

Experiment Number: 10987 - 02

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 06/04/2018

Test Type: CHRONIC

Dibutyl Phthalate

Time Report Requested: 09:07:59

Route: DOSED FEED

CAS Number: 84-74-2

First Dose M/F: 08/17/10 / 08/16/10

Species/Strain: MICE/B6C3F1/N

Lab: BAT

Mice_Final Version 1

NTP Study Number: C10987
Lock Date: 11/26/2013
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

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Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE MALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
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Disposition Summary

Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	2	2	1	2
Natural Death	4	8	11	5
Survivors				
Moribund Sacrifice			2	
Natural Death		1		
Terminal Sacrifice	44	39	36	43
Animals Examined Microscopically	50	50	50	50

ALIMENTARY SYSTEM

Esophagus	(50)	(50)	(50)	(49)
Gallbladder	(50)	(48)	(49)	(49)
Intestine Large, Cecum	(50)	(49)	(49)	(50)
Intestine Large, Colon	(50)	(49)	(49)	(50)
Intestine Large, Rectum	(50)	(49)	(50)	(50)
Intestine Small, Duodenum	(50)	(49)	(48)	(50)
Intestine Small, Ileum	(49)	(49)	(48)	(50)
Intestine Small, Jejunum	(50)	(49)	(48)	(50)
Adenocarcinoma	1 (2%)		1 (2%)	
Adenoma		1 (2%)		
Liver	(50)	(50)	(50)	(50)
Hemangiosarcoma	3 (6%)	5 (10%)		
Hepatocellular Adenoma	16 (32%)	13 (26%)	12 (24%)	12 (24%)
Hepatocellular Adenoma, Multiple	2 (4%)	4 (8%)	10 (20%)	4 (8%)
Hepatocellular Carcinoma	6 (12%)	9 (18%)	9 (18%)	14 (28%)
Hepatocellular Carcinoma, Multiple	4 (8%)	1 (2%)	1 (2%)	2 (4%)
Hepatocholangiocarcinoma			1 (2%)	
Ito Cell Tumor Benign			1 (2%)	
Mast Cell Tumor Malignant				1 (2%)
Mesentery	(3)	(1)	(0)	(0)
Pancreas	(50)	(50)	(49)	(50)
Salivary Glands	(49)	(50)	(50)	(50)

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

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Lab: BAT

B6C3F1/N MICE MALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
Stomach, Forestomach	(50)	(50)	(50)	(50)
Squamous Cell Papilloma	1 (2%)			
Stomach, Glandular	(50)	(50)	(50)	(50)
Tooth	(6)	(12)	(7)	(9)

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)	(50)	(50)	(49)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)		1 (2%)	
Heart	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)			

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(50)	(50)	(50)
Adrenal Medulla	(50)	(50)	(50)	(50)
Islets, Pancreatic	(50)	(50)	(49)	(50)
Parathyroid Gland	(40)	(45)	(36)	(40)
Pituitary Gland	(48)	(49)	(48)	(48)
Pars Intermedia, Adenoma				1 (2%)
Thyroid Gland	(50)	(50)	(48)	(50)
Follicular Cell, Adenoma		1 (2%)		

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(0)	(1)	(4)	(1)
Epididymis	(50)	(50)	(50)	(50)
Preputial Gland	(50)	(50)	(50)	(50)

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Lab: BAT

B6C3F1/N MICE MALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
Prostate	(50)	(50)	(50)	(50)
Seminal Vesicle	(50)	(50)	(50)	(50)
Testis	(50)	(50)	(50)	(50)
Interstitial Cell, Adenoma			1 (2%)	

HEMATOPOIETIC SYSTEM

Bone Marrow	(50)	(50)	(49)	(50)
Hemangiosarcoma			1 (2%)	
Mast Cell Tumor Malignant				1 (2%)
Lymph Node	(2)	(2)	(2)	(1)
Bronchial, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (50%)			
Mediastinal, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (50%)	1 (50%)	1 (50%)	
Lymph Node, Mandibular	(49)	(48)	(49)	(46)
Adenocarcinoma, Metastatic, Harderian Gland			1 (2%)	
Lymph Node, Mesenteric	(48)	(48)	(47)	(49)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
Spleen	(50)	(50)	(50)	(50)
Hemangiosarcoma		1 (2%)	2 (4%)	
Mast Cell Tumor Malignant				1 (2%)
Thymus	(45)	(46)	(46)	(46)

