**

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

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			Male		Female				
*Liver: Mast Cell Tumor Malignan	nt								
	<b></b>	0/50 (0%)	0/50 (0%)	0/50 (0%)	<b>.</b>	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
Liver: Sarcoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
Lung: Alveolar/Bronchiolar Adei	noma	7/50 (14%)	5/50 (10%)	7/50 (14%)		3/49 (6%)	1/50 (2%)	3/50 (6%)	
Overall Incidence	Total	19/150 (12.67%)	Mean 12.67%	SD 2.31%	Total	7/149 (4.7%)	Mean 4.71%	SD 2.35%	
Lung: Alveolar/Bronchiolar Carc		11/50 (22%)	8/50 (16%)	9/50 (18%)		5/49 (10%)	4/50 (8%)	1/50 (2%)	
Overall Incidence	Total	28/150 (18.67%)	Mean 18.67%	SD 3.06%	Total	10/149 (6.71%)	Mean 6.73%	SD 4.25%	
Lung: Alveolar/Bronchiolar Carc		veolar/Bronchiolar Adeno	ma						
O 11 In 1 In	T-1-1	16/50 (32%)	13/50 (26%)	13/50 (26%)	T-1-1	8/49 (16%)	4/50 (8%)	4/50 (8%)	
Overall Incidence	Total	42/150 (28%)	Mean 28%	SD 3.46%	Total	16/149 (10.74%)	Mean 10.78%	SD 4.81%	
Lung: Hemangiosarcoma									
	<b>-</b>	0/50 (0%)	0/50 (0%)	1/50 (2%)	<b>+</b>	0/49 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/149 (0%)	Mean 0%	SD 0%	

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Toxicology Data Management System

Contract/Lab: All Laboratories

tories Tumor Incidence for Selected Control Animal Groups

Route: INHALATION

Strain: B6C3F1 Length of Study: CHRONIC Route: INHALATION Vehicle: AIR

**Page:** 93

			Male				Female	
Lymph Node, Mandibular: Mast Cell Tumor Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Lymph Node, Mediastinal: Mast Cell Tumor Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Lymph Node, Mesenteric: Hemangiosarcoma								
	<b>-</b>	0/50 (0%)	0/50 (0%)	0/50 (0%)	<b>.</b>	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Mammary Gland: Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	2/50 (4%)	1/50 (2%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	4/150 (2.67%)	Mean 2.67%	SD 1.15%
Mammary Gland: Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	2/50 (4%)	1/50 (2%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	4/150 (2.67%)	Mean 2.67%	SD 1.15%
Mammary Gland: Fibroma, Fibroadenoma, Ca	arcinoma, or	r Adenoma						
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	2/50 (4%)	1/50 (2%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	4/150 (2.67%)	Mean 2.67%	SD 1.15%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#Mesentery: Hemangioma								
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Mesentery: Hemangiosarcoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Mesentery: Lipoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Mesentery: Sarcoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
lose: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Nose: Hemangiosarcoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

# **Toxicology Data Management System**

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
Oral Cavity (Oral Mucos		ynx, Tooth, Gingiva):						
	-	0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Oral Cavity (Oral Mucos Squamous Cell Carcin		ynx, Tooth, Gingiva):						
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Oral Cavity (Oral Mucos Squamous Cell Carcin		ynx, Tooth, Gingiva): Squamous, or Papilloma 0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
	ı Olai	0/150 (0%)			Total		Wealt 0%	
Oral Mucosa: Squamous Cell Carcin	oma							
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
	Total	0/150 (0%)		עס עס U%	Total	0/150 (0%)	wean 0%	3D 0%
Ovary: Choriocarcinoma								
						0/48 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence					Total	0/148 (0%)	Mean 0%	SD 0%
Ovary: Cystadenocarcinoma								
					Total	0/48 (0%) 0/148 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Overall Incidence								

