DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
National Institute of
Environmental Health Sciences
P. O. Box 12233
Research Triangle Park, NC 27709

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FYI-0905-01500

August 26, 2005

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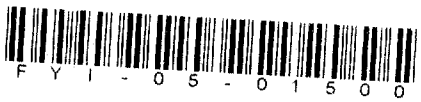

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Dear Document Control Office (7407):

In compliance with the National Toxicology Program's (NTP) mission to keep our colleagues informed of the current NTP findings during ongoing studies, a copy of the Pathology Working Group (PWG) report and the Summary Pathology Tables for the following chronic studies:

631-64-1	WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)	Dosed water
693-13-0	DIISOPROPYLCARBODIIMIDE	Dermal
1321-74-0	DIVINYLBENZENE	Inhalation
822-36-6	4-METHYLIMIDAZOLE	Feed
108-10-1	METHYL ISOBUTYL KETONE	Inhal

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The NTP assembles a Pathology Working Group to review every study and to resolve any differences between the study laboratory and quality assessment pathology evaluations. Please note that the PWG conclusion of the study results is based solely on the pathology for this study and may not reflect final NTP conclusions. In determining final conclusions, the NTP assesses a broad array of information that includes other results from this study and historical control data.

The Summary Pathology Tables contain the Incidence Rates of Neoplastic and Non-neoplastic Lesion data and the Statistical Analysis of Primary Tumors data pertaining to the laboratory animals. All study data are subject to an NTP retrospective audit and the interpretation may be modified based on the findings.

A wide variety of NTP information is also available in electronic format on the world-wide web, for example, the NTP Annual Plan, abstracts of NTP Reports, study data, and the status of all NTP studies. To view this information requires access to the internet and a Web browser such as Netscape Navigator or Internet Explorer. To access the NTP home page, use the URL http://ntp-server.niehs.nih.gov/. Comments on the usefulness of this site and suggestions for improvement are encouraged.

2887608

Please contact Central Data Management (CDM) at (919)541-3419 if you have any questions. You may also fax your requests for information to CDM at (919)541-3687 or send them via e-mail to cdm@niehs.nih.gov.

Hard copies of documents such as NTP Technical Reports, short-term Toxicity Reports, and the Report on Carcinogens are available from the Central Data Management (CDM). You can contact CDM by phone at (919) 541-3419, by fax at (919)541-3687 or by e-mail at cdm@niehs.nih.gov.

Sincerely,

William Eastin

William Eastin, Ph.D.
Head, Information Systems & Central Files
Environmental Toxicology Program

Encls: PWG Report and Pathology Summary Tables for Rats and Mice
cc: Central Data Management

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-537 Dibromoacetic Acid

Pathology Tables - Rats

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)

- P08 - Statistical Analysis of Primary Tumors

- P18 - Incidence Rates of Non-Neoplastic Lesions

FINAL#1 RATS

Facility: Southern Research Institute

Chemical CAS #: 631-64-1

Lock Date: 11/15/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Natural Death	11	6	6	4
Moribund Sacrifice	4	5	9	14
Survivors				
Natural Death			1	
Terminal Sacrifice	35	38	34	32
Moribund Sacrifice		1		
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Rectum	(49)	(50)	(50)	(48)
Polyp Adenomatous				1 (2%)
Liver	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma			1 (2%)	1 (2%)
Hepatocellular Adenoma	2 (4%)			1 (2%)
Histiocytic Sarcoma				1 (2%)
Serosa, Osteosarcoma, Metastatic, Bone				1 (2%)
Mesentery	(12)	(15)	(15)	(8)
Osteosarcoma, Metastatic, Bone				1 (13%)
Oral Mucosa		(1)	(1)	(1)
Pharyngeal, Squamous Cell Papilloma		1 (100%)		1 (100%)
Pancreas	(47)	(50)	(49)	(48)
Acinus, Adenoma				1 (2%)
Salivary Glands	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland			1 (2%)	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Squamous Cell Papilloma	1 (2%)			
Stomach, Glandular	(49)	(50)	(50)	(49)
Tongue				(1)
Squamous Cell Papilloma				1 (100%)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(50)	(49)
Adenoma	1 (2%)			
Adrenal Medulla	(49)	(50)	(50)	(49)
Pheochromocytoma Benign	1 (2%)	3 (6%)	2 (4%)	1 (2%)
Parathyroid Gland	(50)	(48)	(49)	(47)
Adenoma				1 (2%)
Pituitary Gland	(50)	(50)	(50)	(49)
Histiocytic Sarcoma				1 (2%)
Pars Distalis, Adenoma	25 (50%)	27 (54%)	27 (54%)	22 (45%)
Pars Distalis, Adenoma, Multiple	1 (2%)	3 (6%)	1 (2%)	
Pars Distalis, Carcinoma		1 (2%)		1 (2%)
Pars Intermedia, Adenoma	1 (2%)			
Thyroid Gland	(50)	(50)	(50)	(49)
Bilateral, C-Cell, Adenoma	1 (2%)	1 (2%)		
C-Cell, Adenoma	5 (10%)	10 (20%)	5 (10%)	5 (10%)
C-Cell, Carcinoma		1 (2%)		
Follicular Cell, Adenoma				2 (4%)
Follicular Cell, Carcinoma		1 (2%)	1 (2%)	
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(48)	(49)
Adenoma	7 (14%)	10 (20%)	5 (10%)	3 (6%)
Carcinoma	1 (2%)	6 (12%)	1 (2%)	5 (10%)
Squamous Cell Papilloma				1 (2%)
Bilateral, Adenoma	1 (2%)			
Ovary	(50)	(50)	(50)	(50)
Uterus	(50)	(50)	(50)	(50)
Adenoma				1 (2%)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
GENITAL SYSTEM - cont				
Deciduoma NOS		1 (2%)		1 (2%)
Polyp Stromal	3 (6%)	10 (20%)	7 (14%)	4 (8%)
Bilateral, Polyp Stromal				1 (2%)
Cervix, Polyp Stromal	1 (2%)			
Cervix, Sarcoma Stromal			1 (2%)	
Vagina	(1)	(4)	(6)	(20)
Polyp Adenomatous			1 (17%)	
Sarcoma Stromal			1 (17%)	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Histiocytic Sarcoma			1 (2%)	1 (2%)
Lymph Node	(13)	(13)	(9)	(21)
Mediastinal, Carcinoma, Metastatic, Thyroid Gland		1 (8%)		
Mediastinal, Osteosarcoma, Metastatic, Bone				1 (5%)
Pancreatic, Histiocytic Sarcoma				1 (5%)
Lymph Node, Mandibular	(2)		(1)	(3)
Lymph Node, Mesenteric	(49)	(50)	(50)	(48)
Spleen	(47)	(49)	(50)	(48)
Histiocytic Sarcoma				1 (2%)
Capsule, Osteosarcoma, Metastatic, Bone				1 (2%)
Thymus	(49)	(49)	(50)	(50)
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Adenoma		1 (2%)		
Carcinoma	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Carcinoma, Multiple	1 (2%)		1 (2%)	
Fibroadenoma	22 (44%)	18 (36%)	11 (22%)	13 (26%)
Fibroadenoma, Multiple	10 (20%)	15 (30%)	28 (56%)	23 (46%)
Skin	(50)	(50)	(50)	(50)
Squamous Cell Papilloma	1 (2%)	1 (2%)		1 (2%)
Squamous Cell Papilloma, Multiple			1 (2%)	
Trichoepithelioma				1 (2%)
Pinna, Neural Crest Tumor				1 (2%)
Subcutaneous Tissue, Fibroma	1 (2%)			

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteoma			1 (2%)	
Osteosarcoma				1 (2%)
Cranium, Meningioma Malignant, Metastatic, Brain	1 (2%)			
Skeletal Muscle		(1)		(1)
Osteosarcoma, Metastatic, Bone				1 (100%)
Rhabdomyosarcoma		1 (100%)		
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant				1 (2%)
Carcinoma, Metastatic, Pituitary Gland		1 (2%)		
Glioma Malignant, Mixed Cell			1 (2%)	
Meningioma Malignant	1 (2%)			
Spinal Cord	(2)	(4)	(1)	(1)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	1 (2%)	1 (2%)	2 (4%)	3 (6%)
Alveolar/Bronchiolar Carcinoma		1 (2%)		1 (2%)
Alveolar/Bronchiolar Carcinoma, Multiple	1 (2%)	1 (2%)		1 (2%)
Carcinoma, Metastatic, Thyroid Gland		1 (2%)		
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
Histiocytic Sarcoma				1 (2%)
Osteosarcoma, Metastatic, Bone				1 (2%)
Nose	(50)	(50)	(50)	(50)
Pleura		(1)		
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (100%)		
SPECIAL SENSES SYSTEM				
Harderian Gland	(50)	(50)	(50)	(50)
Zymbal's Gland	(1)			(2)
Carcinoma	1 (100%)			2 (100%)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Renal Tubule, Adenoma		1 (2%)		
Transitional Epithelium, Carcinoma			1 (2%)	
Urinary Bladder	(50)	(50)	(50)	(50)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma			1 (2%)	1 (2%)
Leukemia Mononuclear	11 (22%)	13 (26%)	16 (32%)	22 (44%)
Mesothelioma Malignant			1 (2%)	

* Number of animals with any tissue examined microscopically

NTP Experiment-Test: 96017-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Report: PEIRPT05
Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID) Date: 04/14/04
Route: DOSED WATER Time: 09:19:42

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	45	49	48	49
Total Primary Neoplasms	103	129	118	126
Total Animals with Benign Neoplasms	42	47	43	43
Total Benign Neoplasms	85	102	91	87
Total Animals with Malignant Neoplasms	16	24	20	32
Total Malignant Neoplasms	18	26	27	37
Total Animals with Metastatic Neoplasms	1	3	1	2
Total Metastatic Neoplasm	1	5	1	7
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant		1		2
Total Uncertain Neoplasms		1		2

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	4	15	12	12
Natural Death	12	11	8	9
Accidently Killed				1
Survivors				
Terminal Sacrifice	34	24	27	28
Moribund Sacrifice			1	
Natural Death			2	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(48)	(49)	(48)	(50)
Polyp Adenomatous			1 (2%)	
Intestine Large, Cecum	(45)	(47)	(46)	(47)
Intestine Small, Duodenum	(45)	(48)	(47)	(48)
Liver	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma			1 (2%)	
Hepatocellular Adenoma	1 (2%)	1 (2%)	2 (4%)	1 (2%)
Histiocytic Sarcoma	1 (2%)		1 (2%)	
Mesentery	(10)	(14)	(11)	(17)
Fibrosarcoma, Metastatic, Skin			1 (9%)	
Histiocytic Sarcoma	1 (10%)			
Rhabdomyosarcoma	1 (10%)			
Oral Mucosa			(1)	
Pharyngeal, Squamous Cell Carcinoma			1 (100%)	
Pancreas	(48)	(50)	(48)	(49)
Histiocytic Sarcoma	1 (2%)			
Acinus, Adenoma		2 (4%)	2 (4%)	1 (2%)
Salivary Glands	(50)	(50)	(49)	(50)
Stomach, Forestomach	(50)	(49)	(49)	(50)
Squamous Cell Papilloma	1 (2%)	1 (2%)		
Stomach, Glandular	(50)	(48)	(48)	(50)
Tooth			(1)	
Odontoma			1 (100%)	

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
Histiocytic Sarcoma	1 (2%)			
Schwannoma Malignant, Metastatic, Lung			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(49)	(50)
Adenoma				1 (2%)
Histiocytic Sarcoma	1 (2%)			
Adrenal Medulla	(49)	(50)	(49)	(50)
Pheochromocytoma Malignant		2 (4%)		1 (2%)
Pheochromocytoma Complex				1 (2%)
Pheochromocytoma Benign	7 (14%)	5 (10%)	7 (14%)	5 (10%)
Bilateral, Pheochromocytoma Benign		1 (2%)	1 (2%)	1 (2%)
Islets, Pancreatic	(48)	(50)	(48)	(50)
Adenoma	5 (10%)	3 (6%)	4 (8%)	1 (2%)
Carcinoma			1 (2%)	
Parathyroid Gland	(50)	(50)	(48)	(47)
Adenoma			1 (2%)	
Pituitary Gland	(50)	(49)	(49)	(50)
Pars Distalis, Adenoma	23 (46%)	21 (43%)	17 (35%)	8 (16%)
Pars Intermedia, Adenoma			1 (2%)	
Thyroid Gland	(50)	(50)	(49)	(50)
C-Cell, Adenoma	6 (12%)	5 (10%)	5 (10%)	7 (14%)
C-Cell, Carcinoma	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Follicular Cell, Adenoma	1 (2%)		1 (2%)	2 (4%)
GENERAL BODY SYSTEM				
Peritoneum	(1)	(1)		(4)
Schwannoma Malignant, Metastatic, Peripheral Nerve		1 (100%)		

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
GENITAL SYSTEM				
Epididymis	(50)	(50)	(49)	(49)
Preputial Gland	(50)	(50)	(50)	(50)
Adenoma	3 (6%)	5 (10%)	8 (16%)	4 (8%)
Squamous Cell Papilloma	1 (2%)			
Prostate	(50)	(50)	(50)	(50)
Seminal Vesicle	(50)	(50)	(49)	(50)
Testes	(50)	(50)	(49)	(50)
Bilateral, Interstitial Cell, Adenoma	34 (68%)	42 (84%)	34 (69%)	39 (78%)
Interstitial Cell, Adenoma	7 (14%)	4 (8%)	7 (14%)	7 (14%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(49)	(48)	(50)
Histiocytic Sarcoma	1 (2%)			
Schwannoma Malignant, Metastatic, Lung			1 (2%)	
Lymph Node	(22)	(26)	(25)	(25)
Bronchial, Thymoma Malignant, Metastatic, Thymus			1 (4%)	
Mediastinal, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (4%)		
Lymph Node, Mesenteric	(50)	(50)	(49)	(50)
Hemangioma			1 (2%)	
Histiocytic Sarcoma	1 (2%)			
Spleen	(50)	(50)	(49)	(49)
Histiocytic Sarcoma	1 (2%)			
Schwannoma Malignant, Metastatic, Lung			1 (2%)	
Thymus	(49)	(48)	(48)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
Histiocytic Sarcoma	1 (2%)			
Sarcoma	1 (2%)			
Thymoma Benign	1 (2%)			
Thymoma Malignant			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Adenoma				1 (2%)
Carcinoma	1 (2%)		1 (2%)	1 (2%)
Fibroadenoma	4 (8%)	5 (10%)	3 (6%)	5 (10%)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
INTEGUMENTARY SYSTEM - cont				
Fibroadenoma, Multiple			1 (2%)	
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Keratoacanthoma	3 (6%)	1 (2%)	1 (2%)	2 (4%)
Squamous Cell Carcinoma	1 (2%)			
Squamous Cell Papilloma	2 (4%)	1 (2%)	2 (4%)	3 (6%)
Trichoepithelioma	1 (2%)	1 (2%)		
Sebaceous Gland, Adenoma, Multiple				1 (2%)
Subcutaneous Tissue, Fibroma	5 (10%)	4 (8%)	3 (6%)	1 (2%)
Subcutaneous Tissue, Fibrosarcoma		3 (6%)	3 (6%)	2 (4%)
Subcutaneous Tissue, Hemangioma	1 (2%)			
Subcutaneous Tissue, Neural Crest Tumor	1 (2%)			
Subcutaneous Tissue, Sarcoma	1 (2%)			
Subcutaneous Tissue, Schwannoma Malignant			1 (2%)	1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hemangiosarcoma				1 (2%)
Vertebra, Chordoma		1 (2%)		
Skeletal Muscle	(2)	(1)	(1)	(3)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (100%)		
Hemangioma	1 (50%)			
Histiocytic Sarcoma			1 (100%)	
Sarcoma	1 (50%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant			1 (2%)	
Glioma Malignant, Mixed Cell			1 (2%)	
Pineal Gland, Glioma Malignant	1 (2%)			
Peripheral Nerve	(2)	(1)	(2)	(2)
Schwannoma Malignant		1 (100%)		

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	2 (4%)		4 (8%)	2 (4%)
Alveolar/Bronchiolar Carcinoma		1 (2%)	1 (2%)	
Carcinoma, Metastatic, Thyroid Gland		1 (2%)		
Histiocytic Sarcoma	2 (4%)		1 (2%)	
Schwannoma Malignant, Metastatic, Eye		1 (2%)		
Schwannoma Malignant, Metastatic, Heart			1 (2%)	
Squamous Cell Carcinoma			1 (2%)	
Mediastinum, Sarcoma	1 (2%)			
Serosa, Thymoma Malignant, Metastatic, Thymus			1 (2%)	
Pleura	(1)		(1)	
Histiocytic Sarcoma	1 (100%)			
Thymoma Malignant, Metastatic, Thymus			1 (100%)	
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Schwannoma Malignant		1 (2%)		
Harderian Gland	(50)	(50)	(49)	(50)
Zymbal's Gland	(2)			(2)
Adenoma	1 (50%)			1 (50%)
Carcinoma				1 (50%)
URINARY SYSTEM				
Kidney	(49)	(50)	(49)	(50)
Lipoma				1 (2%)
Renal Tubule, Adenoma	1 (2%)		1 (2%)	
Urinary Bladder	(50)	(50)	(50)	(50)
Carcinoma	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Papilloma		1 (2%)		
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	2 (4%)		1 (2%)	

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
SYSTEMIC LESIONS - cont				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Leukemia Mononuclear	17 (34%)	31 (62%)	24 (48%)	13 (26%)
Lymphoma Malignant Lymphocytic				1 (2%)
Mesothelioma Malignant	3 (6%)	1 (2%)		10 (20%)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	50	49	50
Total Primary Neoplasms	145	146	147	127
Total Animals with Benign Neoplasms	47	48	45	48
Total Benign Neoplasms	111	103	108	94
Total Animals with Malignant Neoplasms	29	38	35	26
Total Malignant Neoplasms	33	43	39	33
Total Animals with Metastatic Neoplasms		4	3	
Total Metastatic Neoplasm		7	8	
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant	1			
Total Uncertain Neoplasms	1			

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED WATER

FINAL#1 RATS

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Southern Research Inst
EXPERIMENT: 96017 TEST: 05
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: HERSCHELL, GILES
Rats(FISCHER 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED WATER

REPORT: PEIRPT08
DATE: 04/14/04
TIME: 09:21:15

NTP C#: C96017
CAS: 631-64-1

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Brain
Clitoral/Preputial Gland
Islets, Pancreatic
Kidney
Liver
Lung
Pancreas
Parathyroid Gland
Pituitary Gland
Testes
Thymus
Thyroid Gland
Urinary Bladder

NTP
LAB: Southern Research Inst
EXPERIMENT: 96017 TEST: 05
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: HERSCHELL, GILES

STATISTICAL ANALYSIS OF PRIMARY TUMORS
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED WATER

REPORT: PEIRPT08
DATE: 04/14/04
TIME: 09:21:15

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SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF WATER DISINFECTION BYPRODUCTS (DIBROMOAC

Male Rats

Organ	Morphology
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
	Carcinoma or Adenoma
Testes	Adenoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Mesothelioma: Benign, Malignant, NOS
	Mesothelioma: Malignant
	Benign Tumors
	Malignant Tumors

Female Rats

Organ	Morphology
Clitoral/Preputial Gland	Adenoma
Mammary Gland	Fibroadenoma
	Fibroma, Fibroadenoma or Adenoma
	Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Thyroid Gland: Follicular Cell	Adenoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Malignant Tumors
	Malignant and Benign Tumors

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC

Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	7/49 (14%)	6/50 (12%)	8/49 (16%)	6/50 (12%)	1/49 (2%)	3/50 (6%)	2/50 (4%)	1/49 (2%)
POLY-3 RATE (b)	7/42.66	6/42.27	8/39.97	6/41.42	1/43.23	3/46.29	2/44.36	1/42.48
POLY-3 PERCENT (g)	16.4%	14.2%	20.0%	14.5%	2.3%	6.5%	4.5%	2.4%
TERMINAL (d)	6/34 (18%)	1/24 (4%)	5/30 (17%)	3/28 (11%)	1/35 (3%)	2/39 (5%)	2/35 (6%)	1/32 (3%)
FIRST INCIDENCE	711	618	560	624	729 (T)	720	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.530	P=0.529	P=0.406	P=0.607	P=0.441N	P=0.348	P=0.500	P=0.742
POLY 3	P=0.549N	P=0.507N	P=0.445	P=0.523N	P=0.396N	P=0.330	P=0.509	P=0.757
POLY 1.5	P=0.535N	P=0.493N	P=0.460	P=0.505N	P=0.391N	P=0.323	P=0.509	P=0.759
POLY 6	P=0.538	P=0.532N	P=0.430	P=0.547N	P=0.404N	P=0.342	P=0.511	P=0.755
LOGISTIC REGRESSION	P=0.541	P=0.544N	P=0.415	P=0.546N	P=0.440N	P=0.358	P=0.500	P=0.742
COCH-ARM / FISHERS	P=0.510N	P=0.484N	P=0.500	P=0.484N	P=0.385N	P=0.316	P=0.508	P=0.753N
ORDER RESTRICTED	P=0.601N	(e)	(e)	(e)	P=0.481	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Adrenal Medulla Pheochromocytoma Malignant								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	2/50 (4%)	0/49 (0%)	1/50 (2%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/42.59	2/42.35	0/39.19	1/40.64	0/43.23	0/46.25	0/44.36	0/42.48
POLY-3 PERCENT (g)	0.0%	4.7%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	0/30 (0%)	0/28 (0%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	---	437	---	651	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.633N	P=0.228	(e)	P=0.478	(e)	(e)	(e)	(e)
POLY 3	P=0.622N	P=0.236	(e)	P=0.491	(e)	(e)	(e)	(e)
POLY 1.5	P=0.614N	P=0.240	(e)	P=0.497	(e)	(e)	(e)	(e)
POLY 6	P=0.633N	P=0.227	(e)	P=0.482	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.582N	P=0.199	(e)	P=0.510	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.604N	P=0.253	(e)	P=0.505	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.316	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Adrenal Medulla								
Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	7/49 (14%)	7/50 (14%)	8/49 (16%)	8/50 (16%)	1/49 (2%)	3/50 (6%)	2/50 (4%)	1/49 (2%)
POLY-3 RATE (b)	7/42.66	7/43.05	8/39.97	8/41.71	1/43.23	3/46.29	2/44.36	1/42.48
POLY-3 PERCENT (g)	16.4%	16.3%	20.0%	19.2%	2.3%	6.5%	4.5%	2.4%
TERMINAL (d)	6/34 (18%)	1/24 (4%)	5/30 (17%)	4/28 (14%)	1/35 (3%)	2/39 (5%)	2/35 (6%)	1/32 (3%)
FIRST INCIDENCE	711	437	560	624	729 (T)	720	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.358	P=0.420	P=0.406	P=0.370	P=0.441N	P=0.348	P=0.500	P=0.742
POLY 3	P=0.371	P=0.607N	P=0.445	P=0.481	P=0.396N	P=0.330	P=0.509	P=0.757
POLY 1.5	P=0.387	P=0.597N	P=0.460	P=0.498	P=0.391N	P=0.323	P=0.509	P=0.759
POLY 6	P=0.358	P=0.603	P=0.430	P=0.460	P=0.404N	P=0.342	P=0.511	P=0.755
LOGISTIC REGRESSION	P=0.381	P=0.610N	P=0.415	P=0.456	P=0.440N	P=0.358	P=0.500	P=0.742
COCH-ARM / FISHERS	P=0.416	P=0.597N	P=0.500	P=0.517	P=0.385N	P=0.316	P=0.508	P=0.753N
ORDER RESTRICTED	P=0.546	(e)	(e)	(e)	P=0.481	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Brain								
Oligodendroglioma, Glioma, or Astrocytoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/44.13	0/41.42	2/40.20	0/40.35	0/44.12	0/46.25	1/44.36	1/42.95
POLY-3 PERCENT (g)	2.3%	0.0%	5.0%	0.0%	0.0%	0.0%	2.3%	2.3%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	1/30 (3%)	0/28 (0%)	0/35 (0%)	0/39 (0%)	1/35 (3%)	1/32 (3%)
FIRST INCIDENCE	433	---	590	---	---	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.568N	P=0.496N	P=0.465	P=0.508N	P=0.175	(e)	P=0.500	P=0.482
POLY 3	P=0.567N	P=0.513N	P=0.468	P=0.518N	P=0.189	(e)	P=0.501	P=0.495
POLY 1.5	P=0.560N	P=0.506N	P=0.478	P=0.510N	P=0.195	(e)	P=0.501	P=0.497
POLY 6	P=0.574N	P=0.523N	P=0.458	P=0.528N	P=0.182	(e)	P=0.502	P=0.491
LOGISTIC REGRESSION	P=0.523N	P=0.651N	P=0.562	P=0.553N	(e)	(e)	P=0.500	P=0.482
COCH-ARM / FISHERS	P=0.550N	P=0.500N	P=0.500	P=0.500N	P=0.202	(e)	P=0.500	P=0.500
ORDER RESTRICTED	P=0.323N	(e)	(e)	(e)	P=0.246	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Clitoral/Preputial Gland Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	5/50 (10%)	8/50 (16%)	4/50 (8%)	8/50 (16%)	10/50 (20%)	5/48 (10%)	3/49 (6%)
POLY-3 RATE (b)	3/43.34	5/41.62	8/39.85	4/41.16	8/44.44	10/46.55	5/42.36	3/41.95
POLY-3 PERCENT (g)	6.9%	12.0%	20.1%	9.7%	18.0%	21.5%	11.8%	7.2%
TERMINAL (d)	3/34 (9%)	4/24 (17%)	7/30 (23%)	2/28 (7%)	7/35 (20%)	8/39 (21%)	5/33 (15%)	3/31 (10%)
FIRST INCIDENCE	729 (T)	679	700	610	641	682	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.401	P=0.198	P=0.065	P=0.415	P=0.050N	P=0.505	P=0.309N	P=0.136N
POLY 3	P=0.403	P=0.333	P=0.072	P=0.472	P=0.033N*	P=0.439	P=0.306N	P=0.116N
POLY 1.5	P=0.419	P=0.347	P=0.080	P=0.485	P=0.029N*	P=0.423	P=0.303N	P=0.111N
POLY 6	P=0.386	P=0.311	P=0.064	P=0.455	P=0.038N*	P=0.470	P=0.306N	P=0.123N
LOGISTIC REGRESSION	P=0.376	P=0.265	P=0.059	P=0.473	P=0.042N*	P=0.472	P=0.292N	P=0.126N
COCH-ARM / FISHERS	P=0.442	P=0.357	P=0.100	P=0.500	P=0.027N*	P=0.398	P=0.304N	P=0.106N
ORDER RESTRICTED	P=0.203	(e)	(e)	(e)	P=0.074N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Clitoral/Preputial Gland Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	6/50 (12%)	1/48 (2%)	5/49 (10%)
POLY-3 RATE (b)	0/43.34	0/41.42	0/39.73	0/40.35	1/44.12	6/47.21	1/42.36	5/42.88
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.3%	12.7%	2.4%	11.7%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	0/30 (0%)	0/28 (0%)	1/35 (3%)	4/39 (10%)	1/33 (3%)	2/31 (7%)
FIRST INCIDENCE	---	---	---	---	729 (T)	392	729 (T)	580
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.281	P=0.079	P=0.749	P=0.093
POLY 3	(e)	(e)	(e)	(e)	P=0.335	P=0.068	P=0.752	P=0.094
POLY 1.5	(e)	(e)	(e)	(e)	P=0.339	P=0.063	P=0.752	P=0.095
POLY 6	(e)	(e)	(e)	(e)	P=0.332	P=0.075	P=0.753	P=0.093
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.355	P=0.050	P=0.749	P=0.099
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.343	P=0.056	P=0.742	P=0.098
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.068	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Clitoral/Preputial Gland Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	5/50 (10%)	8/50 (16%)	4/50 (8%)	9/50 (18%)	15/50 (30%)	6/48 (13%)	8/49 (16%)
POLY-3 RATE (b)	3/43.34	5/41.62	8/39.85	4/41.16	9/44.44	15/47.51	6/42.36	8/42.88
POLY-3 PERCENT (g)	6.9%	12.0%	20.1%	9.7%	20.3%	31.6%	14.2%	18.7%
TERMINAL (d)	3/34 (9%)	4/24 (17%)	7/30 (23%)	2/28 (7%)	8/35 (23%)	11/39 (28%)	6/33 (18%)	5/31 (16%)
FIRST INCIDENCE	729 (T)	679	700	610	641	392	729 (T)	580
STATISTICAL TESTS								
LIFE TABLE	P=0.401	P=0.198	P=0.065	P=0.415	P=0.222N	P=0.202	P=0.324N	P=0.585N
POLY 3	P=0.403	P=0.333	P=0.072	P=0.472	P=0.143N	P=0.158	P=0.321N	P=0.533N
POLY 1.5	P=0.419	P=0.347	P=0.080	P=0.485	P=0.135N	P=0.143	P=0.318N	P=0.526N
POLY 6	P=0.386	P=0.311	P=0.064	P=0.455	P=0.155N	P=0.185	P=0.321N	P=0.539N
LOGISTIC REGRESSION	P=0.376	P=0.265	P=0.059	P=0.473	P=0.150N	P=0.134	P=0.304N	P=0.548N
COCH-ARM / FISHERS	P=0.442	P=0.357	P=0.100	P=0.500	P=0.126N	P=0.121	P=0.318N	P=0.518N
ORDER RESTRICTED	P=0.203	(e)	(e)	(e)	P=0.211N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	5/48 (10%)	3/50 (6%)	4/48 (8%)	1/50 (2%)	0/47 (0%)	0/49 (0%)	0/49 (0%)	0/48 (0%)
POLY-3 RATE (b)	5/42.17	3/41.64	4/39.16	1/41.00	0/41.84	0/45.91	0/43.63	0/41.81
POLY-3 PERCENT (g)	11.9%	7.2%	10.2%	2.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	4/34 (12%)	1/24 (4%)	3/30 (10%)	0/28 (0%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	682	679	560	512	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.143N	P=0.522N	P=0.573N	P=0.150N	(e)	(e)	(e)	(e)
POLY 3	P=0.130N	P=0.363N	P=0.547N	P=0.107N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.125N	P=0.346N	P=0.533N	P=0.099N	(e)	(e)	(e)	(e)
POLY 6	P=0.136N	P=0.392N	P=0.562N	P=0.119N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.129N	P=0.401N	P=0.549N	P=0.097N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.118N	P=0.335N	P=0.500N	P=0.093N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.082N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	5/48 (10%)	3/50 (6%)	5/48 (10%)	1/50 (2%)	0/47 (0%)	0/49 (0%)	0/49 (0%)	0/48 (0%)
POLY-3 RATE (b)	5/42.17	3/41.64	5/39.35	1/41.00	0/41.84	0/45.91	0/43.63	0/41.81
POLY-3 PERCENT (g)	11.9%	7.2%	12.7%	2.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	4/34 (12%)	1/24 (4%)	3/30 (10%)	0/28 (0%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	682	679	560	512	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.176N	P=0.522N	P=0.552	P=0.150N	(e)	(e)	(e)	(e)
POLY 3	P=0.157N	P=0.363N	P=0.587	P=0.107N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.151N	P=0.346N	P=0.599	P=0.099N	(e)	(e)	(e)	(e)
POLY 6	P=0.165N	P=0.392N	P=0.574	P=0.119N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.155N	P=0.401N	P=0.586	P=0.097N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.142N	P=0.335N	P=0.630N	P=0.093N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.092N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.34	1/41.42	2/39.73	1/40.64	2/44.12	0/46.25	0/44.36	1/42.95
POLY-3 PERCENT (g)	2.3%	2.4%	5.0%	2.5%	4.5%	0.0%	0.0%	2.3%
TERMINAL (d)	1/34 (3%)	1/24 (4%)	2/30 (7%)	0/28 (0%)	2/35 (6%)	0/39 (0%)	0/35 (0%)	1/32 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	651	729 (T)	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.541	P=0.682	P=0.456	P=0.724	P=0.590N	P=0.215N	P=0.238N	P=0.531N
POLY 3	P=0.539	P=0.751	P=0.470	P=0.746	P=0.563N	P=0.227N	P=0.236N	P=0.509N
POLY 1.5	P=0.548	P=0.757	P=0.479	P=0.753	P=0.558N	P=0.231N	P=0.236N	P=0.505N
POLY 6	P=0.529	P=0.741	P=0.459	P=0.737	P=0.573N	P=0.220N	P=0.234N	P=0.515N
LOGISTIC REGRESSION	P=0.531	P=0.682	P=0.456	P=0.756	P=0.590N	(e)	(e)	P=0.531N
COCH-ARM / FISHERS	P=0.561	P=0.753N	P=0.500	P=0.753N	P=0.550N	P=0.247N	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.551	(e)	(e)	(e)	P=0.135N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/43.34	1/41.42	3/39.73	1/40.64	2/44.12	0/46.25	1/44.36	2/42.95
POLY-3 PERCENT (g)	2.3%	2.4%	7.6%	2.5%	4.5%	0.0%	2.3%	4.7%
TERMINAL (d)	1/34 (3%)	1/24 (4%)	3/30 (10%)	0/28 (0%)	2/35 (6%)	0/39 (0%)	1/35 (3%)	2/32 (6%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	651	729 (T)	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.488	P=0.682	P=0.261	P=0.724	P=0.313	P=0.215N	P=0.500N	P=0.663
POLY 3	P=0.485	P=0.751	P=0.274	P=0.746	P=0.339	P=0.227N	P=0.498N	P=0.684
POLY 1.5	P=0.496	P=0.757	P=0.284	P=0.753	P=0.349	P=0.231N	P=0.498N	P=0.689
POLY 6	P=0.473	P=0.741	P=0.263	P=0.737	P=0.325	P=0.220N	P=0.496N	P=0.679
LOGISTIC REGRESSION	P=0.474	P=0.682	P=0.261	P=0.756	P=0.313	(e)	P=0.500N	P=0.663
COCH-ARM / FISHERS	P=0.510	P=0.753N	P=0.309	P=0.753N	P=0.363	P=0.247N	P=0.500N	P=0.691N
ORDER RESTRICTED	P=0.405	(e)	(e)	(e)	P=0.394	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/43.34	1/41.42	3/39.73	1/40.64	2/44.12	0/46.25	1/44.36	2/42.95
POLY-3 PERCENT (g)	2.3%	2.4%	7.6%	2.5%	4.5%	0.0%	2.3%	4.7%
TERMINAL (d)	1/34 (3%)	1/24 (4%)	3/30 (10%)	0/28 (0%)	2/35 (6%)	0/39 (0%)	1/35 (3%)	2/32 (6%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	651	729 (T)	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.488	P=0.682	P=0.261	P=0.724	P=0.313	P=0.215N	P=0.500N	P=0.663
POLY 3	P=0.485	P=0.751	P=0.274	P=0.746	P=0.339	P=0.227N	P=0.498N	P=0.684
POLY 1.5	P=0.496	P=0.757	P=0.284	P=0.753	P=0.349	P=0.231N	P=0.498N	P=0.689
POLY 6	P=0.473	P=0.741	P=0.263	P=0.737	P=0.325	P=0.220N	P=0.496N	P=0.679
LOGISTIC REGRESSION	P=0.474	P=0.682	P=0.261	P=0.756	P=0.313	(e)	P=0.500N	P=0.663
COCH-ARM / FISHERS	P=0.510	P=0.753N	P=0.309	P=0.753N	P=0.363	P=0.247N	P=0.500N	P=0.691N
ORDER RESTRICTED	P=0.405	(e)	(e)	(e)	P=0.394	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Lung Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	0/50 (0%)	4/50 (8%)	2/50 (4%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	2/43.52	0/41.42	4/39.73	2/40.46	1/44.12	1/46.25	2/44.36	3/42.95
POLY-3 PERCENT (g)	4.6%	0.0%	10.1%	4.9%	2.3%	2.2%	4.5%	7.0%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	4/30 (13%)	1/28 (4%)	1/35 (3%)	1/39 (3%)	2/35 (6%)	3/32 (9%)
FIRST INCIDENCE	682	---	729 (T)	701	729 (T)	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.254	P=0.298N	P=0.279	P=0.616	P=0.112	P=0.738N	P=0.500	P=0.273
POLY 3	P=0.257	P=0.248N	P=0.295	P=0.668	P=0.137	P=0.750N	P=0.502	P=0.295
POLY 1.5	P=0.266	P=0.242N	P=0.309	P=0.680	P=0.143	P=0.754N	P=0.502	P=0.300
POLY 6	P=0.247	P=0.259N	P=0.280	P=0.651	P=0.129	P=0.743N	P=0.504	P=0.289
LOGISTIC REGRESSION	P=0.241	P=0.249N	P=0.276	P=0.660	P=0.112	P=0.738N	P=0.500	P=0.273
COCH-ARM / FISHERS	P=0.281	P=0.247N	P=0.339	P=0.691N	P=0.150	P=0.753N	P=0.500	P=0.309
ORDER RESTRICTED	P=0.211	(e)	(e)	(e)	P=0.203	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Lung Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.34	1/41.71	1/39.73	0/40.35	1/44.47	2/46.25	0/44.36	2/42.95
POLY-3 PERCENT (g)	0.0%	2.4%	2.5%	0.0%	2.3%	4.3%	0.0%	4.7%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	1/30 (3%)	0/28 (0%)	0/35 (0%)	2/39 (5%)	0/35 (0%)	2/32 (6%)
FIRST INCIDENCE	---	651	729 (T)	---	632	729 (T)	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.537N	P=0.490	P=0.475	(e)	P=0.492	P=0.533	P=0.505N	P=0.474
POLY 3	P=0.537N	P=0.492	P=0.483	(e)	P=0.527	P=0.514	P=0.500N	P=0.488
POLY 1.5	P=0.528N	P=0.497	P=0.488	(e)	P=0.532	P=0.508	P=0.500N	P=0.493
POLY 6	P=0.549N	P=0.485	P=0.476	(e)	P=0.520	P=0.523	P=0.500N	P=0.480
LOGISTIC REGRESSION	P=0.526N	P=0.500	P=0.475	(e)	P=0.523	P=0.500	P=0.517N	P=0.496
COCH-ARM / FISHERS	P=0.518N	P=0.500	P=0.500	(e)	P=0.539	P=0.500	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.391	(e)	(e)	(e)	P=0.394	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Lung Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	1/50 (2%)	5/50 (10%)	2/50 (4%)	2/50 (4%)	3/50 (6%)	2/50 (4%)	5/50 (10%)
POLY-3 RATE (b)	2/43.52	1/41.71	5/39.73	2/40.46	2/44.47	3/46.25	2/44.36	5/42.95
POLY-3 PERCENT (g)	4.6%	2.4%	12.6%	4.9%	4.5%	6.5%	4.5%	11.6%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	5/30 (17%)	1/28 (4%)	1/35 (3%)	3/39 (8%)	2/35 (6%)	5/32 (16%)
FIRST INCIDENCE	682	651	729 (T)	701	632	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.332	P=0.565N	P=0.167	P=0.616	P=0.127	P=0.545	P=0.691	P=0.185
POLY 3	P=0.331	P=0.515N	P=0.180	P=0.668	P=0.161	P=0.518	P=0.693	P=0.201
POLY 1.5	P=0.346	P=0.506N	P=0.192	P=0.680	P=0.169	P=0.511	P=0.693N	P=0.209
POLY 6	P=0.313	P=0.530N	P=0.166	P=0.651	P=0.151	P=0.530	P=0.694	P=0.192
LOGISTIC REGRESSION	P=0.323	P=0.503N	P=0.163	P=0.660	P=0.139	P=0.515	P=0.693N	P=0.198
COCH-ARM / FISHERS	P=0.366	P=0.500N	P=0.218	P=0.691N	P=0.178	P=0.500	P=0.691N	P=0.218
ORDER RESTRICTED	P=0.247	(e)	(e)	(e)	P=0.145	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/43.34	0/41.42	1/39.73	1/40.35	3/44.12	1/46.25	2/44.69	1/42.95
POLY-3 PERCENT (g)	2.3%	0.0%	2.5%	2.5%	6.8%	2.2%	4.5%	2.3%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	1/30 (3%)	1/28 (4%)	3/35 (9%)	1/39 (3%)	1/35 (3%)	1/32 (3%)
FIRST INCIDENCE	729 (T)	---	729 (T)	729 (T)	729 (T)	729 (T)	640	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.438	P=0.569N	P=0.734	P=0.718	P=0.399N	P=0.267N	P=0.498N	P=0.337N
POLY 3	P=0.436	P=0.509N	P=0.741	P=0.745	P=0.371N	P=0.289N	P=0.494N	P=0.315N
POLY 1.5	P=0.441	P=0.504N	P=0.747	P=0.752	P=0.361N	P=0.295N	P=0.496N	P=0.310N
POLY 6	P=0.430	P=0.518N	P=0.734	P=0.734	P=0.389N	P=0.277N	P=0.489N	P=0.320N
LOGISTIC REGRESSION	P=0.438	(e)	P=0.734	P=0.718	P=0.375N	P=0.267N	P=0.497N	P=0.337N
COCH-ARM / FISHERS	P=0.450	P=0.500N	P=0.753N	P=0.753N	P=0.347N	P=0.309N	P=0.500N	P=0.309N
ORDER RESTRICTED	P=0.513	(e)	(e)	(e)	P=0.230N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Mammary Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	2/50 (4%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/43.34	0/41.42	1/39.73	2/40.35	3/44.12	2/46.25	2/44.69	1/42.95
POLY-3 PERCENT (g)	2.3%	0.0%	2.5%	5.0%	6.8%	4.3%	4.5%	2.3%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	1/30 (3%)	2/28 (7%)	3/35 (9%)	2/39 (5%)	1/35 (3%)	1/32 (3%)
FIRST INCIDENCE	729 (T)	---	729 (T)	729 (T)	729 (T)	729 (T)	640	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.180	P=0.569N	P=0.734	P=0.432	P=0.299N	P=0.450N	P=0.498N	P=0.337N
POLY 3	P=0.180	P=0.509N	P=0.741	P=0.475	P=0.271N	P=0.479N	P=0.494N	P=0.315N
POLY 1.5	P=0.184	P=0.504N	P=0.747	P=0.487	P=0.263N	P=0.487N	P=0.496N	P=0.310N
POLY 6	P=0.176	P=0.518N	P=0.734	P=0.459	P=0.284N	P=0.463N	P=0.489N	P=0.320N
LOGISTIC REGRESSION	P=0.180	(e)	P=0.734	P=0.432	P=0.279N	P=0.450N	P=0.497N	P=0.337N
COCH-ARM / FISHERS	P=0.191	P=0.500N	P=0.753N	P=0.500	P=0.251N	P=0.500N	P=0.500N	P=0.309N
ORDER RESTRICTED	P=0.204	(e)	(e)	(e)	P=0.255N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Mammary Gland Fibroadenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	5/50 (10%)	4/50 (8%)	5/50 (10%)	32/50 (64%)	33/50 (66%)	39/50 (78%)	36/50 (72%)
POLY-3 RATE (b)	4/43.34	5/41.61	4/39.73	5/40.35	32/45.65	33/47.34	39/46.55	36/44.88
POLY-3 PERCENT (g)	9.2%	12.0%	10.1%	12.4%	70.1%	69.7%	83.8%	80.2%
TERMINAL (d)	4/34 (12%)	3/24 (13%)	4/30 (13%)	5/28 (18%)	27/35 (77%)	28/39 (72%)	31/35 (89%)	30/32 (94%)
FIRST INCIDENCE	729 (T)	701	729 (T)	729 (T)	602	521	441	577
STATISTICAL TESTS								
LIFE TABLE	P=0.460	P=0.310	P=0.575	P=0.377	P=0.016 *	P=0.383N	P=0.113	P=0.095
POLY 3	P=0.447	P=0.474	P=0.595	P=0.455	P=0.061	P=0.576N	P=0.079	P=0.175
POLY 1.5	P=0.466	P=0.490	P=0.611	P=0.476	P=0.094	P=0.568	P=0.087	P=0.212
POLY 6	P=0.423	P=0.449	P=0.578	P=0.426	P=0.030 *	P=0.510N	P=0.078	P=0.131
LOGISTIC REGRESSION	P=0.426	P=0.387	P=0.575	P=0.377	P=0.048 *	P=0.511N	P=0.072	P=0.145
COCH-ARM / FISHERS	P=0.494	P=0.500	P=0.643N	P=0.500	P=0.156	P=0.500	P=0.093	P=0.260
ORDER RESTRICTED	P=0.504	(e)	(e)	(e)	P=0.118	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Mammary Gland								
Fibroma, Fibroadenoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	5/50 (10%)	4/50 (8%)	6/50 (12%)	32/50 (64%)	33/50 (66%)	39/50 (78%)	36/50 (72%)
POLY-3 RATE (b)	4/43.34	5/41.61	4/39.73	6/40.35	32/45.65	33/47.34	39/46.55	36/44.88
POLY-3 PERCENT (g)	9.2%	12.0%	10.1%	14.9%	70.1%	69.7%	83.8%	80.2%
TERMINAL (d)	4/34 (12%)	3/24 (13%)	4/30 (13%)	6/28 (21%)	27/35 (77%)	28/39 (72%)	31/35 (89%)	30/32 (94%)
FIRST INCIDENCE	729 (T)	701	729 (T)	729 (T)	602	521	441	577
STATISTICAL TESTS								
LIFE TABLE	P=0.317	P=0.310	P=0.575	P=0.249	P=0.016 *	P=0.383N	P=0.113	P=0.095
POLY 3	P=0.307	P=0.474	P=0.595	P=0.324	P=0.061	P=0.576N	P=0.079	P=0.175
POLY 1.5	P=0.326	P=0.490	P=0.611	P=0.346	P=0.094	P=0.568	P=0.087	P=0.212
POLY 6	P=0.286	P=0.449	P=0.578	P=0.296	P=0.030 *	P=0.510N	P=0.078	P=0.131
LOGISTIC REGRESSION	P=0.285	P=0.387	P=0.575	P=0.249	P=0.048 *	P=0.511N	P=0.072	P=0.145
COCH-ARM / FISHERS	P=0.352	P=0.500	P=0.643N	P=0.370	P=0.156	P=0.500	P=0.093	P=0.260
ORDER RESTRICTED	P=0.330	(e)	(e)	(e)	P=0.118	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Mammary Gland								
Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	5/50 (10%)	5/50 (10%)	7/50 (14%)	32/50 (64%)	34/50 (68%)	40/50 (80%)	36/50 (72%)
POLY-3 RATE (b)	5/43.34	5/41.61	5/39.73	7/40.35	32/45.65	34/47.34	40/46.87	36/44.88
POLY-3 PERCENT (g)	11.5%	12.0%	12.6%	17.4%	70.1%	71.8%	85.3%	80.2%
TERMINAL (d)	5/34 (15%)	3/24 (13%)	5/30 (17%)	7/28 (25%)	27/35 (77%)	29/39 (74%)	31/35 (89%)	30/32 (94%)
FIRST INCIDENCE	729 (T)	701	729 (T)	729 (T)	602	521	441	577
STATISTICAL TESTS								
LIFE TABLE	P=0.256	P=0.422	P=0.551	P=0.244	P=0.020 *	P=0.457N	P=0.083	P=0.095
POLY 3	P=0.249	P=0.605	P=0.575	P=0.328	P=0.073	P=0.519	P=0.052	P=0.175
POLY 1.5	P=0.267	P=0.620	P=0.593	P=0.352	P=0.109	P=0.480	P=0.055	P=0.212
POLY 6	P=0.228	P=0.580	P=0.555	P=0.296	P=0.038 *	P=0.590	P=0.056	P=0.131
LOGISTIC REGRESSION	P=0.225	P=0.511	P=0.551	P=0.244	P=0.058	P=0.586	P=0.042 *	P=0.145
COCH-ARM / FISHERS	P=0.293	P=0.630N	P=0.630N	P=0.380	P=0.175	P=0.417	P=0.059	P=0.260
ORDER RESTRICTED	P=0.343	(e)	(e)	(e)	P=0.098	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Papilloma Squamous or Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.34	0/41.42	0/39.73	0/40.35	0/44.12	1/46.25	0/44.36	2/43.19
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	4.6%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	0/30 (0%)	0/28 (0%)	0/35 (0%)	1/39 (3%)	0/35 (0%)	1/32 (3%)
FIRST INCIDENCE	---	---	---	---	---	729 (T)	---	664
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.154	P=0.522	(e)	P=0.230
POLY 3	(e)	(e)	(e)	(e)	P=0.175	P=0.509	(e)	P=0.232
POLY 1.5	(e)	(e)	(e)	(e)	P=0.177	P=0.506	(e)	P=0.235
POLY 6	(e)	(e)	(e)	(e)	P=0.173	P=0.516	(e)	P=0.230
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.170	P=0.522	(e)	P=0.235
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.179	P=0.500	(e)	P=0.247
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.072	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.34	0/41.42	1/40.15	0/40.35	0/44.12	1/46.25	0/44.36	2/43.19
POLY-3 PERCENT (g)	0.0%	0.0%	2.5%	0.0%	0.0%	2.2%	0.0%	4.6%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	0/30 (0%)	0/28 (0%)	0/35 (0%)	1/39 (3%)	0/35 (0%)	1/32 (3%)
FIRST INCIDENCE	---	---	607	---	---	729 (T)	---	664
STATISTICAL TESTS								
LIFE TABLE	P=0.619	(e)	P=0.465	(e)	P=0.154	P=0.522	(e)	P=0.230
POLY 3	P=0.614	(e)	P=0.485	(e)	P=0.175	P=0.509	(e)	P=0.232
POLY 1.5	P=0.624	(e)	P=0.489	(e)	P=0.177	P=0.506	(e)	P=0.235
POLY 6	P=0.601	(e)	P=0.480	(e)	P=0.173	P=0.516	(e)	P=0.230
LOGISTIC REGRESSION	P=0.648	(e)	P=0.526	(e)	P=0.170	P=0.522	(e)	P=0.235
COCH-ARM / FISHERS	P=0.634	(e)	P=0.500	(e)	P=0.179	P=0.500	(e)	P=0.247
ORDER RESTRICTED	P=0.367	(e)	(e)	(e)	P=0.072	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Pancreas								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	2/50 (4%)	2/48 (4%)	1/49 (2%)	0/47 (0%)	0/50 (0%)	0/49 (0%)	1/48 (2%)
POLY-3 RATE (b)	0/41.99	2/41.81	2/38.61	1/40.00	0/41.84	0/46.25	0/43.63	1/41.81
POLY-3 PERCENT (g)	0.0%	4.8%	5.2%	2.5%	0.0%	0.0%	0.0%	2.4%
TERMINAL (d)	0/34 (0%)	1/24 (4%)	2/30 (7%)	1/28 (4%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	1/32 (3%)
FIRST INCIDENCE	---	618	729 (T)	729 (T)	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.521	P=0.197	P=0.211	P=0.461	P=0.165	(e)	(e)	P=0.482
POLY 3	P=0.506	P=0.236	P=0.219	P=0.490	P=0.177	(e)	(e)	P=0.500
POLY 1.5	P=0.522	P=0.242	P=0.224	P=0.497	P=0.180	(e)	(e)	P=0.502
POLY 6	P=0.484	P=0.226	P=0.212	P=0.480	P=0.174	(e)	(e)	P=0.497
LOGISTIC REGRESSION	P=0.517	P=0.248	P=0.211	P=0.461	(e)	(e)	(e)	P=0.482
COCH-ARM / FISHERS	P=0.538	P=0.258	P=0.247	P=0.505	P=0.182	(e)	(e)	P=0.505
ORDER RESTRICTED	P=0.216	(e)	(e)	(e)	P=0.120	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Pituitary Gland: Pars Distalis or Unspecified Site								
Adenoma								
TUMOR RATES								
OVERALL (a)	23/50 (46%)	21/49 (43%)	17/49 (35%)	8/50 (16%)	26/50 (52%)	30/50 (60%)	28/50 (56%)	22/49 (45%)
POLY-3 RATE (b)	23/45.06	21/42.91	17/41.48	8/41.56	26/46.51	30/47.54	28/45.71	22/44.19
POLY-3 PERCENT (g)	51.0%	48.9%	41.0%	19.3%	55.9%	63.1%	61.3%	49.8%
TERMINAL (d)	16/34 (47%)	13/24 (54%)	11/30 (37%)	5/28 (18%)	20/35 (57%)	24/39 (62%)	22/35 (63%)	16/32 (50%)
FIRST INCIDENCE	591	602	560	512	519	509	622	602
STATISTICAL TESTS								
LIFE TABLE	P=0.002N**	P=0.300	P=0.330N	P=0.011N*	P=0.362N	P=0.496	P=0.435	P=0.411N
POLY 3	P<0.001N**	P=0.507N	P=0.232N	P<0.001N**	P=0.197N	P=0.306	P=0.376	P=0.352N
POLY 1.5	P<0.001N**	P=0.474N	P=0.215N	P<0.001N**	P=0.173N	P=0.295	P=0.399	P=0.332N
POLY 6	P<0.001N**	P=0.560N	P=0.253N	P=0.002N**	P=0.232N	P=0.338	P=0.365	P=0.374N
LOGISTIC REGRESSION	P<0.001N**	P=0.528N	P=0.245N	P=0.002N**	P=0.192N	P=0.326	P=0.425	P=0.325N
COCH-ARM / FISHERS	P<0.001N**	P=0.455N	P=0.173N	P<0.001N**	P=0.145N	P=0.273	P=0.421	P=0.307N
ORDER RESTRICTED	P<0.001N**	(e)	(e)	(e)	P=0.249N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	23/50 (46%)	21/49 (43%)	17/49 (35%)	8/50 (16%)	26/50 (52%)	31/50 (62%)	28/50 (56%)	23/49 (47%)
POLY-3 RATE (b)	23/45.06	21/42.91	17/41.48	8/41.56	26/46.51	31/47.54	28/45.71	23/44.52
POLY-3 PERCENT (g)	51.0%	48.9%	41.0%	19.3%	55.9%	65.2%	61.3%	51.7%
TERMINAL (d)	16/34 (47%)	13/24 (54%)	11/30 (37%)	5/28 (18%)	20/35 (57%)	25/39 (64%)	22/35 (63%)	16/32 (50%)
FIRST INCIDENCE	591	602	560	512	519	509	622	602
STATISTICAL TESTS								
LIFE TABLE	P=0.002N**	P=0.300	P=0.330N	P=0.011N*	P=0.401N	P=0.427	P=0.435	P=0.485N
POLY 3	P<0.001N**	P=0.507N	P=0.232N	P<0.001N**	P=0.214N	P=0.235	P=0.376	P=0.421N
POLY 1.5	P<0.001N**	P=0.474N	P=0.215N	P<0.001N**	P=0.194N	P=0.226	P=0.399	P=0.404N
POLY 6	P<0.001N**	P=0.560N	P=0.253N	P=0.002N**	P=0.241N	P=0.263	P=0.365	P=0.434N
LOGISTIC REGRESSION	P<0.001N**	P=0.528N	P=0.245N	P=0.002N**	P=0.219N	P=0.258	P=0.425	P=0.401N
COCH-ARM / FISHERS	P<0.001N**	P=0.455N	P=0.173N	P<0.001N**	P=0.168N	P=0.210	P=0.421	P=0.381N
ORDER RESTRICTED	P<0.001N**	(e)	(e)	(e)	P=0.293N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	2/43.34	1/41.42	0/39.73	0/40.35	0/44.12	0/46.25	0/44.36	1/42.95
POLY-3 PERCENT (g)	4.6%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%
TERMINAL (d)	2/34 (6%)	1/24 (4%)	0/30 (0%)	0/28 (0%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	1/32 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.111N	P=0.621N	P=0.266N	P=0.282N	P=0.165	(e)	(e)	P=0.482
POLY 3	P=0.110N	P=0.516N	P=0.257N	P=0.253N	P=0.178	(e)	(e)	P=0.495
POLY 1.5	P=0.110N	P=0.507N	P=0.250N	P=0.246N	P=0.181	(e)	(e)	P=0.497
POLY 6	P=0.110N	P=0.531N	P=0.264N	P=0.264N	P=0.175	(e)	(e)	P=0.491
LOGISTIC REGRESSION	P=0.111N	P=0.621N	(e)	(e)	(e)	(e)	(e)	P=0.482
COCH-ARM / FISHERS	P=0.107N	P=0.500N	P=0.247N	P=0.247N	P=0.184	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.085N	(e)	(e)	(e)	P=0.115	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	7/50 (14%)	3/50 (6%)	2/50 (4%)	5/50 (10%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	7/43.70	3/41.56	2/39.73	5/40.66	1/44.12	1/46.25	1/44.36	2/43.13
POLY-3 PERCENT (g)	16.0%	7.2%	5.0%	12.3%	2.3%	2.2%	2.3%	4.6%
TERMINAL (d)	6/34 (18%)	2/24 (8%)	2/30 (7%)	3/28 (11%)	1/35 (3%)	1/39 (3%)	1/35 (3%)	1/32 (3%)
FIRST INCIDENCE	629	693	729 (T)	651	729 (T)	729 (T)	729 (T)	682
STATISTICAL TESTS								
LIFE TABLE	P=0.490N	P=0.305N	P=0.116N	P=0.508N	P=0.291	P=0.738N	P=0.762	P=0.469
POLY 3	P=0.481N	P=0.177N	P=0.102N	P=0.430N	P=0.327	P=0.750N	P=0.760N	P=0.492
POLY 1.5	P=0.472N	P=0.166N	P=0.094N	P=0.406N	P=0.334	P=0.754N	P=0.759N	P=0.496
POLY 6	P=0.488N	P=0.197N	P=0.113N	P=0.463N	P=0.317	P=0.743N	P=0.758N	P=0.488
LOGISTIC REGRESSION	P=0.517N	P=0.199N	P=0.111N	P=0.461N	P=0.309	P=0.738N	P=0.762	P=0.486
COCH-ARM / FISHERS	P=0.453N	P=0.159N	P=0.080N	P=0.380N	P=0.342	P=0.753N	P=0.753N	P=0.500
ORDER RESTRICTED	P=0.179N	(e)	(e)	(e)	P=0.397	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin: Fibroma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	4/50 (8%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	5/44.85	4/42.22	3/39.84	1/40.35	1/44.12	0/46.25	0/44.36	0/42.95
POLY-3 PERCENT (g)	11.2%	9.5%	7.5%	2.5%	2.3%	0.0%	0.0%	0.0%
TERMINAL (d)	2/34 (6%)	0/24 (0%)	2/30 (7%)	1/28 (4%)	1/35 (3%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	516	651	701	729 (T)	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.090N	P=0.589N	P=0.422N	P=0.146N	P=0.386N	P=0.478N	P=0.500N	P=0.518N
POLY 3	P=0.086N	P=0.538N	P=0.423N	P=0.127N	P=0.372N	P=0.491N	P=0.499N	P=0.505N
POLY 1.5	P=0.079N	P=0.518N	P=0.400N	P=0.115N	P=0.370N	P=0.494N	P=0.499N	P=0.503N
POLY 6	P=0.097N	P=0.566N	P=0.449N	P=0.145N	P=0.379N	P=0.484N	P=0.498N	P=0.509N
LOGISTIC REGRESSION	P=0.070N	P=0.497N	P=0.353N	P=0.095N	P=0.386N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.069N	P=0.500N	P=0.357N	P=0.102N	P=0.366N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.101N	(e)	(e)	(e)	P=0.125N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin: Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	6/50 (12%)	6/50 (12%)	4/50 (8%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	6/44.85	6/42.61	6/40.67	4/41.06	1/44.12	0/46.25	0/44.36	0/42.95
POLY-3 PERCENT (g)	13.4%	14.1%	14.8%	9.7%	2.3%	0.0%	0.0%	0.0%
TERMINAL (d)	3/34 (9%)	1/24 (4%)	4/30 (13%)	2/28 (7%)	1/35 (3%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	516	618	402	571	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.349N	P=0.496	P=0.542	P=0.473N	P=0.386N	P=0.478N	P=0.500N	P=0.518N
POLY 3	P=0.346N	P=0.585	P=0.551	P=0.426N	P=0.372N	P=0.491N	P=0.499N	P=0.505N
POLY 1.5	P=0.324N	P=0.604	P=0.575	P=0.400N	P=0.370N	P=0.494N	P=0.499N	P=0.503N
POLY 6	P=0.374N	P=0.558	P=0.522	P=0.459N	P=0.379N	P=0.484N	P=0.498N	P=0.509N
LOGISTIC REGRESSION	P=0.290N	P=0.616N	P=0.610N	P=0.355N	P=0.386N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.293N	P=0.620N	P=0.620N	P=0.370N	P=0.366N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.437N	(e)	(e)	(e)	P=0.125N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin: Fibrosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	3/50 (6%)	3/50 (6%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.34	3/42.10	3/40.56	2/40.54	0/44.12	0/46.25	0/44.36	0/42.95
POLY-3 PERCENT (g)	0.0%	7.1%	7.4%	4.9%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/34 (0%)	1/24 (4%)	2/30 (7%)	1/28 (4%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	---	618	402	679	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.363	P=0.099	P=0.107	P=0.195	(e)	(e)	(e)	(e)
POLY 3	P=0.357	P=0.113	P=0.107	P=0.222	(e)	(e)	(e)	(e)
POLY 1.5	P=0.374	P=0.117	P=0.111	P=0.229	(e)	(e)	(e)	(e)
POLY 6	P=0.335	P=0.107	P=0.102	P=0.213	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.401	P=0.121	P=0.134	P=0.219	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.394	P=0.121	P=0.121	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.126	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	3/50 (6%)	3/50 (6%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.34	3/42.10	3/40.56	3/41.06	0/44.12	0/46.25	0/44.36	0/42.95
POLY-3 PERCENT (g)	2.3%	7.1%	7.4%	7.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/34 (3%)	1/24 (4%)	2/30 (7%)	1/28 (4%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	618	402	571	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.307	P=0.240	P=0.272	P=0.249	(e)	(e)	(e)	(e)
POLY 3	P=0.309	P=0.294	P=0.281	P=0.286	(e)	(e)	(e)	(e)
POLY 1.5	P=0.321	P=0.301	P=0.289	P=0.295	(e)	(e)	(e)	(e)
POLY 6	P=0.295	P=0.283	P=0.272	P=0.274	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.345	P=0.304	P=0.318	P=0.303	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.337	P=0.309	P=0.309	P=0.309	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.260	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/43.34	1/41.56	1/39.73	2/40.64	0/44.12	0/46.25	0/44.36	0/42.95
POLY-3 PERCENT (g)	6.9%	2.4%	2.5%	4.9%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/34 (9%)	0/24 (0%)	1/30 (3%)	1/28 (4%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	693	729 (T)	651	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.562N	P=0.417N	P=0.350N	P=0.582N	(e)	(e)	(e)	(e)
POLY 3	P=0.548N	P=0.320N	P=0.337N	P=0.529N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.544N	P=0.311N	P=0.327N	P=0.516N	(e)	(e)	(e)	(e)
POLY 6	P=0.551N	P=0.335N	P=0.348N	P=0.547N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.570N	P=0.354N	P=0.350N	P=0.553N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.533N	P=0.309N	P=0.309N	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.322N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/43.70	1/41.42	2/39.73	3/40.38	1/44.12	1/46.25	1/44.36	1/43.13
POLY-3 PERCENT (g)	4.6%	2.4%	5.0%	7.4%	2.3%	2.2%	2.3%	2.3%
TERMINAL (d)	1/34 (3%)	1/24 (4%)	2/30 (7%)	2/28 (7%)	1/35 (3%)	1/39 (3%)	1/35 (3%)	0/32 (0%)
FIRST INCIDENCE	629	729 (T)	729 (T)	723	729 (T)	729 (T)	729 (T)	682
STATISTICAL TESTS								
LIFE TABLE	P=0.249	P=0.589N	P=0.640	P=0.425	P=0.578	P=0.738N	P=0.762	P=0.741
POLY 3	P=0.244	P=0.519N	P=0.660	P=0.464	P=0.605	P=0.750N	P=0.760N	P=0.756
POLY 1.5	P=0.253	P=0.508N	P=0.671	P=0.481	P=0.612	P=0.754N	P=0.759N	P=0.758
POLY 6	P=0.234	P=0.536N	P=0.646	P=0.441	P=0.594	P=0.743N	P=0.758N	P=0.753
LOGISTIC REGRESSION	P=0.230	P=0.509N	P=0.665	P=0.458	P=0.600	P=0.738N	P=0.762	P=0.758
COCH-ARM / FISHERS	P=0.266	P=0.500N	P=0.691N	P=0.500	P=0.623	P=0.753N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.319	(e)	(e)	(e)	P=0.734	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	2/50 (4%)	2/50 (4%)	5/50 (10%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	6/43.70	2/41.56	2/39.73	5/40.66	1/44.12	1/46.25	1/44.36	1/43.13
POLY-3 PERCENT (g)	13.7%	4.8%	5.0%	12.3%	2.3%	2.2%	2.3%	2.3%
TERMINAL (d)	5/34 (15%)	1/24 (4%)	2/30 (7%)	3/28 (11%)	1/35 (3%)	1/39 (3%)	1/35 (3%)	0/32 (0%)
FIRST INCIDENCE	629	693	729 (T)	651	729 (T)	729 (T)	729 (T)	682
STATISTICAL TESTS								
LIFE TABLE	P=0.455	P=0.246N	P=0.182N	P=0.620N	P=0.578	P=0.738N	P=0.762	P=0.741
POLY 3	P=0.463	P=0.148N	P=0.165N	P=0.551N	P=0.605	P=0.750N	P=0.760N	P=0.756
POLY 1.5	P=0.472	P=0.139N	P=0.154N	P=0.527N	P=0.612	P=0.754N	P=0.759N	P=0.758
POLY 6	P=0.456	P=0.164N	P=0.178N	P=0.582N	P=0.594	P=0.743N	P=0.758N	P=0.753
LOGISTIC REGRESSION	P=0.433	P=0.160N	P=0.173N	P=0.577N	P=0.600	P=0.738N	P=0.762	P=0.758
COCH-ARM / FISHERS	P=0.490	P=0.134N	P=0.134N	P=0.500N	P=0.623	P=0.753N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.241N	(e)	(e)	(e)	P=0.734	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	2/50 (4%)	2/50 (4%)	5/50 (10%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	5/43.70	2/41.56	2/39.73	5/40.66	1/44.12	1/46.25	1/44.36	1/43.13
POLY-3 PERCENT (g)	11.4%	4.8%	5.0%	12.3%	2.3%	2.2%	2.3%	2.3%
TERMINAL (d)	4/34 (12%)	1/24 (4%)	2/30 (7%)	3/28 (11%)	1/35 (3%)	1/39 (3%)	1/35 (3%)	0/32 (0%)
FIRST INCIDENCE	629	693	729 (T)	651	729 (T)	729 (T)	729 (T)	682
STATISTICAL TESTS								
LIFE TABLE	P=0.353	P=0.343N	P=0.275N	P=0.517	P=0.578	P=0.738N	P=0.762	P=0.741
POLY 3	P=0.358	P=0.236N	P=0.256N	P=0.585	P=0.605	P=0.750N	P=0.760N	P=0.756
POLY 1.5	P=0.367	P=0.225N	P=0.242N	P=0.606	P=0.612	P=0.754N	P=0.759N	P=0.758
POLY 6	P=0.349	P=0.256N	P=0.272N	P=0.556	P=0.594	P=0.743N	P=0.758N	P=0.753
LOGISTIC REGRESSION	P=0.333	P=0.244N	P=0.263N	P=0.566	P=0.600	P=0.738N	P=0.762	P=0.758
COCH-ARM / FISHERS	P=0.385	P=0.218N	P=0.218N	P=0.630N	P=0.623	P=0.753N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.314	(e)	(e)	(e)	P=0.734	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Testes								
Adenoma								
TUMOR RATES								
OVERALL (a)	41/50 (82%)	46/50 (92%)	41/49 (84%)	46/50 (92%)				
POLY-3 RATE (b)	41/45.62	46/48.00	41/44.36	46/47.61				
POLY-3 PERCENT (g)	89.9%	95.8%	92.4%	96.6%				
TERMINAL (d)	33/34 (97%)	24/24 (100%)	28/30 (93%)	27/28 (96%)				
FIRST INCIDENCE	530	437	437	423				
STATISTICAL TESTS								
LIFE TABLE	P=0.199	P=0.003 **	P=0.194	P=0.017 *				
POLY 3	P=0.228	P=0.194	P=0.475	P=0.149				
POLY 1.5	P=0.210	P=0.166	P=0.442	P=0.121				
POLY 6	P=0.330	P=0.227	P=0.560	P=0.240				
LOGISTIC REGRESSION	P=0.084	P=0.055	P=0.191	P=0.023 *				
COCH-ARM / FISHERS	P=0.259	P=0.117	P=0.518	P=0.117				
ORDER RESTRICTED	P=0.086	(e)	(e)	(e)				