INTEGUMENTARY SYSTEM

Mammary Gland	(2)	(2)	(1)	(3)
Skin	(50)	(50)	(50)	(50)
Subcutaneous Tissue, Fibrous Histiocytoma				1 (2%)

MUSCULOSKELETAL SYSTEM

Bone	(50)	(50)	(50)	(50)
Skeletal Muscle	(0)	(1)	(1)	(0)

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Lab: BAT

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Rhabdomyosarcoma		1 (100%)		

NERVOUS SYSTEM

Brain	(50)	(50)	(50)	(50)
Spinal Cord	(0)	(0)	(0)	(1)

RESPIRATORY SYSTEM

Lung	(50)	(50)	(50)	(50)
Adenocarcinoma, Metastatic, Harderian Gland			1 (2%)	
Alveolar/Bronchiolar Adenoma	5 (10%)	14 (28%)	2 (4%)	6 (12%)
Alveolar/Bronchiolar Adenoma, Multiple	3 (6%)	1 (2%)		
Alveolar/Bronchiolar Carcinoma	2 (4%)	4 (8%)	4 (8%)	
Alveolar/Bronchiolar Carcinoma, Multiple	1 (2%)			
Carcinoma, Metastatic, Lung	1 (2%)		2 (4%)	
Hepatocellular Carcinoma, Metastatic, Liver	3 (6%)	2 (4%)	4 (8%)	10 (20%)
Alveolar Epithelium, Alveolar/Bronchiolar Adenoma	1 (2%)			
Nose	(50)	(50)	(50)	(50)
Adenocarcinoma, Metastatic, Harderian Gland			1 (2%)	
Trachea	(50)	(50)	(50)	(50)

SPECIAL SENSES SYSTEM

Eye	(50)	(50)	(50)	(50)
Adenocarcinoma, Metastatic, Harderian Gland			1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)
Adenocarcinoma	1 (2%)		1 (2%)	
Adenoma	3 (6%)	4 (8%)	3 (6%)	2 (4%)

URINARY SYSTEM

Kidney	(50)	(50)	(50)	(50)
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a - Number of animals examined microscopically at site and number of animals with lesion

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P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

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Lab: BAT

B6C3F1/N MICE MALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)			
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
Urinary Bladder	(50)	(50)	(50)	(50)

SYSTEMIC LESIONS

Multiple Organ	*(50)	*(50)	*(50)	*(50)
Amyloid		1 (2%)		
Histiocytic Sarcoma	2 (4%)		1 (2%)	
Lymphoma Malignant	4 (8%)	4 (8%)	4 (8%)	1 (2%)

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

* Number of animals with any tissue examined microscopically

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Species/Strain: MICE/B6C3F1/N

Lab: BAT

B6C3F1/N MICE MALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	33	36	39	32
Total Primary Neoplasms	55	63	54	46
Total Animals with Benign Neoplasms	26	28	25	22
Total Benign Neoplasms	31	38	29	25
Total Animals with Malignant Neoplasms	19	24	24	17
Total Malignant Neoplasms	24	25	25	21
Total Animals with Metastatic Neoplasms	4	3	7	10
Total Metastatic Neoplasms	9	4	12	11
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain- Benign or Malignant				
Total Uncertain Neoplasms				

*** END OF MALE ***

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

b - Primary tumors: all tumors except metastatic tumors

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Lab: BAT

B6C3F1/N MICE FEMALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
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Disposition Summary

Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	1	1		
Natural Death	7	7	6	3
Survivors				
Terminal Sacrifice	42	42	44	47
Animals Examined Microscopically	50	50	50	50