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

#### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

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Report Date: 11/11/2014

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female** \*Ovary: Cystadenoma 1/48 (2%)2/50 (4%)1/50 (2%)**Overall Incidence** Total 4/148 (2.7%) Mean 2.69% SD 1.13% ..... \*Ovary: **Granulosa Cell Tumor Benign** 0/48 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/148 (0.68%) Mean 0.67% SD 1.15% \*Ovary: Granulosa Cell Tumor: Benign, Malignant, NOS 0/48 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/148 (0.68%) Mean 0.67% SD 1.15% ..... \*Ovary: Hemangioma 0/48 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/148 (0%) Mean 0% SD 0% \*Ovary: Hemangiosarcoma 0/48 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/148 (0%) Mean 0% SD 0% \*Ovary: Luteoma 0/48 (0%)1/50 (2%)1/50 (2%)**Overall Incidence** 2/148 (1.35%) Mean 1.33% SD 1.15% Total

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

#### **Toxicology Data Management System**

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Report Date: 11/11/2014

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female** \*Ovary: Sarcoma 0/48 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/148 (0%) Mean 0% SD 0% ..... \*Ovary: **Tubulostromal Adenoma** 0/50 0/48 (0%)(0%)0/50 (0%)**Overall Incidence** Total 0/148 (0%) Mean 0% SD 0% \*Ovary: Yolk Sac Carcinoma 1/48 (2%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/148 (0.68%) Mean 0.69% SD 1.2% ..... \*Pancreas: Carcinoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0.67% SD 1.15% \*Pancreas: Carcinoma or Adenoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0.67% SD 1.15% \*Pituitary Gland: Pars Distalis or Unspecified Site: Adenoma (0%)0/50 (0%)0/49 (0%)3/47 (6%)5/50 (10%) 8/50 (16%) **Overall Incidence** Total 0/146 (0%) Mean 0% SD 0% Mean 10.79% SD 4.86% Total 16/147 (10.88%)

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
Pituitary Gland: Pars Dista Carcinoma or Adenoma	alis or Unspec	ified Site:						
		0/47 (0%)	0/50 (0%)	0/49 (0%)		3/47 (6%)	5/50 (10%)	8/50 (16%)
verall Incidence	Total	0/146 (0%)	Mean 0%	SD 0%	Total	16/147 (10.88%)	Mean 10.79%	SD 4.86%
Pituitary Gland: Pars Inter Adenoma	media:							
		0/47 (0%)	0/50 (0%)	1/49 (2%)		0/47 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	1/146 (0.68%)	Mean 0.68%	SD 1.18%	Total	0/147 (0%)	Mean 0%	SD 0%
Pituitary Gland: Pars Inter Carcinoma or Adenoma	media:	0/47 (00/)	0/50 /000	4/40 (000)		0/47 (00)	0/50 (00/)	0/50 (00/)
	Tatal	0/47 (0%)	0/50 (0%)	1/49 (2%)	Tatal	0/47 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/146 (0.68%)	Mean 0.68%	SD 1.18%	Total	0/147 (0%)	Mean 0%	SD 0%
Salivary Glands: Adenoma								
N	T-1-1	0/50 (0%)	0/50 (0%)	0/50 (0%)	T-1-1	0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Salivary Glands: Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Salivary Glands: Hemangiosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	_	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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		Male				Female	