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Thyroid Gland: C-Cell Adenoma								
TUMOR RATES								
OVERALL (a)	6/50 (12%)	5/50 (10%)	5/49 (10%)	7/50 (14%)	6/50 (12%)	11/50 (22%)	5/50 (10%)	5/49 (10%)
POLY-3 RATE (b)	6/43.34	5/42.84	5/39.30	7/40.35	6/44.58	11/46.25	5/44.36	5/43.29
POLY-3 PERCENT (g)	13.8%	11.7%	12.7%	17.4%	13.5%	23.8%	11.3%	11.6%
TERMINAL (d)	6/34 (18%)	2/24 (8%)	4/30 (13%)	7/28 (25%)	5/35 (14%)	11/39 (28%)	5/35 (14%)	2/32 (6%)
FIRST INCIDENCE	729 (T)	471	701	729 (T)	595	729 (T)	729 (T)	602
STATISTICAL TESTS								
LIFE TABLE	P=0.341	P=0.563	P=0.590N	P=0.348	P=0.200N	P=0.197	P=0.503N	P=0.542N
POLY 3	P=0.314	P=0.508N	P=0.569N	P=0.444	P=0.149N	P=0.160	P=0.503N	P=0.521N
POLY 1.5	P=0.336	P=0.499N	P=0.552N	P=0.471	P=0.146N	P=0.153	P=0.500N	P=0.518N
POLY 6	P=0.290	P=0.529N	P=0.585N	P=0.408	P=0.153N	P=0.174	P=0.503N	P=0.521N
LOGISTIC REGRESSION	P=0.317	P=0.504N	P=0.598N	P=0.348	P=0.167N	P=0.190	P=0.491N	P=0.516N
COCH-ARM / FISHERS	P=0.371	P=0.500N	P=0.514N	P=0.500	P=0.142N	P=0.143	P=0.500N	P=0.514N
ORDER RESTRICTED	P=0.429	(e)	(e)	(e)	P=0.271N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Thyroid Gland: C-Cell Carcinoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/49 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/43.34	2/41.44	1/39.19	1/40.35	0/44.12	1/46.25	0/44.36	0/42.28
POLY-3 PERCENT (g)	2.3%	4.8%	2.6%	2.5%	0.0%	2.2%	0.0%	0.0%
TERMINAL (d)	1/34 (3%)	1/24 (4%)	1/30 (3%)	1/28 (4%)	0/35 (0%)	1/39 (3%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	724	729 (T)	729 (T)	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.477N	P=0.385	P=0.734	P=0.718	P=0.435N	P=0.522	(e)	(e)
POLY 3	P=0.485N	P=0.484	P=0.738	P=0.745	P=0.408N	P=0.509	(e)	(e)
POLY 1.5	P=0.476N	P=0.494	P=0.744	P=0.752	P=0.411N	P=0.506	(e)	(e)
POLY 6	P=0.496N	P=0.469	P=0.732	P=0.734	P=0.403N	P=0.516	(e)	(e)
LOGISTIC REGRESSION	P=0.486N	P=0.413	P=0.734	P=0.718	(e)	P=0.522	(e)	(e)
COCH-ARM / FISHERS	P=0.462N	P=0.500	P=0.747	P=0.753N	P=0.417N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.606N	(e)	(e)	(e)	P=0.396N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Thyroid Gland: C-Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	7/50 (14%)	7/50 (14%)	6/49 (12%)	8/50 (16%)	6/50 (12%)	12/50 (24%)	5/50 (10%)	5/49 (10%)
POLY-3 RATE (b)	7/43.34	7/42.86	6/39.30	8/40.35	6/44.58	12/46.25	5/44.36	5/43.29
POLY-3 PERCENT (g)	16.2%	16.3%	15.3%	19.8%	13.5%	25.9%	11.3%	11.6%
TERMINAL (d)	7/34 (21%)	3/24 (13%)	5/30 (17%)	8/28 (29%)	5/35 (14%)	12/39 (31%)	5/35 (14%)	2/32 (6%)
FIRST INCIDENCE	729 (T)	471	701	729 (T)	595	729 (T)	729 (T)	602
STATISTICAL TESTS								
LIFE TABLE	P=0.412	P=0.387	P=0.599N	P=0.334	P=0.161N	P=0.138	P=0.503N	P=0.542N
POLY 3	P=0.378	P=0.606	P=0.576N	P=0.439	P=0.115N	P=0.108	P=0.503N	P=0.521N
POLY 1.5	P=0.405	P=0.612N	P=0.558N	P=0.468	P=0.112N	P=0.103	P=0.500N	P=0.518N
POLY 6	P=0.349	P=0.584	P=0.594N	P=0.400	P=0.117N	P=0.119	P=0.503N	P=0.521N
LOGISTIC REGRESSION	P=0.375	P=0.598	P=0.608N	P=0.334	P=0.133N	P=0.135	P=0.491N	P=0.516N
COCH-ARM / FISHERS	P=0.447	P=0.613N	P=0.516N	P=0.500	P=0.111N	P=0.096	P=0.500N	P=0.514N
ORDER RESTRICTED	P=0.499	(e)	(e)	(e)	P=0.218N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Thyroid Gland: Follicular Cell Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/49 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)
POLY-3 RATE (b)	1/43.34	0/41.42	1/39.19	2/40.56	0/44.12	0/46.25	0/44.36	2/42.28
POLY-3 PERCENT (g)	2.3%	0.0%	2.6%	4.9%	0.0%	0.0%	0.0%	4.7%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	1/30 (3%)	1/28 (4%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	2/32 (6%)
FIRST INCIDENCE	729 (T)	---	729 (T)	674	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.175	P=0.569N	P=0.734	P=0.432	P=0.034 *	(e)	(e)	P=0.219
POLY 3	P=0.181	P=0.509N	P=0.738	P=0.477	P=0.039 *	(e)	(e)	P=0.228
POLY 1.5	P=0.185	P=0.504N	P=0.744	P=0.488	P=0.039 *	(e)	(e)	P=0.230
POLY 6	P=0.178	P=0.518N	P=0.732	P=0.463	P=0.037 *	(e)	(e)	P=0.225
LOGISTIC REGRESSION	P=0.170	(e)	P=0.734	P=0.464	(e)	(e)	(e)	P=0.219
COCH-ARM / FISHERS	P=0.190	P=0.500N	P=0.747	P=0.500	P=0.042 *	(e)	(e)	P=0.242
ORDER RESTRICTED	P=0.206	(e)	(e)	(e)	P=0.026 *	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Thyroid Gland: Follicular Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/49 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/49 (4%)
POLY-3 RATE (b)	1/43.34	0/41.42	1/39.19	2/40.56	0/44.12	1/46.25	1/44.36	2/42.28
POLY-3 PERCENT (g)	2.3%	0.0%	2.6%	4.9%	0.0%	2.2%	2.3%	4.7%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	1/30 (3%)	1/28 (4%)	0/35 (0%)	1/39 (3%)	1/35 (3%)	2/32 (6%)
FIRST INCIDENCE	729 (T)	---	729 (T)	674	---	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.175	P=0.569N	P=0.734	P=0.432	P=0.141	P=0.522	P=0.500	P=0.219
POLY 3	P=0.181	P=0.509N	P=0.738	P=0.477	P=0.162	P=0.509	P=0.501	P=0.228
POLY 1.5	P=0.185	P=0.504N	P=0.744	P=0.488	P=0.166	P=0.506	P=0.501	P=0.230
POLY 6	P=0.178	P=0.518N	P=0.732	P=0.463	P=0.157	P=0.516	P=0.502	P=0.225
LOGISTIC REGRESSION	P=0.170	(e)	P=0.734	P=0.464	(e)	P=0.522	P=0.500	P=0.219
COCH-ARM / FISHERS	P=0.190	P=0.500N	P=0.747	P=0.500	P=0.169	P=0.500	P=0.500	P=0.242
ORDER RESTRICTED	P=0.206	(e)	(e)	(e)	P=0.110	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					4/50 (8%)	10/50 (20%)	7/50 (14%)	5/50 (10%)
POLY-3 RATE (b)					4/44.67	10/47.12	7/44.48	5/43.14
POLY-3 PERCENT (g)					9.0%	21.2%	15.7%	11.6%
TERMINAL (d)					2/35 (6%)	8/39 (21%)	6/35 (17%)	4/32 (13%)
FIRST INCIDENCE					602	521	701	679
STATISTICAL TESTS								
LIFE TABLE					P=0.444N	P=0.113	P=0.267	P=0.449
POLY 3					P=0.374N	P=0.088	P=0.257	P=0.478
POLY 1.5					P=0.355N	P=0.082	P=0.261	P=0.488
POLY 6					P=0.401N	P=0.099	P=0.257	P=0.465
LOGISTIC REGRESSION					P=0.369N	P=0.075	P=0.265	P=0.484
COCH-ARM / FISHERS					P=0.334N	P=0.074	P=0.262	P=0.500
ORDER RESTRICTED					P=0.261	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Uterus								
Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					4/50 (8%)	10/50 (20%)	8/50 (16%)	5/50 (10%)
POLY-3 RATE (b)					4/44.67	10/47.12	8/45.11	5/43.14
POLY-3 PERCENT (g)					9.0%	21.2%	17.7%	11.6%
TERMINAL (d)					2/35 (6%)	8/39 (21%)	6/35 (17%)	4/32 (13%)
FIRST INCIDENCE					602	521	519	679
STATISTICAL TESTS								
LIFE TABLE					P=0.469N	P=0.113	P=0.184	P=0.449
POLY 3					P=0.400N	P=0.088	P=0.180	P=0.478
POLY 1.5					P=0.380N	P=0.082	P=0.181	P=0.488
POLY 6					P=0.429N	P=0.099	P=0.182	P=0.465
LOGISTIC REGRESSION					P=0.376N	P=0.075	P=0.179	P=0.484
COCH-ARM / FISHERS					P=0.357N	P=0.074	P=0.178	P=0.500
ORDER RESTRICTED					P=0.235	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Zymbal's Gland								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.34	0/41.42	0/39.73	1/40.35	1/44.76	0/46.25	0/44.36	2/43.48
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	2.5%	2.2%	0.0%	0.0%	4.6%
TERMINAL (d)	0/34 (0%)	0/24 (0%)	0/30 (0%)	1/28 (4%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	729 (T)	519	---	---	651
STATISTICAL TESTS								
LIFE TABLE	P=0.179	(e)	(e)	P=0.461	P=0.188	P=0.504N	P=0.508N	P=0.501
POLY 3	P=0.177	(e)	(e)	P=0.486	P=0.189	P=0.493N	P=0.502N	P=0.490
POLY 1.5	P=0.180	(e)	(e)	P=0.492	P=0.193	P=0.496N	P=0.501N	P=0.494
POLY 6	P=0.174	(e)	(e)	P=0.477	P=0.183	P=0.488N	P=0.502N	P=0.486
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.461	P=0.214	P=0.600N	P=0.581N	P=0.502
COCH-ARM / FISHERS	P=0.184	(e)	(e)	P=0.500	P=0.199	P=0.500N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.108	(e)	(e)	(e)	P=0.123	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Zymbal's Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.34	0/41.42	0/39.73	2/40.35	1/44.76	0/46.25	0/44.36	2/43.48
POLY-3 PERCENT (g)	2.3%	0.0%	0.0%	5.0%	2.2%	0.0%	0.0%	4.6%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	0/30 (0%)	2/28 (7%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	---	---	729 (T)	519	---	---	651
STATISTICAL TESTS								
LIFE TABLE	P=0.189	P=0.569N	P=0.525N	P=0.432	P=0.188	P=0.504N	P=0.508N	P=0.501
POLY 3	P=0.191	P=0.509N	P=0.517N	P=0.475	P=0.189	P=0.493N	P=0.502N	P=0.490
POLY 1.5	P=0.193	P=0.504N	P=0.512N	P=0.487	P=0.193	P=0.496N	P=0.501N	P=0.494
POLY 6	P=0.190	P=0.518N	P=0.523N	P=0.459	P=0.183	P=0.488N	P=0.502N	P=0.486
LOGISTIC REGRESSION	P=0.189	(e)	(e)	P=0.432	P=0.214	P=0.600N	P=0.581N	P=0.502
COCH-ARM / FISHERS	P=0.199	P=0.500N	P=0.500N	P=0.500	P=0.199	P=0.500N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.116	(e)	(e)	(e)	P=0.123	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/43.73	0/41.42	1/40.23	0/40.35	0/44.12	0/46.25	1/44.36	1/42.95
POLY-3 PERCENT (g)	4.6%	0.0%	2.5%	0.0%	0.0%	0.0%	2.3%	2.3%
TERMINAL (d)	1/34 (3%)	0/24 (0%)	0/30 (0%)	0/28 (0%)	0/35 (0%)	0/39 (0%)	1/35 (3%)	1/32 (3%)
FIRST INCIDENCE	616	---	578	---	---	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.296N	P=0.286N	P=0.552N	P=0.272N	P=0.175	(e)	P=0.500	P=0.482
POLY 3	P=0.280N	P=0.249N	P=0.529N	P=0.255N	P=0.189	(e)	P=0.501	P=0.495
POLY 1.5	P=0.280N	P=0.242N	P=0.520N	P=0.247N	P=0.195	(e)	P=0.501	P=0.497
POLY 6	P=0.278N	P=0.261N	P=0.539N	P=0.268N	P=0.182	(e)	P=0.502	P=0.491
LOGISTIC REGRESSION	P=0.265N	P=0.236N	P=0.480N	P=0.236N	(e)	(e)	P=0.500	P=0.482
COCH-ARM / FISHERS	P=0.276N	P=0.247N	P=0.500N	P=0.247N	P=0.202	(e)	P=0.500	P=0.500
ORDER RESTRICTED	P=0.086N	(e)	(e)	(e)	P=0.246	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	17/50 (34%)	31/50 (62%)	24/50 (48%)	13/50 (26%)	11/50 (22%)	13/50 (26%)	16/50 (32%)	22/50 (44%)
POLY-3 RATE (b)	17/45.90	31/46.84	24/42.73	13/42.99	11/45.22	13/48.01	16/46.15	22/46.39
POLY-3 PERCENT (g)	37.0%	66.2%	56.2%	30.2%	24.3%	27.1%	34.7%	47.4%
TERMINAL (d)	11/34 (32%)	15/24 (63%)	16/30 (53%)	5/28 (18%)	8/35 (23%)	8/39 (21%)	11/35 (31%)	12/32 (38%)
FIRST INCIDENCE	437	446	423	386	605	509	519	395
STATISTICAL TESTS								
LIFE TABLE	P=0.053N	P<0.001 **	P=0.059	P=0.446N	P=0.004 **	P=0.521	P=0.202	P=0.017 *
POLY 3	P=0.026N*	P=0.003 **	P=0.051	P=0.325N	P=0.006 **	P=0.474	P=0.195	P=0.016 *
POLY 1.5	P=0.019N*	P=0.004 **	P=0.066	P=0.291N	P=0.007 **	P=0.448	P=0.192	P=0.016 *
POLY 6	P=0.038N*	P=0.002 **	P=0.040 *	P=0.367N	P=0.006 **	P=0.512	P=0.205	P=0.017 *
LOGISTIC REGRESSION	P=0.017N*	P=0.005 **	P=0.080	P=0.254N	P=0.008 **	P=0.398	P=0.186	P=0.017 *
COCH-ARM / FISHERS	P=0.015N*	P=0.004 **	P=0.111	P=0.257N	P=0.008 **	P=0.408	P=0.184	P=0.016 *
ORDER RESTRICTED	P=0.015N*	(e)	(e)	(e)	P=0.012 *	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Mesothelioma: Benign, Malignant, NOS								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	10/50 (20%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/43.80	1/41.42	0/39.73	10/44.35	0/44.12	0/46.25	1/44.48	0/42.95
POLY-3 PERCENT (g)	6.9%	2.4%	0.0%	22.6%	0.0%	0.0%	2.3%	0.0%
TERMINAL (d)	2/34 (6%)	1/24 (4%)	0/30 (0%)	2/28 (7%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	591	729 (T)	---	512	---	---	701	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.405N	P=0.147N	P=0.031 *	P=0.609	(e)	P=0.505	(e)
POLY 3	P<0.001 **	P=0.325N	P=0.137N	P=0.035 *	P=0.610	(e)	P=0.502	(e)
POLY 1.5	P<0.001 **	P=0.314N	P=0.131N	P=0.036 *	P=0.620	(e)	P=0.501	(e)
POLY 6	P<0.001 **	P=0.344N	P=0.144N	P=0.035 *	P=0.598	(e)	P=0.503	(e)
LOGISTIC REGRESSION	P=0.002 **	P=0.312N	P=0.125N	P=0.044 *	P=0.631	(e)	P=0.501	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.309N	P=0.121N	P=0.036 *	P=0.634	(e)	P=0.500	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.382	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Mesothelioma: Malignant								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	10/50 (20%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/43.80	1/41.42	0/39.73	10/44.35	0/44.12	0/46.25	1/44.48	0/42.95
POLY-3 PERCENT (g)	6.9%	2.4%	0.0%	22.6%	0.0%	0.0%	2.3%	0.0%
TERMINAL (d)	2/34 (6%)	1/24 (4%)	0/30 (0%)	2/28 (7%)	0/35 (0%)	0/39 (0%)	0/35 (0%)	0/32 (0%)
FIRST INCIDENCE	591	729 (T)	---	512	---	---	701	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.405N	P=0.147N	P=0.031 *	P=0.609	(e)	P=0.505	(e)
POLY 3	P<0.001 **	P=0.325N	P=0.137N	P=0.035 *	P=0.610	(e)	P=0.502	(e)
POLY 1.5	P<0.001 **	P=0.314N	P=0.131N	P=0.036 *	P=0.620	(e)	P=0.501	(e)
POLY 6	P<0.001 **	P=0.344N	P=0.144N	P=0.035 *	P=0.598	(e)	P=0.503	(e)
LOGISTIC REGRESSION	P=0.002 **	P=0.312N	P=0.125N	P=0.044 *	P=0.631	(e)	P=0.501	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.309N	P=0.121N	P=0.036 *	P=0.634	(e)	P=0.500	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.382	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	47/50 (94%)	48/50 (96%)	45/50 (90%)	48/50 (96%)	42/50 (84%)	47/50 (94%)	43/50 (86%)	43/50 (86%)
POLY-3 RATE (b)	47/47.45	48/49.17	45/45.95	48/48.27	42/47.70	47/48.52	43/46.55	43/46.42
POLY-3 PERCENT (g)	99.0%	97.6%	97.9%	99.5%	88.1%	96.9%	92.4%	92.6%
TERMINAL (d)	34/34 (100%)	24/24 (100%)	30/30 (100%)	28/28 (100%)	32/35 (91%)	38/39 (97%)	35/35 (100%)	32/32 (100%)
FIRST INCIDENCE	516	437	437	423	519	509	441	566
STATISTICAL TESTS								
LIFE TABLE	P=0.320	P=0.025 *	P=0.297	P=0.085	P=0.168	P=0.559	P=0.516	P=0.258
POLY 3	P=0.456	P=0.630N	P=0.761N	P=0.987	P=0.538	P=0.085	P=0.342	P=0.327
POLY 1.5	P=0.484	P=0.688N	P=0.584N	P=0.766	P=0.484N	P=0.092	P=0.442	P=0.408
POLY 6	P=0.517	P=0.685N	P=0.991N	P=1.000	P=0.356	P=0.099	P=0.216	P=0.233
LOGISTIC REGRESSION	P=0.287	P=0.608	P=0.756	P=0.270	P=0.528N	P=0.112	P=0.454	P=0.386
COCH-ARM / FISHERS	P=0.559	P=0.500	P=0.357N	P=0.500	P=0.353N	P=0.100	P=0.500	P=0.500
ORDER RESTRICTED	P=0.362	(e)	(e)	(e)	P=0.158	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	29/50 (58%)	38/50 (76%)	35/50 (70%)	26/50 (52%)	16/50 (32%)	24/50 (48%)	20/50 (40%)	32/50 (64%)
POLY-3 RATE (b)	29/49.14	38/48.48	35/46.32	26/48.25	16/46.21	24/49.04	20/46.47	32/48.13
POLY-3 PERCENT (g)	59.0%	78.4%	75.6%	53.9%	34.6%	48.9%	43.0%	66.5%
TERMINAL (d)	18/34 (53%)	17/24 (71%)	21/30 (70%)	8/28 (29%)	11/35 (31%)	17/39 (44%)	14/35 (40%)	17/32 (53%)
FIRST INCIDENCE	222	437	253	356	519	392	519	395
STATISTICAL TESTS								
LIFE TABLE	P=0.241N	P=0.012 *	P=0.085	P=0.517	P=0.003 **	P=0.180	P=0.286	P=0.003 **
POLY 3	P=0.084N	P=0.028 *	P=0.062	P=0.380N	P=0.004 **	P=0.112	P=0.267	P<0.001 **
POLY 1.5	P=0.082N	P=0.034 *	P=0.080	P=0.369N	P=0.004 **	P=0.098	P=0.269	P<0.001 **
POLY 6	P=0.081N	P=0.022 *	P=0.048 *	P=0.385N	P=0.005 **	P=0.135	P=0.275	P=0.002 **
LOGISTIC REGRESSION	P=0.053N	P=0.063	P=0.169	P=0.176N	P=0.006 **	P=0.067	P=0.268	P<0.001 **
COCH-ARM / FISHERS	P=0.075N	P=0.044 *	P=0.149	P=0.344N	P=0.005 **	P=0.076	P=0.266	P<0.001 **
ORDER RESTRICTED	P=0.045N*	(e)	(e)	(e)	P<0.001 **	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	50/50 (100%)	49/50 (98%)	50/50 (100%)	45/50 (90%)	49/50 (98%)	48/50 (96%)	49/50 (98%)
POLY-3 RATE (b)	50/50.00	50/50.00	49/49.00	50/50.00	45/48.47	49/50.00	48/48.54	49/49.04
POLY-3 PERCENT (g)	100.0%	100.0%	100.0%	100.0%	92.8%	98.0%	98.9%	99.9%
TERMINAL (d)	34/34 (100%)	24/24 (100%)	30/30 (100%)	28/28 (100%)	33/35 (94%)	38/39 (97%)	35/35 (100%)	32/32 (100%)
FIRST INCIDENCE	222	437	253	356	519	392	441	395
STATISTICAL TESTS								
LIFE TABLE	P=0.340	(e)	P=0.250	(e)	P=0.047 *	P=0.514N	P=0.368	P=0.130
POLY 3	P=1.000N	(e)	P=1.000N	(e)	P=0.053	P=0.219	P=0.138	P=0.077
POLY 1.5	P=1.000N	(e)	P=1.000N	(e)	P=0.072	P=0.184	P=0.182	P=0.076
POLY 6	P=1.000N	(e)	P=1.000N	(e)	P=0.051	P=0.264	P=0.113	P=0.092
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.081	P=0.136	P=0.180	P=0.060
COCH-ARM / FISHERS	P=0.634N	(e)	P=0.500N	(e)	P=0.158	P=0.102	P=0.218	P=0.102
ORDER RESTRICTED	P=0.379N	(e)	(e)	(e)	P=0.011 *	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01)

NTP Experiment-Test: 96017-05
Study Type: CHRONIC
Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FINAL#1 RATS

Report: PEIRPT18
Date: 04/14/04
Time: 10:12:24

Facility: Southern Research Institute

Chemical CAS #: 631-64-1

Lock Date: 11/15/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Natural Death	11	6	6	4
Moribund Sacrifice	4	5	9	14
Survivors				
Natural Death			1	
Terminal Sacrifice	35	38	34	32
Moribund Sacrifice		1		
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(49)	(49)	(49)	(48)
Edema				2 [1.5]
Inflammation				1 [1.0]
Intestine Large, Rectum	(49)	(50)	(50)	(48)
Inflammation		1 [2.0]		
Intestine Small, Ileum	(44)	(47)	(45)	(48)
Inflammation, Suppurative			1 [3.0]	
Liver	(50)	(50)	(50)	(50)
Basophilic Focus	36	41	29	15
Clear Cell Focus	8	4	14	18
Degeneration, Cystic				1 [2.0]
Eosinophilic Focus	4	4	5	9
Hematopoietic Cell Proliferation	1 [1.0]			
Hepatodiaphragmatic Nodule	3 [1.0]	9 [1.4]	2 [1.0]	5 [1.0]
Inflammation, Chronic	2 [1.5]	3 [1.7]	3 [1.0]	1 [1.0]
Inflammation, Granulomatous	8 [1.3]		1 [1.0]	2 [1.0]
Mixed Cell Focus	1	1	1	4
Necrosis, Focal	1 [2.0]			1 [1.0]
Bile Duct, Hyperplasia	17 [1.5]	15 [1.5]	15 [1.7]	19 [1.6]
Centrilobular, Necrosis	1 [1.0]	1 [1.0]		1 [2.0]
Hepatocyte, Vacuolization Cytoplasmic	3 [1.7]	2 [2.5]		1 [3.0]
Hepatocyte, Centrilobular, Vacuolization Cytoplasmic	1 [2.0]			
Serosa, Fibrosis	2 [1.0]	2 [1.0]		
Mesentery	(12)	(15)	(15)	(8)
Accessory Spleen	1 [1.0]		1 [1.0]	
Fat, Necrosis	9 [2.1]	12 [2.2]	14 [2.2]	6 [2.0]
Pancreas	(47)	(50)	(49)	(48)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ALIMENTARY SYSTEM - CONT				
Atrophy	19 [1.4]	15 [1.4]	20 [1.4]	23 [1.2]
Cyst	1 [1.0]		1 [1.0]	1 [1.0]
Acinus, Hyperplasia, Focal	1 [1.0]	2 [1.5]		2 [1.0]
Salivary Glands	(50)	(50)	(50)	(50)
Inflammation			1 [2.0]	2 [2.0]
Stomach, Forestomach	(50)	(50)	(50)	(50)
Edema	2 [1.5]	5 [1.4]		1 [2.0]
Erosion	1 [1.0]	1 [1.0]		1 [1.0]
Ulcer	3 [1.7]	5 [2.6]		1 [2.0]
Epithelium, Hyperplasia		6 [2.0]		2 [1.0]
Stomach, Glandular	(49)	(50)	(50)	(49)
Edema	1 [1.0]	2 [2.0]		2 [1.5]
Erosion		1 [3.0]		2 [1.5]
Ulcer		1 [2.0]		2 [2.0]
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	37 [1.2]	29 [1.1]	34 [1.3]	35 [1.1]
Mineralization	1 [1.0]			
Thrombosis	2 [2.5]	1 [3.0]	1 [3.0]	1 [3.0]
Valve, Inflammation, Suppurative				1 [4.0]
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(50)	(49)
Accessory Adrenal Cortical Nodule	17 [1.1]	8 [1.0]	6 [1.0]	6 [1.0]
Degeneration, Fatty	14 [1.4]	19 [1.4]	15 [1.2]	14 [1.6]
Hyperplasia, Focal	8 [1.0]	6 [1.0]	4 [1.5]	5 [1.0]
Hypertrophy, Focal	18 [1.3]	19 [1.6]	21 [1.3]	17 [1.5]
Necrosis	3 [2.3]	1 [1.0]	1 [2.0]	1 [3.0]
Adrenal Medulla	(49)	(50)	(50)	(49)
Hyperplasia	5 [1.2]	1 [3.0]	2 [1.0]	4 [2.0]
Islets, Pancreatic	(47)	(49)	(49)	(48)
Metaplasia, Hepatocyte		1 [1.0]		3 [2.7]
Pituitary Gland	(50)	(50)	(50)	(49)
Pars Distalis, Angiectasis	32 [1.5]	24 [2.0]	23 [1.9]	23 [1.7]
Pars Distalis, Cyst	20 [1.2]	24 [1.4]	20 [1.4]	18 [1.1]
Pars Distalis, Hyperplasia, Focal	11 [1.6]	9 [1.7]	8 [2.0]	6 [1.5]
Pars Intermedia, Angiectasis			1 [2.0]	
Pars Intermedia, Cyst				1 [1.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ENDOCRINE SYSTEM - CONT				
Thyroid Gland	(50)	(50)	(50)	(49)
Ultimobranchial Cyst	1 [1.0]			
C-Cell, Hyperplasia	23 [1.2]	6 [1.3]	18 [1.3]	18 [1.6]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(48)	(49)
Cyst	12 [1.2]	4 [1.3]	8 [1.4]	13 [1.3]
Hyperplasia	1 [1.0]	4 [2.3]		2 [1.5]
Inflammation, Chronic	3 [1.7]	2 [2.0]	5 [1.4]	3 [1.7]
Ovary	(50)	(50)	(50)	(50)
Cyst	8 [1.4]	9 [1.4]	14 [1.1]	8 [1.3]
Uterus	(50)	(50)	(50)	(50)
Cyst	3 [1.0]		1 [2.0]	3 [1.0]
Hemorrhage	1 [4.0]			
Hydrometra	1 [2.0]	2 [2.0]	1 [1.0]	
Inflammation, Chronic			1 [2.0]	2 [1.0]
Cervix, Cyst				1
Cervix, Inflammation, Suppurative				1 [1.0]
Endometrium, Hyperplasia, Cystic	2 [2.0]	1 [3.0]		
Vagina	(1)	(4)	(6)	(20)
Cyst			3	10
Inflammation		1 [2.0]	1 [2.0]	9 [1.1]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Depletion Cellular	1 [1.0]			
Hyperplasia	5 [1.4]	8 [2.0]	5 [1.6]	3 [1.7]
Myelofibrosis		1 [3.0]		2 [2.0]
Lymph Node	(13)	(13)	(9)	(21)
Deep Cervical, Hemorrhage	1 [2.0]			
Deep Cervical, Hyperplasia				1 [2.0]
Mediastinal, Congestion			2 [1.5]	
Mediastinal, Hyperplasia, Lymphoid	7 [1.7]	4 [2.0]	3 [1.3]	5 [1.6]
Pancreatic, Hyperplasia, Lymphoid	2 [2.0]	4 [1.8]	2 [1.0]	3 [1.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
HEMATOPOIETIC SYSTEM - CONT				
Pancreatic, Pigmentation	1 [1.0]			
Lymph Node, Mandibular	(2)		(1)	(3)
Hyperplasia, Lymphoid	1 [1.0]		1 [2.0]	
Lymph Node, Mesenteric	(49)	(50)	(50)	(48)
Hyperplasia, Lymphoid	1 [2.0]			3 [1.3]
Hyperplasia, Reticulum Cell	1 [4.0]			
Spleen	(47)	(49)	(50)	(48)
Fibrosis		3 [1.7]	1 [1.0]	
Hematopoietic Cell Proliferation	5 [2.0]	16 [1.8]	7 [1.9]	5 [2.2]
Necrosis		2 [2.5]		
Pigmentation	8 [1.1]	9 [1.2]	6 [1.0]	1 [2.0]
Lymphoid Follicle, Hyperplasia	1 [3.0]		1 [2.0]	1 [2.0]
Thymus	(49)	(49)	(50)	(50)
Hemorrhage	2 [1.5]		1 [1.0]	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Cyst	45 [1.2]	48 [1.1]	41 [1.3]	37 [1.4]
Galactocele		1	1	
Hyperplasia	2 [2.0]	3 [2.3]	4 [2.5]	2 [2.0]
Hyperplasia, Atypical	5 [1.0]	2 [1.0]	4 [1.3]	4 [1.8]
Hyperplasia, Lobular				1 [3.0]
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion		2		1
Hemorrhage				1 [1.0]
Inflammation, Chronic	1 [2.0]	3 [1.7]	3 [2.0]	
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	6 [2.2]	9 [2.4]	7 [2.1]	5 [1.8]
Hemorrhage	1 [1.0]	5 [2.0]	2 [1.5]	3 [1.3]
Necrosis		2 [2.0]		1 [1.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
RESPIRATORY SYSTEM				
Larynx		(1)	(1)	
Inflammation, Chronic, Suppurative			1 [4.0]	
Lung	(50)	(50)	(50)	(50)
Congestion	4 [1.5]	2 [2.0]	5 [2.0]	3 [1.3]
Hemorrhage	1 [1.0]	1 [1.0]		1 [2.0]
Infiltration Cellular, Histiocyte	45 [1.0]	47 [1.0]	46 [1.0]	45 [1.0]
Inflammation, Chronic	31 [1.0]	31 [1.0]	40 [1.0]	36 [1.1]
Alveolar Epithelium, Hyperplasia	3 [1.3]	7 [1.9]	13 [1.7]	14 [1.9]
Nose	(50)	(50)	(50)	(50)
Foreign Body		2 [1.0]	1 [1.0]	1 [1.0]
Inflammation, Chronic	2 [1.0]	3 [1.0]	4 [1.0]	6 [1.0]
Inflammation, Suppurative				1 [2.0]
Respiratory Epithelium, Hyperplasia				1 [2.0]
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Cataract	2 [2.0]	2 [2.0]	2 [1.5]	1 [1.0]
Inflammation, Chronic	1 [2.0]			2 [1.5]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Hydronephrosis		1 [3.0]	1 [3.0]	
Infarct		2 [3.5]		2 [2.0]
Inflammation, Chronic				2 [1.5]
Nephropathy	18 [1.1]	32 [1.3]	37 [1.4]	40 [1.3]
Renal Tubule, Hyperplasia		1 [2.0]		
Transitional Epithelium, Hyperplasia			2 [2.0]	2 [2.5]
Urinary Bladder	(50)	(50)	(50)	(50)
Hemorrhage			1 [2.0]	
Inflammation, Chronic			1 [4.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	4	15	12	12
Natural Death	12	11	8	9
Accidently Killed				1
Survivors				
Terminal Sacrifice	34	24	27	28
Moribund Sacrifice			1	
Natural Death			2	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(48)	(49)	(48)	(50)
Edema		1 [2.0]	1 [3.0]	
Inflammation		1 [3.0]		
Polyp, Inflammatory				1 [1.0]
Intestine Large, Cecum	(45)	(47)	(46)	(47)
Congestion		1 [3.0]		
Edema		1 [2.0]		
Liver	(50)	(50)	(50)	(50)
Basophilic Focus	14	4	1	1
Cholangiofibrosis	1 [2.0]			
Clear Cell Focus	18	19	16	21
Cyst	1 [1.0]			
Degeneration, Cystic	3 [1.0]	9 [1.4]	11 [1.5]	15 [1.3]
Eosinophilic Focus	16	4	3	9
Hepatodiaphragmatic Nodule	2	1	2	5
Inflammation, Granulomatous	6 [1.0]	1 [1.0]		1 [1.0]
Mixed Cell Focus	8	1	5	2
Necrosis, Focal			3 [1.7]	2 [1.5]
Regeneration		1	1	
Bile Duct, Hyperplasia	43 [1.7]	42 [1.9]	35 [1.8]	38 [1.6]
Centrilobular, Necrosis		1 [3.0]	1 [1.0]	5 [2.2]
Hepatocyte, Vacuolization Cytoplasmic	14 [1.6]	6 [1.8]	12 [2.4]	12 [1.9]
Hepatocyte, Midzonal, Vacuolization Cytoplasmic			1 [2.0]	
Serosa, Fibrosis	1 [1.0]			
Serosa, Inflammation	1 [1.0]			
Mesentery	(10)	(14)	(11)	(17)

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ALIMENTARY SYSTEM - CONT				
Accessory Spleen		1 [1.0]	1 [2.0]	
Fat, Necrosis	8 [2.0]	7 [2.0]	7 [1.7]	5 [2.0]
Pancreas	(48)	(50)	(48)	(49)
Atrophy	23 [1.4]	28 [1.5]	25 [1.4]	23 [1.3]
Cyst	1 [1.0]	1 [1.0]	1 [1.0]	
Acinus, Hyperplasia, Focal	3 [2.0]	5 [2.0]	1 [2.0]	
Salivary Glands	(50)	(50)	(49)	(50)
Inflammation, Chronic			1 [1.0]	1 [2.0]
Stomach, Forestomach	(50)	(49)	(49)	(50)
Edema	2 [1.0]	5 [1.4]	5 [1.8]	2 [2.0]
Erosion		4 [1.8]	3 [1.3]	1 [1.0]
Ulcer	2 [2.5]	5 [1.8]	5 [2.4]	3 [2.7]
Epithelium, Hyperplasia	7 [1.4]	5 [1.4]	5 [1.8]	1 [1.0]
Stomach, Glandular	(50)	(48)	(48)	(50)
Edema		5 [1.2]	3 [1.7]	1 [2.0]
Erosion		6 [1.8]	4 [1.5]	1 [1.0]
Hyperplasia, Focal			1 [2.0]	
Ulcer		3 [2.3]	4 [2.0]	2 [2.0]
Tongue	(1)			
Hyperplasia	1 [1.0]			
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	45 [1.5]	41 [1.4]	43 [1.4]	41 [1.5]
Thrombosis		4 [3.0]	1 [3.0]	1 [1.0]
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(49)	(50)
Accessory Adrenal Cortical Nodule	26 [1.0]	18 [1.1]	20 [1.1]	14 [1.0]
Degeneration, Fatty	5 [1.6]	12 [1.3]	9 [1.4]	4 [1.0]
Hyperplasia, Focal	6 [1.0]	4 [1.0]	2 [1.0]	6 [1.0]
Hypertrophy, Focal	10 [1.3]	12 [1.3]	13 [1.5]	8 [1.4]
Necrosis		1 [2.0]		1 [1.0]
Adrenal Medulla	(49)	(50)	(49)	(50)
Hyperplasia	6 [1.3]	8 [1.6]	7 [1.6]	8 [1.1]
Necrosis		1 [2.0]		
Islets, Pancreatic	(48)	(50)	(48)	(50)
Hyperplasia	1 [1.0]		1 [2.0]	1 [1.0]
Pituitary Gland	(50)	(49)	(49)	(50)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ENDOCRINE SYSTEM - CONT				
Pars Distalis, Angiectasis	16 [1.6]	14 [2.3]	13 [2.2]	9 [2.0]
Pars Distalis, Cyst	1 [1.0]	2 [2.0]	5 [1.0]	1 [2.0]
Pars Distalis, Hemorrhage	1 [2.0]	1 [2.0]		1 [2.0]
Pars Distalis, Hyperplasia				2 [2.5]
Pars Distalis, Hyperplasia, Focal	6 [1.7]	10 [1.8]	4 [1.8]	3 [1.7]
Pars Intermedia, Angiectasis			1 [1.0]	
Pars Intermedia, Cyst		1 [1.0]	2 [1.0]	
Pars Intermedia, Hyperplasia			1 [1.0]	
Thyroid Gland	(50)	(50)	(49)	(50)
Ultimobranchial Cyst	5 [1.0]		2 [1.0]	3 [1.0]
C-Cell, Hyperplasia	9 [1.1]	13 [1.5]	15 [1.2]	4 [1.0]
Follicle, Cyst	4 [1.0]	2 [2.0]	2 [1.0]	2 [1.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Epididymis	(50)	(50)	(49)	(49)
Inflammation, Chronic	1 [1.0]		1 [1.0]	1 [1.0]
Preputial Gland	(50)	(50)	(50)	(50)
Cyst	1 [1.0]	6 [1.3]	5 [1.8]	
Hyperplasia		1 [2.0]	1 [3.0]	
Inflammation, Chronic	1 [1.0]	1 [2.0]		3 [2.3]
Prostate	(50)	(50)	(50)	(50)
Inflammation, Chronic	23 [1.4]	25 [1.6]	29 [1.6]	29 [1.3]
Seminal Vesicle	(50)	(50)	(49)	(50)
Inflammation			1 [2.0]	
Testes	(50)	(50)	(49)	(50)
Germinal Epithelium, Atrophy	11 [2.3]	24 [2.0]	13 [2.6]	10 [1.8]
Interstitial Cell, Hyperplasia	1 [1.0]	5 [1.4]	4 [1.0]	4 [1.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(49)	(48)	(50)
Depletion Cellular				1 [2.0]
Hyperplasia	2 [1.0]	4 [1.5]	2 [2.0]	5 [1.6]
Myelofibrosis			3 [1.0]	
Lymph Node	(22)	(26)	(25)	(25)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
HEMATOPOIETIC SYSTEM - CONT				
Deep Cervical, Hyperplasia, Lymphoid		1 [2.0]		
Mediastinal, Congestion	1 [3.0]		1 [2.0]	2 [2.0]
Mediastinal, Hyperplasia, Lymphoid	8 [1.5]	8 [1.8]	13 [1.8]	14 [1.7]
Pancreatic, Congestion	1 [2.0]			
Pancreatic, Hyperplasia, Lymphoid	2 [1.5]	2 [2.5]	2 [1.5]	2 [1.0]
Lymph Node, Mesenteric	(50)	(50)	(49)	(50)
Congestion			1 [1.0]	1 [1.0]
Hyperplasia, Lymphoid		5 [1.8]	2 [1.5]	2 [1.0]
Spleen	(50)	(50)	(49)	(49)
Fibrosis	2 [1.0]	2 [1.5]	2 [1.5]	
Hematopoietic Cell Proliferation	2 [1.0]	4 [1.5]	7 [1.7]	5 [1.8]
Hemorrhage				1 [4.0]
Necrosis		2 [1.5]	2 [2.0]	2 [2.0]
Pigmentation	4 [1.5]	1 [2.0]	4 [1.0]	
Lymphoid Follicle, Hyperplasia	1 [2.0]			
Thymus	(49)	(48)	(48)	(50)
Cyst				2 [2.0]
Hemorrhage	1 [2.0]	2 [2.5]	3 [1.3]	2 [1.5]
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Cyst	15 [1.5]	17 [1.2]	17 [1.3]	8 [1.1]
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	4	2	4	1
Hyperkeratosis	1 [2.0]			
Hyperplasia		1 [2.0]		
Inflammation, Chronic			2 [2.0]	1 [2.0]
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hypertrophy		1 [2.0]		
Cranium, Osteopetrosis				1 [1.0]
Skeletal Muscle	(2)	(1)	(1)	(3)
Hemorrhage				1 [1.0]
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
NERVOUS SYSTEM - CONT				
Compression	7 [2.4]	5 [2.2]	7 [2.1]	2 [2.5]
Hemorrhage	1 [2.0]	3 [2.3]	3 [2.7]	3 [2.7]
Necrosis		1 [1.0]		
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	6 [1.5]	2 [1.0]	6 [1.5]	2 [1.5]
Hemorrhage	3 [1.3]	2 [2.5]	3 [1.7]	1 [2.0]
Infiltration Cellular, Histiocyte	31 [1.0]	27 [1.0]	26 [1.2]	28 [1.0]
Inflammation, Chronic	29 [1.0]	28 [1.0]	27 [1.0]	35 [1.0]
Inflammation, Suppurative				1 [2.0]
Alveolar Epithelium, Hyperplasia	6 [1.8]	5 [1.8]	10 [2.3]	11 [1.9]
Nose	(49)	(50)	(49)	(50)
Foreign Body	10 [1.0]	8 [1.0]	10 [1.0]	8 [1.1]
Inflammation, Chronic	14 [1.0]	13 [1.1]	14 [1.3]	14 [1.2]
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Cataract	3 [1.3]			
Inflammation, Chronic	2 [1.0]			1 [1.0]
Harderian Gland	(50)	(50)	(49)	(50)
Inflammation, Chronic	1 [1.0]			1 [3.0]
Lacrimal Gland				(1)
Inflammation, Suppurative				1 [4.0]
URINARY SYSTEM				
Kidney	(49)	(50)	(49)	(50)
Cyst	2 [1.0]			1 [2.0]
Hydronephrosis	1 [1.0]		1 [3.0]	
Infarct	1 [2.0]	1 [1.0]		1 [2.0]
Nephropathy	43 [1.7]	48 [1.9]	46 [2.3]	47 [2.2]
Capsule, Hemorrhage			1 [2.0]	
Transitional Epithelium, Hyperplasia	3 [2.0]	9 [1.4]	8 [1.0]	3 [1.0]
Urinary Bladder	(50)	(50)	(50)	(50)
Hemorrhage		2 [3.0]		
Inflammation, Chronic			1 [3.0]	

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

END OF REPORT

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Ovary								
Cystadenoma								
TUMOR RATES								
OVERALL (a)					0/49 (0%)	2/47 (4%)	1/47 (2%)	0/49 (0%)
POLY-3 RATE (b)					0/44.94	2/42.71	1/41.30	0/45.07
POLY-3 PERCENT (g)					0.0%	4.7%	2.4%	0.0%
TERMINAL (d)					0/37 (0%)	2/34 (6%)	1/29 (3%)	0/32 (0%)
FIRST INCIDENCE					---	729 (T)	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE					P=0.362N	P=0.220	P=0.451	(e)
POLY 3					P=0.325N	P=0.226	P=0.483	(e)
POLY 1.5					P=0.324N	P=0.226	P=0.487	(e)
POLY 6					P=0.329N	P=0.226	P=0.476	(e)
LOGISTIC REGRESSION					(e)	P=0.220	P=0.451	(e)
COCH-ARM / FISHERS					P=0.324N	P=0.237	P=0.490	(e)
ORDER RESTRICTED					P=0.307N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Pituitary Gland: Pars Distalis or Unspecified Site								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/45 (0%)	0/50 (0%)	0/48 (0%)	0/48 (0%)	2/47 (4%)	4/49 (8%)	0/49 (0%)	1/49 (2%)
POLY-3 RATE (b)	0/39.54	0/45.99	0/42.09	0/42.44	2/43.62	4/44.58	0/43.30	1/44.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.6%	9.0%	0.0%	2.3%
TERMINAL (d)	0/30 (0%)	0/38 (0%)	0/33 (0%)	0/31 (0%)	1/36 (3%)	3/34 (9%)	0/31 (0%)	1/31 (3%)
FIRST INCIDENCE	---	---	---	---	720	694	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.146N	P=0.316	P=0.278N	P=0.553N
POLY 3	(e)	(e)	(e)	(e)	P=0.114N	P=0.347	P=0.239N	P=0.496N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.112N	P=0.350	P=0.234N	P=0.493N
POLY 6	(e)	(e)	(e)	(e)	P=0.118N	P=0.344	P=0.247N	P=0.502N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.122N	P=0.341	P=0.256N	P=0.520N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.109N	P=0.359	P=0.237N	P=0.484N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.135N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Pituitary Gland: Pars Intermedia Adenoma								
TUMOR RATES								
OVERALL (a)	0/45 (0%)	0/50 (0%)	0/48 (0%)	0/48 (0%)	1/47 (2%)	0/49 (0%)	2/49 (4%)	0/49 (0%)
POLY-3 RATE (b)	0/39.54	0/45.99	0/42.09	0/42.44	1/43.58	0/44.44	2/43.69	0/44.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	4.6%	0.0%
TERMINAL (d)	0/30 (0%)	0/38 (0%)	0/33 (0%)	0/31 (0%)	1/36 (3%)	0/34 (0%)	1/31 (3%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---	729 (T)	---	618	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.572N	P=0.511N	P=0.465	P=0.530N
POLY 3	(e)	(e)	(e)	(e)	P=0.548N	P=0.496N	P=0.501	P=0.498N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.547N	P=0.495N	P=0.507	P=0.496N
POLY 6	(e)	(e)	(e)	(e)	P=0.552N	P=0.498N	P=0.491	P=0.501N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.540N	(e)	P=0.525	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.543N	P=0.490N	P=0.516	P=0.490N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.322N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skeletal Muscle Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/42.29	1/46.44	0/43.74	0/43.55	1/45.94	1/45.44	0/44.30	2/45.13
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	0.0%	2.2%	2.2%	0.0%	4.4%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	1/38 (3%)	1/35 (3%)	0/32 (0%)	2/32 (6%)
FIRST INCIDENCE	---	596	---	---	729 (T)	729 (T)	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.414N	P=0.509	(e)	(e)	P=0.331	P=0.743	P=0.534N	P=0.440
POLY 3	P=0.399N	P=0.519	(e)	(e)	P=0.372	P=0.758	P=0.507N	P=0.494
POLY 1.5	P=0.404N	P=0.512	(e)	(e)	P=0.375	P=0.759	P=0.504N	P=0.496
POLY 6	P=0.393N	P=0.526	(e)	(e)	P=0.368	P=0.758	P=0.513N	P=0.490
LOGISTIC REGRESSION	P=0.443N	P=0.447	(e)	(e)	P=0.331	P=0.743	(e)	P=0.440
COCH-ARM / FISHERS	P=0.414N	P=0.500	(e)	(e)	P=0.377	P=0.753N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.392N	(e)	(e)	(e)	P=0.268	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	4/50 (8%)	3/50 (6%)	3/50 (6%)	6/50 (12%)
POLY-3 RATE (b)	1/42.73	1/45.99	0/43.74	1/43.81	4/46.02	3/46.30	3/45.07	6/45.44
POLY-3 PERCENT (g)	2.3%	2.2%	0.0%	2.3%	8.7%	6.5%	6.7%	13.2%
TERMINAL (d)	0/31 (0%)	1/38 (3%)	0/34 (0%)	0/31 (0%)	3/38 (8%)	0/35 (0%)	1/32 (3%)	2/32 (6%)
FIRST INCIDENCE	601	729 (T)	---	659	710	490	573	682
STATISTICAL TESTS								
LIFE TABLE	P=0.591N	P=0.733N	P=0.495N	P=0.752N	P=0.181	P=0.535N	P=0.568N	P=0.295
POLY 3	P=0.580N	P=0.744N	P=0.495N	P=0.755N	P=0.210	P=0.497N	P=0.511N	P=0.361
POLY 1.5	P=0.579N	P=0.750N	P=0.496N	P=0.755N	P=0.214	P=0.499N	P=0.506N	P=0.363
POLY 6	P=0.584N	P=0.738N	P=0.496N	P=0.757N	P=0.204	P=0.494N	P=0.522N	P=0.357
LOGISTIC REGRESSION	P=0.586N	P=0.750	P=0.536N	P=0.738	P=0.224	P=0.489N	P=0.493N	P=0.351
COCH-ARM / FISHERS	P=0.579N	P=0.753N	P=0.500N	P=0.753N	P=0.219	P=0.500N	P=0.500N	P=0.370
ORDER RESTRICTED	P=0.527N	(e)	(e)	(e)	P=0.252	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin Fibrosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	0/42.29	1/45.99	0/43.74	0/43.55	1/46.02	2/46.23	2/44.81	2/45.17
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	0.0%	2.2%	4.3%	4.5%	4.4%
TERMINAL (d)	0/31 (0%)	1/38 (3%)	0/34 (0%)	0/31 (0%)	0/38 (0%)	0/35 (0%)	1/32 (3%)	1/32 (3%)
FIRST INCIDENCE	---	729 (T)	---	---	710	490	573	719
STATISTICAL TESTS								
LIFE TABLE	P=0.427N	P=0.541	(e)	(e)	P=0.411	P=0.483	P=0.462	P=0.450
POLY 3	P=0.400N	P=0.517	(e)	(e)	P=0.437	P=0.502	P=0.491	P=0.494
POLY 1.5	P=0.405N	P=0.511	(e)	(e)	P=0.441	P=0.501	P=0.495	P=0.495
POLY 6	P=0.395N	P=0.523	(e)	(e)	P=0.430	P=0.502	P=0.482	P=0.490
LOGISTIC REGRESSION	(e)	P=0.541	(e)	(e)	P=0.474	P=0.544	P=0.517	P=0.490
COCH-ARM / FISHERS	P=0.414N	P=0.500	(e)	(e)	P=0.448	P=0.500	P=0.500	P=0.500
ORDER RESTRICTED	P=0.391N	(e)	(e)	(e)	P=0.455	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	4/50 (8%)	3/50 (6%)	3/50 (6%)	6/50 (12%)
POLY-3 RATE (b)	0/42.29	1/45.99	0/43.74	1/43.81	4/46.02	3/46.30	3/45.07	6/45.44
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	2.3%	8.7%	6.5%	6.7%	13.2%
TERMINAL (d)	0/31 (0%)	1/38 (3%)	0/34 (0%)	0/31 (0%)	3/38 (8%)	0/35 (0%)	1/32 (3%)	2/32 (6%)
FIRST INCIDENCE	---	729 (T)	---	659	710	490	573	682
STATISTICAL TESTS								
LIFE TABLE	P=0.467	P=0.541	(e)	P=0.510	P=0.181	P=0.535N	P=0.568N	P=0.295
POLY 3	P=0.491	P=0.517	(e)	P=0.507	P=0.210	P=0.497N	P=0.511N	P=0.361
POLY 1.5	P=0.490	P=0.511	(e)	P=0.506	P=0.214	P=0.499N	P=0.506N	P=0.363
POLY 6	P=0.491	P=0.523	(e)	P=0.507	P=0.204	P=0.494N	P=0.522N	P=0.357
LOGISTIC REGRESSION	P=0.483	P=0.541	(e)	P=0.489	P=0.224	P=0.489N	P=0.493N	P=0.351
COCH-ARM / FISHERS	P=0.482	P=0.500	(e)	P=0.500	P=0.219	P=0.500N	P=0.500N	P=0.370
ORDER RESTRICTED	P=0.258	(e)	(e)	(e)	P=0.252	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin								
Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	1/43.81	3/45.94	0/45.44	0/44.30	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	2.3%	6.5%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	3/38 (8%)	0/35 (0%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	659	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.180	(e)	(e)	P=0.510	P=0.112N	P=0.136N	P=0.153N	P=0.153N
POLY 3	P=0.183	(e)	(e)	P=0.507	P=0.092N	P=0.121N	P=0.125N	P=0.122N
POLY 1.5	P=0.185	(e)	(e)	P=0.506	P=0.091N	P=0.120N	P=0.122N	P=0.121N
POLY 6	P=0.181	(e)	(e)	P=0.507	P=0.093N	P=0.121N	P=0.131N	P=0.124N
LOGISTIC REGRESSION	P=0.179	(e)	(e)	P=0.489	P=0.112N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.184	(e)	(e)	P=0.500	P=0.094N	P=0.121N	P=0.121N	P=0.121N
ORDER RESTRICTED	P=0.127	(e)	(e)	(e)	P=0.009N**	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin Neurofibrosarcoma or Schwannoma (malignant or NOS)								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	0/45.94	2/46.42	0/44.30	1/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	2.2%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	0/38 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)
FIRST INCIDENCE	---	---	---	---	---	383	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.631N	P=0.237	(e)	P=0.466
POLY 3	(e)	(e)	(e)	(e)	P=0.611N	P=0.240	(e)	P=0.496
POLY 1.5	(e)	(e)	(e)	(e)	P=0.609N	P=0.239	(e)	P=0.497
POLY 6	(e)	(e)	(e)	(e)	P=0.616N	P=0.240	(e)	P=0.494
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.536N	P=0.321	(e)	P=0.466
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.606N	P=0.247	(e)	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.322	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	0/45.94	2/46.42	0/44.30	2/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	4.4%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	0/38 (0%)	0/35 (0%)	0/32 (0%)	2/32 (6%)
FIRST INCIDENCE	---	---	---	---	---	383	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.323	P=0.237	(e)	P=0.201
POLY 3	(e)	(e)	(e)	(e)	P=0.347	P=0.240	(e)	P=0.233
POLY 1.5	(e)	(e)	(e)	(e)	P=0.349	P=0.239	(e)	P=0.234
POLY 6	(e)	(e)	(e)	(e)	P=0.342	P=0.240	(e)	P=0.231
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.398	P=0.321	(e)	P=0.201
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.354	P=0.247	(e)	P=0.247
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.113	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Skin Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	1/45.94	1/45.52	1/44.56	4/45.40
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.2%	2.2%	2.2%	8.8%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	1/38 (3%)	0/35 (0%)	0/32 (0%)	1/32 (3%)
FIRST INCIDENCE	---	---	---	---	729 (T)	710	659	682
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.056	P=0.743	P=0.736	P=0.152
POLY 3	(e)	(e)	(e)	(e)	P=0.063	P=0.759	P=0.754	P=0.175
POLY 1.5	(e)	(e)	(e)	(e)	P=0.064	P=0.759	P=0.757	P=0.176
POLY 6	(e)	(e)	(e)	(e)	P=0.062	P=0.758	P=0.748	P=0.173
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.064	P=0.760	P=0.760N	P=0.173
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.065	P=0.753N	P=0.753N	P=0.181
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.073	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Spleen Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	2/47 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)
POLY-3 RATE (b)	2/40.70	3/45.99	0/43.74	0/43.55	0/45.94	0/45.44	0/44.30	0/44.12
POLY-3 PERCENT (g)	4.9%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/30 (7%)	3/38 (8%)	0/34 (0%)	0/31 (0%)	0/38 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.045N*	P=0.608	P=0.211N	P=0.231N	(e)	(e)	(e)	(e)
POLY 3	P=0.039N*	P=0.555	P=0.221N	P=0.222N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.039N*	P=0.544	P=0.222N	P=0.222N	(e)	(e)	(e)	(e)
POLY 6	P=0.040N*	P=0.568	P=0.221N	P=0.224N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.045N*	P=0.608	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.039N*	P=0.530	P=0.232N	P=0.232N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.089N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Stomach, Forestomach								
Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	1/42.56	1/45.99	0/43.74	1/43.55	1/45.94	1/45.44	3/44.34	1/45.13
POLY-3 PERCENT (g)	2.4%	2.2%	0.0%	2.3%	2.2%	2.2%	6.8%	2.2%
TERMINAL (d)	0/31 (0%)	1/38 (3%)	0/34 (0%)	1/31 (3%)	1/38 (3%)	1/35 (3%)	2/32 (6%)	1/32 (3%)
FIRST INCIDENCE	655	729 (T)	---	729 (T)	729 (T)	729 (T)	718	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.601N	P=0.721N	P=0.505N	P=0.757N	P=0.453	P=0.743	P=0.249	P=0.723
POLY 3	P=0.580N	P=0.743N	P=0.495N	P=0.756N	P=0.503	P=0.758	P=0.293	P=0.757
POLY 1.5	P=0.579N	P=0.749N	P=0.496N	P=0.756N	P=0.505	P=0.759	P=0.299	P=0.758
POLY 6	P=0.584N	P=0.737N	P=0.495N	P=0.758N	P=0.498	P=0.758	P=0.282	P=0.754
LOGISTIC REGRESSION	P=0.580N	P=0.763N	P=0.510N	P=0.760N	P=0.470	P=0.743	P=0.258	P=0.723
COCH-ARM / FISHERS	P=0.579N	P=0.753N	P=0.500N	P=0.753N	P=0.510	P=0.753N	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.527N	(e)	(e)	(e)	P=0.428	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Stomach, Forestomach								
Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	1/43.55	1/45.94	1/45.44	2/44.34	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	2.3%	2.2%	2.2%	4.5%	0.0%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	1/31 (3%)	1/38 (3%)	1/35 (3%)	1/32 (3%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	729 (T)	729 (T)	729 (T)	718	---
STATISTICAL TESTS								
LIFE TABLE	P=0.170	(e)	(e)	P=0.500	P=0.421N	P=0.743	P=0.442	P=0.534N
POLY 3	P=0.183	(e)	(e)	P=0.506	P=0.383N	P=0.758	P=0.488	P=0.504N
POLY 1.5	P=0.184	(e)	(e)	P=0.505	P=0.381N	P=0.759	P=0.494	P=0.503N
POLY 6	P=0.179	(e)	(e)	P=0.505	P=0.387N	P=0.758	P=0.478	P=0.506N
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.500	P=0.404N	P=0.743	P=0.458	(e)
COCH-ARM / FISHERS	P=0.184	(e)	(e)	P=0.500	P=0.377N	P=0.753N	P=0.500	P=0.500N
ORDER RESTRICTED	P=0.126	(e)	(e)	(e)	P=0.269N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Testes Adenoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)				
POLY-3 RATE (b)	0/42.26	2/45.99	0/43.74	1/43.55				
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	2.3%				
TERMINAL (d)	0/31 (0%)	2/38 (5%)	0/34 (0%)	1/31 (3%)				
FIRST INCIDENCE	---	729 (T)	---	729 (T)				
STATISTICAL TESTS								
LIFE TABLE	P=0.634N	P=0.284	(e)	P=0.500				
POLY 3	P=0.594N	P=0.256	(e)	P=0.506				
POLY 1.5	P=0.598N	P=0.250	(e)	P=0.506				
POLY 6	P=0.591N	P=0.264	(e)	P=0.505				
LOGISTIC REGRESSION	(e)	P=0.284	(e)	P=0.500				
COCH-ARM / FISHERS	P=0.603N	P=0.253	(e)	P=0.505				
ORDER RESTRICTED	P=0.330	(e)	(e)	(e)				