ALIMENTARY SYSTEM

Esophagus	(49)	(50)	(49)	(50)
Gallbladder	(50)	(50)	(49)	(48)
Liposarcoma, Metastatic, Skin		1 (2%)		
Intestine Large, Cecum	(50)	(50)	(47)	(48)
Leiomyosarcoma		1 (2%)		
Leiomyosarcoma, Metastatic, Uterus		1 (2%)		
Intestine Large, Colon	(50)	(50)	(47)	(48)
Intestine Large, Rectum	(50)	(50)	(47)	(49)
Intestine Small, Duodenum	(50)	(50)	(47)	(48)
Intestine Small, Ileum	(50)	(50)	(47)	(48)
Intestine Small, Jejunum	(50)	(50)	(47)	(48)
Liver	(50)	(50)	(49)	(49)
Hemangioma		1 (2%)		
Hepatocellular Adenoma	2 (4%)	5 (10%)	2 (4%)	6 (12%)
Hepatocellular Adenoma, Multiple	1 (2%)	1 (2%)	2 (4%)	
Hepatocellular Carcinoma	1 (2%)	2 (4%)	1 (2%)	4 (8%)
Leiomyosarcoma, Metastatic, Uterus				1 (2%)
Rhabdomyosarcoma, Metastatic, Skeletal Muscle	1 (2%)			
Mesentery	(1)	(2)	(2)	(2)
Fibrous Histiocytoma, Metastatic, Skin				1 (50%)
Sarcoma		1 (50%)		
Pancreas	(50)	(49)	(48)	(49)
Adenocarcinoma, Metastatic, Uterus		1 (2%)		

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B6C3F1/N MICE FEMALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
Liposarcoma, Metastatic, Skin		1 (2%)		
Sarcoma, Metastatic, Skin		1 (2%)		
Salivary Glands	(50)	(50)	(49)	(50)
Stomach, Forestomach	(50)	(50)	(49)	(49)
Squamous Cell Papilloma				1 (2%)
Stomach, Glandular	(50)	(50)	(49)	(49)
Liposarcoma, Metastatic, Skin		1 (2%)		
Tooth	(2)	(1)	(0)	(0)
CARDIOVASCULAR SYSTEM				
Blood Vessel	(49)	(50)	(49)	(49)
Heart	(50)	(50)	(49)	(50)
Sarcoma, Metastatic, Skin		1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(49)	(49)
Liposarcoma, Metastatic, Skin		1 (2%)		
Osteosarcoma, Metastatic, Bone		1 (2%)		
Adrenal Medulla	(49)	(50)	(49)	(49)
Islets, Pancreatic	(50)	(50)	(48)	(49)
Adenoma		1 (2%)		
Parathyroid Gland	(43)	(47)	(36)	(33)
Pituitary Gland	(49)	(49)	(48)	(47)
Pars Distalis, Adenoma	1 (2%)			
Pars Intermedia, Adenoma		1 (2%)		
Thyroid Gland	(50)	(50)	(48)	(49)
C-cell, Carcinoma	1 (2%)			
GENERAL BODY SYSTEM				
None				

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Lab: BAT

B6C3F1/N MICE FEMALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
GENITAL SYSTEM				
Clitoral Gland	(50)	(49)	(49)	(49)
Ovary	(48)	(50)	(48)	(50)
Cystadenoma	3 (6%)	2 (4%)	4 (8%)	
Hemangioma			1 (2%)	
Hemangiosarcoma	2 (4%)			
Oviduct	(0)	(0)	(1)	(0)
Uterus	(50)	(50)	(49)	(50)
Adenocarcinoma		1 (2%)		
Hemangiosarcoma				1 (2%)
Leiomyoma	1 (2%)	1 (2%)		
Leiomyosarcoma		1 (2%)		1 (2%)
Vagina	(1)	(0)	(0)	(0)
Hemangioma	1 (100%)			
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(4)	(4)	(3)	(4)
Bronchial, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung			1 (33%)	
Mediastinal, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung			1 (33%)	
Mediastinal, Liposarcoma, Metastatic, Skin		1 (25%)		
Mediastinal, Sarcoma, Metastatic, Skin		1 (25%)		
Lymph Node, Mandibular	(49)	(50)	(49)	(50)
Lymph Node, Mesenteric	(46)	(48)	(47)	(47)
Liposarcoma, Metastatic, Skin		1 (2%)		
Spleen	(50)	(50)	(49)	(49)
Hemangiosarcoma				1 (2%)
Thymus	(45)	(48)	(47)	(47)
Liposarcoma, Metastatic, Skin		1 (2%)		
Sarcoma, Metastatic, Skin		1 (2%)		