Total	` ,	` '	` '	Total	` ,	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%
	` '				` ,		
	2/22 (221)	2/52 (224)			2/22 (22()	2(22)	2/52 (224)
Total	1/150 (0.67%)	Mean 0.67%	SD 1.15% )	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
					•••••		•••••
T-1-1	0/50 (0%)	0/50 (0%)	0/50 (0%)	T-1-1	0/50 (0%)	0/50 (0%)	0/50 (0%)
	` '				` ,		SD 0%
nabdomyoma	a						
Total	0/50 (0%)	0/50 (0%)	0/50 (0%)	Total	` '	0/50 (0%)	0/50 (0%) SD 0%
	` '				` '		 อบ 0%
	0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	1/50 (2%)
Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
	0/50 /00/	0/50 /00/	0/50 (0%)		0/50 /00/\	0/50 (00/)	0/50 (00/)
Total	` '	` '	` '	Total	` '	` ,	0/50 (0%) SD 0%
-	Total  Total  nabdomyoma	0/50 (0%) Total 1/150 (0.67%)  0/50 (0%) Total 0/150 (0%)  nabdomyoma 0/50 (0%) Total 0/150 (0%)  Total 0/150 (0%)  Total 0/150 (0%)	0/50 (0%) 0/50 (0%) Total 0/150 (0%) Mean 0%  0/50 (0%) 0/50 (0%) Total 1/150 (0.67%) Mean 0.67%  0/50 (0%) 0/50 (0%) Total 0/150 (0%) Mean 0%  nabdomyoma 0/50 (0%) 0/50 (0%) Total 0/150 (0%) Mean 0%  Total 0/150 (0%) 0/50 (0%) Total 0/150 (0%) Mean 0%	Total 0/50 (0%) 0/50 (0%) 0/50 (0%)  Total 0/150 (0%) Mean 0% SD 0%   0/50 (0%) 0/50 (0%) 1/50 (2%)  Total 1/150 (0.67%) Mean 0.67% SD 1.15%   0/50 (0%) 0/50 (0%) 0/50 (0%)  Total 0/150 (0%) Mean 0% SD 0%   nabdomyoma  0/50 (0%) 0/50 (0%) 0/50 (0%)  Total 0/150 (0%) Mean 0% SD 0%   Total 0/150 (0%) Mean 0% SD 0%   Total 0/150 (0%) Mean 0% SD 0%   0/50 (0%) Mean 0% SD 0%	Total 0/50 (0%) 0/50 (0%) 0/50 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total     0/50 (0%) 0/50 (0%) 1/50 (2%)	Total 0/50 (0%) 0/50 (0%) SD 0% Total 1/150 (0.67%)  Total 0/150 (0%) Mean 0% SD 0% Total 1/150 (0.67%)  Total 1/150 (0.67%) Mean 0.67% SD 1.15% Total 0/150 (0%)  Total 0/150 (0%) 0/50 (0%) 0/50 (0%) Total 0/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 1/150 (0%)  Total 0/150 (0%) Mean 0% SD 0% Total 1/150 (0%)	Total 0/50 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%) Total 1/150 (0.67%) Mean 0.67%    0/50 (0%) 0/50 (0%) 0/50 (0%) 1/50 (2%) Total 1/150 (0.67%) Mean 0.67%   Total 1/150 (0.67%) Mean 0.67% SD 1.15% Total 0/150 (0%) Mean 0%    0/50 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%) Total 0/150 (0%) Mean 0%    0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0%    0/50 (0%) 0/50 (0%) 0/50 (0%) Total 0/150 (0%) Mean 0%    0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0%    0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0%    0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0%    0/50 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0%    0/50 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0%    0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0.67%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Page: 100 Report Date: 11/11/2014