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Thyroid Gland: Follicular Cell Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/41.70	0/45.99	1/43.74	1/43.55	3/46.00	0/45.44	0/44.30	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	2.3%	2.3%	6.5%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	1/34 (3%)	1/31 (3%)	2/38 (5%)	0/35 (0%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	729 (T)	729 (T)	714	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.183	(e)	P=0.518	P=0.500	P=0.111N	P=0.138N	P=0.156N	P=0.151N
POLY 3	P=0.199	(e)	P=0.509	P=0.509	P=0.091N	P=0.121N	P=0.126N	P=0.122N
POLY 1.5	P=0.203	(e)	P=0.509	P=0.509	P=0.091N	P=0.120N	P=0.122N	P=0.121N
POLY 6	P=0.193	(e)	P=0.509	P=0.506	P=0.093N	P=0.122N	P=0.131N	P=0.124N
LOGISTIC REGRESSION	(e)	(e)	P=0.518	P=0.500	P=0.102N	P=0.123N	P=0.138N	P=0.129N
COCH-ARM / FISHERS	P=0.205	(e)	P=0.510	P=0.510	P=0.094N	P=0.121N	P=0.121N	P=0.121N
ORDER RESTRICTED	P=0.259	(e)	(e)	(e)	P=0.009N**	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Tongue								
Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	2/46.48	0/45.44	0/44.30	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	1/38 (3%)	0/35 (0%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	---	563	---	---	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.188N	P=0.249N	P=0.259N	P=0.256N
POLY 3	(e)	(e)	(e)	(e)	P=0.176N	P=0.242N	P=0.248N	P=0.244N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.175N	P=0.241N	P=0.243N	P=0.242N
POLY 6	(e)	(e)	(e)	(e)	P=0.177N	P=0.244N	P=0.256N	P=0.248N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.160N	P=0.212N	P=0.220N	P=0.205N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.178N	P=0.247N	P=0.247N	P=0.247N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.032N*	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs								
Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/42.29	1/45.99	2/43.85	0/43.55	3/45.94	1/45.44	2/44.56	1/45.13
POLY-3 PERCENT (g)	0.0%	2.2%	4.6%	0.0%	6.5%	2.2%	4.5%	2.2%
TERMINAL (d)	0/31 (0%)	1/38 (3%)	1/34 (3%)	0/31 (0%)	3/38 (8%)	1/35 (3%)	1/32 (3%)	1/32 (3%)
FIRST INCIDENCE	---	729 (T)	699	---	729 (T)	729 (T)	659	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.606N	P=0.541	P=0.253	(e)	P=0.399N	P=0.335N	P=0.567N	P=0.368N
POLY 3	P=0.575N	P=0.517	P=0.245	(e)	P=0.353N	P=0.309N	P=0.514N	P=0.312N
POLY 1.5	P=0.573N	P=0.511	P=0.243	(e)	P=0.351N	P=0.308N	P=0.507N	P=0.310N
POLY 6	P=0.580N	P=0.523	P=0.247	(e)	P=0.357N	P=0.310N	P=0.525N	P=0.315N
LOGISTIC REGRESSION	P=0.591N	P=0.541	P=0.245	(e)	P=0.361N	P=0.335N	P=0.523N	P=0.368N
COCH-ARM / FISHERS	P=0.579N	P=0.500	P=0.247	(e)	P=0.347N	P=0.309N	P=0.500N	P=0.309N
ORDER RESTRICTED	P=0.331	(e)	(e)	(e)	P=0.226N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	4/50 (8%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	4/42.29	4/45.99	0/43.74	2/43.55	1/46.22	2/45.44	2/44.76	1/45.49
POLY-3 PERCENT (g)	9.5%	8.7%	0.0%	4.6%	2.2%	4.4%	4.5%	2.2%
TERMINAL (d)	4/31 (13%)	4/38 (11%)	0/34 (0%)	2/31 (7%)	0/38 (0%)	2/35 (6%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	729 (T)	653	729 (T)	617	629
STATISTICAL TESTS								
LIFE TABLE	P=0.146N	P=0.528N	P=0.051N	P=0.335N	P=0.531N	P=0.481	P=0.473	P=0.755N
POLY 3	P=0.127N	P=0.597N	P=0.056N	P=0.323N	P=0.516N	P=0.494	P=0.489	P=0.757
POLY 1.5	P=0.125N	P=0.613N	P=0.057N	P=0.325N	P=0.514N	P=0.496	P=0.494	P=0.758
POLY 6	P=0.130N	P=0.578N	P=0.055N	P=0.325N	P=0.521N	P=0.491	P=0.479	P=0.755
LOGISTIC REGRESSION	P=0.146N	P=0.528N	(e)	P=0.335N	P=0.497N	P=0.499	P=0.521	P=0.737N
COCH-ARM / FISHERS	P=0.126N	P=0.643N	P=0.059N	P=0.339N	P=0.510N	P=0.500	P=0.500	P=0.753N
ORDER RESTRICTED	P=0.118N	(e)	(e)	(e)	P=0.536	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Hemangiosarcoma or Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	5/50 (10%)	2/50 (4%)	2/50 (4%)	4/50 (8%)	3/50 (6%)	4/50 (8%)	2/50 (4%)
POLY-3 RATE (b)	4/42.29	5/45.99	2/43.85	2/43.55	4/46.22	3/45.44	4/45.02	2/45.49
POLY-3 PERCENT (g)	9.5%	10.9%	4.6%	4.6%	8.7%	6.6%	8.9%	4.4%
TERMINAL (d)	4/31 (13%)	5/38 (13%)	1/34 (3%)	2/31 (7%)	3/38 (8%)	3/35 (9%)	1/32 (3%)	1/32 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	699	729 (T)	653	729 (T)	617	629
STATISTICAL TESTS								
LIFE TABLE	P=0.165N	P=0.628	P=0.301N	P=0.335N	P=0.379N	P=0.538N	P=0.574	P=0.389N
POLY 3	P=0.138N	P=0.552	P=0.320N	P=0.323N	P=0.331N	P=0.509N	P=0.629	P=0.345N
POLY 1.5	P=0.136N	P=0.534	P=0.325N	P=0.325N	P=0.330N	P=0.506N	P=0.636	P=0.343N
POLY 6	P=0.143N	P=0.573	P=0.316N	P=0.325N	P=0.335N	P=0.514N	P=0.617	P=0.349N
LOGISTIC REGRESSION	P=0.162N	P=0.628	P=0.315N	P=0.335N	P=0.326N	P=0.507N	P=0.638N	P=0.336N
COCH-ARM / FISHERS	P=0.137N	P=0.500	P=0.339N	P=0.339N	P=0.325N	P=0.500N	P=0.643N	P=0.339N
ORDER RESTRICTED	P=0.259N	(e)	(e)	(e)	P=0.341N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	5/50 (10%)	3/50 (6%)	2/50 (4%)	27/50 (54%)	24/50 (48%)	17/50 (34%)	14/50 (28%)
POLY-3 RATE (b)	0/42.29	5/45.99	3/45.77	2/43.55	27/46.69	24/46.42	17/45.30	14/46.14
POLY-3 PERCENT (g)	0.0%	10.9%	6.6%	4.6%	57.8%	51.7%	37.5%	30.3%
TERMINAL (d)	0/31 (0%)	5/38 (13%)	0/34 (0%)	2/31 (7%)	25/38 (66%)	21/35 (60%)	12/32 (38%)	11/32 (34%)
FIRST INCIDENCE	---	729 (T)	367	729 (T)	474	490	618	430
STATISTICAL TESTS								
LIFE TABLE	P=0.572N	P=0.053	P=0.127	P=0.238	P=0.015N*	P=0.496N	P=0.133N	P=0.034N*
POLY 3	P=0.518N	P=0.038 *	P=0.133	P=0.244	P=0.002N**	P=0.348N	P=0.036N*	P=0.005N**
POLY 1.5	P=0.522N	P=0.035 *	P=0.129	P=0.243	P=0.002N**	P=0.351N	P=0.035N*	P=0.006N**
POLY 6	P=0.520N	P=0.041 *	P=0.137	P=0.242	P=0.002N**	P=0.341N	P=0.040N*	P=0.005N**
LOGISTIC REGRESSION	P=0.562N	P=0.053	P=0.034 *	P=0.238	P=0.003N**	P=0.360N	P=0.050N	P=0.008N**
COCH-ARM / FISHERS	P=0.540N	P=0.028 *	P=0.121	P=0.247	P=0.003N**	P=0.345N	P=0.035N*	P=0.007N**
ORDER RESTRICTED	P=0.108	(e)	(e)	(e)	P=0.003N**	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	25/50 (50%)	38/50 (76%)	42/50 (84%)	46/50 (92%)	29/50 (58%)	33/50 (66%)	41/50 (82%)	38/50 (76%)
POLY-3 RATE (b)	25/44.13	38/47.73	42/46.46	46/48.58	29/47.59	33/47.80	41/47.98	38/46.23
POLY-3 PERCENT (g)	56.7%	79.6%	90.4%	94.7%	60.9%	69.0%	85.5%	82.2%
TERMINAL (d)	19/31 (61%)	31/38 (82%)	32/34 (94%)	31/31 (100%)	23/38 (61%)	25/35 (71%)	28/32 (88%)	30/32 (94%)
FIRST INCIDENCE	482	573	573	469	563	487	553	636
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.118	P=0.005 **	P<0.001 **	P=0.005 **	P=0.178	P=0.003 **	P=0.006 **
POLY 3	P<0.001 **	P=0.012 *	P<0.001 **	P<0.001 **	P=0.005 **	P=0.267	P=0.004 **	P=0.015 *
POLY 1.5	P<0.001 **	P=0.008 **	P<0.001 **	P<0.001 **	P=0.008 **	P=0.266	P=0.005 **	P=0.022 *
POLY 6	P<0.001 **	P=0.018 *	P<0.001 **	P<0.001 **	P=0.002 **	P=0.264	P=0.004 **	P=0.009 **
LOGISTIC REGRESSION	P<0.001 **	P=0.019 *	P<0.001 **	P<0.001 **	P=0.014 *	P=0.251	P=0.005 **	P=0.028 *
COCH-ARM / FISHERS	P<0.001 **	P=0.006 **	P<0.001 **	P<0.001 **	P=0.022 *	P=0.268	P=0.008 **	P=0.044 *
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.005 **	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	23/50 (46%)	28/50 (56%)	32/50 (64%)	43/50 (86%)	36/50 (72%)	37/50 (74%)	34/50 (68%)	32/50 (64%)
POLY-3 RATE (b)	23/45.18	28/47.09	32/49.55	43/49.30	36/48.25	37/48.14	34/48.06	32/48.45
POLY-3 PERCENT (g)	50.9%	59.5%	64.6%	87.2%	74.6%	76.9%	70.8%	66.0%
TERMINAL (d)	12/31 (39%)	22/38 (58%)	17/34 (50%)	25/31 (81%)	29/38 (76%)	27/35 (77%)	19/32 (59%)	18/32 (56%)
FIRST INCIDENCE	451	596	367	469	474	383	573	430
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.538	P=0.162	P=0.002 **	P=0.481N	P=0.324	P=0.376	P=0.539
POLY 3	P<0.001 **	P=0.267	P=0.125	P<0.001 **	P=0.124N	P=0.491	P=0.421N	P=0.240N
POLY 1.5	P<0.001 **	P=0.250	P=0.096	P<0.001 **	P=0.139N	P=0.495	P=0.422N	P=0.256N
POLY 6	P<0.001 **	P=0.274	P=0.156	P<0.001 **	P=0.106N	P=0.484	P=0.410N	P=0.220N
LOGISTIC REGRESSION	P<0.001 **	P=0.305	P=0.051	P<0.001 **	P=0.155N	P=0.482	P=0.443N	P=0.271N
COCH-ARM / FISHERS	P<0.001 **	P=0.212	P=0.054	P<0.001 **	P=0.147N	P=0.500	P=0.414N	P=0.260N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.221N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	37/50 (74%)	44/50 (88%)	49/50 (98%)	50/50 (100%)	42/50 (84%)	43/50 (86%)	46/50 (92%)	48/50 (96%)
POLY-3 RATE (b)	37/46.78	44/48.04	49/50.00	50/50.00	42/49.36	43/48.89	46/48.62	48/49.06
POLY-3 PERCENT (g)	79.1%	91.6%	98.0%	100.0%	85.1%	88.0%	94.6%	97.9%
TERMINAL (d)	23/31 (74%)	35/38 (92%)	33/34 (97%)	31/31 (100%)	31/38 (82%)	31/35 (89%)	30/32 (94%)	31/32 (97%)
FIRST INCIDENCE	451	573	367	469	474	383	553	430
STATISTICAL TESTS								
LIFE TABLE	P=0.004 **	P=0.550N	P=0.094	P=0.031 *	P=0.019 *	P=0.308	P=0.059	P=0.033 *
POLY 3	P<0.001 **	P=0.067	P=0.002 **	P<0.001 **	P=0.008 **	P=0.452	P=0.103	P=0.025 *
POLY 1.5	P<0.001 **	P=0.065	P<0.001 **	P<0.001 **	P=0.009 **	P=0.477	P=0.126	P=0.025 *
POLY 6	P<0.001 **	P=0.066	P=0.004 **	P<0.001 **	P=0.010 *	P=0.406	P=0.089	P=0.028 *
LOGISTIC REGRESSION	P<0.001 **	P=0.140	P<0.001 **	P<0.001 **	P=0.015 *	P=0.492	P=0.151	P=0.035 *
COCH-ARM / FISHERS	P<0.001 **	P=0.062	P<0.001 **	P<0.001 **	P=0.022 *	P=0.500	P=0.178	P=0.046 *
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.012 *	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Natural Death	10	13	13	11
Moribund Sacrifice	2	2	5	7
Survivors				
Terminal Sacrifice	38	35	31	32
Natural Death			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Rectum	(49)	(49)	(48)	(49)
Ulcer			1 [4.0]	
Intestine Large, Cecum	(47)	(46)	(49)	(46)
Edema	2 [2.0]	1 [2.0]		3 [2.0]
Inflammation, Chronic		1 [3.0]		1 [2.0]
Epithelium, Hyperplasia			1 [3.0]	
Intestine Small, Duodenum	(46)	(48)	(48)	(45)
Epithelium, Hyperplasia		1 [3.0]		
Intestine Small, Jejunum	(46)	(47)	(49)	(43)
Hyperplasia, Lymphoid		2 [3.0]		2 [3.5]
Intestine Small, Ileum	(45)	(47)	(47)	(46)
Inflammation, Chronic		1 [3.0]		
Liver	(49)	(50)	(50)	(49)
Angiectasis	1 [4.0]	2 [3.0]		
Basophilic Focus		1	3	3
Clear Cell Focus	3	1	8	5
Eosinophilic Focus	7	6	10	9
Hematopoietic Cell Proliferation	2 [2.5]	4 [2.5]	2 [3.0]	2 [2.5]
Hepatodiaphragmatic Nodule				2
Hyperplasia, Lymphoid	2 [3.5]	1 [2.0]		
Infarct				1 [3.0]
Infiltration Cellular, Mixed Cell	7 [2.1]	7 [2.6]	4 [2.3]	9 [2.4]
Inflammation, Chronic Active			1 [1.0]	
Mixed Cell Focus	2	6	3	1
Necrosis, Focal	3 [1.7]	2 [3.0]	3 [2.3]	2 [3.5]
Tension Lipidosis	1	3		
Centrilobular, Necrosis		1 [3.0]	4 [2.8]	4 [2.3]
Hepatocyte, Vacuolization Cytoplasmic	2 [3.5]	7 [3.1]	4 [3.3]	2 [3.5]
Kupffer Cell, Pigmentation	3 [2.3]			3 [2.3]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ALIMENTARY SYSTEM - CONT				
Mesentery	(28)	(20)	(16)	(19)
Fat, Necrosis	22 [3.3]	18 [3.4]	11 [3.5]	13 [2.8]
Pancreas	(49)	(49)	(49)	(47)
Atrophy		1 [3.0]	1 [3.0]	3 [2.7]
Cyst			1 [3.0]	3 [3.0]
Inflammation, Chronic				1 [3.0]
Acinus, Cytoplasmic Alteration	1 [3.0]			
Salivary Glands	(50)	(49)	(50)	(50)
Hyperplasia, Lymphoid	15 [2.7]	13 [2.2]	16 [2.2]	10 [2.5]
Stomach, Forestomach	(49)	(50)	(50)	(49)
Erosion		1 [2.0]		
Inflammation, Chronic	1 [3.0]	2 [2.0]	2 [1.5]	1 [2.0]
Ulcer	1 [2.0]	1 [2.0]	1 [2.0]	3 [2.3]
Epithelium, Hyperplasia	4 [1.5]	5 [2.6]		4 [2.0]
Stomach, Glandular	(49)	(50)	(50)	(49)
Erosion		1 [3.0]		1 [3.0]
Pylorus, Epithelium, Hyperplasia, Atypical		1 [4.0]		
Tooth			(1)	
Malformation			1	
CARDIOVASCULAR SYSTEM				
Blood Vessel	(1)	(1)	(1)	
Hypertrophy			1 [4.0]	
Inflammation, Chronic Active			1 [4.0]	
Heart	(50)	(49)	(50)	(50)
Cardiomyopathy			1 [1.0]	1 [2.0]
Inflammation, Chronic		1 [3.0]		1 [3.0]
Inflammation, Chronic Active				1 [3.0]
Mineralization		1 [3.0]	1 [3.0]	2 [2.5]
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(49)
Accessory Adrenal Cortical Nodule	9 [3.0]	11 [3.0]	6 [3.0]	9 [3.0]
Hyperplasia, Focal		2 [2.5]		1 [3.0]
Hypertrophy, Focal		1 [2.0]		
Capsule, Hyperplasia		1 [3.0]		1 [2.0]
Adrenal Medulla	(50)	(50)	(50)	(49)
Hyperplasia		2 [1.0]	1 [2.0]	1 [1.0]
Islets, Pancreatic	(49)	(49)	(49)	(46)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ENDOCRINE SYSTEM - CONT				
Hyperplasia	2 [2.0]	5 [2.0]	3 [1.7]	3 [2.0]
Parathyroid Gland	(45)	(49)	(47)	(49)
Cyst	2 [3.0]	1 [3.0]	1 [3.0]	3 [3.0]
Pituitary Gland	(47)	(49)	(49)	(49)
Pars Distalis, Angiectasis	2 [2.5]	3 [2.0]	1 [2.0]	1 [2.0]
Pars Distalis, Cyst	2 [3.0]	2 [3.0]	1 [3.0]	1 [3.0]
Pars Distalis, Hyperplasia, Focal	4 [2.5]	9 [2.2]	4 [1.8]	7 [1.9]
Pars Intermedia, Hyperplasia, Focal	1 [3.0]			
Thyroid Gland	(50)	(50)	(50)	(50)
Degeneration, Cystic	10 [1.7]	26 [1.9]	16 [1.8]	14 [1.9]
Follicular Cell, Hyperplasia	8 [1.1]	1 [1.0]	1 [2.0]	2 [1.5]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(48)	(48)	(49)
Cyst		1 [3.0]		
Ovary	(49)	(47)	(47)	(49)
Angiectasis	5 [2.8]	3 [2.7]	9 [2.4]	7 [2.6]
Cyst	14 [3.1]	12 [2.8]	14 [3.0]	22 [3.0]
Corpus Luteum, Hyperplasia	1 [3.0]	1 [3.0]		
Granulosa Cell, Hyperplasia	1 [2.0]			
Interstitial Cell, Hyperplasia				1 [3.0]
Uterus	(50)	(50)	(50)	(50)
Angiectasis		4 [3.0]	1 [2.0]	2 [2.0]
Hyperplasia, Cystic	44 [3.3]	42 [3.4]	44 [3.0]	39 [3.0]
Inflammation, Chronic	1 [2.0]	1 [2.0]	1 [3.0]	
Metaplasia, Squamous	1 [3.0]		1 [3.0]	1 [3.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia	20 [2.9]	26 [2.9]	24 [2.9]	20 [3.0]
Infiltration Cellular, Mast Cell		1 [3.0]		
Lymph Node	(12)	(13)	(11)	(8)
Hyperplasia, Lymphoid		1 [2.0]		
Bronchial, Hemorrhage		1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
HEMATOPOIETIC SYSTEM - CONT				
Bronchial, Hyperplasia, Lymphoid		1 [2.0]		
Deep Cervical, Hemorrhage				1 [4.0]
Iliac, Hematopoietic Cell Proliferation		1 [3.0]		
Iliac, Hemorrhage	1 [3.0]			1 [4.0]
Iliac, Hyperplasia, Lymphoid	1 [2.0]	1 [2.0]	1 [3.0]	2 [2.0]
Iliac, Pigmentation	1 [3.0]			
Inguinal, Hematopoietic Cell Proliferation		1 [3.0]		
Inguinal, Hyperplasia, Lymphoid		2 [2.5]		
Mediastinal, Hemorrhage	1 [2.0]			
Mediastinal, Hyperplasia, Lymphoid	1 [2.0]	1 [2.0]	1 [2.0]	1 [3.0]
Mediastinal, Pigmentation	1 [2.0]			
Pancreatic, Hyperplasia, Lymphoid			1 [2.0]	
Renal, Hyperplasia, Lymphoid	1 [2.0]		1 [3.0]	1 [2.0]
Lymph Node, Mandibular	(48)	(49)	(47)	(50)
Atrophy		1 [2.0]	1 [3.0]	1 [3.0]
Hematopoietic Cell Proliferation	1 [1.0]	1 [2.0]		2 [2.5]
Hemorrhage		2 [1.5]	2 [2.0]	1 [2.0]
Hyperplasia, Lymphoid	13 [2.3]	6 [2.3]	8 [2.8]	9 [2.8]
Pigmentation	18 [2.2]	25 [2.2]	17 [2.1]	23 [2.3]
Lymph Node, Mesenteric	(49)	(49)	(48)	(45)
Angiectasis			1 [2.0]	
Atrophy			2 [2.5]	1 [3.0]
Ectasia			1 [4.0]	
Hematopoietic Cell Proliferation	2 [1.5]		2 [2.0]	1 [2.0]
Hemorrhage	1 [4.0]	1 [3.0]	1 [1.0]	5 [2.4]
Hyperplasia, Lymphoid	8 [2.3]	9 [2.4]	7 [2.4]	5 [2.2]
Pigmentation			1 [3.0]	1 [3.0]
Spleen	(50)	(50)	(50)	(48)
Hematopoietic Cell Proliferation	34 [2.2]	42 [2.5]	35 [2.5]	34 [2.5]
Necrosis	1 [4.0]			
Pigmentation	5 [2.8]	5 [3.0]	1 [3.0]	2 [3.0]
Lymphoid Follicle, Atrophy		1 [2.0]	2 [3.0]	2 [2.5]
Lymphoid Follicle, Hyperplasia	8 [2.5]	11 [2.8]	14 [2.5]	12 [2.5]
Thymus	(44)	(47)	(47)	(48)
Atrophy	8 [3.0]	9 [3.0]	11 [2.8]	13 [2.8]
Hemorrhage	1 [3.0]			
Hyperplasia, Lymphoid		3 [2.7]	3 [2.0]	2 [3.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Hyperplasia	5 [1.8]	6 [2.0]	2 [2.5]	5 [2.2]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
INTEGUMENTARY SYSTEM - CONT				
Skin	(50)	(50)	(50)	(50)
Edema		1 [2.0]	1 [4.0]	1 [3.0]
Erosion			1 [3.0]	
Ulcer	2 [2.0]	1 [4.0]	1 [1.0]	1 [4.0]
Epidermis, Hyperplasia	2 [3.5]	1 [3.0]	2 [1.5]	1 [4.0]
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Myelofibrosis	1 [2.0]	2 [2.5]	1 [2.0]	2 [2.5]
Skeletal Muscle	(3)	(4)	(2)	(5)
Inflammation, Chronic Active				1 [3.0]
NERVOUS SYSTEM				
Brain	(50)	(49)	(50)	(50)
Compression	1 [3.0]	1 [3.0]	1 [2.0]	
Hemorrhage		2 [2.5]		
Necrosis		1 [2.0]	1 [2.0]	
Peripheral Nerve		(1)	(1)	(1)
Atrophy				1 [3.0]
Spinal Cord		(1)	(1)	(1)
Necrosis		1 [3.0]		
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion			2 [3.0]	
Hemorrhage		2 [2.5]	2 [2.0]	3 [2.0]
Hyperplasia, Lymphoid	5 [2.0]	5 [2.2]	1 [2.0]	3 [2.3]
Infiltration Cellular, Histiocyte	1 [3.0]	2 [2.0]	2 [3.5]	4 [1.8]
Alveolar Epithelium, Hyperplasia	3 [1.7]	3 [2.0]		4 [2.0]
Perivascular, Inflammation, Chronic Active				1 [3.0]
Nose	(50)	(50)	(50)	(50)
Inflammation, Chronic				1 [2.0]
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
SPECIAL SENSES SYSTEM - CONT				
Atrophy			1 [4.0]	
Cataract			2 [1.5]	2 [1.5]
Inflammation, Chronic	2 [1.5]	2 [2.5]	3 [2.3]	3 [1.3]
Cornea, Hyperplasia	1 [2.0]		4 [2.3]	
Cornea, Mineralization				1 [2.0]
Harderian Gland	(49)	(50)	(50)	(50)
Hyperplasia, Focal	2 [3.0]	4 [2.8]	4 [2.0]	2 [2.0]
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(49)
Cyst		1 [3.0]		1 [3.0]
Hydronephrosis			1 [3.0]	1 [2.0]
Hyperplasia, Lymphoid	7 [2.3]	2 [2.5]	5 [2.2]	8 [2.4]
Infarct	3 [1.7]	8 [1.8]	6 [1.8]	8 [2.5]
Nephropathy	14 [1.6]	8 [1.4]	15 [1.7]	12 [1.2]
Renal Tubule, Accumulation, Hyaline Droplet	1 [3.0]	1 [3.0]	2 [3.0]	2 [3.0]
Renal Tubule, Dilatation		2 [2.5]	1 [2.0]	1 [2.0]
Renal Tubule, Necrosis		1 [1.0]		1 [2.0]
Renal Tubule, Pigmentation	1 [4.0]		3 [2.3]	1 [3.0]
Urinary Bladder	(50)	(49)	(50)	(49)
Edema	2 [3.0]			
Hyperplasia, Lymphoid	3 [3.0]	5 [2.2]	3 [2.0]	2 [2.5]
Transitional Epithelium, Hyperplasia			1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	4	6	3	6
Natural Death	14	6	13	13
Survivors				
Terminal Sacrifice	31	38	34	31
Other	1			
Animals Examined Microscopically	49	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(43)	(49)	(48)	(46)
Edema	2 [2.0]	2 [2.5]	3 [2.0]	1 [2.0]
Hyperplasia, Lymphoid			1 [3.0]	
Intestine Small, Duodenum	(42)	(50)	(46)	(48)
Hyperplasia, Lymphoid		1 [2.0]		
Intestine Small, Jejunum	(44)	(49)	(46)	(45)
Hyperplasia, Lymphoid			2 [2.0]	2 [3.0]
Liver	(49)	(50)	(50)	(50)
Angiectasis			1 [3.0]	
Basophilic Focus	2		1	2
Clear Cell Focus	10	13	23	13
Congestion	1 [3.0]			
Cyst		1 [3.0]		1 [3.0]
Eosinophilic Focus	15	10	15	17
Hematopoietic Cell Proliferation				1 [2.0]
Hemorrhage	1 [3.0]			
Hepatodiaphragmatic Nodule		1		
Infarct	1 [4.0]		1 [4.0]	
Infiltration Cellular, Mixed Cell	2 [2.5]	4 [2.5]	2 [2.5]	2 [2.0]
Mixed Cell Focus	3	7	8	4
Necrosis, Focal	8 [2.9]	7 [2.7]	3 [2.0]	5 [2.6]
Tension Lipidosis		1	1	2
Bile Duct, Cyst			1 [1.0]	
Bile Duct, Cyst Multilocular			1	
Centrilobular, Necrosis	4 [3.0]	4 [2.3]		5 [2.8]
Hepatocyte, Vacuolization Cytoplasmic	8 [2.8]	9 [3.1]	4 [3.3]	10 [3.0]
Kupffer Cell, Pigmentation	1 [3.0]	1 [2.0]	1 [3.0]	1 [2.0]
Mesentery	(7)	(7)	(10)	(7)
Inflammation, Chronic			1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ALIMENTARY SYSTEM - CONT				
Fat, Necrosis	5 [3.4]	6 [2.8]	7 [3.1]	4 [2.8]
Pancreas	(46)	(50)	(50)	(49)
Necrosis		1 [4.0]		
Acinus, Cytoplasmic Alteration	2 [3.0]	2 [3.0]	2 [3.0]	
Salivary Glands	(49)	(50)	(50)	(50)
Atrophy	1 [2.0]			2 [2.0]
Hyperplasia, Lymphoid	3 [2.0]	4 [2.0]	6 [2.5]	1 [2.0]
Stomach, Forestomach	(49)	(50)	(50)	(50)
Diverticulum		2	1	
Erosion	1 [2.0]		1 [2.0]	2 [1.5]
Inflammation, Chronic	3 [2.0]	1 [3.0]	3 [2.3]	6 [2.5]
Ulcer	2 [1.0]	2 [2.5]	2 [2.5]	2 [2.0]
Epithelium, Hyperplasia	4 [2.3]	3 [3.0]	4 [2.8]	7 [2.4]
Epithelium, Hyperplasia, Focal			1 [3.0]	1 [3.0]
Stomach, Glandular	(47)	(50)	(50)	(50)
Erosion	2 [3.0]	2 [2.0]	1 [3.0]	
Glands, Hyperplasia		1 [2.0]		
Tooth	(5)	(6)		
Malformation	5	6		
CARDIOVASCULAR SYSTEM				
Heart	(49)	(50)	(50)	(50)
Cardiomyopathy	1 [2.0]	1 [1.0]		
Inflammation, Chronic	1 [2.0]			
Mineralization	3 [2.3]		2 [2.0]	1 [2.0]
Myocardium, Necrosis		1 [3.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	7 [3.0]	5 [3.0]	4 [3.0]	6 [3.0]
Hyperplasia, Focal	4 [1.8]	7 [2.3]	5 [1.8]	1 [2.0]
Hypertrophy	1 [3.0]			1 [2.0]
Hypertrophy, Focal	12 [1.8]	11 [1.5]	13 [1.8]	6 [1.7]
Capsule, Hyperplasia	7 [2.3]	4 [2.8]	1 [2.0]	5 [2.4]
Adrenal Medulla	(49)	(50)	(50)	(50)
Hyperplasia	1 [2.0]	1 [1.0]		1 [1.0]
Islets, Pancreatic	(46)	(50)	(50)	(49)
Atrophy				1 [4.0]
Hyperplasia	34 [2.2]	32 [2.4]	26 [2.3]	13 [1.8]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ENDOCRINE SYSTEM - CONT				
Parathyroid Gland	(45)	(47)	(49)	(47)
Cyst		2 [2.5]	3 [3.0]	4 [3.0]
Pituitary Gland	(45)	(50)	(48)	(48)
Pars Distalis, Cyst	7 [3.0]	7 [3.0]	7 [3.0]	5 [3.0]
Pars Distalis, Hyperplasia, Focal	1 [3.0]		1 [1.0]	
Thyroid Gland	(48)	(50)	(50)	(50)
Degeneration, Cystic	5 [2.0]	8 [1.6]	3 [1.7]	6 [1.8]
Follicular Cell, Hyperplasia	3 [1.0]			
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Epididymis	(49)	(50)	(50)	(50)
Atypia Cellular	5 [2.4]	4 [2.5]	2 [2.0]	6 [2.3]
Granuloma Sperm	1 [4.0]	2 [3.5]	2 [3.5]	2 [2.5]
Spermatocele	1 [3.0]			1 [3.0]
Preputial Gland	(49)	(50)	(50)	(50)
Cyst	25 [2.9]	26 [3.0]	33 [3.0]	33 [3.0]
Inflammation, Chronic	21 [2.1]	30 [2.3]	24 [2.3]	28 [2.2]
Prostate	(48)	(50)	(50)	(49)
Inflammation, Chronic		4 [2.8]		1 [3.0]
Seminal Vesicle	(49)	(50)	(50)	(50)
Degeneration	3 [3.0]	5 [3.0]	1 [3.0]	
Inflammation, Chronic	1 [3.0]			
Testes	(49)	(50)	(50)	(50)
Germinal Epithelium, Atrophy	9 [2.1]	4 [2.0]	4 [1.5]	8 [1.9]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(47)	(50)	(50)	(50)
Angiectasis				1 [2.0]
Depletion Cellular	1 [2.0]			
Hyperplasia	22 [2.5]	22 [2.7]	28 [2.7]	32 [2.6]
Lymph Node	(1)	(2)	(5)	(1)
Bronchial, Hyperplasia, Lymphoid			1 [3.0]	
Iliac, Ectasia		1 [2.0]		
Inguinal, Hyperplasia, Lymphoid			1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
HEMATOPOIETIC SYSTEM - CONT				
Inguinal, Pigmentation		1 [3.0]		
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]		1 [3.0]	
Mediastinal, Pigmentation				1 [3.0]
Pancreatic, Hyperplasia, Lymphoid			1 [3.0]	
Lymph Node, Mandibular	(48)	(50)	(48)	(48)
Atrophy	5 [2.4]	2 [2.5]	3 [2.0]	7 [2.1]
Hematopoietic Cell Proliferation	1 [2.0]			
Hemorrhage	1 [2.0]		1 [2.0]	
Hyperplasia, Lymphoid	15 [2.5]	14 [2.2]	6 [2.5]	7 [2.3]
Pigmentation	7 [2.1]	8 [2.0]	1 [2.0]	7 [2.1]
Lymph Node, Mesenteric	(46)	(49)	(49)	(47)
Atrophy	4 [2.5]	2 [2.5]	1 [2.0]	9 [2.3]
Hematopoietic Cell Proliferation	1 [2.0]	1 [1.0]	3 [1.7]	3 [2.0]
Hemorrhage	8 [1.9]	5 [2.0]	9 [1.7]	7 [2.0]
Hyperplasia, Lymphoid	2 [2.5]	8 [2.5]	3 [2.7]	6 [2.5]
Hyperplasia, Plasma Cell			1 [3.0]	
Spleen	(47)	(50)	(50)	(50)
Angiectasis				1 [2.0]
Hematopoietic Cell Proliferation	18 [3.1]	20 [2.6]	28 [2.8]	38 [2.9]
Pigmentation		1 [2.0]	1 [3.0]	1 [2.0]
Lymphoid Follicle, Atrophy	4 [2.5]	7 [2.7]	3 [2.7]	8 [2.8]
Lymphoid Follicle, Hyperplasia	3 [2.3]	6 [2.5]	6 [2.7]	6 [2.3]
Thymus	(42)	(45)	(46)	(47)
Atrophy	14 [3.1]	16 [2.9]	12 [2.8]	22 [3.0]
Hyperplasia, Lymphoid		1 [3.0]	1 [3.0]	1 [4.0]
INTEGUMENTARY SYSTEM				
Skin	(49)	(50)	(50)	(50)
Cyst Epithelial Inclusion		2 [3.0]		
Ulcer	3 [4.0]	2 [4.0]		3 [4.0]
Epidermis, Hyperplasia	3 [2.0]	2 [2.5]		3 [3.3]
MUSCULOSKELETAL SYSTEM				
Bone	(49)	(50)	(50)	(50)
Hyperostosis		1 [2.0]		
Cranium, Hyperostosis	1 [3.0]			1 [3.0]
Skeletal Muscle	(1)	(1)		(1)
Atrophy		1 [1.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
NERVOUS SYSTEM				
Peripheral Nerve	(2)	(2)	(1)	
Atrophy		1 [1.0]	1 [3.0]	
Spinal Cord	(2)	(2)	(1)	
Gliosis	1 [3.0]			
RESPIRATORY SYSTEM				
Lung	(49)	(50)	(50)	(50)
Edema	2 [2.0]		1 [3.0]	2 [2.0]
Hemorrhage	2 [2.5]			4 [1.5]
Hyperplasia, Lymphoid	3 [2.7]		1 [2.0]	
Infiltration Cellular, Histiocyte	2 [1.0]	6 [2.3]	3 [2.3]	6 [3.2]
Metaplasia, Osseous	1 [1.0]	2 [1.0]		1 [1.0]
Alveolar Epithelium, Hyperplasia	2 [1.5]	6 [1.7]	6 [2.3]	7 [1.9]
Bronchiole, Hyperplasia				1 [1.0]
Nose	(48)	(50)	(50)	(50)
Foreign Body			1	
Inflammation, Chronic	1 [2.0]	1 [3.0]	3 [2.0]	
SPECIAL SENSES SYSTEM				
Eye	(49)	(50)	(50)	(50)
Atrophy		1 [4.0]		
Cataract		1 [2.0]	1 [1.0]	5 [1.4]
Inflammation, Chronic			2 [1.5]	2 [2.0]
Bilateral, Cataract				1 [3.0]
Cornea, Hyperplasia			1 [2.0]	1 [2.0]
Harderian Gland	(49)	(50)	(50)	(50)
Cyst		1 [3.0]		
Hyperplasia, Focal	5 [2.6]	1 [4.0]	1 [3.0]	1 [3.0]
Lacrimal Gland		(1)		
Cyst		1 [3.0]		
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Cyst	9 [3.0]	13 [3.0]	14 [3.0]	11 [3.0]
Hydronephrosis	4 [2.0]	2 [2.5]		4 [2.5]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
URINARY SYSTEM - CONT				
Hyperplasia, Lymphoid	5 [2.6]	5 [2.0]	6 [2.3]	5 [2.4]
Infarct	3 [1.7]	7 [2.3]	4 [2.0]	5 [1.8]
Inflammation, Suppurative		1 [3.0]		1 [4.0]
Metaplasia, Osseous	6 [2.2]	3 [2.3]	2 [2.0]	2 [3.0]
Nephropathy	36 [1.8]	44 [1.5]	42 [1.7]	39 [1.8]
Papilla, Necrosis				1 [3.0]
Renal Tubule, Accumulation, Hyaline Droplet			1 [3.0]	
Renal Tubule, Dilatation	1 [3.0]	3 [2.3]		1 [3.0]
Renal Tubule, Hyperplasia	1 [2.0]	1 [1.0]	1 [1.0]	3 [1.7]
Renal Tubule, Necrosis	1 [2.0]			
Renal Tubule, Pigmentation	1 [4.0]	3 [2.7]	2 [2.5]	7 [3.0]
Transitional Epithelium, Hyperplasia			1 [2.0]	
Urethra		(3)		
Angiectasis		3 [4.0]		
Inflammation, Chronic Active		3 [2.7]		
Urinary Bladder	(49)	(50)	(50)	(49)
Edema			1 [3.0]	
Hemorrhage		1 [2.0]		
Hyperplasia, Lymphoid		1 [2.0]	1 [3.0]	
Inflammation, Chronic				1 [2.0]
Transitional Epithelium, Hyperplasia			1 [1.0]	1 [3.0]

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

END OF REPORT

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	4	6	3	6
Natural Death	14	6	13	13
Survivors				
Terminal Sacrifice	31	38	34	31
Other	1			
Animals Examined Microscopically	49	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Pancreas		1 (2%)		
Intestine Large, Colon	(48)	(50)	(49)	(48)
Carcinoma				1 (2%)
Hemangioma		1 (2%)		
Intestine Small, Duodenum	(42)	(50)	(46)	(48)
Carcinoma				1 (2%)
Polyp Adenomatous		1 (2%)	2 (4%)	1 (2%)
Intestine Small, Jejunum	(44)	(49)	(46)	(45)
Carcinoma		2 (4%)		3 (7%)
Polyp Adenomatous	1 (2%)	1 (2%)		
Intestine Small, Ileum	(44)	(49)	(47)	(48)
Polyp Adenomatous		1 (2%)		
Liver	(49)	(50)	(50)	(50)
Hemangioma			1 (2%)	
Hemangiosarcoma	1 (2%)	2 (4%)		2 (4%)
Hepatoblastoma		4 (8%)	3 (6%)	16 (32%)
Hepatoblastoma, Multiple			3 (6%)	2 (4%)
Hepatocellular Carcinoma	11 (22%)	7 (14%)	14 (28%)	11 (22%)
Hepatocellular Carcinoma, Multiple	3 (6%)	2 (4%)	5 (10%)	15 (30%)
Hepatocellular Adenoma	12 (24%)	20 (40%)	13 (26%)	15 (30%)
Hepatocellular Adenoma, Multiple	6 (12%)	17 (34%)	24 (48%)	27 (54%)
Histiocytic Sarcoma			1 (2%)	1 (2%)
Osteosarcoma, Metastatic, Bone			1 (2%)	
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla	1 (2%)			
Sarcoma		1 (2%)		
Mesentery	(7)	(7)	(10)	(7)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ALIMENTARY SYSTEM - cont				
Hepatoblastoma, Metastatic, Liver			1 (10%)	1 (14%)
Osteosarcoma, Metastatic, Bone			1 (10%)	
Sarcoma		1 (14%)		
Pancreas	(46)	(50)	(50)	(49)
Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)		1 (2%)
Acinus, Carcinoma		1 (2%)		
Acinus, Sarcoma		1 (2%)		
Salivary Glands	(49)	(50)	(50)	(50)
Stomach, Forestomach	(49)	(50)	(50)	(50)
Sarcoma		1 (2%)		
Squamous Cell Carcinoma	1 (2%)	1 (2%)		
Squamous Cell Papilloma				1 (2%)
Stomach, Glandular	(47)	(50)	(50)	(50)
CARDIOVASCULAR SYSTEM				
Heart	(49)	(50)	(50)	(50)
Sarcoma	1 (2%)			
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(50)	(50)
Adenoma		1 (2%)		
Hepatocellular Carcinoma, Metastatic, Liver				2 (4%)
Capsule, Adenoma	3 (6%)	3 (6%)	2 (4%)	
Capsule, Carcinoma		1 (2%)		
Adrenal Medulla	(49)	(50)	(50)	(50)
Pheochromocytoma Malignant	1 (2%)			
Islets, Pancreatic	(46)	(50)	(50)	(49)
Adenoma		2 (4%)	4 (8%)	3 (6%)
Adenoma, Multiple		1 (2%)		
Thyroid Gland	(48)	(50)	(50)	(50)
Follicular Cell, Adenoma			1 (2%)	1 (2%)
GENERAL BODY SYSTEM				
None				

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
GENITAL SYSTEM				
Coagulating Gland		(1)	(1)	
Hemangioma			1 (100%)	
Prostate	(48)	(50)	(50)	(49)
Carcinoma, Metastatic, Pancreas		1 (2%)		
Testes	(49)	(50)	(50)	(50)
Hemangiosarcoma	1 (2%)			
Interstitial Cell, Adenoma		2 (4%)		1 (2%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(47)	(50)	(50)	(50)
Lymph Node	(1)	(2)	(5)	(1)
Iliac, Carcinoma, Metastatic, Pancreas		1 (50%)		
Renal, Carcinoma, Metastatic, Pancreas		1 (50%)		
Lymph Node, Mandibular	(48)	(50)	(48)	(48)
Lymph Node, Mesenteric	(46)	(49)	(49)	(47)
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
Spleen	(47)	(50)	(50)	(50)
Hemangiosarcoma	2 (4%)	3 (6%)		
Hepatoblastoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma			1 (2%)	
Thymus	(42)	(45)	(46)	(47)
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
INTEGUMENTARY SYSTEM				
Skin	(49)	(50)	(50)	(50)
Basal Cell Carcinoma			1 (2%)	
Subcutaneous Tissue, Fibroma	1 (2%)			
Subcutaneous Tissue, Fibrosarcoma		1 (2%)		
Subcutaneous Tissue, Fibrous Histiocytoma				1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(49)	(50)	(50)	(50)
Osteosarcoma			1 (2%)	
Skeletal Muscle	(1)	(1)		(1)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung				1 (100%)

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
MUSCULOSKELETAL SYSTEM - cont				
Sarcoma		1 (100%)		
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
Lung	(49)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	7 (14%)	4 (8%)	15 (30%)	8 (16%)
Alveolar/Bronchiolar Adenoma, Multiple		1 (2%)	2 (4%)	4 (8%)
Alveolar/Bronchiolar Carcinoma	3 (6%)	7 (14%)	6 (12%)	4 (8%)
Alveolar/Bronchiolar Carcinoma, Multiple	2 (4%)	1 (2%)	2 (4%)	3 (6%)
Carcinoma, Metastatic, Pancreas		1 (2%)		
Hepatoblastoma, Metastatic, Liver		1 (2%)	2 (4%)	6 (12%)
Hepatocellular Carcinoma, Metastatic, Liver	8 (16%)	5 (10%)	7 (14%)	13 (26%)
Histiocytic Sarcoma				1 (2%)
Osteosarcoma, Metastatic, Bone			1 (2%)	
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla	1 (2%)			
Bronchus, Adenoma	1 (2%)		1 (2%)	
Mediastinum, Hepatoblastoma, Metastatic, Liver				2 (4%)
SPECIAL SENSES SYSTEM				
Harderian Gland	(49)	(50)	(50)	(50)
Adenoma	3 (6%)	4 (8%)	5 (10%)	6 (12%)
Adenoma, Multiple		1 (2%)		1 (2%)
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Renal Tubule, Adenoma	1 (2%)	1 (2%)		

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
SYSTEMIC LESIONS				
Multiple Organs	*(49)	*(50)	*(50)	*(50)
Histiocytic Sarcoma			1 (2%)	1 (2%)
Lymphoma Malignant		5 (10%)	3 (6%)	2 (4%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE MALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	37	44	49	50
Total Primary Neoplasms	61	103	110	130
Total Animals with Benign Neoplasms	25	38	42	46
Total Benign Neoplasms	35	61	71	68
Total Animals with Malignant Neoplasms	23	28	32	43
Total Malignant Neoplasms	26	42	39	62
Total Animals with Metastatic Neoplasms	9	7	10	21
Total Metastatic Neoplasm	10	13	13	28
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED WATER

FINAL#1 MICE

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Southern Research Inst
EXPERIMENT: 96017 TEST: 06
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: HEATH, JAMES
Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED WATER

REPORT: PEIRPT08
DATE: 05/19/04
TIME: 09:19:53

NTP C#: C96017
CAS: 631-64-1

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Bone Marrow
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Ovary
Pancreas
Pituitary Gland
Spleen
Testes
Thyroid Gland

NTP
LAB: Southern Research Inst
EXPERIMENT: 96017 TEST: 06
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: HEATH, JAMES

STATISTICAL ANALYSIS OF PRIMARY TUMORS
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED WATER

REPORT: PEIRPT08
DATE: 05/19/04
TIME: 09:19:53

NTP C#: C96017
CAS: 631-64-1

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF WATER DISINFECTION BYPRODUCTS (DIBROMOAC

Male Mice

Organ	Morphology
Adrenal Cortex	Adenoma
Intestine Small: Jejunum	Carcinoma
Intestine Small: Site Unspecified	Carcinoma
Liver	Hepatoblastoma
	Hepatocellular Adenoma
	Hepatocellular Carcinoma
	Hepatocellular Carcinoma or Hepatoblastoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Lung	Alveolar/Bronchiolar Adenoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Spleen	Hemangiosarcoma
All Organs	Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Female Mice

Organ	Morphology
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma
	Hepatocellular Carcinoma or Hepatoblastoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Lung	Alveolar/Bronchiolar Adenoma
Skin	Fibrous Histiocytoma
Thyroid Gland: Follicular Cell	Adenoma
Tongue	Squamous Cell Carcinoma or Papilloma Squamous
All Organs	Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type
	Benign Tumors
	Malignant and Benign Tumors