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Lab: BAT

B6C3F1/N MICE FEMALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(49)	(50)
Adenocarcinoma	3 (6%)			
Adenoma	1 (2%)			
Fibroadenoma				1 (2%)
Skin	(50)	(50)	(49)	(50)
Subcutaneous Tissue, Fibrosarcoma		1 (2%)	1 (2%)	
Subcutaneous Tissue, Fibrous Histiocytoma	2 (4%)			
Subcutaneous Tissue, Fibrous Histiocytoma, Multiple				1 (2%)
Subcutaneous Tissue, Liposarcoma		1 (2%)		
Subcutaneous Tissue, Sarcoma		1 (2%)		
Subcutaneous Tissue, Schwannoma Malignant			1 (2%)	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma		1 (2%)		1 (2%)
Skeletal Muscle	(2)	(0)	(0)	(1)
Hemangiosarcoma	1 (50%)			
Rhabdomyosarcoma	1 (50%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(49)	(50)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(49)	(50)
Adenocarcinoma, Metastatic, Harderian Gland		1 (2%)		
Adenocarcinoma, Metastatic, Mammary Gland	1 (2%)			
Adenocarcinoma, Metastatic, Uterus		1 (2%)		
Alveolar/Bronchiolar Adenoma	1 (2%)		2 (4%)	2 (4%)

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Alveolar/Bronchiolar Adenoma, Multiple	1 (2%)			
Alveolar/Bronchiolar Carcinoma		1 (2%)	3 (6%)	1 (2%)
Carcinoma, Metastatic, Lung			1 (2%)	1 (2%)
Fibrous Histiocytoma, Metastatic, Skin	1 (2%)			
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
Liposarcoma, Metastatic, Skin		1 (2%)		
Osteosarcoma, Metastatic, Bone		1 (2%)		1 (2%)
Rhabdomyosarcoma, Metastatic, Skeletal Muscle	1 (2%)			
Sarcoma, Metastatic, Mesentery		1 (2%)		
Sarcoma, Metastatic, Skin		1 (2%)		
Nose	(50)	(50)	(50)	(50)
Trachea	(50)	(50)	(49)	(50)

SPECIAL SENSES SYSTEM

Eye	(50)	(50)	(49)	(50)
Harderian Gland	(50)	(50)	(49)	(50)
Adenocarcinoma		1 (2%)		
Adenoma	3 (6%)	5 (10%)	2 (4%)	4 (8%)

URINARY SYSTEM

Kidney	(50)	(50)	(49)	(49)
Osteosarcoma, Metastatic, Bone				1 (2%)
Urinary Bladder	(48)	(50)	(49)	(50)
Leiomyosarcoma, Metastatic, Uterus		1 (2%)		

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* Number of animals with any tissue examined microscopically

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Lab: BAT

B6C3F1/N MICE FEMALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
SYSTEMIC LESIONS				
Multiple Organ	*(50)	*(50)	*(50)	*(50)
Amyloid	1 (2%)			
Histiocytic Sarcoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Leukemia Granulocytic		1 (2%)		
Lymphoma Malignant	11 (22%)	8 (16%)	9 (18%)	6 (12%)

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B6C3F1/N MICE FEMALE	0 ppm	1000 ppm	3000 ppm	10000 ppm
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Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	28	28	27	26
Total Primary Neoplasms	38	39	29	31
Total Animals with Benign Neoplasms	13	16	12	13
Total Benign Neoplasms	15	17	13	14
Total Animals with Malignant Neoplasms	19	19	16	17
Total Malignant Neoplasms	23	22	16	17
Total Animals with Metastatic Neoplasms	3	7	1	5
Total Metastatic Neoplasms	4	21	3	6
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain- Benign or Malignant				
Total Uncertain Neoplasms				

*** END OF REPORT ***

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

b - Primary tumors: all tumors except metastatic tumors