Species: MICE Strain: B6C3F1 Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

		Male				Female			
#Skin:						,			
Basal Cell Carcinoma o	or Basosquamou	us Tumor (malignant or N	•			- / / /			
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Carcinoma, NOS), or Trichoepitheli		oma, Basosquamous Tur	nor (benign, maligna	nt or					
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	1/50 (2%)	0/50 (0%)	
Overall Incidence #Skin:	Total	0/50 (0%) 1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	0/50 (0%) SD 1.15%	
#Skin:		1/150 (0.67%)	Mean 0.67%	SD 1.15%		1/150 (0.67%)	Mean 0.67%	` '	
#Skin:		1/150 (0.67%)	Mean 0.67%	SD 1.15%		1/150 (0.67%)	Mean 0.67%	` '	
#Skin: Fibroma, Fibrosarcoma		1/150 (0.67%)	Mean 0.67%	SD 1.15%		1/150 (0.67%)	Mean 0.67%	SD 1.15%	
#Skin: Fibroma, Fibrosarcoma Overall Incidence	a, Sarcoma, Myx	1/150 (0.67%)  toma, Myxosarcoma, or Fi 0/50 (0%)	Mean 0.67%  brous Histiocytoma 0/50 (0%)	SD 1.15%		1/150 (0.67%)	Mean 0.67%  0/50 (0%)	SD 1.15% 2/50 (4%)	
#Skin: Fibroma, Fibrosarcoma Overall Incidence #Skin:	a, Sarcoma, Myx	1/150 (0.67%)  toma, Myxosarcoma, or Fi 0/50 (0%)	Mean 0.67%  brous Histiocytoma 0/50 (0%)	SD 1.15%		1/150 (0.67%)	Mean 0.67%  0/50 (0%)	SD 1.15% 2/50 (4%)	
#Skin: Fibroma, Fibrosarcoma Overall Incidence #Skin: Fibrosarcoma	a, Sarcoma, Myx Total Total	1/150 (0.67%)  coma, Myxosarcoma, or Fi 0/50 (0%) 1/150 (0.67%)  0/50 (0%) 0/150 (0%)	Mean 0.67%  brous Histiocytoma	SD 1.15% (2%) SD 1.15%		1/150 (0.67%)  2/50 (4%)  4/150 (2.67%)	Mean 0.67% 0/50 (0%) Mean 2.67%	SD 1.15%  2/50 (4%) SD 2.31%	
#Skin: Fibroma, Fibrosarcoma Overall Incidence  #Skin: Fibrosarcoma Overall Incidence	a, Sarcoma, Myx Total Total	1/150 (0.67%)  coma, Myxosarcoma, or Fi 0/50 (0%) 1/150 (0.67%)  0/50 (0%) 0/150 (0%)	Mean 0.67%  brous Histiocytoma 0/50 (0%) Mean 0.67%  0/50 (0%) Mean 0%	SD 1.15%  1/50 (2%) SD 1.15%  0/50 (0%)	Total	1/150 (0.67%)  2/50 (4%) 4/150 (2.67%)  0/50 (0%)	Mean 0.67%  0/50 (0%)  Mean 2.67%  0/50 (0%)	SD 1.15%  2/50 (4%) SD 2.31%  1/50 (2%)	
#Skin: Fibroma, Fibrosarcoma Overall Incidence  #Skin: Fibrosarcoma Overall Incidence	a, Sarcoma, Myx Total Total	1/150 (0.67%)  coma, Myxosarcoma, or Fi 0/50 (0%) 1/150 (0.67%)  0/50 (0%) 0/150 (0%)	Mean 0.67%  brous Histiocytoma 0/50 (0%) Mean 0.67%  0/50 (0%) Mean 0%	SD 1.15%  1/50 (2%) SD 1.15%  0/50 (0%)	Total	1/150 (0.67%)  2/50 (4%) 4/150 (2.67%)  0/50 (0%)	Mean 0.67%  0/50 (0%)  Mean 2.67%  0/50 (0%)	SD 1.15%  2/50 (4%) SD 2.31%  1/50 (2%)	

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

# **Toxicology Data Management System**

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Report Date: 11/11/2014

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

		·	Male				Female	
#Skin: Fibrous Histiocytoma		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Granular Cell Tumor Ber	nign							
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin: Hemangioma			- / /				- /	
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin: Hemangiosarcoma							- /	
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 2/150 (1.33%)	2/50 (4%) Mean 1.33%	0/50 (0%) SD 2.31%
#Skin: Keratoacanthoma		0/50 (00/)	0/50 (00/)	4/50 (00)		0/50 (00/)	0/50 (004)	0/50 (00/)
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin: Lipoma	•••••							
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

### **Toxicology Data Management System**

Page: 102

Report Date: 11/11/2014

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Male **Female** #Skin: Liposarcoma 0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/150 (0.67%) Mean 0.67% SD 1.15% Total 0/150 (0%) Mean 0% SD 0% #Skin: Mast Cell Tumor Benign 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Skin: **Mast Cell Tumor Malignant** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% ..... #Skin: Melanoma Benign 0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/150 (0.67%) Mean 0.67% SD 1.15% Total 0/150 (0%) Mean 0% SD 0% #Skin: **Melanoma Malignant** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%) 0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Skin: **Neural Crest Tumor** 1/50 (2%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)**Overall Incidence** Total Mean 0.67% 1/150 (0.67%) Mean 0.67% SD 1.15% 1/150 (0.67%) SD 1.15% Total