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Adrenal Cortex Adenoma								
TUMOR RATES								
OVERALL (a)	3/49 (6%)	4/50 (8%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/49 (0%)
POLY-3 RATE (b)	3/42.26	4/46.25	2/43.74	0/43.55	0/45.94	0/45.44	1/44.30	0/45.07
POLY-3 PERCENT (g)	7.1%	8.7%	4.6%	0.0%	0.0%	0.0%	2.3%	0.0%
TERMINAL (d)	3/31 (10%)	3/38 (8%)	2/34 (6%)	0/31 (0%)	0/38 (0%)	0/35 (0%)	1/32 (3%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	659	729 (T)	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.050N	P=0.607	P=0.458N	P=0.120N	P=0.611	(e)	P=0.466	(e)
POLY 3	P=0.042N*	P=0.549	P=0.484N	P=0.113N	P=0.637	(e)	P=0.493	(e)
POLY 1.5	P=0.041N*	P=0.533	P=0.487N	P=0.113N	P=0.636	(e)	P=0.496	(e)
POLY 6	P=0.045N*	P=0.569	P=0.482N	P=0.114N	P=0.637	(e)	P=0.487	(e)
LOGISTIC REGRESSION	P=0.046N*	P=0.564	P=0.458N	(e)	(e)	(e)	P=0.466	(e)
COCH-ARM / FISHERS	P=0.041N*	P=0.511	P=0.490N	P=0.117N	P=0.631	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.075N	(e)	(e)	(e)	P=0.374	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Harderian Gland Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	5/50 (10%)	5/50 (10%)	7/50 (14%)	9/50 (18%)	4/50 (8%)	8/50 (16%)	8/50 (16%)
POLY-3 RATE (b)	3/42.29	5/46.02	5/43.80	7/43.64	9/46.71	4/46.54	8/45.08	8/45.43
POLY-3 PERCENT (g)	7.1%	10.9%	11.4%	16.0%	19.3%	8.6%	17.8%	17.6%
TERMINAL (d)	3/31 (10%)	4/38 (11%)	4/34 (12%)	6/31 (19%)	6/38 (16%)	2/35 (6%)	5/32 (16%)	5/32 (16%)
FIRST INCIDENCE	729 (T)	721	714	706	591	487	622	688
STATISTICAL TESTS								
LIFE TABLE	P=0.109	P=0.474	P=0.405	P=0.154	P=0.278	P=0.149N	P=0.584	P=0.586
POLY 3	P=0.151	P=0.404	P=0.375	P=0.169	P=0.334	P=0.116N	P=0.532N	P=0.525N
POLY 1.5	P=0.156	P=0.387	P=0.371	P=0.168	P=0.344	P=0.117N	P=0.517N	P=0.517N
POLY 6	P=0.141	P=0.423	P=0.379	P=0.166	P=0.318	P=0.117N	P=0.558N	P=0.540N
LOGISTIC REGRESSION	P=0.109	P=0.457	P=0.383	P=0.147	P=0.361	P=0.108N	P=0.509N	P=0.513N
COCH-ARM / FISHERS	P=0.153	P=0.357	P=0.357	P=0.159	P=0.362	P=0.117N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.152	(e)	(e)	(e)	P=0.426N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Harderian Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	1/45.94	2/45.98	2/44.44	1/45.39
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.2%	4.4%	4.5%	2.2%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	1/38 (3%)	0/35 (0%)	1/32 (3%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	---	729 (T)	615	692	659
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.543N	P=0.491	P=0.446	P=0.747
POLY 3	(e)	(e)	(e)	(e)	P=0.517N	P=0.500	P=0.488	P=0.758
POLY 1.5	(e)	(e)	(e)	(e)	P=0.515N	P=0.499	P=0.494	P=0.758
POLY 6	(e)	(e)	(e)	(e)	P=0.522N	P=0.502	P=0.479	P=0.757
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.503N	P=0.511	P=0.480	P=0.761N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.510N	P=0.500	P=0.500	P=0.753N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.540	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Harderian Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	5/50 (10%)	5/50 (10%)	7/50 (14%)	10/50 (20%)	5/50 (10%)	10/50 (20%)	9/50 (18%)
POLY-3 RATE (b)	3/42.29	5/46.02	5/43.80	7/43.64	10/46.71	5/46.68	10/45.22	9/45.69
POLY-3 PERCENT (g)	7.1%	10.9%	11.4%	16.0%	21.4%	10.7%	22.1%	19.7%
TERMINAL (d)	3/31 (10%)	4/38 (11%)	4/34 (12%)	6/31 (19%)	7/38 (18%)	2/35 (6%)	6/32 (19%)	5/32 (16%)
FIRST INCIDENCE	729 (T)	721	714	706	591	487	622	659
STATISTICAL TESTS								
LIFE TABLE	P=0.109	P=0.474	P=0.405	P=0.154	P=0.263	P=0.168N	P=0.462	P=0.576
POLY 3	P=0.151	P=0.404	P=0.375	P=0.169	P=0.324	P=0.129N	P=0.568	P=0.521N
POLY 1.5	P=0.156	P=0.387	P=0.371	P=0.168	P=0.333	P=0.130N	P=0.582	P=0.515N
POLY 6	P=0.141	P=0.423	P=0.379	P=0.166	P=0.309	P=0.129N	P=0.543	P=0.532N
LOGISTIC REGRESSION	P=0.109	P=0.457	P=0.383	P=0.147	P=0.350	P=0.123N	P=0.584	P=0.512N
COCH-ARM / FISHERS	P=0.153	P=0.357	P=0.357	P=0.159	P=0.350	P=0.131N	P=0.598N	P=0.500N
ORDER RESTRICTED	P=0.152	(e)	(e)	(e)	P=0.434	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Intestine Small: Duodenum								
Polyp Adenomatous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/42.29	1/45.99	2/43.74	1/44.25	0/45.94	2/45.70	0/44.30	0/45.13
POLY-3 PERCENT (g)	0.0%	2.2%	4.6%	2.3%	0.0%	4.4%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	1/38 (3%)	2/34 (6%)	0/31 (0%)	0/38 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	489	---	659	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.357	P=0.541	P=0.259	P=0.513	P=0.241N	P=0.236	(e)	(e)
POLY 3	P=0.387	P=0.517	P=0.245	P=0.509	P=0.230N	P=0.236	(e)	(e)
POLY 1.5	P=0.387	P=0.511	P=0.243	P=0.507	P=0.229N	P=0.236	(e)	(e)
POLY 6	P=0.382	P=0.523	P=0.246	P=0.509	P=0.233N	P=0.236	(e)	(e)
LOGISTIC REGRESSION	P=0.372	P=0.541	P=0.259	P=0.346	P=0.226N	P=0.239	(e)	(e)
COCH-ARM / FISHERS	P=0.377	P=0.500	P=0.247	P=0.500	P=0.227N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.233	(e)	(e)	(e)	P=0.250N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Intestine Small: Jejunum								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/42.29	2/45.99	0/43.74	3/43.55	0/45.94	0/45.44	0/44.30	1/45.13
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	6.9%	0.0%	0.0%	0.0%	2.2%
TERMINAL (d)	0/31 (0%)	2/38 (5%)	0/34 (0%)	3/31 (10%)	0/38 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)
FIRST INCIDENCE	---	729 (T)	---	729 (T)	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.129	P=0.284	(e)	P=0.120	P=0.167	(e)	(e)	P=0.466
POLY 3	P=0.157	P=0.256	(e)	P=0.124	P=0.183	(e)	(e)	P=0.496
POLY 1.5	P=0.157	P=0.249	(e)	P=0.123	P=0.183	(e)	(e)	P=0.497
POLY 6	P=0.156	P=0.264	(e)	P=0.122	P=0.181	(e)	(e)	P=0.494
LOGISTIC REGRESSION	(e)	P=0.284	(e)	P=0.120	(e)	(e)	(e)	P=0.466
COCH-ARM / FISHERS	P=0.153	P=0.247	(e)	P=0.121	P=0.184	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.039 *	(e)	(e)	(e)	P=0.116	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Intestine Small: Site Unspecified Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	4/50 (8%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/42.29	2/45.99	0/43.74	4/43.55	0/45.94	0/45.44	0/44.30	1/45.13
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	9.2%	0.0%	0.0%	0.0%	2.2%
TERMINAL (d)	0/31 (0%)	2/38 (5%)	0/34 (0%)	4/31 (13%)	0/38 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)
FIRST INCIDENCE	---	729 (T)	---	729 (T)	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.045 *	P=0.284	(e)	P=0.062	P=0.167	(e)	(e)	P=0.466
POLY 3	P=0.059	P=0.256	(e)	P=0.064	P=0.183	(e)	(e)	P=0.496
POLY 1.5	P=0.059	P=0.249	(e)	P=0.063	P=0.183	(e)	(e)	P=0.497
POLY 6	P=0.058	P=0.264	(e)	P=0.062	P=0.181	(e)	(e)	P=0.494
LOGISTIC REGRESSION	(e)	P=0.284	(e)	P=0.062	(e)	(e)	(e)	P=0.466
COCH-ARM / FISHERS	P=0.059	P=0.247	(e)	P=0.059	P=0.184	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.012 *	(e)	(e)	(e)	P=0.116	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Intestine Small: Site Unspecified Polyp Adenomatous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	3/50 (6%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/42.29	3/45.99	2/43.74	1/44.25	0/45.94	2/45.70	0/44.30	0/45.13
POLY-3 PERCENT (g)	2.4%	6.5%	4.6%	2.3%	0.0%	4.4%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	3/38 (8%)	2/34 (6%)	0/31 (0%)	0/38 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	489	---	659	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.413N	P=0.380	P=0.532	P=0.753N	P=0.241N	P=0.236	(e)	(e)
POLY 3	P=0.371N	P=0.336	P=0.512	P=0.751N	P=0.230N	P=0.236	(e)	(e)
POLY 1.5	P=0.373N	P=0.325	P=0.509	P=0.753N	P=0.229N	P=0.236	(e)	(e)
POLY 6	P=0.374N	P=0.348	P=0.514	P=0.751N	P=0.233N	P=0.236	(e)	(e)
LOGISTIC REGRESSION	P=0.383N	P=0.380	P=0.532	P=0.724	P=0.226N	P=0.239	(e)	(e)
COCH-ARM / FISHERS	P=0.383N	P=0.309	P=0.500	P=0.753N	P=0.227N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.467N	(e)	(e)	(e)	P=0.250N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	0/46 (0%)	3/50 (6%)	4/50 (8%)	3/49 (6%)	1/49 (2%)	0/49 (0%)	2/49 (4%)	2/46 (4%)
POLY-3 RATE (b)	0/40.18	3/46.02	4/44.19	3/43.10	1/45.58	0/44.88	2/44.58	2/42.85
POLY-3 PERCENT (g)	0.0%	6.5%	9.1%	7.0%	2.2%	0.0%	4.5%	4.7%
TERMINAL (d)	0/31 (0%)	2/38 (5%)	3/34 (9%)	3/31 (10%)	1/38 (3%)	0/35 (0%)	1/32 (3%)	2/32 (6%)
FIRST INCIDENCE	---	721	596	729 (T)	729 (T)	---	553	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.172	P=0.163	P=0.074	P=0.120	P=0.154	P=0.516N	P=0.460	P=0.440
POLY 3	P=0.211	P=0.144	P=0.073	P=0.131	P=0.169	P=0.503N	P=0.492	P=0.478
POLY 1.5	P=0.215	P=0.140	P=0.072	P=0.132	P=0.168	P=0.502N	P=0.496	P=0.478
POLY 6	P=0.201	P=0.148	P=0.072	P=0.128	P=0.168	P=0.504N	P=0.484	P=0.477
LOGISTIC REGRESSION	P=0.201	P=0.151	P=0.074	P=0.120	P=0.161	(e)	P=0.517	P=0.440
COCH-ARM / FISHERS	P=0.215	P=0.137	P=0.069	P=0.133	P=0.165	P=0.500N	P=0.500	P=0.476
ORDER RESTRICTED	P=0.094	(e)	(e)	(e)	P=0.249	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/46 (0%)	3/50 (6%)	4/50 (8%)	3/49 (6%)	1/49 (2%)	0/49 (0%)	3/49 (6%)	2/46 (4%)
POLY-3 RATE (b)	0/40.18	3/46.02	4/44.19	3/43.10	1/45.58	0/44.88	3/44.92	2/42.85
POLY-3 PERCENT (g)	0.0%	6.5%	9.1%	7.0%	2.2%	0.0%	6.7%	4.7%
TERMINAL (d)	0/31 (0%)	2/38 (5%)	3/34 (9%)	3/31 (10%)	1/38 (3%)	0/35 (0%)	1/32 (3%)	2/32 (6%)
FIRST INCIDENCE	---	721	596	729 (T)	729 (T)	---	553	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.172	P=0.163	P=0.074	P=0.120	P=0.149	P=0.516N	P=0.274	P=0.440
POLY 3	P=0.211	P=0.144	P=0.073	P=0.131	P=0.158	P=0.503N	P=0.300	P=0.478
POLY 1.5	P=0.215	P=0.140	P=0.072	P=0.132	P=0.157	P=0.502N	P=0.303	P=0.478
POLY 6	P=0.201	P=0.148	P=0.072	P=0.128	P=0.157	P=0.504N	P=0.293	P=0.477
LOGISTIC REGRESSION	P=0.201	P=0.151	P=0.074	P=0.120	P=0.146	(e)	P=0.321	P=0.440
COCH-ARM / FISHERS	P=0.215	P=0.137	P=0.069	P=0.133	P=0.154	P=0.500N	P=0.309	P=0.476
ORDER RESTRICTED	P=0.094	(e)	(e)	(e)	P=0.182	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	1/49 (2%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	1/49 (2%)	1/50 (2%)	2/50 (4%)	0/49 (0%)
POLY-3 RATE (b)	1/42.26	2/45.99	0/43.74	2/43.55	1/45.87	1/45.44	2/44.76	0/45.07
POLY-3 PERCENT (g)	2.4%	4.4%	0.0%	4.6%	2.2%	2.2%	4.5%	0.0%
TERMINAL (d)	1/31 (3%)	2/38 (5%)	0/34 (0%)	2/31 (7%)	0/38 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	729 (T)	653	729 (T)	617	---
STATISTICAL TESTS								
LIFE TABLE	P=0.505	P=0.571	P=0.482N	P=0.500	P=0.395N	P=0.751	P=0.473	P=0.500N
POLY 3	P=0.541	P=0.529	P=0.493N	P=0.510	P=0.382N	P=0.758	P=0.491	P=0.503N
POLY 1.5	P=0.543	P=0.520	P=0.494N	P=0.510	P=0.380N	P=0.760N	P=0.499	P=0.502N
POLY 6	P=0.536	P=0.541	P=0.492N	P=0.508	P=0.387N	P=0.756	P=0.480	P=0.507N
LOGISTIC REGRESSION	P=0.505	P=0.571	(e)	P=0.500	P=0.382N	P=0.753N	P=0.548	P=0.493N
COCH-ARM / FISHERS	P=0.543	P=0.508	P=0.495N	P=0.508	P=0.379N	P=0.747N	P=0.508	P=0.500N
ORDER RESTRICTED	P=0.415	(e)	(e)	(e)	P=0.271N	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	4/50 (8%)	6/50 (12%)	18/50 (36%)	1/49 (2%)	0/50 (0%)	1/50 (2%)	1/49 (2%)
POLY-3 RATE (b)	0/42.26	4/46.04	6/45.11	18/46.03	1/45.58	0/45.44	1/44.48	1/45.07
POLY-3 PERCENT (g)	0.0%	8.7%	13.3%	39.1%	2.2%	0.0%	2.3%	2.2%
TERMINAL (d)	0/31 (0%)	3/38 (8%)	3/34 (9%)	9/31 (29%)	1/38 (3%)	0/35 (0%)	0/32 (0%)	1/32 (3%)
FIRST INCIDENCE	---	717	573	469	729 (T)	---	680	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.094	P=0.024 *	P<0.001 **	P=0.418	P=0.516N	P=0.730	P=0.723
POLY 3	P<0.001 **	P=0.072	P=0.019 *	P<0.001 **	P=0.450	P=0.501N	P=0.755	P=0.758
POLY 1.5	P<0.001 **	P=0.068	P=0.018 *	P<0.001 **	P=0.450	P=0.499N	P=0.760	P=0.759
POLY 6	P<0.001 **	P=0.077	P=0.020 *	P<0.001 **	P=0.447	P=0.502N	P=0.748	P=0.755
LOGISTIC REGRESSION	P<0.001 **	P=0.083	P=0.018 *	P<0.001 **	P=0.446	(e)	P=0.762N	P=0.723
COCH-ARM / FISHERS	P<0.001 **	P=0.061	P=0.014 *	P<0.001 **	P=0.448	P=0.495N	P=0.747N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.530	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver								
Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	18/49 (37%)	37/50 (74%)	37/50 (74%)	42/50 (84%)	19/49 (39%)	26/50 (52%)	32/50 (64%)	35/49 (71%)
POLY-3 RATE (b)	18/43.32	37/47.46	37/46.19	42/47.33	19/45.87	26/45.74	32/45.91	35/46.13
POLY-3 PERCENT (g)	41.6%	78.0%	80.1%	88.7%	41.4%	56.8%	69.7%	75.9%
TERMINAL (d)	14/31 (45%)	31/38 (82%)	29/34 (85%)	29/31 (94%)	18/38 (47%)	22/35 (63%)	26/32 (81%)	28/32 (88%)
FIRST INCIDENCE	596	573	573	469	653	694	573	636
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.006 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.055	P<0.001 **	P<0.001 **
POLY 3	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.098	P=0.004 **	P<0.001 **
POLY 1.5	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.109	P=0.006 **	P<0.001 **
POLY 6	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.089	P=0.002 **	P<0.001 **
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.083	P=0.002 **	P<0.001 **
COCH-ARM / FISHERS	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.131	P=0.010 *	P<0.001 **
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P<0.001 **	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver								
Hepatocellular Carcinoma								
TUMOR RATES								
OVERALL (a)	14/49 (29%)	9/50 (18%)	19/50 (38%)	26/50 (52%)	3/49 (6%)	3/50 (6%)	12/50 (24%)	8/49 (16%)
POLY-3 RATE (b)	14/44.73	9/46.45	19/46.69	26/47.37	3/45.93	3/45.58	12/44.94	8/45.29
POLY-3 PERCENT (g)	31.3%	19.4%	40.7%	54.9%	6.5%	6.6%	26.7%	17.7%
TERMINAL (d)	6/31 (19%)	6/38 (16%)	10/34 (29%)	14/31 (45%)	1/38 (3%)	2/35 (6%)	9/32 (28%)	7/32 (22%)
FIRST INCIDENCE	451	659	573	476	658	694	617	671
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.097N	P=0.284	P=0.031 *	P=0.013 *	P=0.637	P=0.007 **	P=0.069
POLY 3	P<0.001 **	P=0.141N	P=0.236	P=0.016 *	P=0.019 *	P=0.659	P=0.009 **	P=0.094
POLY 1.5	P<0.001 **	P=0.147N	P=0.227	P=0.015 *	P=0.020 *	P=0.661N	P=0.010 *	P=0.096
POLY 6	P<0.001 **	P=0.137N	P=0.249	P=0.018 *	P=0.017 *	P=0.654	P=0.007 **	P=0.088
LOGISTIC REGRESSION	P<0.001 **	P=0.160N	P=0.213	P=0.014 *	P=0.021 *	P=0.658N	P=0.011 *	P=0.096
COCH-ARM / FISHERS	P<0.001 **	P=0.157N	P=0.217	P=0.015 *	P=0.022 *	P=0.651N	P=0.013 *	P=0.100
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.019 *	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (DIBROMOAC
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver								
Hepatocellular Carcinoma or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	14/49 (29%)	11/50 (22%)	23/50 (46%)	37/50 (74%)	4/49 (8%)	3/50 (6%)	13/50 (26%)	9/49 (18%)
POLY-3 RATE (b)	14/44.73	11/46.45	23/47.04	37/49.04	4/45.93	3/45.58	13/45.13	9/45.29
POLY-3 PERCENT (g)	31.3%	23.7%	48.9%	75.5%	8.7%	6.6%	28.8%	19.9%
TERMINAL (d)	6/31 (19%)	8/38 (21%)	13/34 (38%)	20/31 (65%)	2/38 (5%)	2/35 (6%)	9/32 (28%)	8/32 (25%)
FIRST INCIDENCE	451	659	573	469	658	694	617	671
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.189N	P=0.108	P<0.001 **	P=0.010 *	P=0.529N	P=0.009 **	P=0.075
POLY 3	P<0.001 **	P=0.281N	P=0.063	P<0.001 **	P=0.015 *	P=0.504N	P=0.012 *	P=0.109
POLY 1.5	P<0.001 **	P=0.289N	P=0.059	P<0.001 **	P=0.016 *	P=0.499N	P=0.014 *	P=0.113
POLY 6	P<0.001 **	P=0.275N	P=0.072	P<0.001 **	P=0.014 *	P=0.510N	P=0.010 *	P=0.102
LOGISTIC REGRESSION	P<0.001 **	P=0.298N	P=0.055	P<0.001 **	P=0.017 *	P=0.497N	P=0.014 *	P=0.110
COCH-ARM / FISHERS	P<0.001 **	P=0.301N	P=0.056	P<0.001 **	P=0.018 *	P=0.489N	P=0.017 *	P=0.116
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.017 *	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	28/49 (57%)	41/50 (82%)	42/50 (84%)	47/50 (94%)	22/49 (45%)	28/50 (56%)	37/50 (74%)	37/49 (76%)
POLY-3 RATE (b)	28/45.72	41/47.77	42/47.58	47/48.97	22/46.21	28/45.74	37/46.56	37/46.35
POLY-3 PERCENT (g)	61.2%	85.8%	88.3%	96.0%	47.6%	61.2%	79.5%	79.8%
TERMINAL (d)	17/31 (55%)	33/38 (87%)	30/34 (88%)	30/31 (97%)	19/38 (50%)	24/35 (69%)	28/32 (88%)	29/32 (91%)
FIRST INCIDENCE	451	573	573	469	653	694	573	636
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.157	P=0.039 *	P=0.002 **	P<0.001 **	P=0.084	P<0.001 **	P<0.001 **
POLY 3	P<0.001 **	P=0.004 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.131	P<0.001 **	P<0.001 **
POLY 1.5	P<0.001 **	P=0.004 **	P=0.002 **	P<0.001 **	P<0.001 **	P=0.149	P<0.001 **	P<0.001 **
POLY 6	P<0.001 **	P=0.005 **	P=0.002 **	P<0.001 **	P<0.001 **	P=0.112	P<0.001 **	P<0.001 **
LOGISTIC REGRESSION	P<0.001 **	P=0.012 *	P=0.003 **	P<0.001 **	P<0.001 **	P=0.127	P<0.001 **	P<0.001 **
COCH-ARM / FISHERS	P<0.001 **	P=0.006 **	P=0.003 **	P<0.001 **	P<0.001 **	P=0.183	P=0.003 **	P=0.002 **
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P<0.001 **	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Liver Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	28/49 (57%)	41/50 (82%)	43/50 (86%)	48/50 (96%)	22/49 (45%)	28/50 (56%)	37/50 (74%)	37/49 (76%)
POLY-3 RATE (b)	28/45.72	41/47.77	43/47.58	48/49.30	22/46.21	28/45.74	37/46.56	37/46.35
POLY-3 PERCENT (g)	61.2%	85.8%	90.4%	97.4%	47.6%	61.2%	79.5%	79.8%
TERMINAL (d)	17/31 (55%)	33/38 (87%)	31/34 (91%)	30/31 (97%)	19/38 (50%)	24/35 (69%)	28/32 (88%)	29/32 (91%)
FIRST INCIDENCE	451	573	573	469	653	694	573	636
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.157	P=0.026 *	P=0.002 **	P<0.001 **	P=0.084	P<0.001 **	P<0.001 **
POLY 3	P<0.001 **	P=0.004 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.131	P<0.001 **	P<0.001 **
POLY 1.5	P<0.001 **	P=0.004 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.149	P<0.001 **	P<0.001 **
POLY 6	P<0.001 **	P=0.005 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.112	P<0.001 **	P<0.001 **
LOGISTIC REGRESSION	P<0.001 **	P=0.012 *	P<0.001 **	P<0.001 **	P<0.001 **	P=0.127	P<0.001 **	P<0.001 **
COCH-ARM / FISHERS	P<0.001 **	P=0.006 **	P<0.001 **	P<0.001 **	P<0.001 **	P=0.183	P=0.003 **	P=0.002 **
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P<0.001 **	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Lung Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	7/49 (14%)	5/50 (10%)	17/50 (34%)	12/50 (24%)	1/50 (2%)	3/50 (6%)	3/50 (6%)	6/50 (12%)
POLY-3 RATE (b)	7/43.05	5/46.44	17/44.31	12/45.15	1/45.94	3/46.14	3/44.93	6/45.51
POLY-3 PERCENT (g)	16.3%	10.8%	38.4%	26.6%	2.2%	6.5%	6.7%	13.2%
TERMINAL (d)	5/31 (16%)	4/38 (11%)	15/34 (44%)	8/31 (26%)	1/38 (3%)	2/35 (6%)	1/32 (3%)	4/32 (13%)
FIRST INCIDENCE	482	596	604	489	729 (T)	490	553	636
STATISTICAL TESTS								
LIFE TABLE	P=0.013 *	P=0.269N	P=0.030 *	P=0.162	P=0.035 *	P=0.283	P=0.265	P=0.042 *
POLY 3	P=0.019 *	P=0.326N	P=0.016 *	P=0.178	P=0.044 *	P=0.307	P=0.297	P=0.054
POLY 1.5	P=0.021 *	P=0.344N	P=0.017 *	P=0.174	P=0.044 *	P=0.306	P=0.302	P=0.055
POLY 6	P=0.016 *	P=0.306N	P=0.016 *	P=0.179	P=0.042 *	P=0.307	P=0.289	P=0.053
LOGISTIC REGRESSION	P=0.022 *	P=0.360N	P=0.021 *	P=0.166	P=0.049 *	P=0.321	P=0.317	P=0.055
COCH-ARM / FISHERS	P=0.025 *	P=0.365N	P=0.019 *	P=0.166	P=0.047 *	P=0.309	P=0.309	P=0.056
ORDER RESTRICTED	P=0.020 *	(e)	(e)	(e)	P=0.027 *	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	5/49 (10%)	8/50 (16%)	8/50 (16%)	7/50 (14%)	1/50 (2%)	2/50 (4%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	5/42.59	8/46.17	8/43.94	7/43.93	1/45.94	2/45.58	2/44.68	2/45.13
POLY-3 PERCENT (g)	11.7%	17.3%	18.2%	15.9%	2.2%	4.4%	4.5%	4.4%
TERMINAL (d)	3/31 (10%)	6/38 (16%)	6/34 (18%)	5/31 (16%)	1/38 (3%)	1/35 (3%)	1/32 (3%)	2/32 (6%)
FIRST INCIDENCE	662	691	699	652	729 (T)	694	622	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.356	P=0.410	P=0.326	P=0.374	P=0.398	P=0.481	P=0.460	P=0.440
POLY 3	P=0.436	P=0.329	P=0.294	P=0.400	P=0.440	P=0.497	P=0.490	P=0.494
POLY 1.5	P=0.446	P=0.312	P=0.293	P=0.400	P=0.443	P=0.498	P=0.495	P=0.496
POLY 6	P=0.417	P=0.349	P=0.295	P=0.396	P=0.433	P=0.497	P=0.482	P=0.490
LOGISTIC REGRESSION	P=0.403	P=0.353	P=0.299	P=0.396	P=0.443	P=0.496	P=0.505	P=0.440
COCH-ARM / FISHERS	P=0.451	P=0.290	P=0.290	P=0.394	P=0.448	P=0.500	P=0.500	P=0.500
ORDER RESTRICTED	P=0.394	(e)	(e)	(e)	P=0.455	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Lung Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	12/49 (24%)	12/50 (24%)	22/50 (44%)	17/50 (34%)	2/50 (4%)	5/50 (10%)	5/50 (10%)	7/50 (14%)
POLY-3 RATE (b)	12/43.38	12/46.62	22/44.52	17/45.53	2/45.94	5/46.27	5/45.31	7/45.51
POLY-3 PERCENT (g)	27.7%	25.7%	49.4%	37.3%	4.4%	10.8%	11.0%	15.4%
TERMINAL (d)	8/31 (26%)	9/38 (24%)	18/34 (53%)	11/31 (36%)	2/38 (5%)	3/35 (9%)	2/32 (6%)	5/32 (16%)
FIRST INCIDENCE	482	596	604	489	729 (T)	490	553	636
STATISTICAL TESTS								
LIFE TABLE	P=0.039 *	P=0.398N	P=0.057	P=0.200	P=0.074	P=0.196	P=0.176	P=0.054
POLY 3	P=0.066	P=0.513N	P=0.027 *	P=0.226	P=0.095	P=0.219	P=0.210	P=0.076
POLY 1.5	P=0.071	P=0.538N	P=0.028 *	P=0.220	P=0.097	P=0.218	P=0.214	P=0.077
POLY 6	P=0.058	P=0.482N	P=0.025 *	P=0.229	P=0.092	P=0.221	P=0.204	P=0.075
LOGISTIC REGRESSION	P=0.063	P=0.523N	P=0.034 *	P=0.211	P=0.103	P=0.222	P=0.227	P=0.075
COCH-ARM / FISHERS	P=0.075	P=0.570N	P=0.033 *	P=0.207	P=0.101	P=0.218	P=0.218	P=0.080
ORDER RESTRICTED	P=0.071	(e)	(e)	(e)	P=0.061	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Mammary Gland Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	0/45.94	2/45.50	1/44.30	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	2.3%	0.0%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	0/38 (0%)	1/35 (3%)	1/32 (3%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	---	---	715	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.359N	P=0.225	P=0.466	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.333N	P=0.235	P=0.493	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.331N	P=0.236	P=0.496	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.337N	P=0.234	P=0.487	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.343N	P=0.234	P=0.466	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.326N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.320	(e)	(e)	(e)

Dose	Males 0 MG/L	50 MG/L	500 MG/L	1000 MG/L	Females 0 MG/L	50 MG/L	500 MG/L	1000 MG/L
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/42.29	0/45.99	0/43.74	0/43.55	2/46.48	1/45.44	0/44.30	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.3%	2.2%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/38 (0%)	0/34 (0%)	0/31 (0%)	1/38 (3%)	1/35 (3%)	0/32 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	---	563	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.120N	P=0.519N	P=0.259N	P=0.256N
POLY 3	(e)	(e)	(e)	(e)	P=0.109N	P=0.508N	P=0.248N	P=0.244N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.108N	P=0.505N	P=0.243N	P=0.242N
POLY 6	(e)	(e)	(e)	(e)	P=0.111N	P=0.511N	P=0.256N	P=0.248N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.101N	P=0.486N	P=0.220N	P=0.205N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.107N	P=0.500N	P=0.247N	P=0.247N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.078N	(e)	(e)	(e)

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-537 Dibromoacetic Acid

Pathology Tables - Mice

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

FINAL#1 MICE

Facility: Southern Research Institute

Chemical CAS #: 631-64-1

Lock Date: 11/15/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Natural Death	10	13	13	11
Moribund Sacrifice	2	2	5	7
Survivors				
Terminal Sacrifice	38	35	31	32
Natural Death			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(47)	(46)	(49)	(46)
Intestine Small, Duodenum	(46)	(48)	(48)	(45)
Polyp Adenomatous		2 (4%)		
Intestine Small, Jejunum	(46)	(47)	(49)	(43)
Carcinoma				1 (2%)
Sarcoma, Metastatic, Skin		1 (2%)		
Intestine Small, Ileum	(45)	(47)	(47)	(46)
Fibrosarcoma, Metastatic, Tissue NOS				1 (2%)
Liver	(49)	(50)	(50)	(49)
Hemangioma	1 (2%)		1 (2%)	
Hemangiosarcoma	1 (2%)	1 (2%)	2 (4%)	
Hepatoblastoma	1 (2%)		1 (2%)	
Hepatoblastoma, Multiple				1 (2%)
Hepatocellular Carcinoma	2 (4%)	2 (4%)	7 (14%)	5 (10%)
Hepatocellular Carcinoma, Multiple	1 (2%)	1 (2%)	5 (10%)	3 (6%)
Hepatocellular Adenoma	8 (16%)	12 (24%)	9 (18%)	9 (18%)
Hepatocellular Adenoma, Multiple	11 (22%)	14 (28%)	23 (46%)	26 (53%)
Histiocytic Sarcoma		1 (2%)	1 (2%)	1 (2%)
Ito Cell Tumor Malignant				1 (2%)
Sarcoma	1 (2%)			
Sarcoma, Metastatic, Skin		1 (2%)		
Mesentery	(28)	(20)	(16)	(19)
Hemangioma	1 (4%)			
Hemangiosarcoma			1 (6%)	1 (5%)
Leiomyosarcoma			1 (6%)	
Sarcoma	1 (4%)			
Sarcoma, Metastatic, Pancreas			1 (6%)	
Sarcoma, Metastatic, Skin		1 (5%)		

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ALIMENTARY SYSTEM - cont				
Schwannoma Malignant, Metastatic, Skin		1 (5%)		
Oral Mucosa		(1)		
Squamous Cell Carcinoma		1 (100%)		
Pancreas	(49)	(49)	(49)	(47)
Histiocytic Sarcoma				1 (2%)
Schwannoma Malignant, Metastatic, Skin		1 (2%)		
Acinus, Carcinoma				1 (2%)
Acinus, Sarcoma			1 (2%)	
Salivary Glands	(50)	(49)	(50)	(50)
Stomach, Forestomach	(49)	(50)	(50)	(49)
Squamous Cell Carcinoma			1 (2%)	1 (2%)
Squamous Cell Papilloma	1 (2%)	1 (2%)	2 (4%)	
Stomach, Glandular	(49)	(50)	(50)	(49)
Carcinoma	1 (2%)			
Schwannoma Malignant, Metastatic, Skin		1 (2%)		
Serosa, Sarcoma, Metastatic, Skin		1 (2%)		
Tongue	(2)			
Squamous Cell Carcinoma	1 (50%)			
Squamous Cell Papilloma	1 (50%)			
CARDIOVASCULAR SYSTEM				
Heart	(50)	(49)	(50)	(50)
Hemangiosarcoma		1 (2%)		
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(49)
Leiomyosarcoma, Metastatic, Mesentery			1 (2%)	
Sarcoma, Metastatic, Pancreas			1 (2%)	
Capsule, Adenoma			1 (2%)	
Extra Adrenal Tissue, Sarcoma	1 (2%)			
Adrenal Medulla	(50)	(50)	(50)	(49)
Pheochromocytoma Benign	1 (2%)		1 (2%)	1 (2%)
Islets, Pancreatic	(49)	(49)	(49)	(46)
Adenoma	1 (2%)		2 (4%)	2 (4%)
Carcinoma			1 (2%)	
Pituitary Gland	(47)	(49)	(49)	(49)
Pars Distalis, Adenoma	2 (4%)	4 (8%)		1 (2%)
Pars Intermedia, Adenoma	1 (2%)		2 (4%)	

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
ENDOCRINE SYSTEM - cont				
Thyroid Gland	(50)	(50)	(50)	(50)
Follicular Cell, Adenoma	3 (6%)			
GENERAL BODY SYSTEM				
Tissue NOS				(2)
Fibrosarcoma				1 (50%)
Schwannoma Malignant				1 (50%)
GENITAL SYSTEM				
Ovary	(49)	(47)	(47)	(49)
Cystadenoma		2 (4%)	1 (2%)	
Hemangioma			1 (2%)	
Histiocytic Sarcoma				1 (2%)
Uterus	(50)	(50)	(50)	(50)
Hemangioma	1 (2%)			
Histiocytic Sarcoma			1 (2%)	
Leiomyoma				1 (2%)
Polyp Stromal	1 (2%)	1 (2%)		
Sarcoma Stromal				1 (2%)
Cervix, Carcinoma			1 (2%)	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hemangiosarcoma		1 (2%)		
Lymph Node	(12)	(13)	(11)	(8)
Fibrosarcoma, Metastatic, Skin		1 (8%)		
Iliac, Osteosarcoma, Metastatic, Bone				1 (13%)
Iliac, Sarcoma, Metastatic, Skin	1 (8%)	1 (8%)		
Inguinal, Fibrosarcoma, Metastatic, Skin		1 (8%)		
Mediastinal, Neurofibrosarcoma, Metastatic, Skin		1 (8%)		
Mediastinal, Sarcoma, Metastatic, Skin				1 (13%)
Pancreatic, Carcinoma, Metastatic, Pancreas				1 (13%)
Pancreatic, Leiomyosarcoma, Metastatic, Mesentery			1 (9%)	
Renal, Leiomyosarcoma, Metastatic, Mesentery			1 (9%)	
Lymph Node, Mandibular	(48)	(49)	(47)	(50)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
HEMATOPOIETIC SYSTEM - cont				
Histiocytic Sarcoma		1 (2%)		1 (2%)
Lymph Node, Mesenteric	(49)	(49)	(48)	(45)
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)			
Histiocytic Sarcoma		1 (2%)		1 (2%)
Spleen	(50)	(50)	(50)	(48)
Histiocytic Sarcoma		1 (2%)		1 (2%)
Thymus	(44)	(47)	(47)	(48)
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)			
Histiocytic Sarcoma				1 (2%)
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Carcinoma		1 (2%)	1 (2%)	
Fibroadenoma		1 (2%)		
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma				1 (2%)
Squamous Cell Carcinoma		1 (2%)		
Subcutaneous Tissue, Fibrosarcoma	1 (2%)	2 (4%)	2 (4%)	2 (4%)
Subcutaneous Tissue, Fibrous Histiocytoma	3 (6%)			
Subcutaneous Tissue, Hemangioma		1 (2%)		1 (2%)
Subcutaneous Tissue, Hemangiopericytoma		1 (2%)		
Subcutaneous Tissue, Hemangiosarcoma		1 (2%)		
Subcutaneous Tissue, Neurofibroma				1 (2%)
Subcutaneous Tissue, Neurofibrosarcoma		1 (2%)		
Subcutaneous Tissue, Osteosarcoma, Metastatic, Bone				1 (2%)
Subcutaneous Tissue, Sarcoma	1 (2%)	1 (2%)	1 (2%)	4 (8%)
Subcutaneous Tissue, Sarcoma, Metastatic, Tissue NOS	1 (2%)			
Subcutaneous Tissue, Schwannoma Malignant		1 (2%)		1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma		1 (2%)	1 (2%)	1 (2%)
Skeletal Muscle	(3)	(4)	(2)	(5)
Carcinoma, Metastatic, Harderian Gland		1 (25%)		
Fibrosarcoma, Metastatic, Skin			1 (50%)	
Hemangiosarcoma				1 (20%)
Hepatocellular Carcinoma, Metastatic, Liver	1 (33%)			

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
MUSCULOSKELETAL SYSTEM - cont				
Rhabdomyosarcoma				1 (20%)
Sarcoma	1 (33%)	1 (25%)		2 (40%)
Sarcoma, Metastatic, Pancreas			1 (50%)	
Sarcoma, Metastatic, Skin	1 (33%)			
Schwannoma Malignant, Metastatic, Skin		1 (25%)		
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	1 (2%)	3 (6%)	3 (6%)	6 (12%)
Alveolar/Bronchiolar Carcinoma	1 (2%)	2 (4%)	2 (4%)	2 (4%)
Carcinoma, Metastatic, Harderian Gland		1 (2%)		
Carcinoma, Metastatic, Uterus			1 (2%)	
Fibrosarcoma, Metastatic, Skin	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver	3 (6%)	1 (2%)	3 (6%)	4 (8%)
Histiocytic Sarcoma		1 (2%)		
Neurofibrosarcoma		1 (2%)		
Osteosarcoma, Metastatic, Bone				1 (2%)
Sarcoma, Metastatic, Skin	1 (2%)	1 (2%)		1 (2%)
Nose	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Harderian Gland		1 (2%)		
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Harderian Gland		1 (2%)		
Harderian Gland	(49)	(50)	(50)	(50)
Adenoma	9 (18%)	4 (8%)	6 (12%)	8 (16%)
Adenoma, Multiple			2 (4%)	
Carcinoma	1 (2%)	2 (4%)	2 (4%)	1 (2%)

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(49)
Urinary Bladder	(50)	(49)	(50)	(49)
Fibrosarcoma, Metastatic, Tissue NOS				1 (2%)
Leiomyosarcoma, Metastatic, Mesentery			1 (2%)	
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma		1 (2%)	1 (2%)	1 (2%)
Lymphoma Malignant	27 (54%)	24 (48%)	17 (34%)	14 (28%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE FEMALE	0 MG/L	50 MG/L	500 MG/L	1000 MG/L
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	42	43	46	48
Total Primary Neoplasms	88	93	102	104
Total Animals with Benign Neoplasms	29	33	41	38
Total Benign Neoplasms	43	46	54	56
Total Animals with Malignant Neoplasms	36	37	34	31
Total Malignant Neoplasms	45	47	48	48
Total Animals with Metastatic Neoplasms	5	7	7	10
Total Metastatic Neoplasm	12	20	13	13
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

NTP Experiment-Test: 96017-06
Study Type: CHRONIC
Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
WATER DISINFECTION BYPRODUCTS (DIBROMOACETIC ACID)

FINAL#1 MICE

Report: PEIRPT18
Date: 05/19/04
Time: 09:37:47

Facility: Southern Research Institute

Chemical CAS #: 631-64-1

Lock Date: 11/15/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-523 Diisopropylcarbodiimide

Pathology Tables - Rats - Chronic Study

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

FINAL #1 RATS

Facility: Southern Research Institute

Chemical CAS #: 693-13-0

Lock Date: 03/14/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	13	9	10	14
Natural Death	7	9	8	10
Survivors				
Terminal Sacrifice	30	32	32	25
Other				1
Animals Examined Microscopically	50	50	50	49
ALIMENTARY SYSTEM				
Intestine Large, Colon	(50)	(50)	(49)	(49)
Intestine Large, Cecum	(50)	(50)	(50)	(49)
Intestine Small, Duodenum	(49)	(50)	(50)	(49)
Leiomyoma				1 (2%)
Intestine Small, Jejunum	(47)	(50)	(50)	(46)
Intestine Small, Ileum	(48)	(49)	(50)	(49)
Liver	(50)	(50)	(50)	(49)
Carcinoma, Metastatic, Thyroid Gland				1 (2%)
Hepatocellular Adenoma	6 (12%)	1 (2%)	2 (4%)	1 (2%)
Mesentery	(11)	(12)	(9)	(9)
Fibrosarcoma			1 (11%)	
Oral Mucosa	(1)		(2)	
Squamous Cell Carcinoma	1 (100%)		1 (50%)	
Pancreas	(50)	(50)	(50)	(49)
Salivary Glands	(50)	(50)	(50)	(48)
Stomach, Forestomach	(50)	(50)	(50)	(49)
Squamous Cell Papilloma			1 (2%)	
Stomach, Glandular	(50)	(50)	(50)	(49)
Tongue	(2)		(1)	
Squamous Cell Papilloma	2 (100%)		1 (100%)	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(49)
Carcinoma, Metastatic, Thyroid Gland				1 (2%)
Schwannoma Malignant	1 (2%)			

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(49)
Adenoma	3 (6%)			1 (2%)
Adrenal Medulla	(49)	(50)	(50)	(49)
Pheochromocytoma Malignant				1 (2%)
Pheochromocytoma Benign		1 (2%)	1 (2%)	1 (2%)
Islets, Pancreatic	(50)	(50)	(50)	(49)
Adenoma				2 (4%)
Pituitary Gland	(50)	(50)	(50)	(49)
Pars Distalis, Adenoma	28 (56%)	32 (64%)	30 (60%)	24 (49%)
Pars Distalis, Adenoma, Multiple	5 (10%)	2 (4%)	3 (6%)	3 (6%)
Pars Distalis, Carcinoma	3 (6%)	1 (2%)	1 (2%)	4 (8%)
Pars Intermedia, Adenoma		1 (2%)		
Thyroid Gland	(50)	(50)	(50)	(49)
C-Cell, Adenoma	3 (6%)	2 (4%)	6 (12%)	6 (12%)
C-Cell, Carcinoma	2 (4%)		2 (4%)	3 (6%)
Follicular Cell, Adenoma		2 (4%)		
Follicular Cell, Carcinoma	1 (2%)			
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(49)	(50)	(49)
Adenoma	2 (4%)	3 (6%)	5 (10%)	2 (4%)
Carcinoma	2 (4%)	6 (12%)		2 (4%)
Carcinoma, Multiple			1 (2%)	
Ovary	(50)	(50)	(50)	(49)
Uterus	(50)	(50)	(50)	(49)
Carcinoma				2 (4%)
Leiomyoma	1 (2%)			1 (2%)
Polyp Stromal	10 (20%)	10 (20%)	9 (18%)	9 (18%)
Polyp Stromal, Multiple			1 (2%)	1 (2%)
Sarcoma				1 (2%)
Vagina	(6)	(6)	(5)	(11)
Granular Cell Tumor Benign		1 (17%)		

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(49)
Lymph Node	(13)	(10)	(14)	(8)
Deep Cervical, Carcinoma, Metastatic, Thyroid Gland	1 (8%)			1 (13%)
Mediastinal, Carcinoma, Metastatic, Thyroid Gland	1 (8%)			1 (13%)
Renal, Carcinoma, Metastatic, Thyroid Gland				1 (13%)
Lymph Node, Mandibular	(3)	(7)	(1)	(2)
Lymph Node, Mesenteric	(50)	(50)	(50)	(48)
Spleen	(50)	(50)	(50)	(49)
Thymus	(50)	(48)	(49)	(46)
Carcinoma, Metastatic, Thyroid Gland				1 (2%)
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(48)
Adenoma		1 (2%)	1 (2%)	1 (2%)
Carcinoma	4 (8%)		2 (4%)	
Fibroadenoma	10 (20%)	9 (18%)	20 (40%)	13 (27%)
Fibroadenoma, Multiple	2 (4%)	2 (4%)	1 (2%)	3 (6%)
Skin	(50)	(50)	(50)	(49)
Keratoacanthoma	1 (2%)			
Sebaceous Gland, Adenoma		1 (2%)		
Subcutaneous Tissue, Fibroma			1 (2%)	3 (6%)
Subcutaneous Tissue, Fibrosarcoma		2 (4%)		
Subcutaneous Tissue, Schwannoma Malignant	2 (4%)			
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(49)
Carcinoma, Metastatic, Pituitary Gland	3 (6%)			2 (4%)
Glioma Malignant, Mixed Cell			2 (4%)	1 (2%)
Granular Cell Tumor Benign		1 (2%)		

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(49)
Alveolar/Bronchiolar Adenoma		1 (2%)		
Carcinoma, Metastatic, Thyroid Gland	1 (2%)			1 (2%)
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(49)
Iris, Amelanotic Melanoma, Benign	1 (2%)			
Harderian Gland	(50)	(50)	(50)	(49)
Adenoma				1 (2%)
Zymbal's Gland		(1)		
Carcinoma		1 (100%)		
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(49)
Renal Tubule, Adenoma				1 (2%)
Urinary Bladder	(50)	(50)	(50)	(49)
Papilloma			1 (2%)	
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(49)
Leukemia Mononuclear	9 (18%)	9 (18%)	7 (14%)	15 (31%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	48	45	44	45
Total Primary Neoplasms	99	89	100	103
Total Animals with Benign Neoplasms	44	41	41	39
Total Benign Neoplasms	74	70	83	74
Total Animals with Malignant Neoplasms	22	14	16	23
Total Malignant Neoplasms	25	19	17	29
Total Animals with Metastatic Neoplasms	4			3
Total Metastatic Neoplasm	6			9
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Natural Death	12	8	8	10
Moribund Sacrifice	18	12	10	23
Survivors				
Terminal Sacrifice	20	30	32	17
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Carcinoma		1 (2%)		
Schwannoma Malignant, Metastatic, Mesentery		1 (2%)		
Intestine Large, Cecum	(50)	(50)	(50)	(49)
Intestine Small, Duodenum	(49)	(49)	(49)	(49)
Schwannoma Malignant, Metastatic, Mesentery		1 (2%)		
Intestine Small, Jejunum	(49)	(49)	(48)	(49)
Intestine Small, Ileum	(49)	(49)	(50)	(48)
Liver	(50)	(50)	(50)	(50)
Hepatocellular Adenoma		2 (4%)	1 (2%)	
Mesentery	(9)	(9)	(12)	(6)
Schwannoma Malignant		1 (11%)		1 (17%)
Oral Mucosa			(2)	
Squamous Cell Carcinoma			2 (100%)	
Pancreas	(50)	(50)	(50)	(50)
Mixed Tumor Malignant		1 (2%)		
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (2%)	
Acinus, Adenoma	3 (6%)	1 (2%)	2 (4%)	
Salivary Glands	(49)	(50)	(50)	(50)
Sarcoma	1 (2%)			
Stomach, Forestomach	(50)	(50)	(50)	(49)
Squamous Cell Carcinoma			1 (2%)	
Squamous Cell Papilloma	1 (2%)	1 (2%)		1 (2%)
Stomach, Glandular	(50)	(50)	(50)	(49)
Tongue	(1)	(1)	(1)	(1)
Squamous Cell Papilloma			1 (100%)	

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Schwannoma Malignant	1 (2%)			1 (2%)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(49)	(50)	(50)
Adrenal Medulla	(50)	(48)	(50)	(50)
Ganglioneuroma		1 (2%)		
Pheochromocytoma Malignant	3 (6%)	4 (8%)	4 (8%)	2 (4%)
Pheochromocytoma Malignant, Multiple	1 (2%)			
Pheochromocytoma Complex				1 (2%)
Pheochromocytoma Benign	3 (6%)	2 (4%)	8 (16%)	7 (14%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma	4 (8%)	12 (24%)	9 (18%)	5 (10%)
Adenoma, Multiple	1 (2%)		1 (2%)	
Carcinoma	2 (4%)	1 (2%)	1 (2%)	
Parathyroid Gland	(49)	(48)	(49)	(48)
Adenoma				1 (2%)
Pituitary Gland	(50)	(50)	(50)	(50)
Pars Distalis, Adenoma	28 (56%)	33 (66%)	38 (76%)	17 (34%)
Pars Distalis, Adenoma, Multiple	1 (2%)		4 (8%)	3 (6%)
Pars Distalis, Carcinoma	5 (10%)	1 (2%)		2 (4%)
Pars Intermedia, Adenoma	2 (4%)			
Pars Intermedia, Carcinoma	1 (2%)			
Thyroid Gland	(50)	(50)	(50)	(50)
Sarcoma, Metastatic, Salivary Glands	1 (2%)			
Bilateral, C-Cell, Adenoma	1 (2%)			
C-Cell, Adenoma	3 (6%)	8 (16%)	8 (16%)	4 (8%)
C-Cell, Adenoma, Multiple	1 (2%)	1 (2%)		
C-Cell, Carcinoma	5 (10%)	1 (2%)	2 (4%)	
Follicular Cell, Adenoma	1 (2%)			
GENERAL BODY SYSTEM				
Tissue NOS		(1)	(1)	
Hemangioma		1 (100%)		
Lipoma			1 (100%)	

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
GENITAL SYSTEM				
Preputial Gland	(50)	(50)	(50)	(50)
Adenoma	1 (2%)	1 (2%)	1 (2%)	4 (8%)
Carcinoma	1 (2%)	2 (4%)		
Prostate	(50)	(50)	(50)	(50)
Adenoma	1 (2%)	2 (4%)	1 (2%)	
Seminal Vesicle	(50)	(50)	(50)	(50)
Testes	(50)	(50)	(50)	(50)
Bilateral, Interstitial Cell, Adenoma	21 (42%)	27 (54%)	15 (30%)	14 (28%)
Interstitial Cell, Adenoma	15 (30%)	10 (20%)	16 (32%)	8 (16%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(18)	(14)	(16)	(13)
Mediastinal, Hemangiosarcoma			1 (6%)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Schwannoma Malignant, Metastatic, Mesentery		1 (2%)		
Spleen	(50)	(50)	(50)	(50)
Thymus	(49)	(46)	(46)	(49)
Thymoma Benign			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(49)	(48)	(47)	(48)
Carcinoma			1 (2%)	
Fibroadenoma		4 (8%)	1 (2%)	1 (2%)
Skin	(49)	(50)	(50)	(50)
Keratoacanthoma	3 (6%)	1 (2%)	3 (6%)	1 (2%)
Squamous Cell Papilloma	1 (2%)	1 (2%)	1 (2%)	
Sebaceous Gland, Carcinoma	1 (2%)	1 (2%)	1 (2%)	
Subcutaneous Tissue, Fibroma	5 (10%)	4 (8%)	2 (4%)	3 (6%)
Subcutaneous Tissue, Fibrosarcoma			1 (2%)	
Subcutaneous Tissue, Lipoma		3 (6%)	1 (2%)	
Subcutaneous Tissue, Schwannoma Malignant	2 (4%)		2 (4%)	2 (4%)

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteoma				1 (2%)
Osteosarcoma				1 (2%)
Skeletal Muscle	(3)	(1)	(1)	(5)
Lipoma	1 (33%)			
Sarcoma	1 (33%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant	1 (2%)			
Carcinoma, Metastatic, Pituitary Gland	5 (10%)	1 (2%)		1 (2%)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	1 (2%)	2 (4%)		
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla	1 (2%)		2 (4%)	
Schwannoma Malignant, Metastatic, Mesentery		1 (2%)		
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (2%)	
Nose	(50)	(50)	(50)	(50)
Squamous Cell Carcinoma	1 (2%)			
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Harderian Gland	(50)	(50)	(50)	(50)
Zymbal's Gland				(1)
Carcinoma				1 (100%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Leukemia Mononuclear	13 (26%)	22 (44%)	13 (26%)	6 (12%)
Lymphoma Malignant	2 (4%)			1 (2%)
Mesothelioma Malignant	1 (2%)	2 (4%)	4 (8%)	1 (2%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	50	50	33
Total Primary Neoplasms	141	154	148	89
Total Animals with Benign Neoplasms	47	48	50	32
Total Benign Neoplasms	99	117	115	70
Total Animals with Malignant Neoplasms	34	31	27	15
Total Malignant Neoplasms	42	37	33	19
Total Animals with Metastatic Neoplasms	7	2	3	1
Total Metastatic Neoplasm	7	5	4	1
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIISOPROPYLCARBODIIMIDE

ROUTE: SKIN APPLICATION

REASONS FOR REMOVAL:
25022 Accidently Killed
25018 Dosing Accident
25023 Missing
25019 Moribund Sacrifice
25020 Natural Death
25017 Scheduled Sacrifice
25021 Terminal Sacrifice
25007 Wrong Sex

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Southern Research Inst
EXPERIMENT: 93020 TEST: 07
TEST TYPE: CHRONIC
CONT: N01-ES 05451
PATHOLOGIST: HEATH, JAMES
Rats(FISCHER 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIISOPROPYLCARBODIIMIDE

ROUTE: SKIN APPLICATION

REPORT: PEIRPT08
DATE: 01/03/05
TIME: 09:20:08

NTP C#: 93020D
CAS: 693-13-0

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Brain
Clitoral/Preputial Gland
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Nose
Pancreas
Parathyroid Gland
Pituitary Gland
Prostate
Salivary Glands
Testes
Thymus
Thyroid Gland
Urinary Bladder

NTP
LAB: Southern Research Inst
EXPERIMENT: 93020 TEST: 07
TEST TYPE: CHRONIC
CONT: N01-ES 05451
PATHOLOGIST: HEATH, JAMES

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIISOPROPYLCARBODIIMIDE

ROUTE: SKIN APPLICATION

REPORT: PEIRPT08
DATE: 01/03/05
TIME: 09:20:08

NTP C#: 93020D
CAS: 693-13-0

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF DIISOPROPYLCARBODIIMIDE

Male Rats

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Benign
	Pheochromocytoma: Benign, Complex, Malignant, NOS
Bone	Osteosarcoma or Osteoma
Clitoral/Preputial Gland	Adenoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
	Carcinoma
	Carcinoma or Adenoma
Pituitary Gland: Pars Intermedia	Carcinoma or Adenoma
Testes	Adenoma
Thyroid Gland: C-Cell	Carcinoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Osteosarcoma or Osteoma
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Female Rats

Organ	Morphology
Adrenal Cortex	Adenoma
Islets, Pancreatic	Adenoma
	Carcinoma or Adenoma
Liver	Hepatocellular Adenoma
Mammary Gland	Carcinoma
	Fibroadenoma
	Fibroma, Fibroadenoma or Adenoma
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva)	Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma
Skin	Fibroma
	Schwannoma Malignant
Thyroid Gland: C-Cell	Carcinoma or Adenoma
Uterus	Carcinoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Malignant and Benign Tumors

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - DIISOPROPYLCARBODIIMIDE

Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Adrenal Cortex Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	1/49 (2%)
POLY-3 RATE (b)	0/40.18	0/40.75	0/44.41	0/28.31	3/41.69	0/42.03	0/43.75	1/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	7.2%	0.0%	0.0%	2.4%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	2/30 (7%)	0/32 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	---	---	---	---	710	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.285N	P=0.110N	P=0.112N	P=0.372N
POLY 3	(e)	(e)	(e)	(e)	P=0.248N	P=0.117N	P=0.110N	P=0.310N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.248N	P=0.118N	P=0.113N	P=0.308N
POLY 6	(e)	(e)	(e)	(e)	P=0.248N	P=0.114N	P=0.108N	P=0.319N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.264N	P=0.111N	P=0.106N	P=0.339N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.251N	P=0.121N	P=0.121N	P=0.316N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.038N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	2/48 (4%)	8/50 (16%)	7/50 (14%)	0/49 (0%)	1/50 (2%)	1/50 (2%)	1/49 (2%)
POLY-3 RATE (b)	3/40.23	2/39.75	8/44.41	7/28.90	0/40.61	1/42.03	1/43.75	1/41.08
POLY-3 PERCENT (g)	7.5%	5.0%	18.0%	24.2%	0.0%	2.4%	2.3%	2.4%
TERMINAL (d)	2/20 (10%)	2/29 (7%)	8/32 (25%)	4/17 (24%)	0/29 (0%)	1/32 (3%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	716	729 (T)	729 (T)	630	---	729 (T)	729 (T)	725
STATISTICAL TESTS								
LIFE TABLE	P=0.012 *	P=0.337N	P=0.307	P=0.089	P=0.338	P=0.520	P=0.520	P=0.471
POLY 3	P=0.012 *	P=0.506N	P=0.130	P=0.055	P=0.387	P=0.507	P=0.515	P=0.502
POLY 1.5	P=0.016 *	P=0.513N	P=0.115	P=0.070	P=0.389	P=0.505	P=0.512	P=0.503
POLY 6	P=0.013 *	P=0.489N	P=0.157	P=0.056	P=0.378	P=0.510	P=0.518	P=0.498
LOGISTIC REGRESSION	P=0.009 **	P=0.393N	P=0.269	P=0.052	P=0.346	P=0.520	P=0.520	P=0.485
COCH-ARM / FISHERS	P=0.059	P=0.520N	P=0.100	P=0.159	P=0.382	P=0.505	P=0.505	P=0.500
ORDER RESTRICTED	P=0.027 *	(e)	(e)	(e)	P=0.329	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Adrenal Medulla Pheochromocytoma Malignant								
TUMOR RATES								
OVERALL (a)	4/50 (8%)	4/48 (8%)	4/50 (8%)	2/50 (4%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	1/49 (2%)
POLY-3 RATE (b)	4/40.50	4/39.75	4/45.23	2/28.31	0/40.61	0/42.03	0/43.75	1/41.08
POLY-3 PERCENT (g)	9.9%	10.1%	8.8%	7.1%	0.0%	0.0%	0.0%	2.4%
TERMINAL (d)	0/20 (0%)	4/29 (14%)	2/32 (6%)	2/17 (12%)	0/29 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	688	729 (T)	563	729 (T)	---	---	---	725
STATISTICAL TESTS								
LIFE TABLE	P=0.365N	P=0.461N	P=0.459N	P=0.459N	P=0.172	(e)	(e)	P=0.471
POLY 3	P=0.396N	P=0.634	P=0.582N	P=0.511N	P=0.198	(e)	(e)	P=0.502
POLY 1.5	P=0.376N	P=0.627	P=0.610N	P=0.473N	P=0.199	(e)	(e)	P=0.503
POLY 6	P=0.384N	P=0.641N	P=0.539N	P=0.516N	P=0.195	(e)	(e)	P=0.498
LOGISTIC REGRESSION	P=0.399N	P=0.591N	P=0.629N	P=0.491N	P=0.181	(e)	(e)	P=0.485
COCH-ARM / FISHERS	P=0.250N	P=0.619	P=0.643N	P=0.339N	P=0.197	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.554N	(e)	(e)	(e)	P=0.122	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Adrenal Medulla Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	6/50 (12%)	6/48 (13%)	12/50 (24%)	9/50 (18%)	0/49 (0%)	1/50 (2%)	1/50 (2%)	1/49 (2%)
POLY-3 RATE (b)	6/40.50	6/39.75	12/45.23	9/28.90	0/40.61	1/42.03	1/43.75	1/41.08
POLY-3 PERCENT (g)	14.8%	15.1%	26.5%	31.1%	0.0%	2.4%	2.3%	2.4%
TERMINAL (d)	2/20 (10%)	6/29 (21%)	10/32 (31%)	6/17 (35%)	0/29 (0%)	1/32 (3%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	688	729 (T)	563	630	---	729 (T)	729 (T)	725
STATISTICAL TESTS								
LIFE TABLE	P=0.049 *	P=0.378N	P=0.357	P=0.155	P=0.338	P=0.520	P=0.520	P=0.471
POLY 3	P=0.038 *	P=0.609	P=0.142	P=0.093	P=0.387	P=0.507	P=0.515	P=0.502
POLY 1.5	P=0.052	P=0.599	P=0.119	P=0.123	P=0.389	P=0.505	P=0.512	P=0.503
POLY 6	P=0.040 *	P=0.618N	P=0.182	P=0.091	P=0.378	P=0.510	P=0.518	P=0.498
LOGISTIC REGRESSION	P=0.034 *	P=0.525N	P=0.182	P=0.090	P=0.346	P=0.520	P=0.520	P=0.485
COCH-ARM / FISHERS	P=0.184	P=0.591	P=0.096	P=0.288	P=0.382	P=0.505	P=0.505	P=0.500
ORDER RESTRICTED	P=0.095	(e)	(e)	(e)	P=0.329	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Bone								
Osteosarcoma or Osteoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	0/44.41	2/28.51	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	7.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	1/17 (6%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	---	---	676	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	(e)	(e)	P=0.180	(e)	(e)	(e)	(e)
POLY 3	P=0.038 *	(e)	(e)	P=0.170	(e)	(e)	(e)	(e)
POLY 1.5	P=0.038 *	(e)	(e)	P=0.182	(e)	(e)	(e)	(e)
POLY 6	P=0.039 *	(e)	(e)	P=0.171	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.022 *	(e)	(e)	P=0.165	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.046 *	(e)	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.012 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Brain								
Glioma Malignant								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/49 (2%)
POLY-3 RATE (b)	0/40.18	0/41.64	0/44.41	0/28.31	0/41.61	0/42.03	2/44.49	1/41.82
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	2.4%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	465	456
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.235	(e)	P=0.254	P=0.508
POLY 3	(e)	(e)	(e)	(e)	P=0.248	(e)	P=0.252	P=0.501
POLY 1.5	(e)	(e)	(e)	(e)	P=0.249	(e)	P=0.248	P=0.501
POLY 6	(e)	(e)	(e)	(e)	P=0.239	(e)	P=0.257	P=0.498
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.152	(e)	P=0.182	P=0.315
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.241	(e)	P=0.247	P=0.495
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.180	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Brain								
Oligodendroglioma, Glioma, or Astrocytoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/49 (2%)
POLY-3 RATE (b)	1/40.18	0/41.64	0/44.41	0/28.31	0/41.61	0/42.03	2/44.49	1/41.82
POLY-3 PERCENT (g)	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	2.4%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	465	456
STATISTICAL TESTS								
LIFE TABLE	P=0.311N	P=0.419N	P=0.406N	P=0.532N	P=0.235	(e)	P=0.254	P=0.508
POLY 3	P=0.240N	P=0.493N	P=0.480N	P=0.568N	P=0.248	(e)	P=0.252	P=0.501
POLY 1.5	P=0.260N	P=0.497N	P=0.489N	P=0.554N	P=0.249	(e)	P=0.248	P=0.501
POLY 6	P=0.233N	P=0.485N	P=0.466N	P=0.568N	P=0.239	(e)	P=0.257	P=0.498
LOGISTIC REGRESSION	P=0.311N	(e)	(e)	(e)	P=0.152	(e)	P=0.182	P=0.315
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.241	(e)	P=0.247	P=0.495
ORDER RESTRICTED	P=0.193N	(e)	(e)	(e)	P=0.180	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Clitoral/Preputial Gland								
Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	4/50 (8%)	2/50 (4%)	3/49 (6%)	5/50 (10%)	2/49 (4%)
POLY-3 RATE (b)	1/40.18	1/41.64	1/44.41	4/29.07	2/41.61	3/41.03	5/44.17	2/41.28
POLY-3 PERCENT (g)	2.5%	2.4%	2.3%	13.8%	4.8%	7.3%	11.3%	4.8%
TERMINAL (d)	1/20 (5%)	1/30 (3%)	1/32 (3%)	2/17 (12%)	2/30 (7%)	3/31 (10%)	4/32 (13%)	1/25 (4%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	607	729 (T)	729 (T)	606	673
STATISTICAL TESTS								
LIFE TABLE	P=0.026 *	P=0.669N	P=0.654N	P=0.118	P=0.497	P=0.515	P=0.241	P=0.636
POLY 3	P=0.046 *	P=0.753N	P=0.738N	P=0.097	P=0.578N	P=0.494	P=0.240	P=0.692
POLY 1.5	P=0.047 *	P=0.757N	P=0.749N	P=0.110	P=0.575N	P=0.491	P=0.233	P=0.693
POLY 6	P=0.048 *	P=0.744N	P=0.721N	P=0.100	P=0.567	P=0.499	P=0.248	P=0.686
LOGISTIC REGRESSION	P=0.026 *	P=0.669N	P=0.654N	P=0.094	P=0.566	P=0.515	P=0.239	P=0.679
COCH-ARM / FISHERS	P=0.067	P=0.753N	P=0.753N	P=0.181	P=0.573	P=0.490	P=0.218	P=0.684
ORDER RESTRICTED	P=0.025 *	(e)	(e)	(e)	P=0.438	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Clitoral/Preputial Gland Carcinoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	6/49 (12%)	1/50 (2%)	2/49 (4%)
POLY-3 RATE (b)	1/40.24	2/42.08	0/44.41	0/28.31	2/42.17	6/41.68	1/43.75	2/41.07
POLY-3 PERCENT (g)	2.5%	4.8%	0.0%	0.0%	4.7%	14.4%	2.3%	4.9%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	1/30 (3%)	4/31 (13%)	1/32 (3%)	2/25 (8%)
FIRST INCIDENCE	714	621	---	---	556	513	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.215N	P=0.573	P=0.428N	P=0.560N	P=0.382N	P=0.150	P=0.482N	P=0.648
POLY 3	P=0.195N	P=0.516	P=0.480N	P=0.568N	P=0.321N	P=0.127	P=0.487N	P=0.685
POLY 1.5	P=0.201N	P=0.507	P=0.489N	P=0.554N	P=0.317N	P=0.127	P=0.490N	P=0.689
POLY 6	P=0.183N	P=0.532	P=0.467N	P=0.569N	P=0.331N	P=0.130	P=0.485N	P=0.674
LOGISTIC REGRESSION	P=0.217N	P=0.505	P=0.457N	P=0.565N	P=0.319N	P=0.128	P=0.507N	P=0.691
COCH-ARM / FISHERS	P=0.188N	P=0.500	P=0.500N	P=0.500N	P=0.324N	P=0.128	P=0.500N	P=0.684
ORDER RESTRICTED	P=0.258N	(e)	(e)	(e)	P=0.209N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Clitoral/Preputial Gland Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/50 (6%)	1/50 (2%)	4/50 (8%)	4/50 (8%)	9/49 (18%)	6/50 (12%)	4/49 (8%)
POLY-3 RATE (b)	2/40.24	3/42.08	1/44.41	4/29.07	4/42.17	9/41.68	6/44.17	4/41.28
POLY-3 PERCENT (g)	5.0%	7.1%	2.3%	13.8%	9.5%	21.6%	13.6%	9.7%
TERMINAL (d)	1/20 (5%)	1/30 (3%)	1/32 (3%)	2/17 (12%)	3/30 (10%)	7/31 (23%)	5/32 (16%)	3/25 (12%)
FIRST INCIDENCE	714	621	729 (T)	607	556	513	606	673
STATISTICAL TESTS								
LIFE TABLE	P=0.176	P=0.628	P=0.352N	P=0.234	P=0.478N	P=0.132	P=0.406	P=0.563
POLY 3	P=0.220	P=0.520	P=0.466N	P=0.203	P=0.373N	P=0.107	P=0.398	P=0.632
POLY 1.5	P=0.224	P=0.510	P=0.481N	P=0.225	P=0.366N	P=0.107	P=0.390	P=0.637
POLY 6	P=0.232	P=0.542	P=0.442N	P=0.207	P=0.393N	P=0.110	P=0.406	P=0.619
LOGISTIC REGRESSION	P=0.167	P=0.527	P=0.385N	P=0.195	P=0.372N	P=0.110	P=0.393	P=0.635
COCH-ARM / FISHERS	P=0.292	P=0.500	P=0.500N	P=0.339	P=0.378N	P=0.109	P=0.370	P=0.631
ORDER RESTRICTED	P=0.126	(e)	(e)	(e)	P=0.350N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	12/50 (24%)	10/50 (20%)	5/50 (10%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)
POLY-3 RATE (b)	5/41.01	12/42.04	10/45.45	5/29.34	0/41.61	0/42.03	0/43.75	2/41.51
POLY-3 PERCENT (g)	12.2%	28.6%	22.0%	17.0%	0.0%	0.0%	0.0%	4.8%
TERMINAL (d)	2/20 (10%)	11/30 (37%)	6/32 (19%)	3/17 (18%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	608	617	563	513	---	---	---	601
STATISTICAL TESTS								
LIFE TABLE	P=0.552	P=0.183	P=0.359	P=0.461	P=0.039 *	(e)	(e)	P=0.217
POLY 3	P=0.414	P=0.054	P=0.178	P=0.412	P=0.044 *	(e)	(e)	P=0.236
POLY 1.5	P=0.468	P=0.053	P=0.155	P=0.455	P=0.045 *	(e)	(e)	P=0.237
POLY 6	P=0.435	P=0.058	P=0.217	P=0.413	P=0.043 *	(e)	(e)	P=0.232
LOGISTIC REGRESSION	P=0.483	P=0.073	P=0.156	P=0.439	P=0.043 *	(e)	(e)	P=0.229
COCH-ARM / FISHERS	P=0.348N	P=0.054	P=0.131	P=0.630N	P=0.045 *	(e)	(e)	P=0.242
ORDER RESTRICTED	P=0.236	(e)	(e)	(e)	P=0.029 *	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Islets, Pancreatic Carcinoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	2/40.18	1/41.64	1/44.41	0/28.31	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	5.0%	2.4%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/20 (10%)	1/30 (3%)	1/32 (3%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.158N	P=0.359N	P=0.338N	P=0.273N	(e)	(e)	(e)	(e)
POLY 3	P=0.184N	P=0.487N	P=0.465N	P=0.322N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.182N	P=0.494N	P=0.481N	P=0.304N	(e)	(e)	(e)	(e)
POLY 6	P=0.179N	P=0.474N	P=0.441N	P=0.322N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.158N	P=0.359N	P=0.338N	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.153N	P=0.500N	P=0.500N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.191N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	7/50 (14%)	13/50 (26%)	11/50 (22%)	5/50 (10%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)
POLY-3 RATE (b)	7/41.01	13/42.04	11/45.45	5/29.34	0/41.61	0/42.03	0/43.75	2/41.51
POLY-3 PERCENT (g)	17.1%	30.9%	24.2%	17.0%	0.0%	0.0%	0.0%	4.8%
TERMINAL (d)	4/20 (20%)	12/30 (40%)	7/32 (22%)	3/17 (18%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	608	617	563	513	---	---	---	601
STATISTICAL TESTS								
LIFE TABLE	P=0.365N	P=0.327	P=0.537	P=0.556N	P=0.039 *	(e)	(e)	P=0.217
POLY 3	P=0.484N	P=0.107	P=0.291	P=0.622N	P=0.044 *	(e)	(e)	P=0.236
POLY 1.5	P=0.436N	P=0.105	P=0.256	P=0.575N	P=0.045 *	(e)	(e)	P=0.237
POLY 6	P=0.457N	P=0.116	P=0.347	P=0.621N	P=0.043 *	(e)	(e)	P=0.232
LOGISTIC REGRESSION	P=0.449N	P=0.146	P=0.286	P=0.613N	P=0.043 *	(e)	(e)	P=0.229
COCH-ARM / FISHERS	P=0.192N	P=0.105	P=0.218	P=0.380N	P=0.045 *	(e)	(e)	P=0.242
ORDER RESTRICTED	P=0.380	(e)	(e)	(e)	P=0.029 *	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Liver Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	6/50 (12%)	1/50 (2%)	2/50 (4%)	1/49 (2%)
POLY-3 RATE (b)	0/40.18	2/41.83	1/44.41	0/28.31	6/42.04	1/42.03	2/43.75	1/41.07
POLY-3 PERCENT (g)	0.0%	4.8%	2.3%	0.0%	14.3%	2.4%	4.6%	2.4%
TERMINAL (d)	0/20 (0%)	1/30 (3%)	1/32 (3%)	0/17 (0%)	4/30 (13%)	1/32 (3%)	2/32 (6%)	1/25 (4%)
FIRST INCIDENCE	---	682	729 (T)	---	632	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.526N	P=0.295	P=0.594	(e)	P=0.067N	P=0.052N	P=0.117N	P=0.090N
POLY 3	P=0.550N	P=0.246	P=0.520	(e)	P=0.049N*	P=0.055N	P=0.119N	P=0.058N
POLY 1.5	P=0.539N	P=0.241	P=0.511	(e)	P=0.048N*	P=0.056N	P=0.123N	P=0.057N
POLY 6	P=0.538N	P=0.256	P=0.534	(e)	P=0.051N	P=0.053N	P=0.117N	P=0.063N
LOGISTIC REGRESSION	P=0.542N	P=0.253	P=0.594	(e)	P=0.052N	P=0.054N	P=0.114N	P=0.063N
COCH-ARM / FISHERS	P=0.461N	P=0.247	P=0.500	(e)	P=0.052N	P=0.056N	P=0.134N	P=0.059N
ORDER RESTRICTED	P=0.381	(e)	(e)	(e)	P=0.014N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Lung								
Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/40.24	2/41.64	0/44.41	0/28.31	0/41.61	1/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	2.5%	4.8%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	2/30 (7%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	1/32 (3%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	714	729 (T)	---	---	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.202N	P=0.627	P=0.428N	P=0.560N	P=0.599N	P=0.513	(e)	(e)
POLY 3	P=0.196N	P=0.512	P=0.480N	P=0.568N	P=0.566N	P=0.502	(e)	(e)
POLY 1.5	P=0.202N	P=0.506	P=0.489N	P=0.554N	P=0.567N	P=0.501	(e)	(e)
POLY 6	P=0.183N	P=0.525	P=0.467N	P=0.569N	P=0.563N	P=0.505	(e)	(e)
LOGISTIC REGRESSION	P=0.212N	P=0.578	P=0.457N	P=0.565N	(e)	P=0.513	(e)	(e)
COCH-ARM / FISHERS	P=0.188N	P=0.500	P=0.500N	P=0.500N	P=0.571N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.256N	(e)	(e)	(e)	P=0.385N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Mammary Gland								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	4/50 (8%)	0/50 (0%)	2/50 (4%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	1/44.72	0/28.31	4/41.69	0/42.03	2/43.91	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	9.6%	0.0%	4.6%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	3/30 (10%)	0/32 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	---	645	---	710	---	686	---
STATISTICAL TESTS								
LIFE TABLE	P=0.670	(e)	P=0.550	(e)	P=0.074N	P=0.056N	P=0.305N	P=0.089N
POLY 3	P=0.495	(e)	P=0.521	(e)	P=0.060N	P=0.059N	P=0.313N	P=0.061N
POLY 1.5	P=0.546	(e)	P=0.511	(e)	P=0.060N	P=0.060N	P=0.320N	P=0.061N
POLY 6	P=0.479	(e)	P=0.536	(e)	P=0.063N	P=0.057N	P=0.305N	P=0.064N
LOGISTIC REGRESSION	P=0.709	(e)	P=0.468	(e)	P=0.063N	P=0.055N	P=0.304N	P=0.074N
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)	P=0.063N	P=0.059N	P=0.339N	P=0.061N
ORDER RESTRICTED	P=0.416	(e)	(e)	(e)	P=0.012N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Mammary Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	4/50 (8%)	1/50 (2%)	2/50 (4%)	1/49 (2%)
POLY-3 RATE (b)	0/40.18	0/41.64	1/44.72	0/28.31	4/41.69	1/42.23	2/43.91	1/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	9.6%	2.4%	4.6%	2.4%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	3/30 (10%)	0/32 (0%)	1/32 (3%)	1/25 (4%)
FIRST INCIDENCE	---	---	645	---	710	677	686	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.670	(e)	P=0.550	(e)	P=0.201N	P=0.162N	P=0.305N	P=0.238N
POLY 3	P=0.495	(e)	P=0.521	(e)	P=0.167N	P=0.174N	P=0.313N	P=0.182N
POLY 1.5	P=0.546	(e)	P=0.511	(e)	P=0.166N	P=0.177N	P=0.320N	P=0.180N
POLY 6	P=0.479	(e)	P=0.536	(e)	P=0.173N	P=0.168N	P=0.305N	P=0.189N
LOGISTIC REGRESSION	P=0.709	(e)	P=0.468	(e)	P=0.170N	P=0.171N	P=0.304N	P=0.209N
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)	P=0.169N	P=0.181N	P=0.339N	P=0.187N
ORDER RESTRICTED	P=0.416	(e)	(e)	(e)	P=0.098N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Mammary Gland Fibroadenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	12/50 (24%)	11/50 (22%)	21/50 (42%)	16/49 (33%)
POLY-3 RATE (b)	0/40.18	4/41.83	1/44.41	1/28.31	12/42.74	11/42.03	21/45.13	16/42.85
POLY-3 PERCENT (g)	0.0%	9.6%	2.3%	3.5%	28.1%	26.2%	46.5%	37.3%
TERMINAL (d)	0/20 (0%)	3/30 (10%)	1/32 (3%)	1/17 (6%)	8/30 (27%)	10/32 (31%)	17/32 (53%)	9/25 (36%)
FIRST INCIDENCE	---	682	729 (T)	729 (T)	606	728	465	559
STATISTICAL TESTS								
LIFE TABLE	P=0.597	P=0.113	P=0.594	P=0.468	P=0.044 *	P=0.441N	P=0.073	P=0.154
POLY 3	P=0.509	P=0.065	P=0.520	P=0.432	P=0.124	P=0.519N	P=0.055	P=0.245
POLY 1.5	P=0.534	P=0.062	P=0.511	P=0.446	P=0.125	P=0.512N	P=0.052	P=0.248
POLY 6	P=0.523	P=0.070	P=0.534	P=0.432	P=0.113	P=0.526N	P=0.055	P=0.231
LOGISTIC REGRESSION	P=0.572	P=0.078	P=0.594	P=0.468	P=0.106	P=0.475N	P=0.059	P=0.235
COCH-ARM / FISHERS	P=0.556N	P=0.059	P=0.500	P=0.500	P=0.111	P=0.500N	P=0.044 *	P=0.232
ORDER RESTRICTED	P=0.245	(e)	(e)	(e)	P=0.106	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Mammary Gland: Fibroma, Fibroadenoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	12/50 (24%)	12/50 (24%)	21/50 (42%)	16/49 (33%)
POLY-3 RATE (b)	0/40.18	4/41.83	1/44.41	1/28.31	12/42.74	12/42.23	21/45.13	16/42.85
POLY-3 PERCENT (g)	0.0%	9.6%	2.3%	3.5%	28.1%	28.4%	46.5%	37.3%
TERMINAL (d)	0/20 (0%)	3/30 (10%)	1/32 (3%)	1/17 (6%)	8/30 (27%)	10/32 (31%)	17/32 (53%)	9/25 (36%)
FIRST INCIDENCE	---	682	729 (T)	729 (T)	606	677	465	559
STATISTICAL TESTS								
LIFE TABLE	P=0.597	P=0.113	P=0.594	P=0.468	P=0.053	P=0.530N	P=0.073	P=0.154
POLY 3	P=0.509	P=0.065	P=0.520	P=0.432	P=0.142	P=0.582	P=0.055	P=0.245
POLY 1.5	P=0.534	P=0.062	P=0.511	P=0.446	P=0.143	P=0.585	P=0.052	P=0.248
POLY 6	P=0.523	P=0.070	P=0.534	P=0.432	P=0.129	P=0.581	P=0.055	P=0.231
LOGISTIC REGRESSION	P=0.572	P=0.078	P=0.594	P=0.468	P=0.123	P=0.573N	P=0.059	P=0.235
COCH-ARM / FISHERS	P=0.556N	P=0.059	P=0.500	P=0.500	P=0.127	P=0.592N	P=0.044 *	P=0.232
ORDER RESTRICTED	P=0.245	(e)	(e)	(e)	P=0.131	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Mammary Gland: Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	4/50 (8%)	2/50 (4%)	1/50 (2%)	14/50 (28%)	12/50 (24%)	22/50 (44%)	16/49 (33%)
POLY-3 RATE (b)	0/40.18	4/41.83	2/44.72	1/28.31	14/42.81	12/42.23	22/45.29	16/42.85
POLY-3 PERCENT (g)	0.0%	9.6%	4.5%	3.5%	32.7%	28.4%	48.6%	37.3%
TERMINAL (d)	0/20 (0%)	3/30 (10%)	1/32 (3%)	1/17 (6%)	9/30 (30%)	10/32 (31%)	17/32 (53%)	9/25 (36%)
FIRST INCIDENCE	---	682	645	729 (T)	606	677	465	559
STATISTICAL TESTS								
LIFE TABLE	P=0.541	P=0.113	P=0.321	P=0.468	P=0.103	P=0.350N	P=0.123	P=0.268
POLY 3	P=0.432	P=0.065	P=0.262	P=0.432	P=0.239	P=0.423N	P=0.093	P=0.411
POLY 1.5	P=0.466	P=0.062	P=0.250	P=0.446	P=0.240	P=0.418N	P=0.087	P=0.413
POLY 6	P=0.443	P=0.070	P=0.280	P=0.432	P=0.222	P=0.427N	P=0.096	P=0.393
LOGISTIC REGRESSION	P=0.509	P=0.078	P=0.239	P=0.468	P=0.211	P=0.383N	P=0.095	P=0.393
COCH-ARM / FISHERS	P=0.577N	P=0.059	P=0.247	P=0.500	P=0.213	P=0.410N	P=0.072	P=0.388
ORDER RESTRICTED	P=0.214	(e)	(e)	(e)	P=0.172	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Papilloma Squamous or Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	1/44.41	0/28.31	2/41.61	0/42.03	1/43.75	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	2.3%	0.0%	4.8%	0.0%	2.3%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	1/32 (3%)	0/17 (0%)	2/30 (7%)	0/32 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	---	729 (T)	---	729 (T)	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.689	(e)	P=0.594	(e)	P=0.212N	P=0.224N	P=0.477N	P=0.279N
POLY 3	P=0.496	(e)	P=0.520	(e)	P=0.190N	P=0.235N	P=0.483N	P=0.240N
POLY 1.5	P=0.547	(e)	P=0.511	(e)	P=0.189N	P=0.236N	P=0.488N	P=0.238N
POLY 6	P=0.481	(e)	P=0.534	(e)	P=0.193N	P=0.231N	P=0.478N	P=0.245N
LOGISTIC REGRESSION	(e)	(e)	P=0.594	(e)	P=0.212N	(e)	P=0.477N	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)	P=0.191N	P=0.247N	P=0.500N	P=0.253N
ORDER RESTRICTED	P=0.415	(e)	(e)	(e)	P=0.076N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	2/44.85	0/28.31	1/42.46	0/42.03	1/43.90	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	0.0%	2.4%	0.0%	2.3%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	---	645	---	394	---	690	---
STATISTICAL TESTS								
LIFE TABLE	P=0.537	(e)	P=0.302	(e)	P=0.406N	P=0.504N	P=0.745N	P=0.496N
POLY 3	P=0.357	(e)	P=0.262	(e)	P=0.409N	P=0.502N	P=0.753N	P=0.507N
POLY 1.5	P=0.413	(e)	P=0.251	(e)	P=0.407N	P=0.502N	P=0.755N	P=0.504N
POLY 6	P=0.341	(e)	P=0.281	(e)	P=0.414N	P=0.500N	P=0.751N	P=0.512N
LOGISTIC REGRESSION	P=0.564	(e)	P=0.220	(e)	P=0.498N	P=0.487N	P=0.681	P=0.783N
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)	P=0.409N	P=0.500N	P=0.753N	P=0.505N
ORDER RESTRICTED	P=0.290	(e)	(e)	(e)	P=0.257N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	2/50 (4%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	3/44.85	0/28.31	3/42.46	0/42.03	2/43.90	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	6.7%	0.0%	7.1%	0.0%	4.6%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	1/32 (3%)	0/17 (0%)	2/30 (7%)	0/32 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	---	645	---	394	---	690	---
STATISTICAL TESTS								
LIFE TABLE	P=0.467	(e)	P=0.190	(e)	P=0.141N	P=0.116N	P=0.470N	P=0.143N
POLY 3	P=0.275	(e)	P=0.139	(e)	P=0.127N	P=0.120N	P=0.485N	P=0.124N
POLY 1.5	P=0.333	(e)	P=0.130	(e)	P=0.125N	P=0.120N	P=0.489N	P=0.122N
POLY 6	P=0.260	(e)	P=0.156	(e)	P=0.131N	P=0.118N	P=0.479N	P=0.129N
LOGISTIC REGRESSION	P=0.467	(e)	P=0.123	(e)	P=0.135N	P=0.119N	P=0.528N	P=0.140N
COCH-ARM / FISHERS	P=0.539	(e)	P=0.121	(e)	P=0.128N	P=0.121N	P=0.500N	P=0.125N
ORDER RESTRICTED	P=0.206	(e)	(e)	(e)	P=0.039N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Oral Mucosa Squamous Cell Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	2/44.85	0/28.31	1/42.46	0/42.03	1/43.90	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	0.0%	2.4%	0.0%	2.3%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	---	645	---	394	---	690	---
STATISTICAL TESTS								
LIFE TABLE	P=0.537	(e)	P=0.302	(e)	P=0.406N	P=0.504N	P=0.745N	P=0.496N
POLY 3	P=0.357	(e)	P=0.262	(e)	P=0.409N	P=0.502N	P=0.753N	P=0.507N
POLY 1.5	P=0.413	(e)	P=0.251	(e)	P=0.407N	P=0.502N	P=0.755N	P=0.504N
POLY 6	P=0.341	(e)	P=0.281	(e)	P=0.414N	P=0.500N	P=0.751N	P=0.512N
LOGISTIC REGRESSION	P=0.564	(e)	P=0.220	(e)	P=0.498N	P=0.487N	P=0.681	P=0.783N
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)	P=0.409N	P=0.500N	P=0.753N	P=0.505N
ORDER RESTRICTED	P=0.290	(e)	(e)	(e)	P=0.257N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Pancreas Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	3/40.18	1/41.64	2/44.95	0/28.31	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	7.5%	2.4%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/20 (15%)	1/30 (3%)	1/32 (3%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	563	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.117N	P=0.172N	P=0.327N	P=0.148N	(e)	(e)	(e)	(e)
POLY 3	P=0.150N	P=0.292N	P=0.449N	P=0.194N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.144N	P=0.299N	P=0.472N	P=0.176N	(e)	(e)	(e)	(e)
POLY 6	P=0.147N	P=0.277N	P=0.414N	P=0.193N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.142N	P=0.172N	P=0.465N	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.104N	P=0.309N	P=0.500N	P=0.121N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.115N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma								
TUMOR RATES								
OVERALL (a)	29/50 (58%)	33/50 (66%)	42/50 (84%)	20/50 (40%)	33/50 (66%)	34/50 (68%)	33/50 (66%)	27/49 (55%)
POLY-3 RATE (b)	29/45.46	33/47.21	42/49.46	20/31.56	33/44.47	34/46.41	33/47.67	27/43.85
POLY-3 PERCENT (g)	63.8%	69.9%	84.9%	63.4%	74.2%	73.3%	69.2%	61.6%
TERMINAL (d)	14/20 (70%)	19/30 (63%)	27/32 (84%)	12/17 (71%)	24/30 (80%)	22/32 (69%)	22/32 (69%)	17/25 (68%)
FIRST INCIDENCE	522	444	444	290	437	522	465	469
STATISTICAL TESTS								
LIFE TABLE	P=0.435N	P=0.355N	P=0.498	P=0.370N	P=0.383N	P=0.522N	P=0.419N	P=0.443N
POLY 3	P=0.262	P=0.338	P=0.011 *	P=0.582N	P=0.090N	P=0.555N	P=0.379N	P=0.135N
POLY 1.5	P=0.475	P=0.301	P=0.006 **	P=0.402N	P=0.086N	P=0.569	P=0.449N	P=0.139N
POLY 6	P=0.229	P=0.416	P=0.026 *	P=0.572	P=0.117N	P=0.454N	P=0.309N	P=0.148N
LOGISTIC REGRESSION	P=0.441N	P=0.274	P=0.005 **	P=0.467N	P=0.088N	P=0.506	P=0.487N	P=0.147N
COCH-ARM / FISHERS	P=0.031N*	P=0.268	P=0.004 **	P=0.055N	P=0.119N	P=0.500	P=0.583N	P=0.183N
ORDER RESTRICTED	P=0.186	(e)	(e)	(e)	P=0.146N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	4/49 (8%)
POLY-3 RATE (b)	5/41.63	1/42.23	0/44.41	2/28.31	3/42.21	1/42.10	1/43.75	4/42.10
POLY-3 PERCENT (g)	12.0%	2.4%	0.0%	7.1%	7.1%	2.4%	2.3%	9.5%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	0/32 (0%)	2/17 (12%)	1/30 (3%)	0/32 (0%)	1/32 (3%)	1/25 (4%)
FIRST INCIDENCE	463	542	---	729 (T)	626	712	729 (T)	593
STATISTICAL TESTS								
LIFE TABLE	P=0.232N	P=0.080N	P=0.020N*	P=0.347N	P=0.264	P=0.294N	P=0.286N	P=0.460
POLY 3	P=0.143N	P=0.097N	P=0.025N*	P=0.397N	P=0.300	P=0.306N	P=0.292N	P=0.498
POLY 1.5	P=0.156N	P=0.100N	P=0.028N*	P=0.353N	P=0.301	P=0.306N	P=0.295N	P=0.500
POLY 6	P=0.133N	P=0.090N	P=0.021N*	P=0.408N	P=0.294	P=0.304N	P=0.291N	P=0.490
LOGISTIC REGRESSION	P=0.149N	P=0.105N	P=0.049N*	P=0.323N	P=0.292	P=0.304N	P=0.299N	P=0.480
COCH-ARM / FISHERS	P=0.165N	P=0.102N	P=0.028N*	P=0.218N	P=0.293	P=0.309N	P=0.309N	P=0.489
ORDER RESTRICTED	P=0.079N	(e)	(e)	(e)	P=0.198	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	34/50 (68%)	34/50 (68%)	42/50 (84%)	22/50 (44%)	36/50 (72%)	35/50 (70%)	34/50 (68%)	30/49 (61%)
POLY-3 RATE (b)	34/46.91	34/47.80	42/49.46	22/31.56	36/45.07	35/46.48	34/47.67	30/44.75
POLY-3 PERCENT (g)	72.5%	71.1%	84.9%	69.7%	79.9%	75.3%	71.3%	67.0%
TERMINAL (d)	15/20 (75%)	19/30 (63%)	27/32 (84%)	14/17 (82%)	25/30 (83%)	22/32 (69%)	23/32 (72%)	18/25 (72%)
FIRST INCIDENCE	463	444	444	290	437	522	465	469
STATISTICAL TESTS								
LIFE TABLE	P=0.315N	P=0.155N	P=0.292N	P=0.250N	P=0.432N	P=0.383N	P=0.284N	P=0.462N
POLY 3	P=0.376	P=0.534N	P=0.095	P=0.496N	P=0.090N	P=0.389N	P=0.229N	P=0.113N
POLY 1.5	P=0.434N	P=0.564N	P=0.070	P=0.265N	P=0.090N	P=0.446N	P=0.282N	P=0.122N
POLY 6	P=0.299	P=0.468N	P=0.150	P=0.603N	P=0.114N	P=0.308N	P=0.189N	P=0.123N
LOGISTIC REGRESSION	P=0.252N	P=0.573	P=0.042 *	P=0.298N	P=0.099N	P=0.496N	P=0.309N	P=0.134N
COCH-ARM / FISHERS	P=0.008N**	P=0.585N	P=0.050	P=0.013N*	P=0.135N	P=0.500N	P=0.414N	P=0.178N
ORDER RESTRICTED	P=0.388	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Pituitary Gland: Pars Intermedia Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	2/41.05	0/41.64	0/44.41	0/28.31	0/41.61	1/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	4.9%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	1/32 (3%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	533	---	---	---	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.136N	P=0.242N	P=0.222N	P=0.333N	P=0.599N	P=0.513	(e)	(e)
POLY 3	P=0.086N	P=0.234N	P=0.220N	P=0.328N	P=0.566N	P=0.502	(e)	(e)
POLY 1.5	P=0.095N	P=0.236N	P=0.228N	P=0.307N	P=0.567N	P=0.501	(e)	(e)
POLY 6	P=0.081N	P=0.228N	P=0.208N	P=0.332N	P=0.563N	P=0.505	(e)	(e)
LOGISTIC REGRESSION	P=0.056N	P=0.236N	P=0.296N	P=0.205N	(e)	P=0.513	(e)	(e)
COCH-ARM / FISHERS	P=0.115N	P=0.247N	P=0.247N	P=0.247N	P=0.571N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.078N	(e)	(e)	(e)	P=0.385N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Pituitary Gland: Pars Intermedia Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	3/41.05	0/41.64	0/44.41	0/28.31	0/41.61	1/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	7.3%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	1/32 (3%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	533	---	---	---	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.053N	P=0.102N	P=0.089N	P=0.187N	P=0.599N	P=0.513	(e)	(e)
POLY 3	P=0.033N*	P=0.115N	P=0.105N	P=0.199N	P=0.566N	P=0.502	(e)	(e)
POLY 1.5	P=0.038N*	P=0.118N	P=0.111N	P=0.179N	P=0.567N	P=0.501	(e)	(e)
POLY 6	P=0.031N*	P=0.111N	P=0.096N	P=0.203N	P=0.563N	P=0.505	(e)	(e)
LOGISTIC REGRESSION	P=0.033N*	P=0.124N	P=0.150N	P=0.139N	(e)	P=0.513	(e)	(e)
COCH-ARM / FISHERS	P=0.047N*	P=0.121N	P=0.121N	P=0.121N	P=0.571N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.030N*	(e)	(e)	(e)	P=0.385N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Prostate Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)				
POLY-3 RATE (b)	1/40.18	2/41.64	1/44.41	0/28.31				
POLY-3 PERCENT (g)	2.5%	4.8%	2.3%	0.0%				
TERMINAL (d)	1/20 (5%)	2/30 (7%)	1/32 (3%)	0/17 (0%)				
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---				
STATISTICAL TESTS								
LIFE TABLE	P=0.272N	P=0.641	P=0.654N	P=0.532N				
POLY 3	P=0.312N	P=0.513	P=0.738N	P=0.568N				
POLY 1.5	P=0.305N	P=0.506	P=0.749N	P=0.554N				
POLY 6	P=0.301N	P=0.526	P=0.721N	P=0.568N				
LOGISTIC REGRESSION	P=0.272N	P=0.641	P=0.654N	(e)				
COCH-ARM / FISHERS	P=0.247N	P=0.500	P=0.753N	P=0.500N				
ORDER RESTRICTED	P=0.311N	(e)	(e)	(e)				

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	4/40.64	2/41.64	4/44.41	1/28.31	1/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	9.8%	4.8%	9.0%	3.5%	2.4%	0.0%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	2/30 (7%)	4/32 (13%)	1/17 (6%)	1/30 (3%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	662	729 (T)	729 (T)	729 (T)	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.249N	P=0.224N	P=0.421N	P=0.272N	P=0.323N	P=0.487N	P=0.487N	P=0.536N
POLY 3	P=0.314N	P=0.325N	P=0.594N	P=0.307N	P=0.307N	P=0.498N	P=0.490N	P=0.503N
POLY 1.5	P=0.291N	P=0.332N	P=0.617N	P=0.276N	P=0.308N	P=0.499N	P=0.493N	P=0.501N
POLY 6	P=0.313N	P=0.312N	P=0.561N	P=0.311N	P=0.304N	P=0.495N	P=0.487N	P=0.507N
LOGISTIC REGRESSION	P=0.278N	P=0.296N	P=0.526N	P=0.293N	P=0.323N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.186N	P=0.339N	P=0.643N	P=0.181N	P=0.308N	P=0.500N	P=0.500N	P=0.505N
ORDER RESTRICTED	P=0.285N	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin								
Fibroma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	4/50 (8%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	3/49 (6%)
POLY-3 RATE (b)	5/40.89	4/41.83	2/44.41	3/29.23	0/41.61	0/42.03	1/43.75	3/41.55
POLY-3 PERCENT (g)	12.2%	9.6%	4.5%	10.3%	0.0%	0.0%	2.3%	7.2%
TERMINAL (d)	2/20 (10%)	3/30 (10%)	2/32 (6%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	1/32 (3%)	1/25 (4%)
FIRST INCIDENCE	608	682	729 (T)	606	---	---	729 (T)	662
STATISTICAL TESTS								
LIFE TABLE	P=0.367N	P=0.342N	P=0.102N	P=0.511N	P=0.015 *	(e)	P=0.513	P=0.110
POLY 3	P=0.330N	P=0.486N	P=0.183N	P=0.549N	P=0.019 *	(e)	P=0.510	P=0.118
POLY 1.5	P=0.328N	P=0.494N	P=0.198N	P=0.511N	P=0.019 *	(e)	P=0.507	P=0.118
POLY 6	P=0.315N	P=0.468N	P=0.162N	P=0.543N	P=0.018 *	(e)	P=0.513	P=0.115
LOGISTIC REGRESSION	P=0.393N	P=0.463N	P=0.171N	P=0.520N	P=0.019 *	(e)	P=0.513	P=0.118
COCH-ARM / FISHERS	P=0.256N	P=0.500N	P=0.218N	P=0.357N	P=0.019 *	(e)	P=0.500	P=0.117
ORDER RESTRICTED	P=0.372N	(e)	(e)	(e)	P=0.020 *	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin								
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	4/50 (8%)	3/50 (6%)	3/50 (6%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	3/49 (6%)
POLY-3 RATE (b)	5/40.89	4/41.83	3/44.70	3/29.23	0/41.61	2/42.13	1/43.75	3/41.55
POLY-3 PERCENT (g)	12.2%	9.6%	6.7%	10.3%	0.0%	4.8%	2.3%	7.2%
TERMINAL (d)	2/20 (10%)	3/30 (10%)	2/32 (6%)	0/17 (0%)	0/30 (0%)	1/32 (3%)	1/32 (3%)	1/25 (4%)
FIRST INCIDENCE	608	682	649	606	---	703	729 (T)	662
STATISTICAL TESTS								
LIFE TABLE	P=0.404N	P=0.342N	P=0.195N	P=0.511N	P=0.080	P=0.257	P=0.513	P=0.110
POLY 3	P=0.382N	P=0.486N	P=0.308N	P=0.549N	P=0.103	P=0.240	P=0.510	P=0.118
POLY 1.5	P=0.374N	P=0.494N	P=0.330N	P=0.511N	P=0.103	P=0.238	P=0.507	P=0.118
POLY 6	P=0.366N	P=0.468N	P=0.276N	P=0.543N	P=0.100	P=0.243	P=0.513	P=0.115
LOGISTIC REGRESSION	P=0.421N	P=0.463N	P=0.318N	P=0.520N	P=0.099	P=0.243	P=0.513	P=0.118
COCH-ARM / FISHERS	P=0.278N	P=0.500N	P=0.357N	P=0.357N	P=0.099	P=0.247	P=0.500	P=0.117
ORDER RESTRICTED	P=0.470N	(e)	(e)	(e)	P=0.056	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin								
Fibrosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	1/44.70	0/28.31	0/41.61	2/42.13	0/43.75	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	0.0%	4.8%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	1/32 (3%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	---	649	---	---	703	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.667	(e)	P=0.541	(e)	P=0.434N	P=0.257	(e)	(e)
POLY 3	P=0.495	(e)	P=0.521	(e)	P=0.402N	P=0.240	(e)	(e)
POLY 1.5	P=0.546	(e)	P=0.511	(e)	P=0.403N	P=0.238	(e)	(e)
POLY 6	P=0.479	(e)	P=0.536	(e)	P=0.402N	P=0.243	(e)	(e)
LOGISTIC REGRESSION	P=0.704	(e)	P=0.470	(e)	P=0.413N	P=0.243	(e)	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)	P=0.409N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.416	(e)	(e)	(e)	P=0.252N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin								
Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	3/40.48	1/41.64	3/44.41	1/28.31	1/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	7.4%	2.4%	6.8%	3.5%	2.4%	0.0%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	1/30 (3%)	3/32 (9%)	1/17 (6%)	1/30 (3%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	662	729 (T)	729 (T)	729 (T)	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.390N	P=0.210N	P=0.465N	P=0.393N	P=0.323N	P=0.487N	P=0.487N	P=0.536N
POLY 3	P=0.430N	P=0.294N	P=0.619N	P=0.441N	P=0.307N	P=0.498N	P=0.490N	P=0.503N
POLY 1.5	P=0.411N	P=0.300N	P=0.639N	P=0.411N	P=0.308N	P=0.499N	P=0.493N	P=0.501N
POLY 6	P=0.428N	P=0.283N	P=0.589N	P=0.444N	P=0.304N	P=0.495N	P=0.487N	P=0.507N
LOGISTIC REGRESSION	P=0.420N	P=0.272N	P=0.556N	P=0.430N	P=0.323N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.313N	P=0.309N	P=0.661N	P=0.309N	P=0.308N	P=0.500N	P=0.500N	P=0.505N
ORDER RESTRICTED	P=0.407N	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin Lipoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	3/50 (6%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	3/41.64	1/44.41	0/28.31	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	0.0%	7.2%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	3/30 (10%)	1/32 (3%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.415N	P=0.200	P=0.594	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.466N	P=0.124	P=0.520	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.454N	P=0.121	P=0.511	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.450N	P=0.131	P=0.534	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.200	P=0.594	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.366N	P=0.121	P=0.500	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.306N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin Schwannoma Malignant								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	2/40.60	0/41.64	2/44.41	2/28.31	2/41.89	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	4.9%	0.0%	4.5%	7.1%	4.8%	0.0%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	2/32 (6%)	2/17 (12%)	1/30 (3%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	606	---	729 (T)	729 (T)	654	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.352	P=0.201N	P=0.549N	P=0.624	P=0.120N	P=0.233N	P=0.227N	P=0.263N
POLY 3	P=0.326	P=0.231N	P=0.662N	P=0.557	P=0.113N	P=0.236N	P=0.227N	P=0.241N
POLY 1.5	P=0.346	P=0.234N	P=0.676N	P=0.588	P=0.114N	P=0.237N	P=0.230N	P=0.239N
POLY 6	P=0.323	P=0.224N	P=0.638N	P=0.554	P=0.112N	P=0.234N	P=0.225N	P=0.247N
LOGISTIC REGRESSION	P=0.321	P=0.239N	P=0.665N	P=0.567	P=0.115N	P=0.237N	P=0.232N	P=0.240N
COCH-ARM / FISHERS	P=0.444	P=0.247N	P=0.691N	P=0.691N	P=0.116N	P=0.247N	P=0.247N	P=0.253N
ORDER RESTRICTED	P=0.294	(e)	(e)	(e)	P=0.031N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	4/40.64	2/41.64	4/44.41	1/28.31	1/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	9.8%	4.8%	9.0%	3.5%	2.4%	0.0%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	2/30 (7%)	4/32 (13%)	1/17 (6%)	1/30 (3%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	662	729 (T)	729 (T)	729 (T)	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.249N	P=0.224N	P=0.421N	P=0.272N	P=0.323N	P=0.487N	P=0.487N	P=0.536N
POLY 3	P=0.314N	P=0.325N	P=0.594N	P=0.307N	P=0.307N	P=0.498N	P=0.490N	P=0.503N
POLY 1.5	P=0.291N	P=0.332N	P=0.617N	P=0.276N	P=0.308N	P=0.499N	P=0.493N	P=0.501N
POLY 6	P=0.313N	P=0.312N	P=0.561N	P=0.311N	P=0.304N	P=0.495N	P=0.487N	P=0.507N
LOGISTIC REGRESSION	P=0.278N	P=0.296N	P=0.526N	P=0.293N	P=0.323N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.186N	P=0.339N	P=0.643N	P=0.181N	P=0.308N	P=0.500N	P=0.500N	P=0.505N
ORDER RESTRICTED	P=0.285N	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	4/40.64	2/41.64	4/44.41	1/28.31	1/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	9.8%	4.8%	9.0%	3.5%	2.4%	0.0%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	2/30 (7%)	4/32 (13%)	1/17 (6%)	1/30 (3%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	662	729 (T)	729 (T)	729 (T)	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.249N	P=0.224N	P=0.421N	P=0.272N	P=0.323N	P=0.487N	P=0.487N	P=0.536N
POLY 3	P=0.314N	P=0.325N	P=0.594N	P=0.307N	P=0.307N	P=0.498N	P=0.490N	P=0.503N
POLY 1.5	P=0.291N	P=0.332N	P=0.617N	P=0.276N	P=0.308N	P=0.499N	P=0.493N	P=0.501N
POLY 6	P=0.313N	P=0.312N	P=0.561N	P=0.311N	P=0.304N	P=0.495N	P=0.487N	P=0.507N
LOGISTIC REGRESSION	P=0.278N	P=0.296N	P=0.526N	P=0.293N	P=0.323N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.186N	P=0.339N	P=0.643N	P=0.181N	P=0.308N	P=0.500N	P=0.500N	P=0.505N
ORDER RESTRICTED	P=0.285N	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Testes Adenoma								
TUMOR RATES								
OVERALL (a)	36/50 (72%)	37/50 (74%)	31/50 (62%)	22/50 (44%)				
POLY-3 RATE (b)	36/45.13	37/44.91	31/46.60	22/30.15				
POLY-3 PERCENT (g)	79.8%	82.4%	66.5%	73.0%				
TERMINAL (d)	18/20 (90%)	26/30 (87%)	22/32 (69%)	15/17 (88%)				
FIRST INCIDENCE	533	571	444	606				
STATISTICAL TESTS								
LIFE TABLE	P=0.060N	P=0.087N	P=0.003N**	P=0.123N				
POLY 3	P=0.111N	P=0.479	P=0.101N	P=0.330N				
POLY 1.5	P=0.051N	P=0.483	P=0.137N	P=0.134N				
POLY 6	P=0.124N	P=0.497	P=0.069N	P=0.444N				
LOGISTIC REGRESSION	P=0.106N	P=0.583	P=0.062N	P=0.256N				
COCH-ARM / FISHERS	P<0.001N**	P=0.500	P=0.198N	P=0.004N**				
ORDER RESTRICTED	P=0.182N	(e)	(e)	(e)				

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Thyroid Gland: C-Cell Adenoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	9/50 (18%)	8/50 (16%)	4/50 (8%)	3/50 (6%)	2/50 (4%)	6/50 (12%)	6/49 (12%)
POLY-3 RATE (b)	5/40.29	9/43.03	8/44.95	4/28.73	3/41.61	2/42.13	6/43.92	6/41.99
POLY-3 PERCENT (g)	12.4%	20.9%	17.8%	13.9%	7.2%	4.8%	13.7%	14.3%
TERMINAL (d)	4/20 (20%)	4/30 (13%)	5/32 (16%)	3/17 (18%)	3/30 (10%)	1/32 (3%)	4/32 (13%)	3/25 (12%)
FIRST INCIDENCE	701	593	645	607	729 (T)	703	703	593
STATISTICAL TESTS								
LIFE TABLE	P=0.491N	P=0.380	P=0.580	P=0.620N	P=0.065	P=0.469N	P=0.278	P=0.186
POLY 3	P=0.508	P=0.227	P=0.349	P=0.569	P=0.107	P=0.494N	P=0.268	P=0.245
POLY 1.5	P=0.535N	P=0.209	P=0.314	P=0.609	P=0.107	P=0.498N	P=0.260	P=0.244
POLY 6	P=0.526	P=0.266	P=0.406	P=0.575	P=0.102	P=0.487N	P=0.277	P=0.241
LOGISTIC REGRESSION	P=0.555N	P=0.219	P=0.435	P=0.577	P=0.095	P=0.475N	P=0.279	P=0.233
COCH-ARM / FISHERS	P=0.309N	P=0.194	P=0.277	P=0.500N	P=0.100	P=0.500N	P=0.243	P=0.233
ORDER RESTRICTED	P=0.454	(e)	(e)	(e)	P=0.160	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Thyroid Gland: C-Cell Carcinoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	3/49 (6%)
POLY-3 RATE (b)	5/40.69	1/41.64	2/44.41	0/28.31	2/41.79	0/42.03	2/43.75	3/41.89
POLY-3 PERCENT (g)	12.3%	2.4%	4.5%	0.0%	4.8%	0.0%	4.6%	7.2%
TERMINAL (d)	3/20 (15%)	1/30 (3%)	2/32 (6%)	0/17 (0%)	1/30 (3%)	0/32 (0%)	2/32 (6%)	0/25 (0%)
FIRST INCIDENCE	593	729 (T)	729 (T)	---	682	---	729 (T)	617
STATISTICAL TESTS								
LIFE TABLE	P=0.026N*	P=0.046N*	P=0.089N	P=0.057N	P=0.203	P=0.226N	P=0.662N	P=0.471
POLY 3	P=0.038N*	P=0.094N	P=0.181N	P=0.075N	P=0.236	P=0.236N	P=0.678N	P=0.501
POLY 1.5	P=0.036N*	P=0.098N	P=0.197N	P=0.063N	P=0.237	P=0.237N	P=0.682N	P=0.501
POLY 6	P=0.036N*	P=0.087N	P=0.159N	P=0.076N	P=0.231	P=0.233N	P=0.675N	P=0.496
LOGISTIC REGRESSION	P=0.036N*	P=0.087N	P=0.153N	P=0.069N	P=0.233	P=0.235N	P=0.672N	P=0.490
COCH-ARM / FISHERS	P=0.025N*	P=0.102N	P=0.218N	P=0.028N*	P=0.230	P=0.247N	P=0.691N	P=0.490
ORDER RESTRICTED	P=0.024N*	(e)	(e)	(e)	P=0.216	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Thyroid Gland: C-Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	10/50 (20%)	10/50 (20%)	9/50 (18%)	4/50 (8%)	5/50 (10%)	2/50 (4%)	8/50 (16%)	9/49 (18%)
POLY-3 RATE (b)	10/40.80	10/43.03	9/44.95	4/28.73	5/41.79	2/42.13	8/43.92	9/42.81
POLY-3 PERCENT (g)	24.5%	23.2%	20.0%	13.9%	12.0%	4.8%	18.2%	21.0%
TERMINAL (d)	7/20 (35%)	5/30 (17%)	6/32 (19%)	3/17 (18%)	4/30 (13%)	1/32 (3%)	6/32 (19%)	3/25 (12%)
FIRST INCIDENCE	593	593	645	607	682	703	703	593
STATISTICAL TESTS								
LIFE TABLE	P=0.113N	P=0.323N	P=0.164N	P=0.143N	P=0.029 *	P=0.193N	P=0.327	P=0.150
POLY 3	P=0.172N	P=0.548N	P=0.405N	P=0.222N	P=0.054	P=0.212N	P=0.307	P=0.203
POLY 1.5	P=0.147N	P=0.575N	P=0.449N	P=0.183N	P=0.053	P=0.215N	P=0.298	P=0.198
POLY 6	P=0.160N	P=0.495N	P=0.339N	P=0.218N	P=0.053	P=0.206N	P=0.315	P=0.205
LOGISTIC REGRESSION	P=0.153N	P=0.548N	P=0.314N	P=0.210N	P=0.047 *	P=0.201N	P=0.323	P=0.187
COCH-ARM / FISHERS	P=0.050N	P=0.598N	P=0.500N	P=0.074N	P=0.048 *	P=0.218N	P=0.277	P=0.183
ORDER RESTRICTED	P=0.259N	(e)	(e)	(e)	P=0.067	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Thyroid Gland: Follicular Cell Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/40.18	0/41.64	0/44.41	0/28.31	0/41.61	2/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	2.5%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	0/30 (0%)	2/32 (6%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.311N	P=0.419N	P=0.406N	P=0.532N	P=0.441N	P=0.252	(e)	(e)
POLY 3	P=0.240N	P=0.493N	P=0.480N	P=0.568N	P=0.402N	P=0.239	(e)	(e)
POLY 1.5	P=0.260N	P=0.497N	P=0.489N	P=0.554N	P=0.403N	P=0.238	(e)	(e)
POLY 6	P=0.233N	P=0.485N	P=0.466N	P=0.568N	P=0.402N	P=0.242	(e)	(e)
LOGISTIC REGRESSION	P=0.311N	(e)	(e)	(e)	(e)	P=0.252	(e)	(e)
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.409N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.193N	(e)	(e)	(e)	P=0.252N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Thyroid Gland: Follicular Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/40.18	0/41.64	0/44.41	0/28.31	1/41.61	2/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	2.5%	0.0%	0.0%	0.0%	2.4%	4.8%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	0/32 (0%)	0/17 (0%)	1/30 (3%)	2/32 (6%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	729 (T)	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.311N	P=0.419N	P=0.406N	P=0.532N	P=0.212N	P=0.523	P=0.487N	P=0.536N
POLY 3	P=0.240N	P=0.493N	P=0.480N	P=0.568N	P=0.187N	P=0.503	P=0.490N	P=0.503N
POLY 1.5	P=0.260N	P=0.497N	P=0.489N	P=0.554N	P=0.187N	P=0.501	P=0.493N	P=0.501N
POLY 6	P=0.233N	P=0.485N	P=0.466N	P=0.568N	P=0.187N	P=0.508	P=0.487N	P=0.507N
LOGISTIC REGRESSION	P=0.311N	(e)	(e)	(e)	P=0.212N	P=0.523	(e)	(e)
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.191N	P=0.500	P=0.500N	P=0.505N
ORDER RESTRICTED	P=0.193N	(e)	(e)	(e)	P=0.171N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Tongue								
Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	1/44.41	0/28.31	2/41.61	0/42.03	1/43.75	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	2.3%	0.0%	4.8%	0.0%	2.3%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	1/32 (3%)	0/17 (0%)	2/30 (7%)	0/32 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	---	729 (T)	---	729 (T)	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.689	(e)	P=0.594	(e)	P=0.212N	P=0.224N	P=0.477N	P=0.279N
POLY 3	P=0.496	(e)	P=0.520	(e)	P=0.190N	P=0.235N	P=0.483N	P=0.240N
POLY 1.5	P=0.547	(e)	P=0.511	(e)	P=0.189N	P=0.236N	P=0.488N	P=0.238N
POLY 6	P=0.481	(e)	P=0.534	(e)	P=0.193N	P=0.231N	P=0.478N	P=0.245N
LOGISTIC REGRESSION	(e)	(e)	P=0.594	(e)	P=0.212N	(e)	P=0.477N	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)	P=0.191N	P=0.247N	P=0.500N	P=0.253N
ORDER RESTRICTED	P=0.415	(e)	(e)	(e)	P=0.076N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Uterus								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)
POLY-3 RATE (b)					0/41.61	0/42.03	0/43.75	2/41.07
POLY-3 PERCENT (g)					0.0%	0.0%	0.0%	4.9%
TERMINAL (d)					0/30 (0%)	0/32 (0%)	0/32 (0%)	2/25 (8%)
FIRST INCIDENCE					---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.031 *	(e)	(e)	P=0.198
POLY 3					P=0.044 *	(e)	(e)	P=0.234
POLY 1.5					P=0.044 *	(e)	(e)	P=0.236
POLY 6					P=0.043 *	(e)	(e)	P=0.228
LOGISTIC REGRESSION					(e)	(e)	(e)	P=0.198
COCH-ARM / FISHERS					P=0.045 *	(e)	(e)	P=0.242
ORDER RESTRICTED					P=0.028 *	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Uterus								
Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					10/50 (20%)	10/50 (20%)	10/50 (20%)	10/49 (20%)
POLY-3 RATE (b)					10/43.56	10/42.41	10/44.90	10/42.91
POLY-3 PERCENT (g)					23.0%	23.6%	22.3%	23.3%
TERMINAL (d)					6/30 (20%)	9/32 (28%)	6/32 (19%)	4/25 (16%)
FIRST INCIDENCE					394	621	465	456
STATISTICAL TESTS								
LIFE TABLE					P=0.412	P=0.554N	P=0.524N	P=0.494
POLY 3					P=0.545	P=0.574	P=0.570N	P=0.586
POLY 1.5					P=0.548	P=0.581	P=0.577N	P=0.591
POLY 6					P=0.530	P=0.573	P=0.566N	P=0.571
LOGISTIC REGRESSION					P=0.535	P=0.596N	P=0.594	P=0.571
COCH-ARM / FISHERS					P=0.526	P=0.598N	P=0.598N	P=0.579
ORDER RESTRICTED					P=0.723N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs								
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	13/50 (26%)	22/50 (44%)	13/50 (26%)	6/50 (12%)	9/50 (18%)	9/50 (18%)	7/50 (14%)	15/49 (31%)
POLY-3 RATE (b)	13/42.99	22/45.56	13/46.15	6/29.00	9/42.76	9/42.48	7/44.82	15/43.32
POLY-3 PERCENT (g)	30.2%	48.3%	28.2%	20.7%	21.1%	21.2%	15.6%	34.6%
TERMINAL (d)	3/20 (15%)	12/30 (40%)	6/32 (19%)	3/17 (18%)	4/30 (13%)	7/32 (22%)	3/32 (9%)	8/25 (32%)
FIRST INCIDENCE	522	522	556	606	535	621	535	593
STATISTICAL TESTS								
LIFE TABLE	P=0.068N	P=0.211	P=0.281N	P=0.219N	P=0.042 *	P=0.549N	P=0.345N	P=0.083
POLY 3	P=0.112N	P=0.059	P=0.507N	P=0.270N	P=0.075	P=0.598	P=0.352N	P=0.119
POLY 1.5	P=0.077N	P=0.051	P=0.546N	P=0.203N	P=0.074	P=0.598	P=0.364N	P=0.119
POLY 6	P=0.114N	P=0.080	P=0.449N	P=0.292N	P=0.073	P=0.602	P=0.343N	P=0.115
LOGISTIC REGRESSION	P=0.043N*	P=0.046 *	P=0.564	P=0.199N	P=0.071	P=0.595N	P=0.378N	P=0.114
COCH-ARM / FISHERS	P=0.010N*	P=0.046 *	P=0.590N	P=0.062N	P=0.068	P=0.602N	P=0.393N	P=0.109
ORDER RESTRICTED	P=0.093N	(e)	(e)	(e)	P=0.064	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	2/40.59	0/41.64	0/44.41	1/28.31	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	4.9%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/20 (5%)	0/30 (0%)	0/32 (0%)	1/17 (6%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	608	---	---	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.522N	P=0.198N	P=0.173N	P=0.576N	(e)	(e)	(e)	(e)
POLY 3	P=0.401N	P=0.231N	P=0.217N	P=0.621N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.425N	P=0.234N	P=0.226N	P=0.596N	(e)	(e)	(e)	(e)
POLY 6	P=0.389N	P=0.224N	P=0.204N	P=0.625N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.531N	P=0.239N	P=0.250N	P=0.615N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.461N	P=0.247N	P=0.247N	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.213N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Mesothelioma: Benign, Malignant, NOS								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/40.44	2/42.29	4/44.58	1/28.65	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	2.5%	4.7%	9.0%	3.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	2/32 (6%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	657	601	694	634	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.483	P=0.503	P=0.315	P=0.672	(e)	(e)	(e)	(e)
POLY 3	P=0.358	P=0.516	P=0.209	P=0.678	(e)	(e)	(e)	(e)
POLY 1.5	P=0.404	P=0.507	P=0.195	P=0.696	(e)	(e)	(e)	(e)
POLY 6	P=0.356	P=0.531	P=0.232	P=0.679	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.502	P=0.492	P=0.221	P=0.729	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.596	P=0.500	P=0.181	P=0.753N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.365	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Mesothelioma: Malignant								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/40.44	2/42.29	4/44.58	1/28.65	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	2.5%	4.7%	9.0%	3.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	2/32 (6%)	0/17 (0%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	657	601	694	634	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.483	P=0.503	P=0.315	P=0.672	(e)	(e)	(e)	(e)
POLY 3	P=0.358	P=0.516	P=0.209	P=0.678	(e)	(e)	(e)	(e)
POLY 1.5	P=0.404	P=0.507	P=0.195	P=0.696	(e)	(e)	(e)	(e)
POLY 6	P=0.356	P=0.531	P=0.232	P=0.679	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.502	P=0.492	P=0.221	P=0.729	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.596	P=0.500	P=0.181	P=0.753N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.365	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Osteosarcoma or Osteoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/40.18	0/41.64	0/44.41	2/28.51	0/41.61	0/42.03	0/43.75	0/41.07
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	7.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/20 (0%)	0/30 (0%)	0/32 (0%)	1/17 (6%)	0/30 (0%)	0/32 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	---	---	676	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	(e)	(e)	P=0.180	(e)	(e)	(e)	(e)
POLY 3	P=0.038 *	(e)	(e)	P=0.170	(e)	(e)	(e)	(e)
POLY 1.5	P=0.038 *	(e)	(e)	P=0.182	(e)	(e)	(e)	(e)
POLY 6	P=0.039 *	(e)	(e)	P=0.171	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.022 *	(e)	(e)	P=0.165	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.046 *	(e)	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.012 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	47/50 (94%)	48/50 (96%)	50/50 (100%)	32/50 (64%)	44/50 (88%)	41/50 (82%)	41/50 (82%)	39/49 (80%)
POLY-3 RATE (b)	47/48.36	48/48.71	50/50.00	32/33.39	44/46.95	41/46.52	41/47.91	39/46.61
POLY-3 PERCENT (g)	97.2%	98.6%	100.0%	95.8%	93.7%	88.1%	85.6%	83.7%
TERMINAL (d)	20/20 (100%)	30/30 (100%)	32/32 (100%)	17/17 (100%)	29/30 (97%)	28/32 (88%)	28/32 (88%)	21/25 (84%)
FIRST INCIDENCE	522	444	444	290	394	522	465	456
STATISTICAL TESTS								
LIFE TABLE	P=0.240N	P=0.077N	P=0.032N*	P=0.277N	P=0.449	P=0.237N	P=0.200N	P=0.547
POLY 3	P=0.602N	P=0.637	P=0.321	P=0.677N	P=0.084N	P=0.267N	P=0.148N	P=0.092N
POLY 1.5	P=0.021N*	P=0.552	P=0.191	P=0.059N	P=0.096N	P=0.284N	P=0.179N	P=0.109N
POLY 6	P=0.464	P=0.881	P=0.758	P=0.934	P=0.094N	P=0.222N	P=0.130N	P=0.091N
LOGISTIC REGRESSION	P=0.364	P=0.477	P=0.160	P=0.570	P=0.107N	P=0.267N	P=0.159N	P=0.122N
COCH-ARM / FISHERS	P<0.001N**	P=0.500	P=0.121	P<0.001N**	P=0.190N	P=0.288N	P=0.288N	P=0.194N
ORDER RESTRICTED	P=0.125N	(e)	(e)	(e)	P=0.087N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	34/50 (68%)	31/50 (62%)	27/50 (54%)	15/50 (30%)	22/50 (44%)	14/50 (28%)	16/50 (32%)	23/49 (47%)
POLY-3 RATE (b)	34/47.18	31/48.18	27/47.46	15/30.62	22/45.65	14/43.24	16/45.88	23/45.42
POLY-3 PERCENT (g)	72.1%	64.3%	56.9%	49.0%	48.2%	32.4%	34.9%	50.6%
TERMINAL (d)	12/20 (60%)	14/30 (47%)	15/32 (47%)	9/17 (53%)	9/30 (30%)	9/32 (28%)	9/32 (28%)	9/25 (36%)
FIRST INCIDENCE	463	485	556	319	394	513	465	456
STATISTICAL TESTS								
LIFE TABLE	P=0.015N*	P=0.117N	P=0.010N*	P=0.030N*	P=0.178	P=0.079N	P=0.135N	P=0.357
POLY 3	P=0.020N*	P=0.274N	P=0.086N	P=0.032N*	P=0.297	P=0.093N	P=0.137N	P=0.491
POLY 1.5	P=0.006N**	P=0.306N	P=0.097N	P=0.008N**	P=0.290	P=0.083N	P=0.136N	P=0.493
POLY 6	P=0.033N*	P=0.223N	P=0.071N	P=0.060N	P=0.292	P=0.108N	P=0.148N	P=0.471
LOGISTIC REGRESSION	P<0.001N**	P=0.364N	P=0.120N	P=0.008N**	P=0.261	P=0.071N	P=0.153N	P=0.459
COCH-ARM / FISHERS	P<0.001N**	P=0.338N	P=0.109N	P<0.001N**	P=0.256	P=0.072N	P=0.151N	P=0.463
ORDER RESTRICTED	P=0.038N*	(e)	(e)	(e)	P=0.181	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	50/50 (100%)	50/50 (100%)	33/50 (66%)	48/50 (96%)	45/50 (90%)	44/50 (88%)	45/49 (92%)
POLY-3 RATE (b)	50/50.00	50/50.00	50/50.00	33/34.31	48/48.16	45/47.24	44/48.97	45/47.75
POLY-3 PERCENT (g)	100.0%	100.0%	100.0%	96.2%	99.7%	95.3%	89.9%	94.2%
TERMINAL (d)	20/20 (100%)	30/30 (100%)	32/32 (100%)	17/17 (100%)	30/30 (100%)	30/32 (94%)	28/32 (88%)	23/25 (92%)
FIRST INCIDENCE	463	444	444	290	394	513	465	456
STATISTICAL TESTS								
LIFE TABLE	P=0.170N	(e)	(e)	P=0.226N	P=0.304	P=0.237N	P=0.162N	P=0.397
POLY 3	P<0.001N**	(e)	(e)	P=0.131N	P=0.151N	P=0.217N	P=0.035N*	P=0.143N
POLY 1.5	P<0.001N**	(e)	(e)	P<0.001N**	P=0.165N	P=0.195N	P=0.044N*	P=0.158N
POLY 6	P=0.737N	(e)	(e)	P=1.000N	P=0.177N	P=0.231N	P=0.036N*	P=0.175N
LOGISTIC REGRESSION	P=0.093N	(e)	(e)	P=0.364N	P=0.165N	P=0.165N	P=0.052N	P=0.134N
COCH-ARM / FISHERS	P<0.001N**	(e)	(e)	P<0.001N**	P=0.337N	P=0.218N	P=0.134N	P=0.329N
ORDER RESTRICTED	P<0.001N**	(e)	(e)	(e)	P=0.054N	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.
(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

TDMS No. 93020 - 07

Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: RATS/F 344

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE
CAS Number: 693-13-0
Pathologist: HEATH, J. - DURBIN, L. - ALLISON, M.
Final #2/Rats

Date Report Reqsted: 08/08/2005
Time Report Reqsted: 08:54:04
First Dose M/F: 04/24/00 / 04/24/00
Lab: SRI

C Number:	C93020D
Lock Date:	03/14/2003
Cage Range:	ALL
Date Range:	ALL
Reasons For Removal:	ALL
Removal Date Range:	ALL
Treatment Groups:	Include ALL

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

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	18	12	10	23
Natural Death	12	8	8	10
Survivors				
Terminal Sacrifice	20	30	32	17
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(50)	(50)	(50)	(49)
Ulcer	1 [2.0]			
Edema	1 [3.0]	2 [2.5]	4 [2.8]	2 [3.0]
Hemorrhage			1 [2.0]	
Intestine Large, Colon	(50)	(50)	(50)	(50)
Inflammation, Chronic Active		1 [3.0]		
Intestine Small, Duodenum	(49)	(49)	(49)	(49)
Epithelium, Hyperplasia		1 [3.0]	2 [3.0]	1 [2.0]
Liver	(50)	(50)	(50)	(50)
Angiectasis	2 [1.5]	2 [3.0]	1 [2.0]	1 [3.0]
Clear Cell Focus	16	11	14	8
Mixed Cell Focus	4	6	6	4
Basophilic Focus	14	14	22	9
Hepatodiaphragmatic Nodule	5	5	7	8
Eosinophilic Focus	6	2	7	4
Degeneration, Cystic	3 [2.0]	5 [2.0]	4 [2.3]	
Necrosis, Focal		1 [2.0]	1 [3.0]	
Infiltration Cellular, Mixed Cell		2 [2.0]	4 [2.0]	
Regeneration		1 [2.0]	1 [3.0]	
Hemorrhage			2 [2.5]	1 [2.0]
Metaplasia, Atypical				1 [3.0]
Cyst				1 [3.0]
Bile Duct, Hyperplasia	33 [1.6]	36 [2.1]	31 [1.7]	17 [1.7]
Centrilobular, Necrosis	4 [2.0]	3 [2.0]	2 [2.0]	
Hepatocyte, Vacuolization Cytoplasmic	6 [3.2]	6 [3.3]	7 [3.3]	
Kupffer Cell, Pigmentation		2 [2.5]		1 [3.0]

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

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Mesentery	(9)	(9)	(12)	(6)
Accessory Spleen	1			
Fat, Necrosis	7 [2.7]	6 [3.2]	8 [2.8]	3 [2.7]
Pancreas	(50)	(50)	(50)	(50)
Atrophy	18 [1.9]	28 [2.2]	32 [1.9]	21 [2.3]
Cyst	2 [3.0]	3 [3.0]	5 [3.0]	3 [3.0]
Hemorrhage			1 [3.0]	
Acinus, Cytoplasmic Alteration		1 [3.0]	1 [3.0]	1 [3.0]
Acinus, Hyperplasia, Focal	2 [2.0]	5 [2.2]	4 [2.0]	
Salivary Glands	(49)	(50)	(50)	(50)
Atrophy	1 [2.0]		1 [3.0]	2 [2.0]
Necrosis			1 [2.0]	1 [2.0]
Stomach, Forestomach	(50)	(50)	(50)	(49)
Inflammation, Chronic	2 [2.5]	1 [2.0]		2 [3.0]
Ulcer	7 [3.0]	6 [3.2]	6 [3.5]	2 [4.0]
Erosion	1 [2.0]	1 [1.0]	1 [2.0]	
Edema	3 [3.0]	3 [3.0]	5 [3.4]	2 [3.5]
Perforation	1		1	
Diverticulum		1		
Epithelium, Hyperplasia	7 [2.9]	6 [3.3]	8 [2.5]	5 [2.2]
Stomach, Glandular	(50)	(50)	(50)	(49)
Inflammation, Chronic	1 [3.0]	1 [2.0]		
Erosion	7 [2.6]	6 [2.3]	3 [3.0]	3 [2.0]
Ulcer	4 [2.8]	2 [2.5]	3 [2.3]	1 [2.0]
Cyst		1 [3.0]	1 [3.0]	
Edema		2 [3.0]		
Glands, Hyperplasia	2 [2.0]		1 [2.0]	1 [2.0]
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	41 [2.1]	44 [2.3]	44 [2.4]	36 [1.7]
Thrombosis	5 [3.0]	1 [4.0]	5 [3.4]	
Inflammation, Chronic		1 [3.0]	1 [3.0]	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(49)	(50)	(50)
Degeneration, Fatty	12 [2.2]	11 [1.8]	15 [2.2]	8 [2.0]

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

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Hyperplasia, Diffuse	1 [3.0]			
Hyperplasia, Focal	8 [1.5]	8 [1.5]	5 [1.8]	5 [1.6]
Accessory Adrenal Cortical Nodule	17 [3.0]	16 [3.0]	16 [3.0]	9 [3.0]
Hypertrophy, Focal	3 [2.0]	2 [1.5]	7 [2.0]	3 [1.7]
Adrenal Medulla	(50)	(48)	(50)	(50)
Hyperplasia	7 [1.9]	9 [1.6]	16 [1.8]	3 [1.7]
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	2 [2.0]			
Parathyroid Gland	(49)	(48)	(49)	(48)
Hyperplasia		1 [2.0]		
Hyperplasia, Focal				1 [2.0]
Pituitary Gland	(50)	(50)	(50)	(50)
Pars Distalis, Angiectasis		4 [2.3]	1 [3.0]	2 [2.5]
Pars Distalis, Cyst	2 [3.0]	3 [3.0]	1 [3.0]	1 [3.0]
Pars Distalis, Hyperplasia, Focal	3 [1.0]	7 [2.0]	7 [2.3]	5 [2.8]
Pars Intermedia, Cyst		1 [3.0]	1 [3.0]	1 [3.0]
Thyroid Gland	(50)	(50)	(50)	(50)
Ultimobranchial Cyst	1 [3.0]			2 [3.0]
C-cell, Hyperplasia	8 [1.8]	12 [2.0]	3 [1.3]	3 [1.3]
Follicle, Cyst	4 [3.0]	5 [3.0]	2 [3.0]	3 [3.0]
Follicular Cell, Hyperplasia	3 [1.7]		1 [2.0]	
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm				1 [2.0]
Preputial Gland	(50)	(50)	(50)	(50)
Inflammation, Chronic	18 [2.0]	26 [2.0]	17 [2.1]	9 [2.1]
Hyperplasia	2 [2.0]			1 [2.0]
Cyst		2 [3.0]	2 [3.0]	1 [3.0]
Prostate	(50)	(50)	(50)	(50)
Inflammation, Chronic	40 [2.4]	32 [2.3]	35 [2.4]	25 [2.0]
Epithelium, Hyperplasia	4 [1.8]	10 [1.5]	2 [1.5]	3 [1.7]
Testes	(50)	(50)	(50)	(50)
Germinal Epithelium, Atrophy	12 [2.0]	11 [2.1]	24 [2.3]	14 [2.6]

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

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE
CAS Number: 693-13-0
Pathologist: HEATH, J. - DURBIN, L. - ALLISON, M.