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

**Page:** 103

			Male				Female	
≴Skin: Neurofibroma or Schwan	noma benign							
		0/50 (0%)	0/50 (0%)	0/50 (0%	%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Skin: Neurofibrosarcoma or Sc	:hwannoma (ma	alignant or NOS)						
	(	0/50 (0%)	0/50 (0%)	0/50 (0%	%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Skin: Neurofibrosarcoma, Neur	rofibroma, or S	chwannoma (benign, ma 0/50 (0%)	lignant or NOS) 0/50 (0%)	0/50 (0%	%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Skin: Osteosarcoma		0/20 (00)	(00)	0/50			(201)	2/22 (224)
verall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0% SD 0%	%) Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
·····		0/130 (0/0)						
Skin: Sarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%	,	2/50 (4%)	0/50 (0%)	1/50 (2%)
verall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	3/150 (2%)	Mean 2%	SD 2%
Skin: Schwannoma Benign								
		0/50 (0%)	0/50 (0%)	0/50 (0%	,	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

**Page:** 104

			Male				Female	
#Skin: Schwannoma Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Carcinom or Carcinoma	ıa, Basal Cell (	Carcinoma, Basosquamo	us Tumor (malignant	or NOS),				
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papilloma	1							
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Skin: Squamous Cell Papilloma	a or Papilloma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Skin: Squamous Cell Papilloma	a, Papilloma, S	Squamous Cell Carcinom 0/50 (0%)	a or Keratoacanthoma	<b>a</b> 1/50 (2%)		0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Skin: Squamous Cell Papilloma	a, Papilloma, c	or Keratoacanthoma	0/50 (0%)	1/50 (2%)	•••••	0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: MICE
Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

**Page:** 105

			Male				Female	
#Spinal Cord: Hemangiosarcoma		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (09/)	0/50 (00/)
Overall Incidence	Total	0/30 (0%)	Mean 0%	SD 0%	Total	0/30 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
*Spleen: Hemangiosarcoma		2/50 /69/)	0/50 /00/	2/50 (40/)		2/40 (40/)	1/50 (20/)	2/50 (69/)
Overall Incidence	Total	3/50 (6%) 5/150 (3.33%)	0/50 (0%) Mean 3.33%	2/50 (4%) SD 3.06%	Total	2/49 (4%) 6/149 (4.03%)	1/50 (2%) Mean 4.03%	3/50 (6%) SD 2%
*Spleen: Mast Cell Tumor Malignant		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/49 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/149 (0.67%)	Mean 0.68%	SD 1.18%
#Stomach, Forestomach: Squamous Cell Carcinoma		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/30 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	0/50 (0%) Mean 0%	SD 0%
#Stomach, Forestomach: Squamous Cell Carcinoma	or Papillom	na Squamous						
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	Total	1/50 (2%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	0/50 (0%) SD 1.15%
#Stomach, Forestomach: Squamous Cell Papilloma								
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	Total	1/50 (2%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	0/50 (0%) SD 1.15%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Page: 106

			Male				Female	
#Stomach, Glandular: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Stomach, Glandular: Carcinoma								
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%
#Stomach, Glandular: Carcinoma or Adenoma		0/50 (00/)	4/50 (00)	0/50 (00/)		0/50 (00)	0/50 (00/)	4/50 (00)
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%
Testes: Adenoma								
Overall Incidence	Total	1/50 (2%) 2/150 (1.33%)	0/50 (0%) Mean 1.33%	1/50 (2%) SD 1.15%				
Testes: Hemangioma			•••••		•••••			
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%				
Thymus: Neoplasm NOS		0/40 (00/)	0/44 (000)	0/00 (00/)		4/40 (000)	0/44 (00%)	0(47 (00))
Overall Incidence	Total	0/42 (0%) 0/122 (0%)	0/41 (0%) Mean 0%	0/39 (0%) SD 0%	Total	1/46 (2%) 1/137 (0.73%)	0/44 (0%) Mean 0.72%	0/47 (0%) SD 1.26%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