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Interstitial Cell, Hyperplasia	6 [1.3]	6 [1.5]	8 [1.3]	8 [1.5]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Myelofibrosis	2 [2.0]	1 [3.0]		
Hyperplasia	3 [2.7]	7 [2.9]	3 [3.0]	1 [2.0]
Infiltration Cellular, Histiocyte			1 [3.0]	1 [4.0]
Lymph Node	(18)	(14)	(16)	(13)
Mediastinal, Ectasia	3 [3.0]	1 [3.0]	1 [4.0]	
Mediastinal, Hemorrhage	2 [3.5]	1 [2.0]	4 [2.5]	6 [2.8]
Mediastinal, Hyperplasia, Lymphoid	7 [2.9]	5 [2.6]	5 [3.2]	7 [2.4]
Mediastinal, Pigmentation	2 [2.0]	3 [2.3]	5 [2.6]	3 [2.3]
Pancreatic, Ectasia			1 [4.0]	
Pancreatic, Hemorrhage	2 [4.0]		2 [2.0]	2 [2.5]
Pancreatic, Hyperplasia, Lymphoid		1 [2.0]	2 [3.0]	
Pancreatic, Pigmentation	1 [3.0]	1 [2.0]		3 [2.0]
Lymph Node, Mandibular	(0)	(1)	(4)	(1)
Ectasia			2 [3.0]	
Hemorrhage				1 [1.0]
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Hemorrhage	10 [1.8]	3 [1.3]	11 [1.5]	6 [1.5]
Hyperplasia, Lymphoid	18 [2.2]	15 [2.2]	20 [2.1]	15 [2.1]
Ectasia	3 [2.3]	5 [2.8]	3 [2.3]	1 [2.0]
Pigmentation	15 [2.0]	8 [2.1]	16 [2.0]	12 [2.0]
Spleen	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	10 [1.8]	9 [2.0]	11 [2.1]	4 [1.8]
Pigmentation	9 [2.9]	5 [2.8]	6 [2.3]	25 [2.6]
Fibrosis	2 [2.5]	3 [3.0]	2 [3.0]	2 [2.5]
Necrosis	2 [3.5]	1 [3.0]	1 [4.0]	1 [3.0]
Hemorrhage		1 [4.0]		
Lymphoid Follicle, Atrophy	1 [3.0]		1 [3.0]	2 [2.0]
Lymphoid Follicle, Hyperplasia		1 [3.0]		1 [2.0]
Thymus	(49)	(46)	(46)	(49)
Hemorrhage	1 [2.0]			5 [2.4]
INTEGUMENTARY SYSTEM				
Mammary Gland	(49)	(48)	(47)	(48)

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

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Hyperplasia	31 [3.1]	25 [2.8]	29 [3.0]	10 [2.7]
Skin	(49)	(50)	(50)	(50)
Inflammation, Chronic	5 [3.6]	1 [4.0]	2 [4.0]	2 [2.5]
Ulcer	4 [3.5]	5 [3.4]	5 [4.0]	4 [3.5]
Cyst Epithelial Inclusion		4	2	
Epidermis, Hyperplasia	9 [3.6]	7 [3.6]	8 [3.5]	6 [3.5]
Epidermis, Skin, Site Of Application, Hyperplasia	1 [1.0]	10 [1.0]	29 [1.1]	19 [1.1]
Skin, Site Of Application, Erosion			1 [1.0]	
Skin, Site Of Application, Inflammation, Chronic		6 [1.0]	12 [1.0]	11 [1.0]
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Cranium, Osteopetrosis				1 [3.0]
Femur, Osteopetrosis	1 [2.0]			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	16 [3.2]	10 [3.0]	15 [3.1]	4 [3.5]
Hydrocephalus	7 [2.0]	1 [2.0]	5 [2.0]	2 [2.5]
Hemorrhage	1 [1.0]		3 [1.7]	11 [2.5]
Gliosis			1 [2.0]	2 [1.0]
Arteriole, Necrosis, Fibrinoid				5 [1.8]
Neuron, Necrosis		1 [1.0]		16 [1.9]
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Infiltration Cellular, Histiocyte	21 [1.5]	19 [1.5]	21 [1.3]	12 [1.3]
Hemorrhage	6 [1.7]	6 [2.0]	7 [2.1]	17 [2.0]
Inflammation, Chronic	9 [1.2]	13 [1.2]	16 [1.4]	12 [1.8]
Edema	2 [2.5]	2 [2.5]		2 [2:5]
Metaplasia, Osseous		2 [2.5]	2 [1.5]	1 [1.0]
Alveolar Epithelium, Hyperplasia	10 [1.3]	4 [2.5]	6 [2.0]	6 [2.5]
Nose	(50)	(50)	(50)	(50)

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

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Foreign Body	13	22	12	12
Inflammation, Chronic	15 [2.2]	22 [1.5]	13 [1.8]	11 [1.6]
Respiratory Epithelium, Hyperplasia	11 [1.8]	11 [1.7]	8 [1.9]	9 [1.3]
Respiratory Epithelium, Metaplasia, Squamous	2 [2.0]			1 [1.0]
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Cataract		1 [3.0]	2 [2.0]	1 [2.0]
Cornea, Hyperplasia			1 [2.0]	5 [2.4]
Cornea, Inflammation, Chronic		1 [1.0]	5 [1.8]	23 [1.7]
Cornea, Ulcer				1 [3.0]
Retina, Degeneration	4 [1.8]	1 [3.0]	6 [2.0]	3 [2.0]
Harderian Gland	(50)	(50)	(50)	(50)
Inflammation, Chronic		1 [3.0]	1 [2.0]	
Hyperplasia, Focal		1 [2.0]		1 [2.0]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Nephropathy	43 [2.2]	46 [1.8]	42 [2.3]	30 [1.4]
Inflammation, Chronic	3 [2.7]	5 [2.4]	9 [2.3]	1 [3.0]
Cyst				1 [3.0]
Renal Tubule, Accumulation, Hyaline Droplet		1 [3.0]		
Renal Tubule, Dilatation				
Renal Tubule, Hyperplasia		1 [3.0]		1 [2.0]
Renal Tubule, Necrosis	1 [2.0]			
Renal Tubule, Pigmentation	2 [3.0]		2 [3.5]	
Transitional Epithelium, Hyperplasia	2 [3.0]	4 [2.8]		
Urethra			1 [2.0]	
Angiectasis	(0)	(0)	(1)	(0)
Urinary Bladder			1 [4.0]	
Hemorrhage	(50)	(50)	(50)	(49)
Inflammation, Chronic			1 [2.0]	3 [3.0]
Transitional Epithelium, Hyperplasia			2 [2.5]	4 [2.5]
			1 [4.0]	

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

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG

*** END OF MALE ***

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	13	9	10	14
Natural Death	7	9	8	10
Survivors				
Terminal Sacrifice	30	32	32	25
Other				1
Animals Examined Microscopically	50	50	50	49
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(50)	(50)	(50)	(49)
Edema	1 [2.0]	3 [2.0]	1 [3.0]	2 [3.0]
Inflammation, Chronic		1 [3.0]		
Intestine Large, Rectum	(50)	(48)	(43)	(44)
Hemorrhage				1 [2.0]
Intestine Small, Duodenum	(49)	(50)	(50)	(49)
Epithelium, Hyperplasia	1 [1.0]			
Intestine Small, Jejunum	(47)	(50)	(50)	(46)
Epithelium, Hyperplasia			1 [1.0]	
Liver	(50)	(50)	(50)	(49)
Basophilic Focus	42	43	45	40
Infiltration Cellular, Mixed Cell	8 [1.8]	11 [1.5]	13 [1.6]	8 [1.4]
Mixed Cell Focus	3	5	7	1
Hematopoietic Cell Proliferation	1 [1.0]		1 [1.0]	
Necrosis, Focal	5 [1.4]	1 [1.0]	3 [1.7]	4 [1.5]
Eosinophilic Focus	4	3	8	5
Clear Cell Focus	10	6	4	4
Hepatodiaphragmatic Nodule	11	6	12	8
Regeneration	1 [2.0]			2 [2.5]
Hemorrhage		1 [2.0]	2 [2.0]	1 [3.0]
Cyst			1 [3.0]	
Angiectasis			1 [2.0]	1 [2.0]
Bile Duct, Hyperplasia	5 [1.6]	3 [1.3]	2 [1.5]	5 [1.8]
Centrilobular, Necrosis	1 [2.0]			2 [1.5]
Hepatocyte, Vacuolization Cytoplasmic	5 [2.8]	5 [2.8]	3 [3.0]	4 [3.0]

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Kupffer Cell, Pigmentation	1 [2.0]	1 [2.0]		1 [2.0]
Mesentery	(11)	(12)	(9)	(9)
Fat, Necrosis	11 [2.9]	11 [2.7]	8 [3.0]	9 [2.7]
Oral Mucosa	(1)	(0)	(2)	(0)
Cyst			1 [3.0]	
Pancreas	(50)	(50)	(50)	(49)
Atrophy	15 [1.5]	16 [2.1]	18 [1.8]	19 [2.1]
Cyst	4 [3.0]	6 [3.0]	5 [3.0]	
Necrosis				1 [3.0]
Acinus, Cytoplasmic Alteration		1 [3.0]	1 [3.0]	
Acinus, Hyperplasia, Focal		1 [2.0]	1 [2.0]	
Salivary Glands	(50)	(50)	(50)	(48)
Atrophy	3 [2.0]	1 [3.0]	1 [3.0]	1 [2.0]
Stomach, Forestomach	(50)	(50)	(50)	(49)
Ulcer	3 [3.7]		1 [4.0]	4 [3.5]
Edema	2 [2.5]		1 [3.0]	2 [2.5]
Epithelium, Hyperplasia	4 [2.5]		2 [2.5]	2 [2.5]
Stomach, Glandular	(50)	(50)	(50)	(49)
Erosion	1 [3.0]	1 [3.0]	2 [3.0]	4 [2.3]
Ulcer		1 [2.0]	1 [2.0]	1 [2.0]
Edema			1 [3.0]	1 [3.0]
Glands, Hyperplasia	1 [1.0]		1 [1.0]	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(49)
Cardiomyopathy	30 [1.5]	39 [1.8]	35 [1.9]	31 [1.5]
Thrombosis	1 [4.0]	1 [4.0]	1 [3.0]	1 [3.0]
Inflammation, Chronic		1 [3.0]		1 [3.0]
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(49)
Degeneration, Fatty	20 [2.1]	15 [2.5]	16 [2.5]	17 [2.1]
Hyperplasia, Focal	3 [1.7]		4 [2.3]	5 [1.0]
Hypertrophy, Focal	10 [2.3]	10 [2.2]	9 [1.8]	8 [2.4]
Accessory Adrenal Cortical Nodule	9 [3.0]	6 [3.0]	9 [3.0]	8 [3.0]
Adrenal Medulla	(49)	(50)	(50)	(49)
Hyperplasia	5 [1.2]	2 [1.0]	4 [2.0]	2 [1.0]

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Islets, Pancreatic	(50)	(50)	(50)	(49)
Hyperplasia	1 [2.0]		2 [2.0]	
Metaplasia, Hepatocyte		1 [2.0]		
Pituitary Gland	(50)	(50)	(50)	(49)
Pars Distalis, Angiectasis	1 [2.0]	6 [2.5]	4 [2.8]	4 [3.5]
Pars Distalis, Cyst	16 [3.0]	6 [3.0]	15 [3.0]	14 [3.0]
Pars Distalis, Hyperplasia, Focal	7 [2.3]	7 [2.0]	10 [2.4]	11 [2.2]
Pars Intermedia, Angiectasis		1 [2.0]	2 [3.0]	2 [2.5]
Pars Intermedia, Cyst	1 [3.0]	1 [3.0]	2 [3.0]	
Thyroid Gland	(50)	(50)	(50)	(49)
Ultimobranchial Cyst				2 [3.0]
C-cell, Hyperplasia	17 [1.6]	14 [1.5]	10 [1.8]	12 [1.6]
Follicle, Cyst	2 [3.0]	2 [3.0]	3 [3.0]	1 [3.0]
Follicular Cell, Hyperplasia	1 [1.0]		1 [1.0]	1 [2.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(49)	(50)	(49)
Inflammation, Chronic	13 [2.3]	2 [2.0]	10 [2.3]	3 [2.0]
Cyst	1 [3.0]	3 [3.0]	1 [3.0]	3 [3.0]
Hyperplasia		2 [2.0]	2 [1.0]	
Ovary	(50)	(50)	(50)	(49)
Cyst	11 [3.0]	8 [3.0]	9 [3.0]	6 [3.0]
Angiectasis	1 [4.0]			
Corpus Luteum, Hyperplasia	1 [3.0]			
Uterus	(50)	(50)	(50)	(49)
Endometrium, Hyperplasia, Cystic	4 [2.8]	10 [2.2]	5 [2.2]	9 [2.4]
Vagina	(6)	(6)	(5)	(11)
Inflammation, Chronic	1 [4.0]			
Cyst	1 [4.0]	1		
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(49)

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Hyperplasia	6 [3.2]	8 [2.6]	3 [2.7]	6 [2.7]
Myelofibrosis		1 [2.0]	2 [3.0]	2 [2.0]
Infiltration Cellular, Histiocyte				2 [3.0]
Lymph Node	(13)	(10)	(14)	(8)
Deep Cervical, Hemorrhage		1 [4.0]		
Deep Cervical, Hyperplasia, Lymphoid		1 [2.0]		
Deep Cervical, Pigmentation		1 [2.0]		
Mediastinal, Ectasia			1 [2.0]	
Mediastinal, Hemorrhage	4 [1.8]	4 [3.0]	4 [1.8]	3 [2.0]
Mediastinal, Hyperplasia, Lymphoid	3 [2.0]	5 [3.0]	7 [2.4]	
Mediastinal, Pigmentation	6 [2.7]	6 [2.7]	9 [2.8]	2 [2.5]
Pancreatic, Hemorrhage	1 [1.0]	3 [2.0]	1 [2.0]	1 [2.0]
Pancreatic, Hyperplasia, Lymphoid		1 [2.0]		
Pancreatic, Pigmentation	1 [2.0]	2 [2.5]	1 [3.0]	1 [3.0]
Lymph Node, Mandibular	(3)	(7)	(1)	(2)
Ectasia	1 [2.0]	4 [2.5]		1 [2.0]
Hyperplasia, Lymphoid	1 [2.0]			
Pigmentation	1 [2.0]	1 [2.0]		
Lymph Node, Mesenteric	(50)	(50)	(50)	(48)
Pigmentation	25 [2.1]	24 [2.1]	27 [2.0]	17 [2.0]
Hemorrhage	11 [1.5]	11 [1.1]	6 [1.5]	5 [1.8]
Hyperplasia, Lymphoid	16 [2.3]	20 [2.3]	12 [2.1]	11 [2.3]
Ectasia		1 [3.0]		1 [3.0]
Necrosis				1 [3.0]
Spleen	(50)	(50)	(50)	(49)
Pigmentation	10 [3.0]	16 [3.1]	13 [3.1]	16 [3.0]
Hematopoietic Cell Proliferation	21 [2.0]	29 [1.7]	29 [1.7]	20 [1.8]
Necrosis	1 [3.0]	1 [3.0]	2 [4.0]	
Fibrosis		1 [2.0]		
Hemorrhage				2 [3.0]
Hyperplasia, Reticulum Cell				2 [3.0]
Lymphoid Follicle, Atrophy		2 [3.0]		1 [3.0]
Lymphoid Follicle, Hyperplasia	1 [3.0]		3 [3.3]	1 [3.0]
Thymus	(50)	(48)	(49)	(46)
Hyperplasia, Lymphoid	1 [3.0]	2 [2.5]	1 [3.0]	1 [2.0]
Hemorrhage	2 [1.5]	2 [2.0]	1 [2.0]	1 [3.0]

INTEGUMENTARY SYSTEM

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Mammary Gland	(50)	(50)	(50)	(48)
Hyperplasia	45 [3.0]	46 [2.9]	45 [2.9]	41 [2.7]
Skin	(50)	(50)	(50)	(49)
Inflammation, Chronic	2 [3.5]	1 [1.0]		
Cyst Epithelial Inclusion		1		
Ulcer			1 [4.0]	
Epidermis, Skin, Site Of Application, Hyperplasia	1 [1.0]	5 [1.0]	16 [1.0]	21 [1.0]
Epidermis, Hyperplasia	2 [3.5]	2 [1.5]	2 [2.5]	1 [2.0]
Skin, Site Of Application, Inflammation, Chronic			3 [1.0]	10 [1.0]
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(49)
Compression	14 [2.9]	13 [3.7]	14 [3.3]	13 [3.1]
Hydrocephalus	2 [2.5]	8 [2.3]	1 [2.0]	2 [2.0]
Necrosis	2 [2.5]	1 [2.0]	2 [2.5]	
Gliosis	1 [3.0]	1 [3.0]	2 [2.5]	
Hemorrhage	1 [1.0]	8 [1.4]		
Angiectasis	1 [3.0]		1 [2.0]	
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(49)
Inflammation, Chronic	10 [1.9]	22 [1.5]	19 [1.5]	10 [1.1]
Infiltration Cellular, Histiocyte	22 [1.2]	26 [1.2]	30 [1.5]	27 [1.2]
Hemorrhage	8 [1.6]	14 [1.9]	9 [1.8]	13 [1.8]
Metaplasia, Squamous	1 [3.0]		1 [2.0]	
Edema	4 [2.0]	4 [2.8]	3 [3.0]	2 [2.5]
Metaplasia, Osseous			2 [1.0]	1 [1.0]
Emphysema			1 [4.0]	
Pigmentation				1 [2.0]
Alveolar Epithelium, Hyperplasia	3 [1.3]	4 [2.3]	10 [1.9]	1 [1.0]

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

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Nose	(50)	(50)	(50)	(49)
Foreign Body	5		2	3
Inflammation, Chronic	6 [1.7]	1 [1.0]	2 [1.5]	3 [2.3]
Respiratory Epithelium, Hyperplasia	4 [1.8]	1 [1.0]	2 [1.5]	1 [2.0]
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(49)
Cataract	2 [3.0]	5 [2.6]	3 [3.0]	3 [2.3]
Cornea, Hyperplasia				3 [1.7]
Cornea, Inflammation, Chronic	1 [1.0]	1 [4.0]		3 [1.3]
Retina, Degeneration	4 [3.0]	7 [3.0]	5 [2.8]	4 [2.5]
Retina, Dysplasia			1 [1.0]	
Harderian Gland	(50)	(50)	(50)	(49)
Hyperplasia, Focal	1 [1.0]			
Inflammation, Chronic		1 [4.0]		
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(49)
Nephropathy	32 [2.1]	32 [1.6]	28 [2.0]	21 [1.7]
Inflammation, Suppurative	1 [4.0]			
Cyst	1 [3.0]			
Inflammation, Chronic	2 [2.0]	2 [2.0]	1 [2.0]	
Infarct	1 [1.0]		1 [3.0]	
Hemorrhage				1 [3.0]
Papilla, Necrosis				1 [4.0]
Renal Tubule, Accumulation, Hyaline Droplet	2 [2.5]	1 [4.0]		2 [2.5]
Renal Tubule, Dilatation	1 [2.0]		1 [2.0]	
Renal Tubule, Necrosis	1 [2.0]	2 [2.0]		1 [2.0]
Transitional Epithelium, Hyperplasia			1 [3.0]	2 [2.5]
Urinary Bladder	(50)	(50)	(50)	(49)
Hemorrhage			1 [3.0]	

*** END OF REPORT ***

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

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-523 Diisopropylcarbodiimide

Pathology Tables - Rats - Chronic Study

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-523 Diisopropylcarbodiimide

Pathology Tables - Mice - Chronic Study

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

FINAL #1 MICE

Facility: Southern Research Institute

Chemical CAS #: 693-13-0

Lock Date: 03/14/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Natural Death	5	5	6	4
Moribund Sacrifice	12	11	4	5
Accidently Killed		1	1	1
Survivors				
Terminal Sacrifice	33	32	38	40
Natural Death		1		
Moribund Sacrifice			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(49)	(50)
Gallbladder	(42)	(47)	(42)	(47)
Intestine Large, Colon	(49)	(48)	(48)	(48)
Intestine Large, Cecum	(46)	(45)	(44)	(47)
Intestine Small, Duodenum	(46)	(46)	(44)	(47)
Adenoma	1 (2%)			
Intestine Small, Jejunum	(47)	(45)	(44)	(46)
Adenoma		1 (2%)		
Carcinoma			1 (2%)	1 (2%)
Intestine Small, Ileum	(46)	(44)	(45)	(47)
Liver	(50)	(50)	(50)	(50)
Hemangiosarcoma	1 (2%)	1 (2%)		1 (2%)
Hepatocellular Carcinoma	8 (16%)	2 (4%)	7 (14%)	3 (6%)
Hepatocellular Carcinoma, Multiple	2 (4%)		1 (2%)	
Hepatocellular Adenoma	13 (26%)	16 (32%)	10 (20%)	9 (18%)
Hepatocellular Adenoma, Multiple	8 (16%)	11 (22%)	11 (22%)	9 (18%)
Hepatocholangiocarcinoma, Multiple				1 (2%)
Histiocytic Sarcoma	3 (6%)		2 (4%)	1 (2%)
Liposarcoma, Metastatic, Tissue NOS		1 (2%)		
Mesentery	(23)	(20)	(14)	(18)
Hemangiosarcoma, Metastatic, Liver				1 (6%)
Histiocytic Sarcoma	1 (4%)		2 (14%)	2 (11%)
Liposarcoma				1 (6%)
Pancreas	(50)	(48)	(50)	(50)
Histiocytic Sarcoma	1 (2%)		1 (2%)	
Salivary Glands	(50)	(50)	(50)	(49)

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
ALIMENTARY SYSTEM - cont				
Stomach, Forestomach	(50)	(49)	(50)	(50)
Squamous Cell Carcinoma			1 (2%)	
Squamous Cell Papilloma	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Stomach, Glandular	(49)	(48)	(47)	(50)
Tooth	(1)	(1)	(1)	(2)
Peridontal Tissue, Histiocytic Sarcoma, Metastatic, Uncertain Primary Site	1 (100%)			
Peridontal Tissue, Histiocytic Sarcoma, Metastatic, Nose				1 (50%)
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(49)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver				1 (2%)
Histiocytic Sarcoma			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(49)	(50)
Histiocytic Sarcoma	1 (2%)		1 (2%)	
Subcapsular, Adenoma				1 (2%)
Adrenal Medulla	(49)	(50)	(49)	(49)
Histiocytic Sarcoma			1 (2%)	
Pheochromocytoma Benign		1 (2%)		1 (2%)
Islets, Pancreatic	(50)	(49)	(50)	(50)
Adenoma		2 (4%)		
Pituitary Gland	(48)	(50)	(50)	(46)
Pars Distalis, Adenoma	4 (8%)	12 (24%)	3 (6%)	10 (22%)
Pars Distalis, Carcinoma	1 (2%)			
Pars Intermedia, Adenoma		2 (4%)	1 (2%)	1 (2%)
Thyroid Gland	(50)	(50)	(50)	(50)
Bilateral, Follicular Cell, Adenoma	1 (2%)			
Follicular Cell, Adenoma	2 (4%)			2 (4%)
GENERAL BODY SYSTEM				
Tissue NOS	(5)	(8)	(3)	(4)
Abdominal, Pelvic, Liposarcoma		1 (13%)		
Mediastinum, Hepatocholangiocarcinoma, Metastatic, Liver				1 (25%)

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
GENERAL BODY SYSTEM - cont				
Mediastinum, Histiocytic Sarcoma	1 (20%)		1 (33%)	
Thoracic, Hepatocholangiocarcinoma, Metastatic, Liver				1 (25%)
GENITAL SYSTEM				
Ovary	(49)	(50)	(49)	(49)
Cystadenoma	1 (2%)	2 (4%)	2 (4%)	2 (4%)
Granulosa Cell Tumor Benign	1 (2%)			
Hemangiosarcoma	1 (2%)			
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
Teratoma Benign			1 (2%)	
Oviduct	(3)	(1)		
Uterus	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			1 (2%)
Histiocytic Sarcoma	3 (6%)	1 (2%)	2 (4%)	2 (4%)
Leiomyosarcoma				2 (4%)
Endometrium, Carcinoma		1 (2%)		
Endometrium, Polyp Stromal	4 (8%)	2 (4%)	5 (10%)	
Endometrium, Sarcoma Stromal			1 (2%)	
Vagina				(1)
Histiocytic Sarcoma				1 (100%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(50)	(50)	(49)
Hemangiosarcoma	1 (2%)			
Histiocytic Sarcoma			2 (4%)	1 (2%)
Liposarcoma, Metastatic, Tissue NOS		1 (2%)		
Lymph Node	(11)	(13)	(10)	(10)
Bronchial, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung			1 (10%)	
Iliac, Carcinoma, Metastatic, Uterus		1 (8%)		
Iliac, Histiocytic Sarcoma			1 (10%)	
Mediastinal, Histiocytic Sarcoma	1 (9%)		1 (10%)	1 (10%)
Pancreatic, Histiocytic Sarcoma			1 (10%)	
Pancreatic, Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (10%)	
Renal, Histiocytic Sarcoma			1 (10%)	
Lymph Node, Mandibular	(47)	(49)	(49)	(48)
Carcinoma, Metastatic, Harderian Gland			1 (2%)	

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
HEMATOPOIETIC SYSTEM - cont				
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
Lymph Node, Mesenteric	(47)	(48)	(49)	(50)
Hemangioma		1 (2%)		
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
Spleen	(49)	(49)	(50)	(50)
Hemangiosarcoma	1 (2%)	1 (2%)		
Histiocytic Sarcoma	1 (2%)		2 (4%)	2 (4%)
Thymus	(46)	(48)	(44)	(47)
Histiocytic Sarcoma			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(49)	(49)
Carcinoma	1 (2%)		2 (4%)	
Skin	(50)	(50)	(50)	(50)
Basosquamous Tumor Benign			1 (2%)	
Squamous Cell Carcinoma			1 (2%)	
Site of Application, Basal Cell Adenoma			1 (2%)	
Subcutaneous Tissue, Fibroma		1 (2%)		
Subcutaneous Tissue, Fibrosarcoma	1 (2%)			
Subcutaneous Tissue, Hemangioma	2 (4%)	1 (2%)		1 (2%)
Subcutaneous Tissue, Hemangiosarcoma	2 (4%)	1 (2%)		
Subcutaneous Tissue, Melanoma Malignant		1 (2%)	1 (2%)	
Subcutaneous Tissue, Squamous Cell Carcinoma				1 (2%)
Subcutaneous Tissue, Site of Application, Melanoma Benign				1 (2%)
Subcutaneous Tissue, Site of Application, Myxoma		1 (2%)		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma		1 (2%)		
Cranium, Osteosarcoma				1 (2%)
Skeletal Muscle		(4)	(1)	(1)
Lipoma		1 (25%)		
Rhabdomyosarcoma			1 (100%)	

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Histiocytic Sarcoma				1 (2%)
Osteosarcoma, Metastatic, Bone				1 (2%)
Spinal Cord	(1)	(3)		(2)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	3 (6%)	2 (4%)	2 (4%)	1 (2%)
Alveolar/Bronchiolar Adenoma, Multiple	1 (2%)		1 (2%)	
Alveolar/Bronchiolar Carcinoma		1 (2%)	1 (2%)	4 (8%)
Alveolar/Bronchiolar Carcinoma, Multiple		1 (2%)	1 (2%)	1 (2%)
Carcinoma, Metastatic, Harderian Gland	1 (2%)		1 (2%)	
Carcinoma, Metastatic, Mammary Gland			1 (2%)	
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)		4 (8%)	
Hepatocholangiocarcinoma, Metastatic, Liver				1 (2%)
Histiocytic Sarcoma			2 (4%)	1 (2%)
Liposarcoma, Metastatic, Tissue NOS		1 (2%)		
Osteosarcoma, Metastatic, Uncertain Primary Site		1 (2%)		
Sarcoma Stromal, Metastatic, Uterus			1 (2%)	
Nose	(50)	(50)	(49)	(50)
Histiocytic Sarcoma				1 (2%)
SPECIAL SENSES SYSTEM				
Eye	(47)	(48)	(49)	(49)
Carcinoma, Metastatic, Harderian Gland			1 (2%)	
Histiocytic Sarcoma			1 (2%)	1 (2%)
Retrobulbar, Carcinoma, Metastatic, Harderian Gland	1 (2%)			
Retrobulbar, Sarcoma			1 (2%)	
Harderian Gland	(50)	(49)	(50)	(50)
Adenoma	9 (18%)	5 (10%)	5 (10%)	3 (6%)
Carcinoma	1 (2%)		4 (8%)	1 (2%)
Zymbal's Gland		(1)		
Carcinoma		1 (100%)		

NTP Experiment-Test: 93020-08 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Report: PEIRPTQ5
Study Type: CHRONIC DIISOPROPYLCARBODIIMIDE Date: 07/19/04
Route: SKIN APPLICATION Time: 09:11:56

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
URINARY SYSTEM				
Kidney	(49)	(49)	(50)	(49)
Histiocytic Sarcoma	1 (2%)		2 (4%)	1 (2%)
Ureter		(1)		(1)
Histiocytic Sarcoma				1 (100%)
Urinary Bladder	(50)	(50)	(49)	(50)
Histiocytic Sarcoma			1 (2%)	1 (2%)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	3 (6%)	1 (2%)	2 (4%)	2 (4%)
Lymphoma Malignant	10 (20%)	9 (18%)	7 (14%)	7 (14%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	47	43	41	41
Total Primary Neoplasms	85	84	76	70
Total Animals with Benign Neoplasms	35	38	28	31
Total Benign Neoplasms	52	62	44	44
Total Animals with Malignant Neoplasms	26	19	26	18
Total Malignant Neoplasms	33	22	32	26
Total Animals with Metastatic Neoplasms	3	3	9	4
Total Metastatic Neoplasm	4	5	11	7
Total Animals with Malignant Neoplasms Uncertain Primary Site	1	1		
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	5	1	2	5
Natural Death	6	9	10	8
Accidently Killed				1
Survivors				
Terminal Sacrifice	38	40	38	36
Moribund Sacrifice	1			
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(46)	(43)	(44)	(42)
Leiomyoma				1 (2%)
Intestine Small, Duodenum	(46)	(44)	(44)	(40)
Adenoma	1 (2%)	1 (2%)	1 (2%)	
Carcinoma			1 (2%)	
Intestine Small, Jejunum	(46)	(43)	(44)	(40)
Carcinoma			1 (2%)	1 (3%)
Intestine Small, Ileum	(46)	(44)	(44)	(40)
Carcinoma			1 (2%)	
Liver	(50)	(50)	(50)	(49)
Cholangiocarcinoma	1 (2%)			
Hemangiosarcoma		2 (4%)	1 (2%)	1 (2%)
Hepatoblastoma		1 (2%)		
Hepatocellular Carcinoma	16 (32%)	8 (16%)	8 (16%)	8 (16%)
Hepatocellular Carcinoma, Multiple	4 (8%)	7 (14%)	3 (6%)	3 (6%)
Hepatocellular Adenoma	9 (18%)	15 (30%)	11 (22%)	10 (20%)
Hepatocellular Adenoma, Multiple	9 (18%)	7 (14%)	8 (16%)	9 (18%)
Hepatocholangiocarcinoma			1 (2%)	
Histiocytic Sarcoma	1 (2%)			
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach				1 (2%)
Mesentery	(49)	(49)	(50)	(50)
Carcinoma, Metastatic, Pancreas				1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)	1 (2%)	
Histiocytic Sarcoma	1 (2%)			
Sarcoma				1 (2%)
Schwannoma Malignant, Metastatic, Uncertain				

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
ALIMENTARY SYSTEM - cont				
Primary Site				
Pancreas	(49)	(50)	(49)	1 (2%) (49)
Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)		
Sarcoma, Metastatic, Uncertain Primary Site				1 (2%)
Duct, Carcinoma				1 (2%)
Salivary Glands	(50)	(50)	(50)	(50)
Stomach, Forestomach	(50)	(50)	(50)	(50)
Squamous Cell Carcinoma				1 (2%)
Squamous Cell Papilloma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Serosa, Carcinoma, Metastatic, Pancreas				1 (2%)
Stomach, Glandular	(50)	(47)	(48)	(47)
Carcinoma, Metastatic, Pancreas				1 (2%)
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma, Metastatic, Liver			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(49)
Adenoma	1 (2%)	1 (2%)		1 (2%)
Bilateral, Subcapsular, Adenoma	1 (2%)			
Subcapsular, Adenoma	3 (6%)	2 (4%)	6 (12%)	4 (8%)
Adrenal Medulla	(49)	(50)	(50)	(49)
Pheochromocytoma Malignant				1 (2%)
Pheochromocytoma Benign		1 (2%)		
Islets, Pancreatic	(49)	(50)	(49)	(50)
Adenoma	1 (2%)	1 (2%)		1 (2%)
Carcinoma			1 (2%)	
Pituitary Gland	(48)	(47)	(50)	(49)
Pars Intermedia, Adenoma			1 (2%)	
Thyroid Gland	(49)	(50)	(50)	(50)
Follicular Cell, Adenoma		1 (2%)		1 (2%)

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
GENERAL BODY SYSTEM				
Peritoneum	(49)	(49)	(49)	(50)
Carcinoma, Metastatic, Pancreas				1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)		
Sarcoma				1 (2%)
Tissue NOS			(3)	(2)
Abdominal, Hepatocellular Carcinoma, Metastatic, Liver			1 (33%)	
Mediastinum, Hepatocellular Carcinoma, Metastatic, Liver			1 (33%)	1 (50%)
Thoracic, Hepatocellular Carcinoma, Metastatic, Liver			1 (33%)	
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Prostate	(50)	(50)	(50)	(50)
Carcinoma				1 (2%)
Seminal Vesicle	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Carcinoma, Metastatic, Pancreas				1 (2%)
Testes	(50)	(50)	(50)	(50)
Interstitial Cell, Adenoma			1 (2%)	1 (2%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(50)	(50)	(50)
Hemangiosarcoma			1 (2%)	2 (4%)
Lymph Node	(6)	(5)	(5)	(4)
Mediastinal, Carcinoma, Metastatic, Pancreas				1 (25%)
Mediastinal, Hepatoblastoma, Metastatic, Liver	1 (17%)			
Mediastinal, Sarcoma, Metastatic, Uncertain Primary Site				1 (25%)
Lymph Node, Mandibular	(47)	(48)	(47)	(47)
Lymph Node, Mesenteric	(50)	(48)	(49)	(48)
Histiocytic Sarcoma	1 (2%)			
Sarcoma, Metastatic, Uncertain Primary Site				1 (2%)
Spleen	(49)	(50)	(50)	(47)
Hemangiosarcoma			1 (2%)	2 (4%)
Thymus	(47)	(44)	(47)	(46)

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
HEMATOPOIETIC SYSTEM - cont				
Hepatocellular Carcinoma, Metastatic, Liver			1 (2%)	1 (2%)
INTEGUMENTARY SYSTEM				
Mammary Gland	(1)			(1)
Carcinoma	1 (100%)			
Skin	(50)	(50)	(50)	(50)
Subcutaneous Tissue, Fibroma	1 (2%)			
Subcutaneous Tissue, Fibrosarcoma		1 (2%)		
Subcutaneous Tissue, Hemangiosarcoma				1 (2%)
Subcutaneous Tissue, Hepatoblastoma, Metastatic, Liver	1 (2%)			
Subcutaneous Tissue, Site of Application, Lymphoma Malignant			1 (2%)	
MUSCULOSKELETAL SYSTEM				
Skeletal Muscle	(2)	(2)	(2)	(5)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung				1 (20%)
Carcinoma, Metastatic, Pancreas				1 (20%)
Hemangiosarcoma			1 (50%)	
Hepatocellular Carcinoma, Metastatic, Liver		1 (50%)		
Rhabdomyosarcoma	1 (50%)			
NERVOUS SYSTEM				
Peripheral Nerve	(1)		(1)	(3)
Schwannoma Malignant				1 (33%)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	6 (12%)	5 (10%)	7 (14%)	7 (14%)
Alveolar/Bronchiolar Adenoma, Multiple		1 (2%)		1 (2%)
Alveolar/Bronchiolar Carcinoma	2 (4%)	3 (6%)	2 (4%)	2 (4%)
Alveolar/Bronchiolar Carcinoma, Multiple			2 (4%)	
Carcinoma, Metastatic, Mammary Gland	1 (2%)			
Carcinoma, Metastatic, Pancreas				1 (2%)

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
RESPIRATORY SYSTEM - cont				
Cholangiocarcinoma, Metastatic, Liver	1 (2%)			
Hepatoblastoma, Metastatic, Liver	1 (2%)			
Hepatocellular Carcinoma, Metastatic, Liver	7 (14%)	6 (12%)	4 (8%)	3 (6%)
Hepatocellular Carcinoma, Metastatic, Lung	1 (2%)			
Sarcoma, Metastatic, Uncertain Primary Site				1 (2%)
Mediastinum, Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)	1 (2%)	
Nose	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Harderian Gland	1 (2%)			
SPECIAL SENSES SYSTEM				
Eye	(46)	(46)	(47)	(44)
Retrobulbar, Carcinoma, Metastatic, Harderian Gland	1 (2%)			
Retrobulbar, Sarcoma	1 (2%)			
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma	6 (12%)	9 (18%)	10 (20%)	8 (16%)
Carcinoma	2 (4%)	1 (2%)		3 (6%)
Bilateral, Adenoma	3 (6%)			
URINARY SYSTEM				
Kidney	(48)	(48)	(50)	(48)
Cholangiocarcinoma, Metastatic, Liver	1 (2%)			
Hepatocellular Carcinoma, Metastatic, Liver			1 (2%)	
Histiocytic Sarcoma	1 (2%)			
Schwannoma Malignant, Metastatic, Uncertain Primary Site				1 (2%)
Capsule, Carcinoma, Metastatic, Pancreas				1 (2%)
Renal Tubule, Adenoma		1 (2%)		
Urinary Bladder	(50)	(50)	(49)	(50)
Hemangioma	1 (2%)		1 (2%)	
Serosa, Hemangiosarcoma			1 (2%)	

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)			
Lymphoma Malignant	2 (4%)	2 (4%)	2 (4%)	3 (6%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	42	42	42	41
Total Primary Neoplasms	75	71	74	78
Total Animals with Benign Neoplasms	29	31	33	31
Total Benign Neoplasms	44	46	47	45
Total Animals with Malignant Neoplasms	27	21	22	23
Total Malignant Neoplasms	31	25	27	33
Total Animals with Metastatic Neoplasms	8	6	4	8
Total Metastatic Neoplasm	16	11	12	22
Total Animals with Malignant Neoplasms Uncertain Primary Site				2
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIISOPROPYLCARBODIIMIDE

CAGES FROM 0000 TO LAST CAGE
ROUTE: SKIN APPLICATION

FINAL #1 MICE

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Southern Research Inst
EXPERIMENT: 93020 TEST: 08
TEST TYPE: CHRONIC
CONT: N01-ES-05451
PATHOLOGIST: FARNELL, DANIEL
Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIISOPROPYLCARBODIIMIDE

CAGES FROM 0000 TO LAST CAGE
ROUTE: SKIN APPLICATION

REPORT: PEIRPT08
DATE: 07/19/04
TIME: 09:14:52

NTP C#: 93020D
CAS: 693-13-0

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Bone Marrow
Islets, Pancreatic
Kidney
Liver
Lung
Ovary
Pancreas
Pituitary Gland
Prostate
Spleen
Testes
Thyroid Gland
Urinary Bladder

NTP
LAB: Southern Research Inst
EXPERIMENT: 93020 TEST: 08
TEST TYPE: CHRONIC
CONT: N01-ES-05451
PATHOLOGIST: FARNELL, DANIEL

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIISOPROPYLCARBODIIMIDE

CAGES FROM 0000 TO LAST CAGE
ROUTE: SKIN APPLICATION

REPORT: PEIRPT08
DATE: 07/19/04
TIME: 09:14:52

NTP C#: 93020D
CAS: 693-13-0

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF DIISOPROPYLCARBODIIMIDE

Male Mice

Organ	Morphology
Liver	Hepatocellular Carcinoma
	Hepatocellular Carcinoma or Hepatoblastoma

Female Mice

Organ	Morphology
Harderian Gland	Adenoma
	Carcinoma or Adenoma
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma
	Hepatocellular Carcinoma or Hepatoblastoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Lung	Alveolar/Bronchiolar Carcinoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
Uterus	Leiomyosarcoma
	Polyp Stromal
	Sarcoma Stromal or Polyp Stromal
All Organs	Hemangiosarcoma
	Hemangiosarcoma or Hemangioma
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Adrenal Cortex Adenoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	3/50 (6%)	6/50 (12%)	5/49 (10%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	1/50 (2%)
POLY-3 RATE (b)	5/47.01	3/46.01	6/44.90	5/43.04	0/42.68	0/43.63	0/43.22	1/45.13
POLY-3 PERCENT (g)	10.6%	6.5%	13.4%	11.6%	0.0%	0.0%	0.0%	2.2%
TERMINAL (d)	4/39 (10%)	3/40 (8%)	5/38 (13%)	4/36 (11%)	0/33 (0%)	0/33 (0%)	0/38 (0%)	1/40 (3%)
FIRST INCIDENCE	682	729 (T)	713	642	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.388	P=0.347N	P=0.479	P=0.576	P=0.225	(e)	(e)	P=0.538
POLY 3	P=0.391	P=0.368N	P=0.468	P=0.574	P=0.206	(e)	(e)	P=0.511
POLY 1.5	P=0.399	P=0.368N	P=0.470	P=0.580	P=0.203	(e)	(e)	P=0.508
POLY 6	P=0.386	P=0.368N	P=0.466	P=0.569	P=0.210	(e)	(e)	P=0.515
LOGISTIC REGRESSION	P=0.383	P=0.364N	P=0.468	P=0.575	(e)	(e)	(e)	P=0.538
COCH-ARM / FISHERS	P=0.437	P=0.357N	P=0.500	P=0.617	P=0.199	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.435	(e)	(e)	(e)	P=0.131	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Bone Marrow Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/46.28	0/46.01	1/44.84	2/43.80	1/42.52	0/43.63	0/44.22	0/44.17
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	4.6%	2.4%	0.0%	0.0%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	1/38 (3%)	1/36 (3%)	0/33 (0%)	0/33 (0%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	729 (T)	642	683	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.063	(e)	P=0.495	P=0.226	P=0.295N	P=0.500N	P=0.485N	P=0.485N
POLY 3	P=0.064	(e)	P=0.494	P=0.225	P=0.309N	P=0.495N	P=0.492N	P=0.492N
POLY 1.5	P=0.065	(e)	P=0.495	P=0.228	P=0.309N	P=0.494N	P=0.494N	P=0.494N
POLY 6	P=0.063	(e)	P=0.493	P=0.222	P=0.307N	P=0.499N	P=0.490N	P=0.490N
LOGISTIC REGRESSION	P=0.068	(e)	P=0.495	P=0.243	P=0.305N	P=0.496N	P=0.496N	P=0.500N
COCH-ARM / FISHERS	P=0.071	(e)	P=0.505	P=0.253	P=0.305N	P=0.495N	P=0.495N	P=0.500N
ORDER RESTRICTED	P=0.067	(e)	(e)	(e)	P=0.113N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Harderian Gland Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	9/50 (18%)	9/50 (18%)	10/50 (20%)	8/50 (16%)	9/50 (18%)	5/50 (10%)	5/50 (10%)	3/50 (6%)
POLY-3 RATE (b)	9/46.92	9/46.27	10/45.36	8/44.20	9/43.07	5/43.63	5/44.22	3/46.01
POLY-3 PERCENT (g)	19.2%	19.5%	22.1%	18.1%	20.9%	11.5%	11.3%	6.5%
TERMINAL (d)	8/39 (21%)	8/40 (20%)	8/38 (21%)	7/36 (19%)	8/33 (24%)	5/33 (15%)	5/39 (13%)	1/40 (3%)
FIRST INCIDENCE	706	660	625	474	619	729 (T)	729 (T)	582
STATISTICAL TESTS								
LIFE TABLE	P=0.540N	P=0.583N	P=0.473	P=0.571N	P=0.026N*	P=0.188N	P=0.117N	P=0.037N*
POLY 3	P=0.511N	P=0.590	P=0.467	P=0.554N	P=0.042N*	P=0.183N	P=0.176N	P=0.045N*
POLY 1.5	P=0.502N	P=0.587	P=0.465	P=0.546N	P=0.046N*	P=0.183N	P=0.185N	P=0.050N
POLY 6	P=0.522N	P=0.596	P=0.473	P=0.563N	P=0.036N*	P=0.192N	P=0.168N	P=0.040N*
LOGISTIC REGRESSION	P=0.518N	P=0.591	P=0.458	P=0.557N	P=0.044N*	P=0.192N	P=0.159N	P=0.056N
COCH-ARM / FISHERS	P=0.450N	P=0.602N	P=0.500	P=0.500N	P=0.054N	P=0.194N	P=0.194N	P=0.061N
ORDER RESTRICTED	P=0.622N	(e)	(e)	(e)	P=0.026N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Harderian Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	1/50 (2%)	0/50 (0%)	4/50 (8%)	1/50 (2%)
POLY-3 RATE (b)	2/46.84	1/46.01	0/44.84	3/43.48	1/43.11	0/43.63	4/44.63	1/45.13
POLY-3 PERCENT (g)	4.3%	2.2%	0.0%	6.9%	2.3%	0.0%	9.0%	2.2%
TERMINAL (d)	1/39 (3%)	1/40 (3%)	0/38 (0%)	3/36 (8%)	0/33 (0%)	0/33 (0%)	3/39 (8%)	1/40 (3%)
FIRST INCIDENCE	725	729 (T)	---	729 (T)	603	---	614	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.304	P=0.494N	P=0.248N	P=0.461	P=0.501	P=0.500N	P=0.216	P=0.737N
POLY 3	P=0.322	P=0.506N	P=0.247N	P=0.466	P=0.470	P=0.498N	P=0.189	P=0.750N
POLY 1.5	P=0.325	P=0.507N	P=0.247N	P=0.472	P=0.461	P=0.497N	P=0.184	P=0.753N
POLY 6	P=0.319	P=0.505N	P=0.247N	P=0.460	P=0.483	P=0.502N	P=0.195	P=0.748N
LOGISTIC REGRESSION	P=0.298	P=0.504N	P=0.248N	P=0.451	P=0.448	P=0.509N	P=0.180	P=0.758
COCH-ARM / FISHERS	P=0.337	P=0.500N	P=0.247N	P=0.500	P=0.444	P=0.500N	P=0.181	P=0.753N
ORDER RESTRICTED	P=0.164	(e)	(e)	(e)	P=0.194	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Harderian Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	10/50 (20%)	10/50 (20%)	10/50 (20%)	11/50 (22%)	10/50 (20%)	5/50 (10%)	8/50 (16%)	4/50 (8%)
POLY-3 RATE (b)	10/46.94	10/46.27	10/45.36	11/44.20	10/43.50	5/43.63	8/44.63	4/46.01
POLY-3 PERCENT (g)	21.3%	21.6%	22.1%	24.9%	23.0%	11.5%	17.9%	8.7%
TERMINAL (d)	8/39 (21%)	9/40 (23%)	8/38 (21%)	10/36 (28%)	8/33 (24%)	5/33 (15%)	7/39 (18%)	2/40 (5%)
FIRST INCIDENCE	706	660	625	474	603	729 (T)	614	582
STATISTICAL TESTS								
LIFE TABLE	P=0.347	P=0.578N	P=0.568	P=0.419	P=0.050N	P=0.129N	P=0.279N	P=0.045N*
POLY 3	P=0.378	P=0.585	P=0.566	P=0.438	P=0.076N	P=0.125N	P=0.373N	P=0.056N
POLY 1.5	P=0.387	P=0.582	P=0.563	P=0.447	P=0.084N	P=0.123N	P=0.386N	P=0.061N
POLY 6	P=0.366	P=0.591	P=0.572	P=0.427	P=0.065N	P=0.136N	P=0.361N	P=0.051N
LOGISTIC REGRESSION	P=0.364	P=0.587	P=0.557	P=0.426	P=0.084N	P=0.122N	P=0.371N	P=0.069N
COCH-ARM / FISHERS	P=0.441	P=0.598N	P=0.598N	P=0.500	P=0.098N	P=0.131N	P=0.398N	P=0.074N
ORDER RESTRICTED	P=0.536	(e)	(e)	(e)	P=0.040N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Intestine Small: Site Unspecified Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	3/50 (6%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/46.83	0/46.01	3/45.12	1/43.48	0/42.68	0/43.63	1/44.22	1/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	6.7%	2.3%	0.0%	0.0%	2.3%	2.2%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	2/38 (5%)	1/36 (3%)	0/33 (0%)	0/33 (0%)	1/39 (3%)	1/40 (3%)
FIRST INCIDENCE	---	---	653	729 (T)	---	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.226	(e)	P=0.119	P=0.484	P=0.274	(e)	P=0.533	P=0.538
POLY 3	P=0.215	(e)	P=0.112	P=0.485	P=0.250	(e)	P=0.507	P=0.511
POLY 1.5	P=0.221	(e)	P=0.112	P=0.488	P=0.246	(e)	P=0.503	P=0.508
POLY 6	P=0.208	(e)	P=0.113	P=0.483	P=0.258	(e)	P=0.511	P=0.515
LOGISTIC REGRESSION	P=0.234	(e)	P=0.116	P=0.484	(e)	(e)	P=0.533	P=0.538
COCH-ARM / FISHERS	P=0.247	(e)	P=0.121	P=0.500	P=0.236	(e)	P=0.500	P=0.500
ORDER RESTRICTED	P=0.108	(e)	(e)	(e)	P=0.258	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Intestine Small: Site Unspecified Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/46.83	1/46.45	4/45.12	1/43.48	1/42.68	1/43.63	1/44.22	1/45.13
POLY-3 PERCENT (g)	2.1%	2.2%	8.9%	2.3%	2.3%	2.3%	2.3%	2.2%
TERMINAL (d)	1/39 (3%)	0/40 (0%)	3/38 (8%)	1/36 (3%)	1/33 (3%)	1/33 (3%)	1/39 (3%)	1/40 (3%)
FIRST INCIDENCE	729 (T)	603	653	729 (T)	729 (T)	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.491	P=0.755N	P=0.174	P=0.744	P=0.570N	P=0.762	P=0.724N	P=0.718N
POLY 3	P=0.478	P=0.759	P=0.168	P=0.744	P=0.621N	P=0.756N	P=0.753N	P=0.748N
POLY 1.5	P=0.488	P=0.757	P=0.168	P=0.747	P=0.625N	P=0.756N	P=0.757N	P=0.752N
POLY 6	P=0.467	P=0.760N	P=0.169	P=0.741	P=0.614N	P=0.759N	P=0.749N	P=0.744N
LOGISTIC REGRESSION	P=0.516	P=0.747N	P=0.168	P=0.744	P=0.570N	P=0.762	P=0.724N	P=0.718N
COCH-ARM / FISHERS	P=0.526	P=0.753N	P=0.181	P=0.753N	P=0.634	P=0.753N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.307	(e)	(e)	(e)	P=0.730N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	1/49 (2%)	1/50 (2%)	0/49 (0%)	1/50 (2%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/46.28	1/46.01	0/44.29	1/43.48	0/42.68	2/43.17	0/44.22	0/45.13
POLY-3 PERCENT (g)	2.2%	2.2%	0.0%	2.3%	0.0%	4.6%	0.0%	0.0%
TERMINAL (d)	1/39 (3%)	1/40 (3%)	0/38 (0%)	1/36 (3%)	0/33 (0%)	1/33 (3%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	729 (T)	---	625	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.640N	P=0.756N	P=0.505N	P=0.744	P=0.382N	P=0.242	(e)	(e)
POLY 3	P=0.619N	P=0.759	P=0.509N	P=0.747	P=0.388N	P=0.240	(e)	(e)
POLY 1.5	P=0.618N	P=0.760	P=0.508N	P=0.750	P=0.392N	P=0.238	(e)	(e)
POLY 6	P=0.620N	P=0.759	P=0.509N	P=0.742	P=0.384N	P=0.238	(e)	(e)
LOGISTIC REGRESSION	P=0.640N	P=0.756N	(e)	P=0.744	P=0.405N	P=0.233	(e)	(e)
COCH-ARM / FISHERS	P=0.612N	P=0.747N	P=0.500N	P=0.747N	P=0.404N	P=0.242	(e)	(e)
ORDER RESTRICTED	P=0.554N	(e)	(e)	(e)	P=0.239N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/49 (2%)	1/50 (2%)	1/49 (2%)	1/50 (2%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/46.28	1/46.01	1/44.66	1/43.48	0/42.68	2/43.17	0/44.22	0/45.13
POLY-3 PERCENT (g)	2.2%	2.2%	2.2%	2.3%	0.0%	4.6%	0.0%	0.0%
TERMINAL (d)	1/39 (3%)	1/40 (3%)	0/38 (0%)	1/36 (3%)	0/33 (0%)	1/33 (3%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	625	729 (T)	---	625	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.610	P=0.756N	P=0.755	P=0.744	P=0.382N	P=0.242	(e)	(e)
POLY 3	P=0.609	P=0.759	P=0.753	P=0.747	P=0.388N	P=0.240	(e)	(e)
POLY 1.5	P=0.614	P=0.760	P=0.752	P=0.750	P=0.392N	P=0.238	(e)	(e)
POLY 6	P=0.602	P=0.759	P=0.754	P=0.742	P=0.384N	P=0.238	(e)	(e)
LOGISTIC REGRESSION	P=0.629	P=0.756N	P=0.755N	P=0.744	P=0.405N	P=0.233	(e)	(e)
COCH-ARM / FISHERS	P=0.630N	P=0.747N	P=0.753N	P=0.747N	P=0.404N	P=0.242	(e)	(e)
ORDER RESTRICTED	P=0.728	(e)	(e)	(e)	P=0.239N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Liver Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	1/49 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/46.83	2/46.01	1/44.84	1/42.92	1/42.68	1/43.76	0/44.22	1/45.13
POLY-3 PERCENT (g)	0.0%	4.4%	2.2%	2.3%	2.3%	2.3%	0.0%	2.2%
TERMINAL (d)	0/39 (0%)	2/40 (5%)	1/38 (3%)	0/36 (0%)	1/33 (3%)	0/33 (0%)	0/39 (0%)	1/40 (3%)
FIRST INCIDENCE	---	729 (T)	729 (T)	674	729 (T)	695	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.472	P=0.244	P=0.495	P=0.481	P=0.568N	P=0.754	P=0.467N	P=0.718N
POLY 3	P=0.463	P=0.233	P=0.491	P=0.483	P=0.610N	P=0.755N	P=0.493N	P=0.748N
POLY 1.5	P=0.467	P=0.233	P=0.492	P=0.484	P=0.613N	P=0.756N	P=0.497N	P=0.752N
POLY 6	P=0.460	P=0.234	P=0.491	P=0.481	P=0.607N	P=0.758N	P=0.489N	P=0.744N
LOGISTIC REGRESSION	P=0.474	P=0.244	P=0.495	P=0.507	P=0.597N	P=0.760N	(e)	P=0.718N
COCH-ARM / FISHERS	P=0.494	P=0.247	P=0.500	P=0.495	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.271	(e)	(e)	(e)	P=0.520N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Liver								
Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	18/50 (36%)	22/50 (44%)	19/50 (38%)	19/49 (39%)	21/50 (42%)	27/50 (54%)	21/50 (42%)	18/50 (36%)
POLY-3 RATE (b)	18/46.83	22/46.67	19/45.74	19/43.91	21/43.39	27/44.95	21/44.66	18/45.56
POLY-3 PERCENT (g)	38.4%	47.1%	41.5%	43.3%	48.4%	60.1%	47.0%	39.5%
TERMINAL (d)	18/39 (46%)	20/40 (50%)	16/38 (42%)	17/36 (47%)	19/33 (58%)	22/33 (67%)	20/39 (51%)	16/40 (40%)
FIRST INCIDENCE	729 (T)	603	493	498	603	579	603	619
STATISTICAL TESTS								
LIFE TABLE	P=0.400	P=0.295	P=0.457	P=0.373	P=0.025N*	P=0.146	P=0.311N	P=0.122N
POLY 3	P=0.442	P=0.260	P=0.463	P=0.399	P=0.100N	P=0.181	P=0.534N	P=0.262N
POLY 1.5	P=0.446	P=0.251	P=0.454	P=0.401	P=0.118N	P=0.179	P=0.560N	P=0.285N
POLY 6	P=0.441	P=0.275	P=0.477	P=0.402	P=0.081N	P=0.169	P=0.510N	P=0.239N
LOGISTIC REGRESSION	P=0.401	P=0.246	P=0.432	P=0.354	P=0.078N	P=0.151	P=0.487N	P=0.230N
COCH-ARM / FISHERS	P=0.524	P=0.270	P=0.500	P=0.469	P=0.161N	P=0.158	P=0.580N	P=0.341N
ORDER RESTRICTED	P=0.467	(e)	(e)	(e)	P=0.117N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Liver								
Hepatocellular Carcinoma								
TUMOR RATES								
OVERALL (a)	20/50 (40%)	15/50 (30%)	11/50 (22%)	11/49 (22%)	10/50 (20%)	2/50 (4%)	8/50 (16%)	3/50 (6%)
POLY-3 RATE (b)	20/49.51	15/48.49	11/46.88	11/44.48	10/43.35	2/43.63	8/45.04	3/45.17
POLY-3 PERCENT (g)	40.4%	30.9%	23.5%	24.7%	23.1%	4.6%	17.8%	6.6%
TERMINAL (d)	12/39 (31%)	8/40 (20%)	4/38 (11%)	6/36 (17%)	6/33 (18%)	2/33 (6%)	7/39 (18%)	2/40 (5%)
FIRST INCIDENCE	515	435	496	474	619	729 (T)	417	718
STATISTICAL TESTS								
LIFE TABLE	P=0.079N	P=0.226N	P=0.080N	P=0.099N	P=0.044N*	P=0.019N*	P=0.286N	P=0.021N*
POLY 3	P=0.057N	P=0.222N	P=0.058N	P=0.081N	P=0.067N	P=0.012N*	P=0.362N	P=0.028N*
POLY 1.5	P=0.051N	P=0.223N	P=0.056N	P=0.072N	P=0.072N	P=0.012N*	P=0.377N	P=0.030N*
POLY 6	P=0.064N	P=0.220N	P=0.058N	P=0.091N	P=0.060N	P=0.014N*	P=0.351N	P=0.026N*
LOGISTIC REGRESSION	P=0.027N*	P=0.165N	P=0.031N*	P=0.038N*	P=0.071N	P=0.014N*	P=0.382N	P=0.028N*
COCH-ARM / FISHERS	P=0.034N*	P=0.201N	P=0.041N*	P=0.047N*	P=0.083N	P=0.014N*	P=0.398N	P=0.036N*
ORDER RESTRICTED	P=0.063N	(e)	(e)	(e)	P=0.012N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Liver								
Hepatocellular Carcinoma or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	20/50 (40%)	16/50 (32%)	11/50 (22%)	11/49 (22%)	10/50 (20%)	2/50 (4%)	8/50 (16%)	3/50 (6%)
POLY-3 RATE (b)	20/49.51	16/48.49	11/46.88	11/44.48	10/43.35	2/43.63	8/45.04	3/45.17
POLY-3 PERCENT (g)	40.4%	33.0%	23.5%	24.7%	23.1%	4.6%	17.8%	6.6%
TERMINAL (d)	12/39 (31%)	9/40 (23%)	4/38 (11%)	6/36 (17%)	6/33 (18%)	2/33 (6%)	7/39 (18%)	2/40 (5%)
FIRST INCIDENCE	515	435	496	474	619	729 (T)	417	718
STATISTICAL TESTS								
LIFE TABLE	P=0.071N	P=0.285N	P=0.080N	P=0.099N	P=0.044N*	P=0.019N*	P=0.286N	P=0.021N*
POLY 3	P=0.050N	P=0.292N	P=0.058N	P=0.081N	P=0.067N	P=0.012N*	P=0.362N	P=0.028N*
POLY 1.5	P=0.044N*	P=0.292N	P=0.056N	P=0.072N	P=0.072N	P=0.012N*	P=0.377N	P=0.030N*
POLY 6	P=0.056N	P=0.289N	P=0.058N	P=0.091N	P=0.060N	P=0.014N*	P=0.351N	P=0.026N*
LOGISTIC REGRESSION	P=0.023N*	P=0.226N	P=0.031N*	P=0.038N*	P=0.071N	P=0.014N*	P=0.382N	P=0.028N*
COCH-ARM / FISHERS	P=0.029N*	P=0.266N	P=0.041N*	P=0.047N*	P=0.083N	P=0.014N*	P=0.398N	P=0.036N*
ORDER RESTRICTED	P=0.064N	(e)	(e)	(e)	P=0.012N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	35/50 (70%)	33/50 (66%)	29/50 (58%)	29/49 (59%)	29/50 (58%)	29/50 (58%)	26/50 (52%)	20/50 (40%)
POLY-3 RATE (b)	35/49.51	33/48.92	29/47.63	29/45.68	29/44.06	29/44.95	26/45.47	20/45.56
POLY-3 PERCENT (g)	70.7%	67.5%	60.9%	63.5%	65.8%	64.5%	57.2%	43.9%
TERMINAL (d)	27/39 (69%)	25/40 (63%)	20/38 (53%)	22/36 (61%)	23/33 (70%)	24/33 (73%)	24/39 (62%)	18/40 (45%)
FIRST INCIDENCE	515	435	493	474	603	579	417	619
STATISTICAL TESTS								
LIFE TABLE	P=0.308N	P=0.395N	P=0.253N	P=0.340N	P<0.001N**	P=0.575	P=0.109N	P=0.008N**
POLY 3	P=0.236N	P=0.449N	P=0.210N	P=0.297N	P=0.011N*	P=0.538N	P=0.262N	P=0.026N*
POLY 1.5	P=0.219N	P=0.459N	P=0.213N	P=0.280N	P=0.015N*	P=0.537N	P=0.295N	P=0.032N*
POLY 6	P=0.259N	P=0.428N	P=0.202N	P=0.319N	P=0.008N**	P=0.579N	P=0.244N	P=0.023N*
LOGISTIC REGRESSION	P=0.175N	P=0.415N	P=0.172N	P=0.228N	P=0.008N**	P=0.554N	P=0.262N	P=0.020N*
COCH-ARM / FISHERS	P=0.135N	P=0.415N	P=0.149N	P=0.180N	P=0.028N*	P=0.580N	P=0.344N	P=0.055N
ORDER RESTRICTED	P=0.303N	(e)	(e)	(e)	P=0.020N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	35/50 (70%)	33/50 (66%)	29/50 (58%)	29/49 (59%)	29/50 (58%)	29/50 (58%)	26/50 (52%)	20/50 (40%)
POLY-3 RATE (b)	35/49.51	33/48.92	29/47.63	29/45.68	29/44.06	29/44.95	26/45.47	20/45.56
POLY-3 PERCENT (g)	70.7%	67.5%	60.9%	63.5%	65.8%	64.5%	57.2%	43.9%
TERMINAL (d)	27/39 (69%)	25/40 (63%)	20/38 (53%)	22/36 (61%)	23/33 (70%)	24/33 (73%)	24/39 (62%)	18/40 (45%)
FIRST INCIDENCE	515	435	493	474	603	579	417	619
STATISTICAL TESTS								
LIFE TABLE	P=0.308N	P=0.395N	P=0.253N	P=0.340N	P<0.001N**	P=0.575	P=0.109N	P=0.008N**
POLY 3	P=0.236N	P=0.449N	P=0.210N	P=0.297N	P=0.011N*	P=0.538N	P=0.262N	P=0.026N*
POLY 1.5	P=0.219N	P=0.459N	P=0.213N	P=0.280N	P=0.015N*	P=0.537N	P=0.295N	P=0.032N*
POLY 6	P=0.259N	P=0.428N	P=0.202N	P=0.319N	P=0.008N**	P=0.579N	P=0.244N	P=0.023N*
LOGISTIC REGRESSION	P=0.175N	P=0.415N	P=0.172N	P=0.228N	P=0.008N**	P=0.554N	P=0.262N	P=0.020N*
COCH-ARM / FISHERS	P=0.135N	P=0.415N	P=0.149N	P=0.180N	P=0.028N*	P=0.580N	P=0.344N	P=0.055N
ORDER RESTRICTED	P=0.303N	(e)	(e)	(e)	P=0.020N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Lung Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	6/50 (12%)	6/50 (12%)	7/50 (14%)	8/50 (16%)	4/50 (8%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	6/47.28	6/46.01	7/45.05	8/43.48	4/43.24	2/43.91	3/44.22	1/45.13
POLY-3 PERCENT (g)	12.7%	13.0%	15.5%	18.4%	9.3%	4.6%	6.8%	2.2%
TERMINAL (d)	5/39 (13%)	6/40 (15%)	5/38 (13%)	8/36 (22%)	2/33 (6%)	1/33 (3%)	3/39 (8%)	1/40 (3%)
FIRST INCIDENCE	598	729 (T)	690	729 (T)	603	653	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.232	P=0.604N	P=0.477	P=0.325	P=0.121N	P=0.347N	P=0.432N	P=0.144N
POLY 3	P=0.242	P=0.601	P=0.463	P=0.323	P=0.151N	P=0.330N	P=0.488N	P=0.166N
POLY 1.5	P=0.254	P=0.603	P=0.466	P=0.337	P=0.155N	P=0.329N	P=0.494N	P=0.169N
POLY 6	P=0.229	P=0.600	P=0.461	P=0.309	P=0.145N	P=0.337N	P=0.482N	P=0.162N
LOGISTIC REGRESSION	P=0.235	P=0.609	P=0.470	P=0.323	P=0.151N	P=0.332N	P=0.487N	P=0.171N
COCH-ARM / FISHERS	P=0.300	P=0.620N	P=0.500	P=0.387	P=0.162N	P=0.339N	P=0.500N	P=0.181N
ORDER RESTRICTED	P=0.356	(e)	(e)	(e)	P=0.117N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Lung								
Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/50 (6%)	4/50 (8%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	5/50 (10%)
POLY-3 RATE (b)	2/46.83	3/46.01	4/44.84	2/43.71	0/42.68	2/43.91	2/44.81	5/45.13
POLY-3 PERCENT (g)	4.3%	6.5%	8.9%	4.6%	0.0%	4.6%	4.5%	11.1%
TERMINAL (d)	2/39 (5%)	3/40 (8%)	4/38 (11%)	1/36 (3%)	0/33 (0%)	1/33 (3%)	0/39 (0%)	5/40 (13%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	667	---	653	603	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.558	P=0.512	P=0.324	P=0.663	P=0.028 *	P=0.240	P=0.248	P=0.052
POLY 3	P=0.559	P=0.492	P=0.317	P=0.669	P=0.019 *	P=0.243	P=0.248	P=0.035 *
POLY 1.5	P=0.566	P=0.491	P=0.318	P=0.673	P=0.018 *	P=0.243	P=0.243	P=0.034 *
POLY 6	P=0.552	P=0.493	P=0.317	P=0.666	P=0.020 *	P=0.241	P=0.255	P=0.037 *
LOGISTIC REGRESSION	P=0.558	P=0.512	P=0.324	P=0.672	P=0.018 *	P=0.240	P=0.237	P=0.052
COCH-ARM / FISHERS	P=0.562N	P=0.500	P=0.339	P=0.691N	P=0.016 *	P=0.247	P=0.247	P=0.028 *
ORDER RESTRICTED	P=0.489	(e)	(e)	(e)	P=0.012 *	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Lung								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	8/50 (16%)	9/50 (18%)	11/50 (22%)	10/50 (20%)	4/50 (8%)	4/50 (8%)	5/50 (10%)	6/50 (12%)
POLY-3 RATE (b)	8/47.28	9/46.01	11/45.05	10/43.71	4/43.24	4/44.19	5/44.81	6/45.13
POLY-3 PERCENT (g)	16.9%	19.6%	24.4%	22.9%	9.3%	9.1%	11.2%	13.3%
TERMINAL (d)	7/39 (18%)	9/40 (23%)	9/38 (24%)	9/36 (25%)	2/33 (6%)	2/33 (6%)	3/39 (8%)	6/40 (15%)
FIRST INCIDENCE	598	729 (T)	690	667	603	653	603	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.249	P=0.522	P=0.283	P=0.326	P=0.375	P=0.634	P=0.565	P=0.478
POLY 3	P=0.260	P=0.476	P=0.264	P=0.327	P=0.294	P=0.632N	P=0.522	P=0.396
POLY 1.5	P=0.275	P=0.478	P=0.268	P=0.341	P=0.287	P=0.632N	P=0.511	P=0.390
POLY 6	P=0.247	P=0.473	P=0.261	P=0.314	P=0.303	P=0.639N	P=0.534	P=0.403
LOGISTIC REGRESSION	P=0.251	P=0.486	P=0.268	P=0.326	P=0.289	P=0.639N	P=0.506	P=0.404
COCH-ARM / FISHERS	P=0.335	P=0.500	P=0.306	P=0.398	P=0.270	P=0.643N	P=0.500	P=0.370
ORDER RESTRICTED	P=0.342	(e)	(e)	(e)	P=0.421	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/46.86	0/46.01	0/44.84	0/43.48	1/42.80	0/43.63	2/44.51	0/45.13
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	0.0%	2.3%	0.0%	4.5%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	0/33 (0%)	0/33 (0%)	1/39 (3%)	0/40 (0%)
FIRST INCIDENCE	721	---	---	---	698	---	653	---
STATISTICAL TESTS								
LIFE TABLE	P=0.322N	P=0.505N	P=0.515N	P=0.526N	P=0.427N	P=0.511N	P=0.531	P=0.474N
POLY 3	P=0.299N	P=0.504N	P=0.509N	P=0.515N	P=0.447N	P=0.496N	P=0.514	P=0.489N
POLY 1.5	P=0.300N	P=0.504N	P=0.508N	P=0.512N	P=0.452N	P=0.496N	P=0.507	P=0.493N
POLY 6	P=0.298N	P=0.503N	P=0.509N	P=0.518N	P=0.438N	P=0.499N	P=0.521	P=0.486N
LOGISTIC REGRESSION	P=0.315N	P=0.503N	P=0.509N	P=0.517N	P=0.457N	P=0.497N	P=0.503	P=0.495N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.461N	P=0.500N	P=0.500	P=0.500N
ORDER RESTRICTED	P=0.134N	(e)	(e)	(e)	P=0.315N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Ovary Cystadenoma								
TUMOR RATES								
OVERALL (a)					1/49 (2%)	2/50 (4%)	2/49 (4%)	2/49 (4%)
POLY-3 RATE (b)					1/41.68	2/43.63	2/43.71	2/44.17
POLY-3 PERCENT (g)					2.4%	4.6%	4.6%	4.5%
TERMINAL (d)					1/32 (3%)	2/33 (6%)	2/39 (5%)	2/40 (5%)
FIRST INCIDENCE					729 (T)	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.518	P=0.511	P=0.569	P=0.578
POLY 3					P=0.448	P=0.516	P=0.517	P=0.520
POLY 1.5					P=0.438	P=0.515	P=0.508	P=0.514
POLY 6					P=0.460	P=0.512	P=0.526	P=0.528
LOGISTIC REGRESSION					P=0.518	P=0.511	P=0.569	P=0.578
COCH-ARM / FISHERS					P=0.420	P=0.508	P=0.500	P=0.500
ORDER RESTRICTED					P=0.486	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	0/47 (0%)	0/50 (0%)	0/49 (0%)	4/48 (8%)	12/50 (24%)	3/50 (6%)	10/46 (22%)
POLY-3 RATE (b)	0/44.84	0/43.75	0/44.84	0/42.71	4/41.44	12/44.68	3/44.22	10/42.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	9.7%	26.9%	6.8%	23.7%
TERMINAL (d)	0/38 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	3/32 (9%)	9/33 (27%)	3/39 (8%)	10/38 (26%)
FIRST INCIDENCE	---	---	---	---	521	540	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.313	P=0.036 *	P=0.405N	P=0.130
POLY 3	(e)	(e)	(e)	(e)	P=0.187	P=0.035 *	P=0.465N	P=0.074
POLY 1.5	(e)	(e)	(e)	(e)	P=0.177	P=0.035 *	P=0.472N	P=0.070
POLY 6	(e)	(e)	(e)	(e)	P=0.200	P=0.034 *	P=0.458N	P=0.080
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.199	P=0.037 *	P=0.468N	P=0.081
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.164	P=0.033 *	P=0.477N	P=0.062
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.061	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	0/47 (0%)	0/50 (0%)	0/49 (0%)	5/48 (10%)	12/50 (24%)	3/50 (6%)	10/46 (22%)
POLY-3 RATE (b)	0/44.84	0/43.75	0/44.84	0/42.71	5/41.56	12/44.68	3/44.22	10/42.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	12.0%	26.9%	6.8%	23.7%
TERMINAL (d)	0/38 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	3/32 (9%)	9/33 (27%)	3/39 (8%)	10/38 (26%)
FIRST INCIDENCE	---	---	---	---	521	540	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.408	P=0.068	P=0.273N	P=0.217
POLY 3	(e)	(e)	(e)	(e)	P=0.261	P=0.070	P=0.322N	P=0.132
POLY 1.5	(e)	(e)	(e)	(e)	P=0.250	P=0.070	P=0.329N	P=0.125
POLY 6	(e)	(e)	(e)	(e)	P=0.275	P=0.066	P=0.317N	P=0.140
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.276	P=0.070	P=0.324N	P=0.140
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.233	P=0.065	P=0.335N	P=0.112
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.120	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIISOPROPYLCARBODIIMIDE
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Pituitary Gland: Pars Intermedia Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	0/47 (0%)	1/50 (2%)	0/49 (0%)	0/48 (0%)	2/50 (4%)	1/50 (2%)	1/46 (2%)
POLY-3 RATE (b)	0/44.84	0/43.75	1/44.84	0/42.71	0/40.81	2/43.63	1/44.22	1/42.13
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	0.0%	4.6%	2.3%	2.4%
TERMINAL (d)	0/38 (0%)	0/40 (0%)	1/38 (3%)	0/36 (0%)	0/32 (0%)	2/33 (6%)	1/39 (3%)	1/38 (3%)
FIRST INCIDENCE	---	---	729 (T)	---	---	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.687	(e)	P=0.500	(e)	P=0.556	P=0.245	P=0.539	P=0.534
POLY 3	P=0.671	(e)	P=0.500	(e)	P=0.518	P=0.252	P=0.516	P=0.506
POLY 1.5	P=0.676	(e)	P=0.500	(e)	P=0.507	P=0.252	P=0.512	P=0.501
POLY 6	P=0.666	(e)	P=0.500	(e)	P=0.532	P=0.249	P=0.520	P=0.512
LOGISTIC REGRESSION	(e)	(e)	P=0.500	(e)	(e)	P=0.245	P=0.539	P=0.534
COCH-ARM / FISHERS	P=0.699	(e)	P=0.510	(e)	P=0.484	P=0.258	P=0.510	P=0.489
ORDER RESTRICTED	P=0.381	(e)	(e)	(e)	P=0.288	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Skin Basal Cell Adenoma or Basosquamous Tumor Benign								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/46.83	0/46.01	0/44.84	0/43.48	0/42.68	0/43.63	2/44.22	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	0/33 (0%)	0/33 (0%)	2/39 (5%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.637	(e)	P=0.276	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.622	(e)	P=0.245	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.613	(e)	P=0.241	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.634	(e)	P=0.249	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	P=0.276	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.254	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin: Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/46.83	0/46.01	0/44.84	0/43.48	0/42.68	0/43.63	2/44.22	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	0/33 (0%)	0/33 (0%)	2/39 (5%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.637	(e)	P=0.276	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.622	(e)	P=0.245	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.613	(e)	P=0.241	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.634	(e)	P=0.249	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	P=0.276	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.254	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin: Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/46.83	0/46.01	0/44.84	0/43.48	0/42.68	0/43.63	2/44.22	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	0/33 (0%)	0/33 (0%)	2/39 (5%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.637	(e)	P=0.276	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.622	(e)	P=0.245	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.613	(e)	P=0.241	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.634	(e)	P=0.249	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	P=0.276	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.254	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	0/46.83	0/46.01	0/44.84	0/43.48	0/42.68	0/43.63	3/44.22	1/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	2.2%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	0/33 (0%)	0/33 (0%)	3/39 (8%)	1/40 (3%)
FIRST INCIDENCE	---	---	---	---	---	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.303	(e)	P=0.152	P=0.538
POLY 3	(e)	(e)	(e)	(e)	P=0.269	(e)	P=0.125	P=0.511
POLY 1.5	(e)	(e)	(e)	(e)	P=0.261	(e)	P=0.122	P=0.508
POLY 6	(e)	(e)	(e)	(e)	P=0.281	(e)	P=0.128	P=0.515
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	P=0.152	P=0.538
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.247	(e)	P=0.121	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.121	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Skin: Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/46.83	1/46.24	0/44.84	0/43.48	1/42.96	2/43.63	0/44.22	0/45.13
POLY-3 PERCENT (g)	2.1%	2.2%	0.0%	0.0%	2.3%	4.6%	0.0%	0.0%
TERMINAL (d)	1/39 (3%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	0/33 (0%)	2/33 (6%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	729 (T)	670	---	---	653	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.252N	P=0.760N	P=0.505N	P=0.516N	P=0.165N	P=0.500	P=0.495N	P=0.495N
POLY 3	P=0.242N	P=0.758	P=0.509N	P=0.515N	P=0.181N	P=0.505	P=0.494N	P=0.490N
POLY 1.5	P=0.241N	P=0.757	P=0.508N	P=0.512N	P=0.183N	P=0.506	P=0.497N	P=0.493N
POLY 6	P=0.242N	P=0.759	P=0.509N	P=0.517N	P=0.180N	P=0.499	P=0.491N	P=0.487N
LOGISTIC REGRESSION	P=0.238N	P=0.762N	(e)	(e)	P=0.182N	P=0.506	P=0.501N	P=0.508N
COCH-ARM / FISHERS	P=0.236N	P=0.753N	P=0.500N	P=0.500N	P=0.188N	P=0.500	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.264N	(e)	(e)	(e)	P=0.161N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin								
Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/46.83	0/46.01	0/44.84	0/43.48	2/43.11	1/43.63	0/44.22	1/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.6%	2.3%	0.0%	2.2%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	1/33 (3%)	1/33 (3%)	0/39 (0%)	1/40 (3%)
FIRST INCIDENCE	---	---	---	---	603	729 (T)	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.322N	P=0.500N	P=0.221N	P=0.453N
POLY 3	(e)	(e)	(e)	(e)	P=0.363N	P=0.496N	P=0.231N	P=0.484N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.365N	P=0.495N	P=0.235N	P=0.489N
POLY 6	(e)	(e)	(e)	(e)	P=0.359N	P=0.503N	P=0.228N	P=0.480N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.360N	P=0.497N	P=0.238N	P=0.498N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.366N	P=0.500N	P=0.247N	P=0.500N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.211N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Skin								
Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/46.83	0/46.01	0/44.84	1/43.48	2/43.04	1/43.91	0/44.22	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	2.3%	4.7%	2.3%	0.0%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	1/36 (3%)	0/33 (0%)	0/33 (0%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	729 (T)	681	653	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.187	(e)	(e)	P=0.484	P=0.096N	P=0.503N	P=0.226N	P=0.226N
POLY 3	P=0.190	(e)	(e)	P=0.485	P=0.099N	P=0.493N	P=0.231N	P=0.227N
POLY 1.5	P=0.192	(e)	(e)	P=0.488	P=0.100N	P=0.493N	P=0.234N	P=0.230N
POLY 6	P=0.188	(e)	(e)	P=0.483	P=0.098N	P=0.498N	P=0.228N	P=0.224N
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.484	P=0.101N	P=0.502N	P=0.237N	P=0.237N
COCH-ARM / FISHERS	P=0.198	(e)	(e)	P=0.500	P=0.101N	P=0.500N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.108	(e)	(e)	(e)	P=0.067N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Spleen								
Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	0/50 (0%)	1/50 (2%)	2/47 (4%)	1/49 (2%)	1/49 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/46.28	0/46.01	1/44.84	2/41.10	1/42.14	1/43.04	0/44.22	0/45.13
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	4.9%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	1/38 (3%)	1/35 (3%)	0/33 (0%)	0/33 (0%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	729 (T)	642	683	695	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.061	(e)	P=0.495	P=0.223	P=0.221N	P=0.754	P=0.485N	P=0.485N
POLY 3	P=0.057	(e)	P=0.494	P=0.211	P=0.230N	P=0.756N	P=0.490N	P=0.486N
POLY 1.5	P=0.058	(e)	P=0.495	P=0.214	P=0.231N	P=0.756N	P=0.493N	P=0.489N
POLY 6	P=0.056	(e)	P=0.493	P=0.209	P=0.229N	P=0.759N	P=0.488N	P=0.484N
LOGISTIC REGRESSION	P=0.061	(e)	P=0.495	P=0.228	P=0.230N	P=0.761N	P=0.495N	P=0.496N
COCH-ARM / FISHERS	P=0.064	(e)	P=0.505	P=0.237	P=0.232N	P=0.753N	P=0.495N	P=0.495N
ORDER RESTRICTED	P=0.059	(e)	(e)	(e)	P=0.238N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Stomach, Forestomach								
Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	1/46.94	1/46.01	1/44.84	2/43.48	1/42.68	1/44.02	2/44.22	2/45.13
POLY-3 PERCENT (g)	2.1%	2.2%	2.2%	4.6%	2.3%	2.3%	4.5%	4.4%
TERMINAL (d)	0/39 (0%)	1/40 (3%)	1/38 (3%)	2/36 (6%)	1/33 (3%)	0/33 (0%)	2/39 (5%)	2/40 (5%)
FIRST INCIDENCE	702	729 (T)	729 (T)	729 (T)	729 (T)	617	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.320	P=0.758	P=0.749	P=0.467	P=0.403	P=0.755N	P=0.558	P=0.567
POLY 3	P=0.328	P=0.756	P=0.750	P=0.473	P=0.358	P=0.754N	P=0.512	P=0.519
POLY 1.5	P=0.332	P=0.756	P=0.751	P=0.478	P=0.351	P=0.755N	P=0.506	P=0.513
POLY 6	P=0.322	P=0.756	P=0.750	P=0.468	P=0.368	P=0.756N	P=0.519	P=0.526
LOGISTIC REGRESSION	P=0.320	P=0.759	P=0.754	P=0.471	P=0.354	P=0.762	P=0.558	P=0.567
COCH-ARM / FISHERS	P=0.351	P=0.753N	P=0.753N	P=0.500	P=0.337	P=0.753N	P=0.500	P=0.500
ORDER RESTRICTED	P=0.380	(e)	(e)	(e)	P=0.457	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Stomach, Forestomach								
Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/46.94	1/46.01	1/44.84	1/43.48	1/42.68	1/44.02	1/44.22	2/45.13
POLY-3 PERCENT (g)	2.1%	2.2%	2.2%	2.3%	2.3%	2.3%	2.3%	4.4%
TERMINAL (d)	0/39 (0%)	1/40 (3%)	1/38 (3%)	1/36 (3%)	1/33 (3%)	0/33 (0%)	1/39 (3%)	2/40 (5%)
FIRST INCIDENCE	702	729 (T)	729 (T)	729 (T)	729 (T)	617	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.606	P=0.758	P=0.749	P=0.738	P=0.409	P=0.755N	P=0.724N	P=0.567
POLY 3	P=0.606	P=0.756	P=0.750	P=0.743	P=0.368	P=0.754N	P=0.753N	P=0.519
POLY 1.5	P=0.612	P=0.756	P=0.751	P=0.747	P=0.362	P=0.755N	P=0.757N	P=0.513
POLY 6	P=0.601	P=0.756	P=0.750	P=0.740	P=0.376	P=0.756N	P=0.749N	P=0.526
LOGISTIC REGRESSION	P=0.609	P=0.759	P=0.754	P=0.747	P=0.363	P=0.762	P=0.724N	P=0.567
COCH-ARM / FISHERS	P=0.634	P=0.753N	P=0.753N	P=0.753N	P=0.351	P=0.753N	P=0.753N	P=0.500
ORDER RESTRICTED	P=0.723	(e)	(e)	(e)	P=0.435	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
Thyroid Gland: Follicular Cell								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/46.28	1/46.01	0/44.84	1/43.55	3/42.68	0/43.63	0/44.22	2/45.13
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	2.3%	7.0%	0.0%	0.0%	4.4%
TERMINAL (d)	0/39 (0%)	1/40 (3%)	0/38 (0%)	0/36 (0%)	3/33 (9%)	0/33 (0%)	0/39 (0%)	2/40 (5%)
FIRST INCIDENCE	---	729 (T)	---	712	729 (T)	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.385	P=0.505	(e)	P=0.480	P=0.458N	P=0.120N	P=0.093N	P=0.412N
POLY 3	P=0.386	P=0.499	(e)	P=0.488	P=0.532N	P=0.114N	P=0.112N	P=0.475N
POLY 1.5	P=0.391	P=0.499	(e)	P=0.491	P=0.533N	P=0.115N	P=0.116N	P=0.483N
POLY 6	P=0.382	P=0.498	(e)	P=0.485	P=0.526N	P=0.116N	P=0.109N	P=0.466N
LOGISTIC REGRESSION	P=0.389	P=0.505	(e)	P=0.491	P=0.458N	(e)	(e)	P=0.412N
COCH-ARM / FISHERS	P=0.408	P=0.505	(e)	P=0.505	P=0.531N	P=0.121N	P=0.121N	P=0.500N
ORDER RESTRICTED	P=0.240	(e)	(e)	(e)	P=0.089N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Uterus Leiomyosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)					0/42.68	0/43.63	0/44.22	2/45.13
POLY-3 PERCENT (g)					0.0%	0.0%	0.0%	4.4%
TERMINAL (d)					0/33 (0%)	0/33 (0%)	0/39 (0%)	2/40 (5%)
FIRST INCIDENCE					---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.060	(e)	(e)	P=0.282
POLY 3					P=0.047 *	(e)	(e)	P=0.250
POLY 1.5					P=0.047 *	(e)	(e)	P=0.246
POLY 6					P=0.049 *	(e)	(e)	P=0.254
LOGISTIC REGRESSION					(e)	(e)	(e)	P=0.282
COCH-ARM / FISHERS					P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED					P=0.034 *	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					4/50 (8%)	2/50 (4%)	5/50 (10%)	0/50 (0%)
POLY-3 RATE (b)					4/42.96	2/43.63	5/44.66	0/45.13
POLY-3 PERCENT (g)					9.3%	4.6%	11.2%	0.0%
TERMINAL (d)					3/33 (9%)	2/33 (6%)	4/39 (10%)	0/40 (0%)
FIRST INCIDENCE					654	729 (T)	603	---
STATISTICAL TESTS								
LIFE TABLE					P=0.063N	P=0.341N	P=0.582	P=0.047N*
POLY 3					P=0.081N	P=0.330N	P=0.524	P=0.054N
POLY 1.5					P=0.086N	P=0.329N	P=0.512	P=0.056N
POLY 6					P=0.076N	P=0.338N	P=0.537	P=0.052N
LOGISTIC REGRESSION					P=0.085N	P=0.332N	P=0.515	P=0.056N
COCH-ARM / FISHERS					P=0.095N	P=0.339N	P=0.500	P=0.059N
ORDER RESTRICTED					P=0.049N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
Uterus								
Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					4/50 (8%)	2/50 (4%)	5/50 (10%)	0/50 (0%)
POLY-3 RATE (b)					4/42.96	2/43.63	5/44.66	0/45.13
POLY-3 PERCENT (g)					9.3%	4.6%	11.2%	0.0%
TERMINAL (d)					3/33 (9%)	2/33 (6%)	4/39 (10%)	0/40 (0%)
FIRST INCIDENCE					654	729 (T)	603	---
STATISTICAL TESTS								
LIFE TABLE					P=0.063N	P=0.341N	P=0.582	P=0.047N*
POLY 3					P=0.081N	P=0.330N	P=0.524	P=0.054N
POLY 1.5					P=0.086N	P=0.329N	P=0.512	P=0.056N
POLY 6					P=0.076N	P=0.338N	P=0.537	P=0.052N
LOGISTIC REGRESSION					P=0.085N	P=0.332N	P=0.515	P=0.056N
COCH-ARM / FISHERS					P=0.095N	P=0.339N	P=0.500	P=0.059N
ORDER RESTRICTED					P=0.049N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
All Organs								
Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/46.83	0/46.01	1/44.84	0/43.48	2/43.11	2/43.63	0/44.22	1/45.13
POLY-3 PERCENT (g)	2.1%	0.0%	2.2%	0.0%	4.6%	4.6%	0.0%	2.2%
TERMINAL (d)	1/39 (3%)	0/40 (0%)	1/38 (3%)	0/36 (0%)	1/33 (3%)	2/33 (6%)	0/39 (0%)	1/40 (3%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	603	729 (T)	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.423N	P=0.495N	P=0.756	P=0.516N	P=0.249N	P=0.694	P=0.221N	P=0.453N
POLY 3	P=0.415N	P=0.504N	P=0.751	P=0.515N	P=0.289N	P=0.690N	P=0.231N	P=0.484N
POLY 1.5	P=0.413N	P=0.504N	P=0.751	P=0.512N	P=0.292N	P=0.688N	P=0.235N	P=0.489N
POLY 6	P=0.418N	P=0.503N	P=0.751	P=0.517N	P=0.285N	P=0.692	P=0.228N	P=0.480N
LOGISTIC REGRESSION	P=0.423N	(e)	P=0.756	(e)	P=0.286N	P=0.690N	P=0.238N	P=0.498N
COCH-ARM / FISHERS	P=0.405N	P=0.500N	P=0.753N	P=0.500N	P=0.296N	P=0.691N	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.266N	(e)	(e)	(e)	P=0.254N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	4/50 (8%)	3/50 (6%)	4/50 (8%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/46.83	2/46.01	4/44.84	3/44.01	4/43.04	2/44.04	0/44.22	1/45.13
POLY-3 PERCENT (g)	0.0%	4.4%	8.9%	6.8%	9.3%	4.5%	0.0%	2.2%
TERMINAL (d)	0/39 (0%)	2/40 (5%)	4/38 (11%)	1/36 (3%)	2/33 (6%)	0/33 (0%)	0/39 (0%)	1/40 (3%)
FIRST INCIDENCE	---	729 (T)	729 (T)	642	681	653	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.094	P=0.244	P=0.060	P=0.111	P=0.071N	P=0.347N	P=0.052N	P=0.144N
POLY 3	P=0.094	P=0.233	P=0.055	P=0.108	P=0.082N	P=0.326N	P=0.057N	P=0.164N
POLY 1.5	P=0.096	P=0.233	P=0.055	P=0.109	P=0.084N	P=0.327N	P=0.059N	P=0.168N
POLY 6	P=0.092	P=0.234	P=0.055	P=0.107	P=0.080N	P=0.332N	P=0.055N	P=0.161N
LOGISTIC REGRESSION	P=0.098	P=0.244	P=0.060	P=0.121	P=0.082N	P=0.331N	P=0.060N	P=0.164N
COCH-ARM / FISHERS	P=0.113	P=0.247	P=0.059	P=0.121	P=0.086N	P=0.339N	P=0.059N	P=0.181N
ORDER RESTRICTED	P=0.061	(e)	(e)	(e)	P=0.033N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Hemangiosarcoma or Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	5/50 (10%)	3/50 (6%)	6/50 (12%)	4/50 (8%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/46.83	2/46.01	5/44.84	3/44.01	6/43.48	4/44.04	0/44.22	2/45.13
POLY-3 PERCENT (g)	2.1%	4.4%	11.2%	6.8%	13.8%	9.1%	0.0%	4.4%
TERMINAL (d)	1/39 (3%)	2/40 (5%)	5/38 (13%)	1/36 (3%)	3/33 (9%)	2/33 (6%)	0/39 (0%)	2/40 (5%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	642	603	653	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.183	P=0.509	P=0.097	P=0.282	P=0.038N*	P=0.379N	P=0.014N*	P=0.100N
POLY 3	P=0.185	P=0.494	P=0.092	P=0.283	P=0.049N*	P=0.361N	P=0.014N*	P=0.121N
POLY 1.5	P=0.189	P=0.493	P=0.092	P=0.286	P=0.050N	P=0.359N	P=0.015N*	P=0.124N
POLY 6	P=0.182	P=0.495	P=0.091	P=0.282	P=0.047N*	P=0.372N	P=0.014N*	P=0.118N
LOGISTIC REGRESSION	P=0.189	P=0.509	P=0.097	P=0.300	P=0.050N	P=0.360N	P=0.017N*	P=0.124N
COCH-ARM / FISHERS	P=0.216	P=0.500	P=0.102	P=0.309	P=0.054N	P=0.370N	P=0.013N*	P=0.134N
ORDER RESTRICTED	P=0.131	(e)	(e)	(e)	P=0.019N*	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	1/46.92	0/46.01	0/44.84	0/43.48	3/43.38	1/43.91	2/45.26	2/45.95
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	0.0%	6.9%	2.3%	4.4%	4.4%
TERMINAL (d)	0/39 (0%)	0/40 (0%)	0/38 (0%)	0/36 (0%)	2/33 (6%)	0/33 (0%)	0/39 (0%)	0/40 (0%)
FIRST INCIDENCE	706	---	---	---	488	653	560	604
STATISTICAL TESTS								
LIFE TABLE	P=0.318N	P=0.505N	P=0.510N	P=0.520N	P=0.469N	P=0.304N	P=0.462N	P=0.456N
POLY 3	P=0.299N	P=0.504N	P=0.509N	P=0.515N	P=0.481N	P=0.301N	P=0.481N	P=0.474N
POLY 1.5	P=0.300N	P=0.504N	P=0.509N	P=0.512N	P=0.489N	P=0.300N	P=0.491N	P=0.483N
POLY 6	P=0.297N	P=0.504N	P=0.510N	P=0.518N	P=0.468N	P=0.305N	P=0.469N	P=0.462N
LOGISTIC REGRESSION	P=0.310N	P=0.501N	P=0.504N	P=0.509N	P=0.524N	P=0.312N	P=0.500N	P=0.530N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.500N	P=0.309N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.135N	(e)	(e)	(e)	P=0.370N	(e)	(e)	(e)

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	2/50 (4%)	3/50 (6%)	10/50 (20%)	9/50 (18%)	7/50 (14%)	7/50 (14%)
POLY-3 RATE (b)	2/47.05	2/46.01	2/44.84	3/43.48	10/44.78	9/45.50	7/44.39	7/45.17
POLY-3 PERCENT (g)	4.3%	4.4%	4.5%	6.9%	22.3%	19.8%	15.8%	15.5%
TERMINAL (d)	1/39 (3%)	2/40 (5%)	2/38 (5%)	3/36 (8%)	6/33 (18%)	4/33 (12%)	6/39 (15%)	6/40 (15%)
FIRST INCIDENCE	672	729 (T)	729 (T)	729 (T)	365	568	687	718
STATISTICAL TESTS								
LIFE TABLE	P=0.345	P=0.690N	P=0.680	P=0.460	P=0.141N	P=0.494N	P=0.213N	P=0.195N
POLY 3	P=0.353	P=0.686	P=0.676	P=0.464	P=0.226N	P=0.485N	P=0.302N	P=0.289N
POLY 1.5	P=0.360	P=0.686	P=0.678	P=0.471	P=0.227N	P=0.487N	P=0.305N	P=0.290N
POLY 6	P=0.345	P=0.686	P=0.675	P=0.456	P=0.223N	P=0.487N	P=0.298N	P=0.286N
LOGISTIC REGRESSION	P=0.346	P=0.690	P=0.682	P=0.465	P=0.223N	P=0.512N	P=0.295N	P=0.294N
COCH-ARM / FISHERS	P=0.387	P=0.691N	P=0.691N	P=0.500	P=0.229N	P=0.500N	P=0.298N	P=0.298N
ORDER RESTRICTED	P=0.447	(e)	(e)	(e)	P=0.320N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
All Organs — Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	29/50 (58%)	31/50 (62%)	33/50 (66%)	31/50 (62%)	35/50 (70%)	38/50 (76%)	28/50 (56%)	31/50 (62%)
POLY-3 RATE (b)	29/47.66	31/46.93	33/46.17	31/45.79	35/44.73	38/46.31	28/45.66	31/46.05
POLY-3 PERCENT (g)	60.9%	66.1%	71.5%	67.7%	78.3%	82.1%	61.3%	67.3%
TERMINAL (d)	25/39 (64%)	28/40 (70%)	28/38 (74%)	26/36 (72%)	29/33 (88%)	30/33 (91%)	26/39 (67%)	28/40 (70%)
FIRST INCIDENCE	598	603	493	474	521	540	67	582
STATISTICAL TESTS								
LIFE TABLE	P=0.183	P=0.470	P=0.221	P=0.247	P=0.004N**	P=0.334	P=0.010N*	P=0.030N*
POLY 3	P=0.269	P=0.376	P=0.188	P=0.315	P=0.057N	P=0.419	P=0.055N	P=0.166N
POLY 1.5	P=0.276	P=0.373	P=0.189	P=0.320	P=0.069N	P=0.399	P=0.066N	P=0.187N
POLY 6	P=0.254	P=0.384	P=0.187	P=0.304	P=0.046N*	P=0.399	P=0.051N	P=0.151N
LOGISTIC REGRESSION	P=0.213	P=0.377	P=0.175	P=0.268	P=0.052N	P=0.410	P=0.073N	P=0.128N
COCH-ARM / FISHERS	P=0.384	P=0.419	P=0.268	P=0.419	P=0.113N	P=0.326	P=0.107N	P=0.263N
ORDER RESTRICTED	P=0.288	(e)	(e)	(e)	P=0.055N	(e)	(e)	(e)

Dose	Males 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG	Females 0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
All Organs — Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	27/50 (54%)	21/50 (42%)	22/50 (44%)	24/50 (48%)	26/50 (52%)	20/50 (40%)	26/50 (52%)	18/50 (36%)
POLY-3 RATE (b)	27/50.00	21/48.49	22/47.25	24/48.00	26/47.16	20/47.34	26/47.50	18/46.79
POLY-3 PERCENT (g)	54.0%	43.3%	46.6%	50.0%	55.1%	42.3%	54.7%	38.5%
TERMINAL (d)	16/39 (41%)	14/40 (35%)	14/38 (37%)	12/36 (33%)	13/33 (39%)	10/33 (30%)	18/39 (46%)	13/40 (33%)
FIRST INCIDENCE	515	435	496	474	365	555	417	551
STATISTICAL TESTS								
LIFE TABLE	P=0.491	P=0.195N	P=0.305N	P=0.511N	P=0.053N	P=0.206N	P=0.372N	P=0.043N*
POLY 3	P=0.473N	P=0.196N	P=0.299N	P=0.424N	P=0.116N	P=0.146N	P=0.566N	P=0.077N
POLY 1.5	P=0.474N	P=0.189N	P=0.288N	P=0.423N	P=0.112N	P=0.145N	P=0.581	P=0.074N
POLY 6	P=0.470N	P=0.204N	P=0.309N	P=0.424N	P=0.120N	P=0.156N	P=0.555N	P=0.083N
LOGISTIC REGRESSION	P=0.391N	P=0.137N	P=0.206N	P=0.292N	P=0.112N	P=0.161N	P=0.575N	P=0.076N
COCH-ARM / FISHERS	P=0.405N	P=0.158N	P=0.212N	P=0.345N	P=0.115N	P=0.158N	P=0.579N	P=0.079N
ORDER RESTRICTED	P=0.368N	(e)	(e)	(e)	P=0.078N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIISOPROPYLCARBODIIMIDE
Terminal Sacrifice at 105 weeks

Dose	Males 0 MG/KG	Males 10 MG/KG	Males 20 MG/KG	Males 40 MG/KG	Females 0 MG/KG	Females 10 MG/KG	Females 20 MG/KG	Females 40 MG/KG
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	42/50 (84%)	42/50 (84%)	42/50 (84%)	41/50 (82%)	47/50 (94%)	43/50 (86%)	41/50 (82%)	41/50 (82%)
POLY-3 RATE (b)	42/50.00	42/48.92	42/48.00	41/48.00	47/48.07	43/48.20	41/48.50	41/47.28
POLY-3 PERCENT (g)	84.0%	85.9%	87.5%	85.4%	97.8%	89.2%	84.5%	86.7%
TERMINAL (d)	31/39 (80%)	34/40 (85%)	32/38 (84%)	29/36 (81%)	32/33 (97%)	30/33 (91%)	32/39 (82%)	35/40 (88%)
FIRST INCIDENCE	515	435	493	474	365	540	67	551
STATISTICAL TESTS								
LIFE TABLE	P=0.326	P=0.524N	P=0.476	P=0.403	P=0.007N**	P=0.289N	P=0.026N*	P=0.009N**
POLY 3	P=0.478	P=0.510	P=0.419	P=0.534	P=0.058N	P=0.088N	P=0.023N*	P=0.041N*
POLY 1.5	P=0.480	P=0.515	P=0.423	P=0.536	P=0.049N*	P=0.089N	P=0.025N*	P=0.033N*
POLY 6	P=0.481	P=0.503	P=0.419	P=0.534	P=0.072N	P=0.109N	P=0.025N*	P=0.061N
LOGISTIC REGRESSION	P=0.507	P=0.576	P=0.489	P=0.594	P=0.034N*	P=0.076N	P=0.053N	P=0.014N*
COCH-ARM / FISHERS	P=0.436N	P=0.607N	P=0.607N	P=0.500N	P=0.065N	P=0.159N	P=0.061N	P=0.061N
ORDER RESTRICTED	P=0.572	(e)	(e)	(e)	P=0.030N*	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.
(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

NTP Experiment-Test: 93020-08
Study Type: CHRONIC
Route: SKIN APPLICATION

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

FINAL #1 MICE

Report: PEIRPT18
Date: 07/19/04
Time: 09:22:22

Facility: Southern Research Institute

Chemical CAS #: 693-13-0

Lock Date: 03/14/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Natural Death	5	5	6	4
Moribund Sacrifice	12	11	4	5
Accidently Killed		1	1	1
Survivors				
Terminal Sacrifice	33	32	38	40
Natural Death		1		
Moribund Sacrifice			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Gallbladder	(42)	(47)	(42)	(47)
Cyst		1 [1.0]		
Intestine Large, Cecum	(46)	(45)	(44)	(47)
Cyst	1 [1.0]			
Edema				1 [3.0]
Intestine Small, Duodenum	(46)	(46)	(44)	(47)
Hyperplasia, Lymphoid		1 [3.0]		
Perforation			1 [3.0]	
Intestine Small, Jejunum	(47)	(45)	(44)	(46)
Inflammation, Focal		1 [2.0]		
Epithelium, Hyperplasia, Focal				1 [2.0]
Peyer's Patch, Hyperplasia, Lymphoid		1 [3.0]		
Intestine Small, Ileum	(46)	(44)	(45)	(47)
Peyer's Patch, Hyperplasia, Lymphoid	1 [3.0]			
Liver	(50)	(50)	(50)	(50)
Angiectasis, Focal	1 [2.0]	2 [2.5]		
Clear Cell Focus				1
Congestion	1 [2.0]			
Eosinophilic Focus	6	1	6	
Hematopoietic Cell Proliferation		2 [3.0]		1 [2.0]
Hyperplasia, Focal, Lymphoid		1 [2.0]	2 [2.0]	
Infiltration Cellular, Polymorphonuclear		1 [3.0]		1 [3.0]
Infiltration Cellular, Mixed Cell	16 [1.6]	9 [1.7]	10 [1.2]	22 [1.2]
Mineralization, Focal		1 [3.0]		
Necrosis, Focal			1 [2.0]	
Hepatocyte, Basophilic Focus	1		1	1
Hepatocyte, Clear Cell Focus	3	2		1

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
ALIMENTARY SYSTEM - CONT				
Hepatocyte, Eosinophilic Focus			4	
Hepatocyte, Karyomegaly	1 [1.0]			
Hepatocyte, Mixed Cell Focus	2		1	6
Hepatocyte, Necrosis, Focal	3 [1.3]	3 [3.0]	1 [1.0]	1 [1.0]
Hepatocyte, Vacuolization Cytoplasmic	5 [1.8]	3 [2.3]	1 [1.0]	5 [2.2]
Mesentery	(23)	(20)	(14)	(18)
Hemorrhage			1 [3.0]	
Infiltration Cellular, Lymphoid	1 [3.0]			
Infiltration Cellular, Mixed Cell	1 [3.0]			
Inflammation	3 [3.3]	5 [3.2]		1 [2.0]
Artery, Inflammation				1 [2.0]
Fat, Necrosis, Focal	17 [2.6]	13 [2.7]	9 [2.3]	15 [2.3]
Pancreas	(50)	(48)	(50)	(50)
Inflammation, Focal	1 [2.0]			
Acinus, Atrophy, Diffuse		2 [4.0]		
Acinus, Atrophy, Focal	1 [4.0]	2 [3.5]	1 [1.0]	3 [2.7]
Duct, Cyst, Focal, Multiple		2 [3.5]		1 [4.0]
Stomach, Forestomach	(50)	(49)	(50)	(50)
Diverticulum			1 [1.0]	1 [1.0]
Erosion	2 [2.0]		2 [1.5]	
Inflammation, Focal	1 [2.0]		1 [2.0]	1 [3.0]
Ulcer	1 [2.0]	1 [2.0]		2 [2.5]
Epithelium, Hyperplasia	4 [1.8]	4 [1.8]	2 [2.0]	1 [3.0]
Stomach, Glandular	(49)	(48)	(47)	(50)
Erosion		1 [2.0]		1 [1.0]
Glands, Hyperplasia, Focal				
Tooth	(1)	(1)	(1)	(2)
Malformation		1 [3.0]		1 [3.0]
Peridontal Tissue, Inflammation, Chronic			1 [3.0]	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(49)	(50)
Cardiomyopathy		3 [1.7]	1 [1.0]	1 [1.0]
Infiltration Cellular, Polymorphonuclear		1 [2.0]		
Infiltration Cellular, Mixed Cell	1 [2.0]			
Inflammation, Chronic, Focal		1 [2.0]		
Thrombosis	4 [3.0]		2 [3.5]	
Artery, Inflammation, Chronic	1 [2.0]		1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(49)	(50)
Accessory Adrenal Cortical Nodule	2 [1.0]	1 [1.0]	1 [1.0]	3 [1.3]
Angiectasis		1 [2.0]		
Cytoplasmic Alteration, Focal	1 [1.0]	2 [1.5]	1 [2.0]	
Degeneration, Cystic	1 [2.0]		1 [3.0]	1 [2.0]
Infiltration Cellular, Polymorphonuclear	1 [3.0]			
Inflammation, Suppurative		1 [3.0]		
Necrosis, Focal				1 [3.0]
Adrenal Medulla	(49)	(50)	(49)	(49)
Angiectasis		1 [2.0]		
Hyperplasia				1 [2.0]
Inflammation, Suppurative		1 [2.0]		
Islets, Pancreatic	(50)	(49)	(50)	(50)
Hyperplasia		2 [2.0]	1 [2.0]	
Parathyroid Gland	(46)	(43)	(49)	(49)
Cyst	2 [2.0]	2 [2.0]		1 [2.0]
Pituitary Gland	(48)	(50)	(50)	(46)
Angiectasis	3 [2.0]	1 [2.0]	1 [2.0]	3 [1.7]
Cyst			1 [3.0]	
Hemorrhage			1 [3.0]	
Pars Distalis, Cytoplasmic Alteration, Focal	2 [1.5]		4 [1.5]	1 [1.0]
Pars Distalis, Degeneration, Cystic, Focal	1 [2.0]			
Pars Distalis, Hyperplasia, Focal	3 [2.3]	2 [2.0]	7 [2.0]	3 [2.0]
Pars Intermedia, Hyperplasia, Focal			1 [2.0]	
Thyroid Gland	(50)	(50)	(50)	(50)
Cyst		2 [2.0]	3 [2.7]	1 [2.0]
Inflammation, Chronic, Focal			1 [1.0]	
C-Cell, Hyperplasia		2 [1.5]		
Follicle, Degeneration, Cystic, Focal	14 [1.8]	14 [1.9]	18 [1.7]	12 [1.9]
Follicular Cell, Hyperplasia, Focal	1 [1.0]	11 [1.5]	9 [1.3]	4 [1.5]
Follicular Cell, Vacuolization Cytoplasmic, Focal				1 [2.0]
GENERAL BODY SYSTEM				
Tissue NOS	(5)	(8)	(3)	(4)
Mediastinum, Infiltration Cellular, Lymphoid	1 [3.0]			1 [2.0]
Mediastinum, Inflammation, Suppurative		1 [3.0]		1 [3.0]
Nasal, Hemorrhage		1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
GENITAL SYSTEM				
Clitoral Gland	(46)	(48)	(48)	(47)
Degeneration, Cystic			1 [3.0]	
Inflammation, Chronic	1 [3.0]			
Ovary	(49)	(50)	(49)	(49)
Angiectasis	2 [3.5]	3 [2.7]	1 [4.0]	1 [3.0]
Cyst	14 [2.6]	16 [2.6]	13 [2.8]	18 [2.6]
Hemorrhage	2 [2.5]			
Hyperplasia, Lymphoid		1 [3.0]		
Inflammation, Suppurative	2 [3.5]	2 [3.0]		2 [3.5]
Thrombosis	2 [3.0]	1 [4.0]	1 [4.0]	
Bilateral, Cyst			1 [3.0]	
Bilateral, Inflammation, Suppurative	1 [3.0]			1 [3.0]
Interstitial Cell, Hyperplasia		1 [3.0]		
Oviduct	(3)	(1)		
Inflammation, Suppurative	3 [3.0]			
Uterus	(50)	(50)	(50)	(50)
Hemorrhage	1 [3.0]			
Hyperplasia, Lymphoid	1 [3.0]		1 [3.0]	
Inflammation, Suppurative	5 [2.6]	8 [3.0]	6 [2.7]	2 [1.5]
Thrombosis				1 [3.0]
Cervix, Hypertrophy		1 [3.0]		
Endometrium, Hyperplasia, Cystic	46 [2.7]	44 [2.9]	47 [2.8]	49 [2.8]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(50)	(50)	(49)
Hyperplasia	14 [3.1]	5 [3.4]	10 [2.9]	2 [3.0]
Lymph Node	(11)	(13)	(10)	(10)
Hyperplasia, Lymphoid			1 [3.0]	
Bronchial, Hyperplasia, Lymphoid			1 [3.0]	
Iliac, Ectasia		1 [3.0]	1 [3.0]	3 [2.7]
Iliac, Hemorrhage	2 [3.0]			
Iliac, Hyperplasia, Lymphoid	2 [2.5]	2 [3.5]	2 [3.0]	2 [2.5]
Inguinal, Hyperplasia, Lymphoid	1 [3.0]			
Mediastinal, Ectasia	1 [3.0]			
Mediastinal, Hemorrhage		1 [3.0]		
Mediastinal, Hyperplasia		1 [3.0]		
Mediastinal, Hyperplasia, Lymphoid	1 [2.0]	2 [3.0]	1 [3.0]	3 [3.0]
Pancreatic, Hemorrhage		1 [3.0]		
Pancreatic, Hyperplasia, Lymphoid	1 [3.0]	1 [3.0]		1 [3.0]
Renal, Ectasia		1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
HEMATOPOIETIC SYSTEM - CONT				
Renal, Hyperplasia, Lymphoid	1 [3.0]	1 [4.0]	2 [2.5]	
Lymph Node, Mandibular	(47)	(49)	(49)	(48)
Hemorrhage	1 [3.0]			
Hyperplasia, Lymphoid	6 [3.0]	4 [3.0]	2 [2.5]	1 [3.0]
Lymph Node, Mesenteric	(47)	(48)	(49)	(50)
Ectasia	1 [3.0]	1 [3.0]	5 [3.2]	2 [3.0]
Hematopoietic Cell Proliferation		1 [3.0]		
Hemorrhage				1 [3.0]
Hyperplasia, Lymphoid	3 [3.0]	6 [3.2]	2 [3.0]	5 [3.0]
Spleen	(49)	(49)	(50)	(50)
Accessory Spleen			1	
Atrophy			1 [2.0]	
Congestion	1 [3.0]			
Hematopoietic Cell Proliferation	24 [2.8]	21 [2.8]	18 [2.6]	13 [2.8]
Hyperplasia, Histiocytic	1 [3.0]			
Hyperplasia, Lymphoid	6 [2.7]	12 [2.6]	12 [2.5]	6 [2.3]
Capsule, Inflammation, Chronic, Focal	1 [2.0]			
Thymus	(46)	(48)	(44)	(47)
Hyperplasia, Lymphoid	5 [2.8]	4 [3.0]	4 [3.0]	1 [3.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(49)	(49)
Dilatation	1 [2.0]			
Hyperplasia				1 [2.0]
Skin	(50)	(50)	(50)	(50)
Ulcer	1 [3.0]			
Control Dermis, Hyperplasia, Focal				1 [1.0]
Control Dermis, Inflammation, Focal	1 [2.0]		1 [2.0]	1 [1.0]
Control Epidermis, Hyperplasia, Focal	1 [3.0]			1 [1.0]
Epidermis, Hyperplasia, Focal	1 [3.0]			
Site of Application - Dermis, Fibrosis				1 [1.0]
Site of Application - Dermis, Inflammation, Focal	3 [1.3]	2 [2.5]	7 [1.4]	2 [1.5]
Site of Application - Epidermis, Hyperplasia	5 [2.0]	3 [1.7]	7 [1.4]	7 [1.3]
Site of Application, Ulcer	2 [3.0]	1 [2.0]		
Subcutaneous Tissue, Angiectasis, Focal		1 [2.0]		
Subcutaneous Tissue, Edema	1 [3.0]	2 [2.5]		1 [2.0]
MUSCULOSKELETAL SYSTEM				

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
MUSCULOSKELETAL SYSTEM - CONT				
Bone				
Hyperostosis	(50) 3 [2.3]	(50) 1 [2.0]	(50) 1 [2.0]	(50) 2 [2.0]
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression, Focal	2 [3.0]	2 [3.5]		1 [3.0]
Hemorrhage, Focal	1 [1.0]	2 [2.0]		
Infarct	1			
Inflammation, Focal		1 [1.0]		
Cerebellum, Hippocampus, Necrosis	1 [2.0]			
Cerebrum, Atrophy, Focal		1 [4.0]		
Hippocampus, Necrosis, Acute		1 [3.0]		
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	2 [3.0]		1 [3.0]	1 [2.0]
Foreign Body				1 [1.0]
Hemorrhage		1 [3.0]		
Hyperplasia, Histiocytic		1 [3.0]		1 [3.0]
Infiltration Cellular, Polymorphonuclear		2 [3.0]		
Mineralization, Focal	1 [2.0]			
Alveolar Epithelium, Hyperplasia, Focal	1 [1.0]	2 [1.0]	1 [2.0]	2 [1.5]
Mediastinum, Hyperplasia, Lymphoid		2 [3.0]		
Nose	(50)	(50)	(49)	(50)
Inflammation			1 [2.0]	
Nasolacrimal Duct, Inflammation	1 [2.0]		1 [2.0]	
SPECIAL SENSES SYSTEM				
Eye	(47)	(48)	(49)	(49)
Atrophy	1 [4.0]		2 [4.0]	
Phthisis Bulbi			1	
Cornea, Hyperplasia, Squamous		1 [2.0]	1 [1.0]	
Cornea, Inflammation, Chronic		1 [2.0]		
Iris, Synechia		1		
Lens, Cataract		1 [3.0]		
Harderian Gland	(50)	(49)	(50)	(50)
Cyst				1 [2.0]

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
SPECIAL SENSES SYSTEM - CONT				
Inflammation		2 [2.5]		
Epithelium, Hyperplasia, Focal	1 [2.0]	1 [2.0]	1 [1.0]	
URINARY SYSTEM				
Kidney	(49)	(49)	(50)	(49)
Congestion	1 [3.0]			
Cyst	1 [1.0]		4 [1.8]	
Hydronephrosis			1 [3.0]	1 [3.0]
Hyperplasia, Lymphoid	2 [2.5]	2 [2.5]	1 [2.0]	1 [2.0]
Infarct	3 [1.3]	2 [2.0]	1 [2.0]	1 [2.0]
Infiltration Cellular, Polymorphonuclear		1 [2.0]		
Infiltration Cellular, Mixed Cell		1 [2.0]		
Inflammation	1 [3.0]	1 [3.0]		
Metaplasia, Focal, Osseous	5 [1.6]	2 [2.0]		1 [1.0]
Nephropathy	13 [1.1]	8 [1.0]	11 [1.1]	18 [1.2]
Capsule, Congestion	1 [2.0]			
Papilla, Necrosis	1 [3.0]			
Renal Tubule, Accumulation, Hyaline Droplet	3 [3.0]	1 [2.0]		2 [3.0]
Renal Tubule, Necrosis	1 [4.0]			
Renal Tubule, Vacuolization Cytoplasmic, Focal	1 [2.0]	1 [1.0]	1 [2.0]	
Urinary Bladder	(50)	(50)	(49)	(50)
Angiectasis	1 [2.0]			

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

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	5	1	2	5
Natural Death	6	9	10	8
Accidently Killed				1
Survivors				
Terminal Sacrifice	38	40	38	36
Moribund Sacrifice	1			
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Gallbladder	(45)	(42)	(43)	(41)
Cyst	1 [2.0]	1 [2.0]	2 [1.5]	
Epithelium, Degeneration, Hyaline		1 [3.0]	1 [3.0]	
Epithelium, Hyperplasia			1 [3.0]	
Intestine Small, Duodenum	(46)	(44)	(44)	(40)
Ectopic Tissue		1 [2.0]		
Serosa, Inflammation, Chronic				
Intestine Small, Jejunum	(46)	(43)	(44)	1 [3.0]
Cyst				(40)
Inflammation, Focal		1 [3.0]	1 [2.0]	1 [3.0]
Necrosis	1 [4.0]			
Peyer's Patch, Hyperplasia, Lymphoid	1 [3.0]	1 [3.0]		1 [3.0]
Intestine Small, Ileum	(46)	(44)	(44)	(40)
Peyer's Patch, Hyperplasia, Lymphoid	1 [3.0]			
Liver	(50)	(50)	(50)	(49)
Atrophy	1 [2.0]			
Basophilic Focus	1			
Clear Cell Focus	2	1	1	2
Eosinophilic Focus	2	1	1	4
Fibrosis, Focal	1 [2.0]			
Hemorrhage, Focal				1 [3.0]
Hepatodiaphragmatic Nodule				1 [2.0]
Hyperplasia, Focal, Histiocytic		1 [3.0]		
Infarct			1 [3.0]	1 [4.0]
Infiltration Cellular, Polymorphonuclear	1 [4.0]			
Infiltration Cellular, Mixed Cell	8 [1.4]	5 [1.4]	5 [1.4]	6 [1.3]
Inflammation, Focal, Granulomatous				1 [3.0]
Pigmentation, Focal		1 [3.0]		

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
ALIMENTARY SYSTEM - CONT				
Thrombosis			1 [4.0]	
Bile Duct, Hyperplasia	1 [2.0]		1 [3.0]	
Capsule, Inflammation, Chronic				1 [3.0]
Hepatocyte, Clear Cell Focus	19	17	12	8
Hepatocyte, Eosinophilic Focus	2			
Hepatocyte, Mixed Cell Focus	1	2		2
Hepatocyte, Necrosis, Focal	5 [1.8]	3 [2.3]	2 [2.5]	7 [1.9]
Hepatocyte, Vacuolization Cytoplasmic	18 [1.9]	17 [2.0]	17 [1.9]	18 [2.2]
Mesentery	(49)	(49)	(50)	(50)
Fibrosis, Focal			1 [2.0]	
Inflammation		1 [3.0]		1 [3.0]
Inflammation, Chronic				1 [3.0]
Artery, Inflammation		1 [3.0]		
Fat, Necrosis, Focal	4 [2.3]	2 [3.0]	4 [2.0]	4 [2.0]
Pancreas	(49)	(50)	(49)	(49)
Inflammation, Focal			1 [2.0]	
Necrosis, Focal		1 [3.0]	1 [2.0]	
Acinus, Atrophy, Focal				3 [2.7]
Serosa, Inflammation, Chronic				1 [3.0]
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy			1 [3.0]	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Diverticulum				1 [2.0]
Erosion		1 [2.0]		
Inflammation, Focal			1 [2.0]	1 [2.0]
Ulcer		1 [2.0]		
Epithelium, Cyst				1 [1.0]
Epithelium, Hyperplasia	2 [2.0]	2 [2.0]	3 [1.7]	2 [2.0]
Stomach, Glandular	(50)	(47)	(48)	(47)
Erosion	4 [1.5]	1 [1.0]	1 [1.0]	
Tooth	(18)	(11)	(15)	(12)
Malformation	18 [2.5]	11 [2.5]	15 [2.5]	12 [2.5]
Peridontal Tissue, Inflammation, Chronic			1 [2.0]	
Pulp, Inflammation			1 [2.0]	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy			1 [2.0]	1 [2.0]
Infiltration Cellular, Mixed Cell				1 [1.0]
Inflammation, Chronic, Focal			1 [1.0]	
Thrombosis		1 [4.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
CARDIOVASCULAR SYSTEM - CONT				
Artery, Inflammation, Chronic		1 [2.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(49)
Accessory Adrenal Cortical Nodule	3 [1.0]	2 [1.5]	2 [1.5]	2 [2.0]
Cytoplasmic Alteration, Focal	9 [1.3]	5 [1.2]	7 [1.4]	4 [1.5]
Degeneration, Cystic				1 [1.0]
Hyperplasia, Focal, Histiocytic		1 [2.0]		
Hypertrophy			1 [4.0]	
Vacuolization Cytoplasmic, Focal	1 [2.0]			
Adrenal Medulla	(49)	(50)	(50)	(49)
Angiectasis	1 [3.0]			
Hyperplasia, Focal			1 [2.0]	
Islets, Pancreatic	(49)	(50)	(49)	(50)
Hyperplasia	2 [2.5]	2 [2.5]	2 [2.5]	1 [2.0]
Parathyroid Gland	(49)	(50)	(46)	(47)
Cyst	1 [1.0]		2 [2.5]	1 [3.0]
Pituitary Gland	(48)	(47)	(50)	(49)
Cyst	1 [1.0]	2 [1.0]	3 [1.7]	3 [2.0]
Pars Distalis, Cytoplasmic Alteration, Focal	1 [2.0]		5 [1.4]	
Pars Distalis, Hyperplasia, Focal	1 [2.0]			
Thyroid Gland	(49)	(50)	(50)	(50)
C-Cell, Hyperplasia	1 [2.0]	3 [1.7]		
Follicle, Degeneration, Cystic, Focal	4 [2.0]	6 [2.2]	8 [1.8]	6 [1.7]
Follicular Cell, Hyperplasia, Focal	7 [1.9]	7 [1.3]	8 [1.5]	3 [1.0]
GENERAL BODY SYSTEM				
Tissue NOS				
Hemorrhage			(3)	(2)
Abdominal, Cyst				1 [3.0]
			1 [3.0]	
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm			1 [3.0]	1 [2.0]
Inflammation, Chronic			1 [2.0]	1 [2.0]
Spermatocele		1 [3.0]		
Preputial Gland	(50)	(50)	(50)	(50)