#### **Toxicology Data Management System**

Page: 107

Mean 0%

SD 0%

Report Date: 11/11/2014

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female** \*Thymus: **Thymoma Benign** 0/42 (0%)0/41 (0%)0/39 (0%)0/46 (0%)0/44 (0%)0/47 (0%)SD 0% Overall Incidence Total 0/122 (0%) Mean 0% SD 0% Total 0/137 (0%) Mean 0% \*Thymus: **Thymoma Malignant** 0/42 (0%)0/41 (0%)0/39 (0%)0/46 (0%)0/44 (0%)0/47 (0%)**Overall Incidence** Total 0/122 (0%) Mean 0% SD 0% Total 0/137 (0%) Mean 0% SD 0% \*Thymus: Thymoma: Benign, Malignant, NOS 0/42 (0%)0/41 (0%)0/39 (0%)0/46 (0%)0/44 (0%)0/47 (0%)**Overall Incidence** Total 0/122 (0%) Mean 0% SD 0% Total 0/137 (0%) Mean 0% SD 0% ..... \*Thyroid Gland: C-Cell: Adenoma 0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/149 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% \*Thyroid Gland: C-Cell: Carcinoma 0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/149 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% \*Thyroid Gland: C-Cell: Carcinoma or Adenoma 0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

0/150 (0%)

Total

Mean 0%

Total

0/149 (0%)

**Overall Incidence** 

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

**Page:** 108

			Male				Female			
Гhyroid Gland: Follicular Cell: Adenoma										
		0/49 (0%)	0/50 (0%)	0/50	(0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
verall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%		Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
Thyroid Gland: Follicular Cell: Carcinoma or Adenoma										
		0/49 (0%)	0/50 (0%)	0/50	(0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
verall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%		Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
Tissue NOS: Fibrosarcoma				- /						
		0/50 (0%)	0/50 (0%)	0/50	(0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%		Total	0/150 (0%)	Mean 0%	SD 0%	
Tissue NOS: Hemangiosarcoma		0/50 (0%)	0/50 (0%)	0/50	(0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	(070)	Total	0/150 (0%)	Mean 0%	SD 0%	
Tongue: Squamous Cell Carcinoma o	r Papilloma	a <b>Squamous</b> 0/50 (0%)	0/50 (0%)	0/50	(0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	/	Total	0/150 (0%)	Mean 0%	SD 0%	
Tongue: Squamous Cell Papilloma						•••••				
		0/50 (0%)	0/50 (0%)	0/50	(0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%		Total	0/150 (0%)	Mean 0%	SD 0%	

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

**Toxicology Data Management System** 

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male		Female			
Tooth: Odontoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Urethra: Hemangiosarcoma								
verall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Jrinary Bladder: Hemangiosarcoma		(45.7)	(A.S.)					
verall Incidence	Total	0/48 (0%) 1/148 (0.68%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%	Total	0/49 (0%) 0/148 (0%)	0/50 (0%) Mean 0%	0/49 (0%) SD 0%
lterus: Adenoma								
verall Incidence					Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
terus: Carcinoma								
verall Incidence					Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
Iterus: Hemangioma								
verall Incidence					Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Species: MICE

Strain: B6C3F1

### **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

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	Male			Female	
#Uterus: Hemangiosarcoma					
Overall Incidence	Tot	`	•	ean 1.33%	1/50 (2%) SD 1.15%
Uterus: Leiomyoma					
Overall Incidence	Tot	`	•	ean 0.67%	0/50 (0%) SD 1.15%
Uterus: Polyp Stromal					
Overall Incidence	Tot	`	•	ean 2.67%	2/50 (4%) SD 2.31%
Uterus: Sarcoma					
Overall Incidence	Tot	0/50 al 0/150 (0	(0%) 0/5 0%)	50 (0%) Mean 0%	0/50 (0%) SD 0%
Uterus: Sarcoma Stromal					
Overall Incidence	Tot	0/50 al 0/150 (0	(0%) 0/5 0%)	50 (0%) Mean 0%	0/50 (0%) SD 0%
Uterus: Sarcoma Stromal or Polyp Stromal					
Overall Incidence	Tot	2/50 al 4/150 (2.0	(4%) 0/5 67%) M	60 (0%) ean 2.67%	2/50 (4%) SD 2.31%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: MICE Strain: B6C3F1

Length of Study: CHRONIC

# **Toxicology Data Management System**

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male	Female				
#Zymbal's Gland: Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Zymbal's Gland: Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

<sup>\*:</sup> Denominator is number of animals with tissues examined microscopically

<sup>#:</sup> Denominator is number of animals necropsied