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

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
GENITAL SYSTEM - CONT				
Cyst				2 [3.0]
Degeneration, Cystic	3 [2.7]	1 [3.0]	1 [3.0]	4 [3.0]
Hyperplasia, Lymphoid		1 [4.0]		
Inflammation, Chronic	11 [3.1]	8 [3.3]	10 [2.9]	6 [3.0]
Prostate	(50)	(50)	(50)	(50)
Inflammation		1 [4.0]		2 [3.0]
Epithelium, Hyperplasia, Focal	2 [2.0]	1 [2.0]		
Seminal Vesicle	(50)	(50)	(50)	(50)
Cyst		1 [3.0]		
Testes	(50)	(50)	(50)	(50)
Atrophy		1 [2.0]	1 [2.0]	
Interstitial Cell, Hyperplasia, Focal			1 [1.0]	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(50)	(50)	(50)
Hyperplasia	9 [2.9]	13 [2.9]	12 [2.9]	7 [2.9]
Thrombosis				1 [1.0]
Lymph Node	(6)	(5)	(5)	(4)
Bronchial, Hyperplasia, Lymphoid		1 [3.0]		
Iliac, Hyperplasia, Lymphoid				1 [3.0]
Inguinal, Hyperplasia, Lymphoid	2 [3.0]	3 [3.0]	4 [2.8]	1 [3.0]
Mediastinal, Hyperplasia, Lymphoid			1 [2.0]	
Pancreatic, Hyperplasia, Lymphoid		1 [3.0]	1 [3.0]	1 [3.0]
Lymph Node, Mandibular	(47)	(48)	(47)	(47)
Hyperplasia, Histiocytic				1 [2.0]
Hyperplasia, Lymphoid		1 [3.0]		1 [3.0]
Lymph Node, Mesenteric	(50)	(48)	(49)	(48)
Ectasia			1 [3.0]	
Hematopoietic Cell Proliferation		1 [3.0]		
Hemorrhage	3 [3.0]	1 [3.0]	3 [3.0]	
Hyperplasia, Lymphoid	3 [2.7]	2 [3.0]	4 [3.0]	2 [3.5]
Spleen	(49)	(50)	(50)	(47)
Atrophy	1 [3.0]		1 [2.0]	
Fibrosis, Focal				1 [3.0]
Hematopoietic Cell Proliferation	15 [2.8]	13 [2.6]	14 [2.8]	13 [2.6]
Hyperplasia, Lymphoid	2 [3.0]	5 [2.4]	1 [2.0]	1 [3.0]
Thrombosis				1 [3.0]
Capsule, Inflammation, Chronic				1 [2.0]
Thymus	(47)	(44)	(47)	(46)
Cyst	2 [2.0]	1 [2.0]	2 [2.5]	
Hyperplasia, Lymphoid	1 [2.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Ulcer	1 [3.0]			
Epidermis, Hyperplasia, Focal	1 [1.0]		1 [1.0]	
Site of Application - Dermis, Inflammation, Focal	2 [2.0]	2 [2.0]	9 [1.4]	1 [1.0]
Site of Application - Epidermis, Hyperplasia	2 [2.0]	3 [2.3]	10 [1.8]	1 [1.0]
Site of Application, Ulcer		1 [2.0]	1 [3.0]	
Subcutaneous Tissue, Angiectasis, Focal			1 [3.0]	
Subcutaneous Tissue, Edema				2 [2.5]
Subcutaneous Tissue, Inflammation, Chronic, Focal			1 [3.0]	
Subcutaneous Tissue, Thrombosis			1 [3.0]	
Subcutaneous Tissue, Site of Application, Infiltration Cellular				1 [2.0]
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hyperostosis	2 [2.0]	2 [2.0]	1 [1.0]	
Skeletal Muscle	(2)	(2)	(2)	(5)
Inflammation, Chronic				1 [2.0]
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	1 [2.0]		1 [3.0]	
Hyperplasia, Histiocytic	1 [2.0]	1 [1.0]	4 [3.0]	
Hyperplasia, Lymphoid	1 [2.0]	1 [1.0]		
Inflammation, Chronic, Focal	1 [2.0]			
Alveolar Epithelium, Hyperplasia, Focal	4 [1.3]	2 [1.5]	1 [1.0]	3 [1.7]
Mediastinum, Hyperplasia, Lymphoid	1 [2.0]			
Nose	(49)	(50)	(50)	(50)
Inflammation	2 [2.5]		1 [2.0]	
Nasolacrimal Duct, Cyst		1 [2.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIISOPROPYLCARBODIIMIDE

B6C3F1 MICE MALE	0 MG/KG	10 MG/KG	20 MG/KG	40 MG/KG
RESPIRATORY SYSTEM - CONT				
Nasolacrimal Duct, Hyperplasia, Focal	1 [2.0]	2 [2.0]	1 [3.0]	
Nasolacrimal Duct, Inflammation	1 [2.0]		2 [3.0]	3 [1.7]
SPECIAL SENSES SYSTEM				
Eye				
Atrophy	(46)	(46)	(47)	(44)
Inflammation	1 [4.0]			
Cornea, Hyperplasia, Squamous	1 [2.0]			
Cornea, Inflammation, Chronic		1 [2.0]		1 [1.0]
Cornea, Necrosis, Focal	2 [2.0]	3 [2.3]	1 [2.0]	3 [2.7]
Retrobulbar, Inflammation		1 [3.0]		1 [3.0]
Harderian Gland				1 [2.0]
Degeneration, Cystic, Focal	(50)	(50)	(50)	(50)
Inflammation		1 [2.0]		
Epithelium, Hyperplasia, Focal	1 [4.0]			1 [1.0]
	3 [2.0]		3 [1.7]	1 [2.0]
URINARY SYSTEM				
Kidney				
Cyst	(48)	(48)	(50)	(48)
Hydronephrosis	3 [1.7]	10 [2.0]	5 [2.0]	3 [1.7]
Infarct	2 [2.5]	1 [3.0]		
Infiltration Cellular, Mixed Cell	2 [1.5]	3 [2.0]	1 [2.0]	1 [2.0]
Inflammation			1 [2.0]	
Metaplasia, Focal, Osseous				3 [2.3]
Nephropathy	4 [1.8]	2 [2.0]	1 [1.0]	
Pelvis, Dilatation	46 [1.4]	44 [1.6]	41 [1.6]	40 [1.4]
Renal Tubule, Hyperplasia, Focal				1 [3.0]
Urinary Bladder	2 [1.0]	3 [1.7]		1 [1.0]
Inflammation	(50)	(50)	(49)	(50)
		1 [3.0]		2 [3.0]

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

END OF REPORT

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-534 Divinylbenzene

Pathology Tables - Rats

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P08 - Statistical Analysis of Primary Tumors Kidney Step Section
- P18 - Incidence Rates of Non-Neoplastic Lesions

FINAL #1 RATS

Facility: Battelle Northwest

Chemical CAS #: 1321-74-0

Lock Date: 04/16/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	16	14	26
Natural Death	7	3	3	2
Accidently Killed		1		
Survivors				
Terminal Sacrifice	33	30	33	22
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Liver	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma			1 (2%)	
Hepatocellular Adenoma		2 (4%)		
Hepatocellular Adenoma, Multiple			2 (4%)	
Histiocytic Sarcoma, Metastatic, Spleen	1 (2%)			
Mesentery	(15)	(20)	(17)	(6)
Carcinoma, Metastatic, Liver			1 (6%)	
Pancreas	(50)	(49)	(50)	(50)
Tongue	(1)	(1)	(3)	(3)
Squamous Cell Papilloma		1 (100%)		1 (33%)
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Carcinoma				1 (2%)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant			1 (2%)	1 (2%)
Pheochromocytoma Benign	2 (4%)	2 (4%)	3 (6%)	1 (2%)

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
ENDOCRINE SYSTEM - cont				
Bilateral, Pheochromocytoma Benign				1 (2%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma	1 (2%)		1 (2%)	1 (2%)
Carcinoma				1 (2%)
Pituitary Gland	(50)	(50)	(50)	(50)
Pars Distalis, Adenoma	37 (74%)	34 (68%)	39 (78%)	28 (56%)
Thyroid Gland	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
C-Cell, Adenoma		5 (10%)	1 (2%)	4 (8%)
C-Cell, Carcinoma	1 (2%)	1 (2%)	1 (2%)	
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(50)	(50)
Carcinoma			1 (2%)	
Ovary	(50)	(50)	(50)	(50)
Granulosa Cell Tumor Benign		1 (2%)		
Uterus	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Carcinoma				1 (2%)
Polyp Stromal	9 (18%)	6 (12%)	8 (16%)	6 (12%)
Sarcoma Stromal		1 (2%)		
Schwannoma Malignant		1 (2%)		
Bilateral, Polyp Stromal				1 (2%)
Cervix, Sarcoma Stromal		1 (2%)		
Vagina		(2)		(3)
Sarcoma		1 (50%)		
HEMATOPOIETIC SYSTEM				
Lymph Node	(6)	(10)	(9)	(8)
Deep Cervical, Carcinoma, Metastatic, Zymbal's Gland	1 (17%)			
Pancreatic, Carcinoma, Metastatic, Mammary Gland		1 (10%)		
Pancreatic, Histiocytic Sarcoma, Metastatic,				

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
HEMATOPOIETIC SYSTEM - cont				
Spleen	1 (17%)			
Lymph Node, Bronchial	(8)	(9)	(5)	(14)
Lymph Node, Mandibular	(3)	(1)	(5)	(3)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Lymph Node, Mediastinal	(32)	(37)	(44)	(34)
Carcinoma, Metastatic, Mammary Gland		1 (3%)		
Carcinoma, Metastatic, Zymbal's Gland	1 (3%)			
Spleen	(50)	(50)	(50)	(50)
Histiocytic Sarcoma	1 (2%)			
Thymus	(45)	(41)	(46)	(39)
Thymoma Malignant			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Adenoma		1 (2%)		
Carcinoma	3 (6%)	4 (8%)	3 (6%)	
Carcinoma, Multiple		1 (2%)	1 (2%)	
Fibroadenoma	14 (28%)	14 (28%)	13 (26%)	9 (18%)
Fibroadenoma, Multiple	6 (12%)	8 (16%)	6 (12%)	5 (10%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma		1 (2%)		
Subcutaneous Tissue, Histiocytic Sarcoma	1 (2%)			
Subcutaneous Tissue, Lipoma			1 (2%)	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Femur, Osteosarcoma				1 (2%)
Vertebra, Osteosarcoma		1 (2%)		
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant			1 (2%)	

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(49)	(50)
Carcinoma, Metastatic, Thyroid Gland	1 (2%)			
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma				2 (4%)
Carcinoma, Metastatic, Liver			1 (2%)	
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Carcinoma, Metastatic, Thyroid Gland			1 (2%)	
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Osteosarcoma, Metastatic, Bone		1 (2%)		1 (2%)
Nose	(50)	(50)	(49)	(49)
Respiratory Epithelium, Adenoma				1 (2%)
Pleura	(50)	(50)	(50)	(49)
Osteosarcoma, Metastatic, Bone				1 (2%)
Trachea	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
SPECIAL SENSES SYSTEM				
Eye	(50)	(48)	(49)	(49)
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma				1 (2%)
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Zymbal's Gland	(1)			(2)
Carcinoma	1 (100%)			2 (100%)
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Osteosarcoma, Metastatic, Bone				1 (2%)
Urinary Bladder	(50)	(50)	(49)	(49)
Transitional Epithelium, Carcinoma			1 (2%)	

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	2 (4%)			
Leukemia Mononuclear	10 (20%)	18 (36%)	22 (44%)	22 (44%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	46	46	49	47
Total Primary Neoplasms	87	104	107	90
Total Animals with Benign Neoplasms	43	42	45	36
Total Benign Neoplasms	70	74	74	61
Total Animals with Malignant Neoplasms	17	27	28	27
Total Malignant Neoplasms	17	30	33	29
Total Animals with Metastatic Neoplasms	3	2	2	1
Total Metastatic Neoplasm	13	5	3	3
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	15	9	12	13
Natural Death	4	6	6	5
Survivors				
Terminal Sacrifice	31	35	31	32
Natural Death			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Rectum	(48)	(48)	(48)	(49)
Adenoma		1 (2%)		
Polyp Adenomatous			1 (2%)	
Intestine Large, Cecum	(47)	(48)	(46)	(49)
Polyp Adenomatous		1 (2%)		
Intestine Small, Jejunum	(46)	(47)	(47)	(46)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Intestine Small, Ileum	(46)	(47)	(45)	(46)
Fibrosarcoma				1 (2%)
Liver	(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Islets, Pancreatic				1 (2%)
Fibrous Histiocytoma, Metastatic, Skin		1 (2%)		1 (2%)
Osteosarcoma, Metastatic, Bone	1 (2%)			
Osteosarcoma, Metastatic, Uncertain Primary Site		1 (2%)		
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (2%)	
Mesentery	(12)	(13)	(18)	(11)
Carcinoma, Metastatic, Kidney				1 (9%)
Histiocytic Sarcoma	1 (8%)			
Leiomyosarcoma, Metastatic, Stomach, Glandular	1 (8%)			
Oral Mucosa	(1)		(1)	(4)
Pharyngeal, Squamous Cell Papilloma				1 (25%)
Pancreas	(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (2%)
Fibrous Histiocytoma, Metastatic, Skin		1 (2%)		
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
ALIMENTARY SYSTEM - cont				
Leiomyosarcoma, Metastatic, Stomach, Glandular	1 (2%)			
Acinus, Adenoma				1 (2%)
Stomach, Forestomach	(50)	(48)	(50)	(50)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Stomach, Glandular	(50)	(48)	(50)	(49)
Leiomyosarcoma	1 (2%)			
Tongue	(1)	(1)		
Squamous Cell Papilloma	1 (100%)			
CARDIOVASCULAR SYSTEM				
Blood Vessel	(50)	(50)	(50)	(50)
Heart	(50)	(50)	(50)	(50)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (2%)
Osteosarcoma, Metastatic, Bone		1 (2%)		
Adrenal Medulla	(50)	(50)	(50)	(50)
Osteosarcoma, Metastatic, Bone	1 (2%)			
Pheochromocytoma Malignant	1 (2%)	2 (4%)	2 (4%)	1 (2%)
Pheochromocytoma Benign	12 (24%)	3 (6%)	8 (16%)	7 (14%)
Bilateral, Pheochromocytoma Benign		1 (2%)	1 (2%)	
Islets, Pancreatic	(50)	(48)	(50)	(50)
Adenoma	5 (10%)	8 (17%)	2 (4%)	9 (18%)
Carcinoma	1 (2%)		1 (2%)	1 (2%)
Pituitary Gland	(50)	(50)	(50)	(49)
Pars Distalis, Adenoma	36 (72%)	30 (60%)	31 (62%)	29 (59%)
Pars Distalis, Ganglioneuroma				1 (2%)
Pars Intermedia, Adenoma		2 (4%)		
Thyroid Gland	(50)	(50)	(50)	(49)
C-Cell, Adenoma	2 (4%)	5 (10%)	2 (4%)	2 (4%)
C-Cell, Carcinoma	1 (2%)			1 (2%)
Follicular Cell, Adenoma	1 (2%)			

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
GENERAL BODY SYSTEM				
Peritoneum	(40)	(49)	(50)	(49)
Carcinoma, Metastatic, Kidney				1 (2%)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (3%)			
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Preputial Gland	(48)	(50)	(50)	(49)
Adenoma		1 (2%)		1 (2%)
Carcinoma		1 (2%)		1 (2%)
Prostate	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (2%)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Seminal Vesicle	(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (2%)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Testes	(50)	(50)	(50)	(50)
Bilateral, Interstitial Cell, Adenoma	20 (40%)	32 (64%)	27 (54%)	32 (64%)
Interstitial Cell, Adenoma	18 (36%)	13 (26%)	16 (32%)	10 (20%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Fibrous Histiocytoma, Metastatic, Skin		1 (2%)		
Lymph Node	(11)	(5)	(11)	(6)
Lymph Node, Bronchial	(7)	(6)	(12)	(5)
Lymph Node, Mesenteric	(49)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (2%)
Sarcoma	1 (2%)			
Lymph Node, Mediastinal	(19)	(23)	(25)	(38)
Carcinoma, Metastatic, Kidney				1 (3%)
Spleen	(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (2%)
Fibrous Histiocytoma, Metastatic, Skin		1 (2%)		1 (2%)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Thymus	(48)	(44)	(46)	(42)

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
INTEGUMENTARY SYSTEM				
Mammary Gland	(35)	(43)	(47)	(48)
Adenoma, Multiple		1 (2%)		
Carcinoma	1 (3%)		1 (2%)	
Fibroadenoma	1 (3%)		5 (11%)	1 (2%)
Fibroadenoma, Multiple				1 (2%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Adenoma			1 (2%)	
Squamous Cell Papilloma	1 (2%)			3 (6%)
Trichoepithelioma	1 (2%)			
Subcutaneous Tissue, Fibroma	5 (10%)	7 (14%)	4 (8%)	3 (6%)
Subcutaneous Tissue, Fibrous Histiocytoma		1 (2%)		1 (2%)
Subcutaneous Tissue, Fibrous Histiocytoma, Multiple	1 (2%)			
Subcutaneous Tissue, Lipoma	1 (2%)	1 (2%)	1 (2%)	
Subcutaneous Tissue, Myxoma				1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Femur, Osteosarcoma		1 (2%)		
Pelvis, Femur, Osteosarcoma	1 (2%)			
Skeletal Muscle	(2)	(6)	(1)	(4)
Carcinoma, Metastatic, Kidney				1 (25%)
Fibrous Histiocytoma, Metastatic, Skin		1 (17%)		
Osteosarcoma		1 (17%)		
NERVOUS SYSTEM				
Brain	(49)	(50)	(50)	(50)
Astrocytoma Malignant			2 (4%)	
Oligodendroglioma Malignant		1 (2%)	1 (2%)	
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma		1 (2%)		
Alveolar/Bronchiolar Adenoma, Multiple				1 (2%)
Alveolar/Bronchiolar Carcinoma	1 (2%)		1 (2%)	
Carcinoma, Metastatic, Kidney				1 (2%)

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
RESPIRATORY SYSTEM - cont				
Fibrous Histiocytoma, Metastatic, Skin	1 (2%)	1 (2%)		1 (2%)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Osteosarcoma, Metastatic, Bone	1 (2%)	1 (2%)		
Osteosarcoma, Metastatic, Uncertain Primary Site		1 (2%)		
Squamous Cell Carcinoma			1 (2%)	
Nose	(50)	(48)	(50)	(49)
Pleura	(50)	(50)	(50)	(50)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Leiomyosarcoma, Metastatic, Stomach, Glandular	1 (2%)			
SPECIAL SENSES SYSTEM				
Zymbal's Gland	(1)		(3)	
Carcinoma			2 (67%)	
URINARY SYSTEM				
Kidney	(50)	(49)	(50)	(49)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Liposarcoma	1 (2%)			
Pelvis, Transitional Epithelium, Carcinoma	1 (2%)			
Renal Tubule, Carcinoma		1 (2%)		
Urinary Bladder	(50)	(49)	(50)	2 (4%) (49)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)			
Leukemia Mononuclear	22 (44%)	13 (26%)	14 (28%)	10 (20%)
Mesothelioma Malignant	2 (4%)	2 (4%)	1 (2%)	2 (4%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	49	49	49
Total Primary Neoplasms	140	130	125	123
Total Animals with Benign Neoplasms	49	49	48	48
Total Benign Neoplasms	104	107	99	103
Total Animals with Malignant Neoplasms	29	20	24	18
Total Malignant Neoplasms	36	23	26	20
Total Animals with Metastatic Neoplasms	5	3	1	3
Total Metastatic Neoplasm	19	10	1	15
Total Animals with Malignant Neoplasms Uncertain Primary Site		1		
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

FINAL #1 RATS

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Battelle Northwest
EXPERIMENT: 88004 TEST: 05
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: RENNE, ROGER
Rats(FISCHER 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 12/17/03
TIME: 11:44:02

NTP C#: 88004B
CAS: 1321-74-0

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Brain
Clitoral/Preputial Gland
Islets, Pancreatic
Kidney
Liver
Lung
Nose
Ovary
Pancreas
Pituitary Gland
Testes
Thymus
Thyroid Gland
Urinary Bladder

NTP
LAB: Battelle Northwest
EXPERIMENT: 88004 TEST: 05
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 12/17/03
TIME: 11:44:02

NTP C#: 88004B
CAS: 1321-74-0

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF DIVINYLBENZENE

Male Rats

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Benign
	Pheochromocytoma: Benign, Complex, Malignant, NOS
Kidney: Renal Tubule	Carcinoma
Skin	Basal Cell Adenoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Malignant Tumors

Female Rats

Organ	Morphology
Lung	Alveolar/Bronchiolar Adenoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Mammary Gland	Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
Thyroid Gland: C-Cell	Adenoma
All Organs	Histiocytic Sarcoma
	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	12/50 (24%)	4/50 (8%)	9/50 (18%)	7/50 (14%)	2/50 (4%)	2/50 (4%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	12/44.11	4/45.38	9/44.10	7/45.14	2/42.30	2/43.64	3/43.84	2/38.10
POLY-3 PERCENT (g)	27.2%	8.8%	20.4%	15.5%	4.7%	4.6%	6.8%	5.3%
TERMINAL (d)	8/31 (26%)	4/35 (11%)	8/32 (25%)	6/32 (19%)	2/33 (6%)	1/30 (3%)	3/33 (9%)	0/22 (0%)
FIRST INCIDENCE	623	729 (T)	722	674	731 (T)	696	731 (T)	656
STATISTICAL TESTS								
LIFE TABLE	P=0.256N	P=0.017N*	P=0.286N	P=0.136N	P=0.410	P=0.668	P=0.500	P=0.552
POLY 3	P=0.248N	P=0.021N*	P=0.308N	P=0.136N	P=0.506	P=0.683N	P=0.516	P=0.656
POLY 1.5	P=0.247N	P=0.024N*	P=0.314N	P=0.141N	P=0.534	P=0.686N	P=0.511	P=0.674
POLY 6	P=0.255N	P=0.018N*	P=0.305N	P=0.133N	P=0.461	P=0.685N	P=0.520	P=0.623
LOGISTIC REGRESSION	P=0.233N	P=0.019N*	P=0.273N	P=0.125N	P=0.472	P=0.693N	P=0.500	P=0.634
COCH-ARM / FISHERS	P=0.257N	P=0.027N*	P=0.312N	P=0.154N	P=0.569	P=0.691N	P=0.500	P=0.691N
ORDER RESTRICTED	P=0.094N	(e)	(e)	(e)	P=0.607	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Adrenal Medulla Pheochromocytoma Malignant								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/43.15	2/45.38	2/44.10	1/45.12	0/42.30	0/43.50	1/44.53	1/38.21
POLY-3 PERCENT (g)	2.3%	4.4%	4.5%	2.2%	0.0%	0.0%	2.3%	2.6%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	722	680	---	---	497	589
STATISTICAL TESTS								
LIFE TABLE	P=0.552N	P=0.543	P=0.514	P=0.742N	P=0.232	(e)	P=0.509	P=0.485
POLY 3	P=0.541N	P=0.518	P=0.508	P=0.751N	P=0.204	(e)	P=0.510	P=0.480
POLY 1.5	P=0.545N	P=0.508	P=0.502	P=0.754N	P=0.218	(e)	P=0.507	P=0.489
POLY 6	P=0.537N	P=0.531	P=0.514	P=0.747N	P=0.182	(e)	P=0.513	P=0.462
LOGISTIC REGRESSION	P=0.546N	P=0.543	P=0.521	P=0.756N	P=0.327	(e)	P=0.456	P=0.535
COCH-ARM / FISHERS	P=0.556N	P=0.500	P=0.500	P=0.753N	P=0.236	(e)	P=0.500	P=0.500
ORDER RESTRICTED	P=0.540N	(e)	(e)	(e)	P=0.232	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Brain								
Oligodendroglioma, Glioma, or Astrocytoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/42.15	1/45.87	3/44.07	0/44.93	0/42.30	0/43.50	1/44.71	0/37.73
POLY-3 PERCENT (g)	0.0%	2.2%	6.8%	0.0%	0.0%	0.0%	2.2%	0.0%
TERMINAL (d)	0/30 (0%)	0/35 (0%)	3/32 (9%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	582	729 (T)	---	---	---	374	---
STATISTICAL TESTS								
LIFE TABLE	P=0.630N	P=0.509	P=0.132	(e)	P=0.692	(e)	P=0.500	(e)
POLY 3	P=0.614N	P=0.517	P=0.126	(e)	P=0.633	(e)	P=0.511	(e)
POLY 1.5	P=0.619N	P=0.510	P=0.124	(e)	P=0.662	(e)	P=0.507	(e)
POLY 6	P=0.612N	P=0.526	P=0.130	(e)	P=0.581	(e)	P=0.513	(e)
LOGISTIC REGRESSION	P=0.629N	P=0.531	P=0.132	(e)	P=0.619N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.629N	P=0.505	P=0.125	(e)	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.231	(e)	(e)	(e)	P=0.393	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Clitoral/Preputial Gland								
Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	2/50 (4%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/41.16	2/46.40	0/44.07	2/44.42	0/42.30	0/43.50	1/43.88	0/37.73
POLY-3 PERCENT (g)	0.0%	4.3%	0.0%	4.5%	0.0%	0.0%	2.3%	0.0%
TERMINAL (d)	0/30 (0%)	0/35 (0%)	0/32 (0%)	0/31 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	393	---	638	---	---	722	---
STATISTICAL TESTS								
LIFE TABLE	P=0.256	P=0.257	(e)	P=0.257	P=0.655	(e)	P=0.506	(e)
POLY 3	P=0.264	P=0.265	(e)	P=0.254	P=0.635	(e)	P=0.507	(e)
POLY 1.5	P=0.258	P=0.256	(e)	P=0.250	P=0.663	(e)	P=0.505	(e)
POLY 6	P=0.271	P=0.276	(e)	P=0.260	P=0.584	(e)	P=0.509	(e)
LOGISTIC REGRESSION	P=0.206	P=0.281	(e)	P=0.214	P=0.669	(e)	P=0.508	(e)
COCH-ARM / FISHERS	P=0.249	P=0.258	(e)	P=0.253	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.130	(e)	(e)	(e)	P=0.389	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	8/48 (17%)	2/50 (4%)	9/50 (18%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	5/43.75	8/44.47	2/44.24	9/45.84	1/42.30	0/43.50	1/43.84	1/38.36
POLY-3 PERCENT (g)	11.4%	18.0%	4.5%	19.6%	2.4%	0.0%	2.3%	2.6%
TERMINAL (d)	3/31 (10%)	7/34 (21%)	1/32 (3%)	6/32 (19%)	1/33 (3%)	0/30 (0%)	1/33 (3%)	0/22 (0%)
FIRST INCIDENCE	543	704	687	614	731 (T)	---	731 (T)	523
STATISTICAL TESTS								
LIFE TABLE	P=0.240	P=0.343	P=0.207N	P=0.225	P=0.486	P=0.519N	P=0.762	P=0.729
POLY 3	P=0.255	P=0.285	P=0.211N	P=0.218	P=0.503	P=0.494N	P=0.753N	P=0.739
POLY 1.5	P=0.248	P=0.270	P=0.216N	P=0.209	P=0.519	P=0.496N	P=0.755N	P=0.749
POLY 6	P=0.262	P=0.306	P=0.204N	P=0.230	P=0.478	P=0.496N	P=0.751N	P=0.718
LOGISTIC REGRESSION	P=0.249	P=0.297	P=0.215N	P=0.200	P=0.553	(e)	P=0.762	P=0.745N
COCH-ARM / FISHERS	P=0.240	P=0.250	P=0.218N	P=0.194	P=0.539	P=0.500N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.190	(e)	(e)	(e)	P=0.500	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	6/50 (12%)	8/48 (17%)	3/50 (6%)	10/50 (20%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	6/43.75	8/44.47	3/44.24	10/45.84	1/42.30	0/43.50	1/43.84	2/38.97
POLY-3 PERCENT (g)	13.7%	18.0%	6.8%	21.8%	2.4%	0.0%	2.3%	5.1%
TERMINAL (d)	4/31 (13%)	7/34 (21%)	2/32 (6%)	7/32 (22%)	1/33 (3%)	0/30 (0%)	1/33 (3%)	0/22 (0%)
FIRST INCIDENCE	543	704	687	614	731 (T)	---	731 (T)	523
STATISTICAL TESTS								
LIFE TABLE	P=0.218	P=0.462	P=0.230N	P=0.239	P=0.209	P=0.519N	P=0.762	P=0.474
POLY 3	P=0.233	P=0.399	P=0.236N	P=0.234	P=0.226	P=0.494N	P=0.753N	P=0.471
POLY 1.5	P=0.228	P=0.380	P=0.242N	P=0.224	P=0.235	P=0.496N	P=0.755N	P=0.485
POLY 6	P=0.239	P=0.423	P=0.228N	P=0.247	P=0.212	P=0.496N	P=0.751N	P=0.445
LOGISTIC REGRESSION	P=0.230	P=0.418	P=0.235N	P=0.221	P=0.289	(e)	P=0.762	P=0.554
COCH-ARM / FISHERS	P=0.220	P=0.355	P=0.243N	P=0.207	P=0.247	P=0.500N	P=0.753N	P=0.500
ORDER RESTRICTED	P=0.180	(e)	(e)	(e)	P=0.196	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney: Renal Tubule Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	2/44.14	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	682	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.046 *	(e)	(e)	P=0.252	(e)	(e)	(e)	(e)
POLY 3	P=0.044 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
POLY 1.5	P=0.045 *	(e)	(e)	P=0.239	(e)	(e)	(e)	(e)
POLY 6	P=0.044 *	(e)	(e)	P=0.246	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.046 *	(e)	(e)	P=0.240	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.045 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.031 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Liver Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	0/44.93	0/42.30	2/43.90	2/43.84	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	4.6%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)	2/33 (6%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---	---	617	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.597N	P=0.237	P=0.238	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.551N	P=0.245	P=0.245	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.527N	P=0.243	P=0.242	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.592N	P=0.245	P=0.246	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.534N	P=0.233	P=0.238	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.500N	P=0.247	P=0.247	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.288	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	0/44.93	0/42.30	2/43.90	3/43.92	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	6.8%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)	2/33 (6%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---	---	617	711	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.612	P=0.237	P=0.128	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.596N	P=0.245	P=0.125	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.566N	P=0.243	P=0.123	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.558	P=0.245	P=0.127	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.574N	P=0.233	P=0.127	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.531N	P=0.247	P=0.121	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.242	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Liver								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	0/44.93	0/42.30	2/43.90	3/43.92	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	6.8%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)	2/33 (6%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---	---	617	711	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.612	P=0.237	P=0.128	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.596N	P=0.245	P=0.125	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.566N	P=0.243	P=0.123	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.558	P=0.245	P=0.127	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.574N	P=0.233	P=0.127	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.531N	P=0.247	P=0.121	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.242	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Lung								
Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.15	1/45.38	0/44.07	1/44.93	0/42.30	0/43.50	0/43.84	2/37.73
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	2.2%	0.0%	0.0%	0.0%	5.3%
TERMINAL (d)	0/31 (0%)	1/35 (3%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	2/22 (9%)
FIRST INCIDENCE	---	729 (T)	---	729 (T)	---	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.403	P=0.524	(e)	P=0.506	P=0.023 *	(e)	(e)	P=0.154
POLY 3	P=0.417	P=0.510	(e)	P=0.508	P=0.041 *	(e)	(e)	P=0.212
POLY 1.5	P=0.413	P=0.504	(e)	P=0.505	P=0.043 *	(e)	(e)	P=0.224
POLY 6	P=0.421	P=0.518	(e)	P=0.511	P=0.039 *	(e)	(e)	P=0.193
LOGISTIC REGRESSION	(e)	P=0.524	(e)	P=0.506	(e)	(e)	(e)	P=0.154
COCH-ARM / FISHERS	P=0.405	P=0.500	(e)	P=0.500	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.259	(e)	(e)	(e)	P=0.022 *	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Lung								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.15	1/45.38	1/44.07	1/44.93	0/42.30	0/43.50	0/43.84	2/37.73
POLY-3 PERCENT (g)	2.3%	2.2%	2.3%	2.2%	0.0%	0.0%	0.0%	5.3%
TERMINAL (d)	1/31 (3%)	1/35 (3%)	1/32 (3%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	2/22 (9%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	729 (T)	---	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.633	P=0.735N	P=0.755N	P=0.755N	P=0.023 *	(e)	(e)	P=0.154
POLY 3	P=0.627N	P=0.749N	P=0.756N	P=0.752N	P=0.041 *	(e)	(e)	P=0.212
POLY 1.5	P=0.628N	P=0.756N	P=0.759N	P=0.755N	P=0.043 *	(e)	(e)	P=0.224
POLY 6	P=0.628N	P=0.741N	P=0.752N	P=0.749N	P=0.039 *	(e)	(e)	P=0.193
LOGISTIC REGRESSION	P=0.633	P=0.735N	P=0.755N	P=0.755N	(e)	(e)	(e)	P=0.154
COCH-ARM / FISHERS	P=0.634	P=0.753N	P=0.753N	P=0.753N	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.735N	(e)	(e)	(e)	P=0.022 *	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	5/50 (10%)	4/50 (8%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	0/45.38	1/44.07	0/44.93	3/42.30	5/44.54	4/43.84	0/37.73
POLY-3 PERCENT (g)	2.3%	0.0%	2.3%	0.0%	7.1%	11.2%	9.1%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	3/33 (9%)	2/30 (7%)	4/33 (12%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	731 (T)	374	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.406N	P=0.476N	P=0.755N	P=0.494N	P=0.150N	P=0.320	P=0.500	P=0.200N
POLY 3	P=0.406N	P=0.490N	P=0.756N	P=0.492N	P=0.110N	P=0.385	P=0.520	P=0.140N
POLY 1.5	P=0.404N	P=0.496N	P=0.759N	P=0.495N	P=0.095N	P=0.377	P=0.513	P=0.130N
POLY 6	P=0.410N	P=0.482N	P=0.752N	P=0.489N	P=0.140N	P=0.385	P=0.523	P=0.160N
LOGISTIC REGRESSION	P=0.406N	(e)	P=0.755N	(e)	P=0.091N	P=0.353	P=0.500	(e)
COCH-ARM / FISHERS	P=0.405N	P=0.500N	P=0.753N	P=0.500N	P=0.079N	P=0.357	P=0.500	P=0.121N
ORDER RESTRICTED	P=0.243N	(e)	(e)	(e)	P=0.090N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Mammary Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	6/50 (12%)	4/50 (8%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	1/45.38	1/44.07	0/44.93	3/42.30	6/44.77	4/43.84	0/37.73
POLY-3 PERCENT (g)	2.3%	2.2%	2.3%	0.0%	7.1%	13.4%	9.1%	0.0%
TERMINAL (d)	1/31 (3%)	1/35 (3%)	1/32 (3%)	0/32 (0%)	3/33 (9%)	2/30 (7%)	4/33 (12%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---	731 (T)	374	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.311N	P=0.735N	P=0.755N	P=0.494N	P=0.134N	P=0.219	P=0.500	P=0.200N
POLY 3	P=0.307N	P=0.749N	P=0.756N	P=0.492N	P=0.093N	P=0.270	P=0.520	P=0.140N
POLY 1.5	P=0.308N	P=0.756N	P=0.759N	P=0.495N	P=0.079N	P=0.262	P=0.513	P=0.130N
POLY 6	P=0.306N	P=0.741N	P=0.752N	P=0.489N	P=0.122N	P=0.272	P=0.523	P=0.160N
LOGISTIC REGRESSION	P=0.311N	P=0.735N	P=0.755N	(e)	P=0.075N	P=0.238	P=0.500	(e)
COCH-ARM / FISHERS	P=0.311N	P=0.753N	P=0.753N	P=0.500N	P=0.066N	P=0.243	P=0.500	P=0.121N
ORDER RESTRICTED	P=0.320N	(e)	(e)	(e)	P=0.067N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Mammary Gland Fibroadenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	5/50 (10%)	2/50 (4%)	20/50 (40%)	22/50 (44%)	19/50 (38%)	14/50 (28%)
POLY-3 RATE (b)	1/43.15	0/45.38	5/44.58	2/44.93	20/43.01	22/45.41	19/44.55	14/39.80
POLY-3 PERCENT (g)	2.3%	0.0%	11.2%	4.5%	46.5%	48.4%	42.7%	35.2%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	4/32 (13%)	2/32 (6%)	15/33 (46%)	12/30 (40%)	13/33 (39%)	8/22 (36%)
FIRST INCIDENCE	729 (T)	---	578	729 (T)	631	617	666	523
STATISTICAL TESTS								
LIFE TABLE	P=0.228	P=0.476N	P=0.111	P=0.511	P=0.476N	P=0.335	P=0.484N	P=0.572
POLY 3	P=0.240	P=0.490N	P=0.108	P=0.514	P=0.133N	P=0.512	P=0.441N	P=0.200N
POLY 1.5	P=0.239	P=0.496N	P=0.104	P=0.509	P=0.104N	P=0.478	P=0.462N	P=0.169N
POLY 6	P=0.237	P=0.482N	P=0.114	P=0.519	P=0.202N	P=0.538	P=0.428N	P=0.280N
LOGISTIC REGRESSION	P=0.240	(e)	P=0.106	P=0.511	P=0.201N	P=0.470	P=0.426N	P=0.309N
COCH-ARM / FISHERS	P=0.232	P=0.500N	P=0.102	P=0.500	P=0.080N	P=0.420	P=0.500N	P=0.146N
ORDER RESTRICTED	P=0.097	(e)	(e)	(e)	P=0.204N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Mammary Gland Fibroma, Fibroadenoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	5/50 (10%)	2/50 (4%)	20/50 (40%)	23/50 (46%)	19/50 (38%)	14/50 (28%)
POLY-3 RATE (b)	1/43.15	1/45.38	5/44.58	2/44.93	20/43.01	23/45.64	19/44.55	14/39.80
POLY-3 PERCENT (g)	2.3%	2.2%	11.2%	4.5%	46.5%	50.4%	42.7%	35.2%
TERMINAL (d)	1/31 (3%)	1/35 (3%)	4/32 (13%)	2/32 (6%)	15/33 (46%)	12/30 (40%)	13/33 (39%)	8/22 (36%)
FIRST INCIDENCE	729 (T)	729 (T)	578	729 (T)	631	617	666	523
STATISTICAL TESTS								
LIFE TABLE	P=0.298	P=0.735N	P=0.111	P=0.511	P=0.455N	P=0.276	P=0.484N	P=0.572
POLY 3	P=0.316	P=0.749N	P=0.108	P=0.514	P=0.119N	P=0.438	P=0.441N	P=0.200N
POLY 1.5	P=0.313	P=0.756N	P=0.104	P=0.509	P=0.092N	P=0.401	P=0.462N	P=0.169N
POLY 6	P=0.315	P=0.741N	P=0.114	P=0.519	P=0.186N	P=0.471	P=0.428N	P=0.280N
LOGISTIC REGRESSION	P=0.312	P=0.735N	P=0.106	P=0.511	P=0.178N	P=0.389	P=0.426N	P=0.309N
COCH-ARM / FISHERS	P=0.302	P=0.753N	P=0.102	P=0.500	P=0.070N	P=0.343	P=0.500N	P=0.146N
ORDER RESTRICTED	P=0.182	(e)	(e)	(e)	P=0.172N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Mammary Gland								
Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	5/50 (10%)	2/50 (4%)	22/50 (44%)	25/50 (50%)	21/50 (42%)	14/50 (28%)
POLY-3 RATE (b)	1/43.15	1/45.38	5/44.58	2/44.93	22/43.01	25/46.62	21/44.55	14/39.80
POLY-3 PERCENT (g)	2.3%	2.2%	11.2%	4.5%	51.2%	53.6%	47.1%	35.2%
TERMINAL (d)	1/31 (3%)	1/35 (3%)	4/32 (13%)	2/32 (6%)	17/33 (52%)	12/30 (40%)	15/33 (46%)	8/22 (36%)
FIRST INCIDENCE	729 (T)	729 (T)	578	729 (T)	631	374	666	523
STATISTICAL TESTS								
LIFE TABLE	P=0.298	P=0.735N	P=0.111	P=0.511	P=0.330N	P=0.276	P=0.484N	P=0.461N
POLY 3	P=0.316	P=0.749N	P=0.108	P=0.514	P=0.057N	P=0.491	P=0.435N	P=0.099N
POLY 1.5	P=0.313	P=0.756N	P=0.104	P=0.509	P=0.041N*	P=0.435	P=0.458N	P=0.082N
POLY 6	P=0.315	P=0.741N	P=0.114	P=0.519	P=0.103N	P=0.539	P=0.420N	P=0.153N
LOGISTIC REGRESSION	P=0.312	P=0.735N	P=0.106	P=0.511	P=0.077N	P=0.391	P=0.418N	P=0.189N
COCH-ARM / FISHERS	P=0.302	P=0.753N	P=0.102	P=0.500	P=0.029N*	P=0.344	P=0.500N	P=0.072N
ORDER RESTRICTED	P=0.182	(e)	(e)	(e)	P=0.088N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Pituitary Gland: Pars Distalis or Unspecified Site								
Adenoma								
TUMOR RATES								
OVERALL (a)	36/50 (72%)	30/50 (60%)	31/50 (62%)	29/49 (59%)	37/50 (74%)	34/50 (68%)	39/50 (78%)	28/50 (56%)
POLY-3 RATE (b)	36/47.03	30/47.41	31/46.48	29/45.96	37/46.77	34/46.44	39/47.30	28/42.25
POLY-3 PERCENT (g)	76.6%	63.3%	66.7%	63.1%	79.1%	73.2%	82.5%	66.3%
TERMINAL (d)	24/31 (77%)	22/35 (63%)	20/32 (63%)	19/32 (59%)	26/33 (79%)	22/30 (73%)	27/33 (82%)	16/22 (73%)
FIRST INCIDENCE	506	569	586	614	455	374	493	529
STATISTICAL TESTS								
LIFE TABLE	P=0.167N	P=0.066N	P=0.191N	P=0.106N	P=0.358	P=0.511N	P=0.468	P=0.484
POLY 3	P=0.150N	P=0.113N	P=0.197N	P=0.109N	P=0.138N	P=0.330N	P=0.438	P=0.114N
POLY 1.5	P=0.145N	P=0.135N	P=0.208N	P=0.113N	P=0.084N	P=0.318N	P=0.425	P=0.073N
POLY 6	P=0.162N	P=0.088N	P=0.181N	P=0.108N	P=0.275N	P=0.368N	P=0.450	P=0.234N
LOGISTIC REGRESSION	P=0.121N	P=0.117N	P=0.175N	P=0.086N	P=0.100N	P=0.266N	P=0.476	P=0.086N
COCH-ARM / FISHERS	P=0.157N	P=0.146N	P=0.198N	P=0.129N	P=0.044N*	P=0.330N	P=0.408	P=0.046N*
ORDER RESTRICTED	P=0.121N	(e)	(e)	(e)	P=0.107N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Pituitary Gland: Pars Intermedia								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	2/45.38	0/44.07	0/43.95	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	2/35 (6%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	729 (T)	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.406N	P=0.265	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.394N	P=0.248	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.401N	P=0.242	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.386N	P=0.257	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.265	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.409N	P=0.247	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.254N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Skin								
Basal Cell Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.38	1/44.58	3/44.93	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	6.7%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	3/32 (9%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	578	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	(e)	P=0.504	P=0.126	(e)	(e)	(e)	(e)
POLY 3	P=0.020 *	(e)	P=0.507	P=0.126	(e)	(e)	(e)	(e)
POLY 1.5	P=0.020 *	(e)	P=0.503	P=0.123	(e)	(e)	(e)	(e)
POLY 6	P=0.020 *	(e)	P=0.512	P=0.128	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.020 *	(e)	P=0.535	P=0.126	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.020 *	(e)	P=0.500	P=0.121	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.023 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Skin Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	0/45.38	1/44.58	3/44.93	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	2.3%	0.0%	2.2%	6.7%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	3/32 (9%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	---	578	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.095	P=0.476N	P=0.754N	P=0.316	(e)	(e)	(e)	(e)
POLY 3	P=0.097	P=0.490N	P=0.753N	P=0.320	(e)	(e)	(e)	(e)
POLY 1.5	P=0.098	P=0.496N	P=0.758N	P=0.315	(e)	(e)	(e)	(e)
POLY 6	P=0.096	P=0.482N	P=0.748N	P=0.324	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.098	(e)	P=0.759N	P=0.316	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.097	P=0.500N	P=0.753N	P=0.309	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.089	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Skin Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	0/45.38	1/44.58	3/44.93	0/42.30	1/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	2.3%	0.0%	2.2%	6.7%	0.0%	2.3%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	3/32 (9%)	0/33 (0%)	1/30 (3%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	---	578	729 (T)	---	731 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.095	P=0.476N	P=0.754N	P=0.316	P=0.625N	P=0.481	(e)	(e)
POLY 3	P=0.097	P=0.490N	P=0.753N	P=0.320	P=0.563N	P=0.506	(e)	(e)
POLY 1.5	P=0.098	P=0.496N	P=0.758N	P=0.315	P=0.565N	P=0.504	(e)	(e)
POLY 6	P=0.096	P=0.482N	P=0.748N	P=0.324	P=0.561N	P=0.504	(e)	(e)
LOGISTIC REGRESSION	P=0.098	(e)	P=0.759N	P=0.316	(e)	P=0.481	(e)	(e)
COCH-ARM / FISHERS	P=0.097	P=0.500N	P=0.753N	P=0.309	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.089	(e)	(e)	(e)	P=0.405N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.52	0/45.38	1/44.58	3/44.93	0/42.30	1/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	4.6%	0.0%	2.2%	6.7%	0.0%	2.3%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	3/32 (9%)	0/33 (0%)	1/30 (3%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	623	---	578	729 (T)	---	731 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.243	P=0.217N	P=0.491N	P=0.518	P=0.625N	P=0.481	(e)	(e)
POLY 3	P=0.241	P=0.228N	P=0.492N	P=0.515	P=0.563N	P=0.506	(e)	(e)
POLY 1.5	P=0.244	P=0.233N	P=0.497N	P=0.510	P=0.565N	P=0.504	(e)	(e)
POLY 6	P=0.237	P=0.221N	P=0.485N	P=0.518	P=0.561N	P=0.504	(e)	(e)
LOGISTIC REGRESSION	P=0.239	P=0.239N	P=0.488N	P=0.518	(e)	P=0.481	(e)	(e)
COCH-ARM / FISHERS	P=0.242	P=0.247N	P=0.500N	P=0.500	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.195	(e)	(e)	(e)	P=0.405N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Skin: Fibroma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	7/50 (14%)	4/50 (8%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	5/44.12	7/45.64	4/44.07	3/45.64	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	11.3%	15.3%	9.1%	6.6%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/31 (10%)	6/35 (17%)	4/32 (13%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	536	659	729 (T)	569	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.194N	P=0.457	P=0.483N	P=0.334N	(e)	(e)	(e)	(e)
POLY 3	P=0.183N	P=0.403	P=0.501N	P=0.338N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.187N	P=0.388	P=0.504N	P=0.344N	(e)	(e)	(e)	(e)
POLY 6	P=0.180N	P=0.424	P=0.498N	P=0.332N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.191N	P=0.387	P=0.497N	P=0.406N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.196N	P=0.380	P=0.500N	P=0.357N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.235N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	8/50 (16%)	4/50 (8%)	5/50 (10%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	6/44.15	8/45.71	4/44.07	5/45.67	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	13.6%	17.5%	9.1%	11.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/31 (10%)	6/35 (17%)	4/32 (13%)	2/32 (6%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	536	659	729 (T)	569	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.312N	P=0.476	P=0.353N	P=0.469N	(e)	(e)	(e)	(e)
POLY 3	P=0.297N	P=0.413	P=0.370N	P=0.476N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.302N	P=0.396	P=0.373N	P=0.484N	(e)	(e)	(e)	(e)
POLY 6	P=0.295N	P=0.437	P=0.367N	P=0.469N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.303N	P=0.399	P=0.365N	P=0.525N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.313N	P=0.387	P=0.370N	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.343N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Testes Adenoma								
TUMOR RATES								
OVERALL (a)	38/50 (76%)	45/50 (90%)	43/50 (86%)	42/50 (84%)				
POLY-3 RATE (b)	38/46.19	45/48.30	43/48.17	42/48.66				
POLY-3 PERCENT (g)	82.3%	93.2%	89.3%	86.3%				
TERMINAL (d)	30/31 (97%)	33/35 (94%)	30/32 (94%)	28/32 (88%)				
FIRST INCIDENCE	543	393	460	562				
STATISTICAL TESTS								
LIFE TABLE	P=0.367	P=0.400	P=0.298	P=0.397				
POLY 3	P=0.509	P=0.075	P=0.232	P=0.390				
POLY 1.5	P=0.427	P=0.052	P=0.174	P=0.317				
POLY 6	P=0.527N	P=0.124	P=0.329	P=0.499				
LOGISTIC REGRESSION	P=0.393	P=0.067	P=0.154	P=0.335				
COCH-ARM / FISHERS	P=0.301	P=0.054	P=0.154	P=0.227				
ORDER RESTRICTED	P=0.191	(e)	(e)	(e)				

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Thyroid Gland: C-Cell Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	5/50 (10%)	2/50 (4%)	2/49 (4%)	0/50 (0%)	5/50 (10%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	2/43.15	5/45.65	2/44.07	2/43.95	0/42.30	5/44.49	1/43.84	4/38.55
POLY-3 PERCENT (g)	4.6%	11.0%	4.5%	4.6%	0.0%	11.2%	2.3%	10.4%
TERMINAL (d)	2/31 (7%)	4/35 (11%)	2/32 (6%)	2/32 (6%)	0/33 (0%)	3/30 (10%)	1/33 (3%)	2/22 (9%)
FIRST INCIDENCE	729 (T)	654	729 (T)	729 (T)	---	506	731 (T)	563
STATISTICAL TESTS								
LIFE TABLE	P=0.397N	P=0.270	P=0.684N	P=0.684N	P=0.088	P=0.033 *	P=0.500	P=0.035 *
POLY 3	P=0.388N	P=0.239	P=0.686N	P=0.687N	P=0.134	P=0.035 *	P=0.507	P=0.049 *
POLY 1.5	P=0.395N	P=0.227	P=0.691N	P=0.692N	P=0.145	P=0.033 *	P=0.505	P=0.054
POLY 6	P=0.383N	P=0.258	P=0.680N	P=0.683N	P=0.115	P=0.035 *	P=0.509	P=0.040 *
LOGISTIC REGRESSION	P=0.395N	P=0.252	P=0.684N	P=0.684N	P=0.163	P=0.031 *	P=0.500	P=0.059
COCH-ARM / FISHERS	P=0.406N	P=0.218	P=0.691N	P=0.684	P=0.162	P=0.028 *	P=0.500	P=0.059
ORDER RESTRICTED	P=0.414N	(e)	(e)	(e)	P=0.035 *	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Thyroid Gland: C-Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	5/50 (10%)	2/50 (4%)	3/49 (6%)	1/50 (2%)	6/50 (12%)	2/50 (4%)	4/50 (8%)
POLY-3 RATE (b)	3/43.15	5/45.65	2/44.07	3/43.95	1/42.37	6/44.66	2/43.91	4/38.55
POLY-3 PERCENT (g)	7.0%	11.0%	4.5%	6.8%	2.4%	13.4%	4.6%	10.4%
TERMINAL (d)	3/31 (10%)	4/35 (11%)	2/32 (6%)	3/32 (9%)	0/33 (0%)	3/30 (10%)	1/33 (3%)	2/22 (9%)
FIRST INCIDENCE	729 (T)	654	729 (T)	729 (T)	716	506	715	563
STATISTICAL TESTS								
LIFE TABLE	P=0.443N	P=0.426	P=0.485N	P=0.650N	P=0.194	P=0.058	P=0.503	P=0.101
POLY 3	P=0.438N	P=0.388	P=0.490N	P=0.654N	P=0.282	P=0.064	P=0.512	P=0.150
POLY 1.5	P=0.443N	P=0.370	P=0.497N	P=0.660N	P=0.304	P=0.062	P=0.508	P=0.163
POLY 6	P=0.435N	P=0.412	P=0.482N	P=0.649N	P=0.246	P=0.065	P=0.515	P=0.129
LOGISTIC REGRESSION	P=0.442N	P=0.410	P=0.485N	P=0.650N	P=0.320	P=0.056	P=0.514	P=0.164
COCH-ARM / FISHERS	P=0.453N	P=0.357	P=0.500N	P=0.651	P=0.331	P=0.056	P=0.500	P=0.181
ORDER RESTRICTED	P=0.441N	(e)	(e)	(e)	P=0.143	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					9/50 (18%)	6/50 (12%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)					9/42.59	6/44.04	8/45.13	7/38.66
POLY-3 PERCENT (g)					21.1%	13.6%	17.7%	18.1%
TERMINAL (d)					7/33 (21%)	3/30 (10%)	5/33 (15%)	4/22 (18%)
FIRST INCIDENCE					687	670	481	589
STATISTICAL TESTS								
LIFE TABLE					P=0.405	P=0.341N	P=0.484N	P=0.498
POLY 3					P=0.501N	P=0.261N	P=0.447N	P=0.475N
POLY 1.5					P=0.466N	P=0.269N	P=0.466N	P=0.435N
POLY 6					P=0.541	P=0.261N	P=0.433N	P=0.547N
LOGISTIC REGRESSION					P=0.510N	P=0.269N	P=0.478N	P=0.563N
COCH-ARM / FISHERS					P=0.420N	P=0.288N	P=0.500N	P=0.393N
ORDER RESTRICTED					P=0.464N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Uterus Sarcoma Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)					0/42.30	2/44.05	0/43.84	0/37.73
POLY-3 PERCENT (g)					0.0%	4.5%	0.0%	0.0%
TERMINAL (d)					0/33 (0%)	1/30 (3%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE					---	561	---	---
STATISTICAL TESTS								
LIFE TABLE					P=0.441N	P=0.239	(e)	(e)
POLY 3					P=0.412N	P=0.246	(e)	(e)
POLY 1.5					P=0.408N	P=0.243	(e)	(e)
POLY 6					P=0.422N	P=0.246	(e)	(e)
LOGISTIC REGRESSION					P=0.385N	P=0.221	(e)	(e)
COCH-ARM / FISHERS					P=0.405N	P=0.247	(e)	(e)
ORDER RESTRICTED					P=0.279N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Uterus								
Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					9/50 (18%)	8/50 (16%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)					9/42.59	8/44.58	8/45.13	7/38.66
POLY-3 PERCENT (g)					21.1%	17.9%	17.7%	18.1%
TERMINAL (d)					7/33 (21%)	4/30 (13%)	5/33 (15%)	4/22 (18%)
FIRST INCIDENCE					687	561	481	589
STATISTICAL TESTS								
LIFE TABLE					P=0.477	P=0.550N	P=0.484N	P=0.498
POLY 3					P=0.430N	P=0.458N	P=0.447N	P=0.475N
POLY 1.5					P=0.394N	P=0.472N	P=0.466N	P=0.435N
POLY 6					P=0.488N	P=0.454N	P=0.433N	P=0.547N
LOGISTIC REGRESSION					P=0.418N	P=0.477N	P=0.478N	P=0.563N
COCH-ARM / FISHERS					P=0.348N	P=0.500N	P=0.500N	P=0.393N
ORDER RESTRICTED					P=0.561N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Zymbal's Gland								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.15	0/45.38	2/44.21	0/44.93	1/42.47	0/43.50	0/43.84	2/38.13
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	0.0%	2.4%	0.0%	0.0%	5.3%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	1/22 (5%)
FIRST INCIDENCE	---	---	694	---	687	---	---	617
STATISTICAL TESTS								
LIFE TABLE	P=0.596	(e)	P=0.252	(e)	P=0.173	P=0.505N	P=0.500N	P=0.382
POLY 3	P=0.609	(e)	P=0.242	(e)	P=0.233	P=0.495N	P=0.494N	P=0.462
POLY 1.5	P=0.607	(e)	P=0.239	(e)	P=0.237	P=0.496N	P=0.496N	P=0.480
POLY 6	P=0.609	(e)	P=0.247	(e)	P=0.228	P=0.497N	P=0.493N	P=0.431
LOGISTIC REGRESSION	P=0.600	(e)	P=0.243	(e)	P=0.243	P=0.499N	P=0.499N	P=0.486
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)	P=0.246	P=0.500N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.252	(e)	(e)	(e)	P=0.105	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	0/45.38	0/44.07	0/44.93	2/43.70	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	2.3%	0.0%	0.0%	0.0%	4.6%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	436	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.305N	P=0.476N	P=0.494N	P=0.494N	P=0.115N	P=0.232N	P=0.237N	P=0.237N
POLY 3	P=0.314N	P=0.490N	P=0.496N	P=0.492N	P=0.107N	P=0.238N	P=0.236N	P=0.271N
POLY 1.5	P=0.310N	P=0.496N	P=0.499N	P=0.495N	P=0.110N	P=0.237N	P=0.236N	P=0.255N
POLY 6	P=0.319N	P=0.482N	P=0.492N	P=0.489N	P=0.099N	P=0.242N	P=0.237N	P=0.298N
LOGISTIC REGRESSION	P=0.305N	(e)	(e)	(e)	P=0.051N	P=0.306N	P=0.280N	P=0.137N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.115N	P=0.247N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.113N	(e)	(e)	(e)	P=0.043N*	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	22/50 (44%)	13/50 (26%)	14/50 (28%)	10/50 (20%)	10/50 (20%)	18/50 (36%)	22/50 (44%)	22/50 (44%)
POLY-3 RATE (b)	22/47.44	13/46.73	14/45.29	10/46.51	10/43.58	18/46.27	22/46.74	22/44.29
POLY-3 PERCENT (g)	46.4%	27.8%	30.9%	21.5%	23.0%	38.9%	47.1%	49.7%
TERMINAL (d)	9/31 (29%)	6/35 (17%)	9/32 (28%)	4/32 (13%)	6/33 (18%)	8/30 (27%)	12/33 (36%)	5/22 (23%)
FIRST INCIDENCE	355	569	544	569	477	542	481	516
STATISTICAL TESTS								
LIFE TABLE	P=0.022N*	P=0.039N*	P=0.086N	P=0.016N*	P<0.001 **	P=0.067	P=0.021 *	P=0.003 **
POLY 3	P=0.013N*	P=0.047N*	P=0.092N	P=0.008N**	P=0.008 **	P=0.078	P=0.013 *	P=0.007 **
POLY 1.5	P=0.012N*	P=0.049N*	P=0.086N	P=0.008N**	P=0.009 **	P=0.069	P=0.010 *	P=0.007 **
POLY 6	P=0.014N*	P=0.044N*	P=0.103N	P=0.009N**	P=0.007 **	P=0.085	P=0.015 *	P=0.006 **
LOGISTIC REGRESSION	P=0.014N*	P=0.050N	P=0.072N	P=0.014N*	P=0.012 *	P=0.061	P=0.010 *	P=0.011 *
COCH-ARM / FISHERS	P=0.013N*	P=0.046N*	P=0.072N	P=0.009N**	P=0.011 *	P=0.059	P=0.009 **	P=0.009 **
ORDER RESTRICTED	P=0.005N**	(e)	(e)	(e)	P=0.006 **	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
All Organs Mesothelioma: Benign, Malignant, NOS								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.35	2/45.38	1/44.28	2/45.47	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	4.6%	4.4%	2.3%	4.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	675	729 (T)	676	562	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.566N	P=0.649N	P=0.475N	P=0.670N	(e)	(e)	(e)	(e)
POLY 3	P=0.567N	P=0.678N	P=0.493N	P=0.677N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.570N	P=0.687N	P=0.498N	P=0.683N	(e)	(e)	(e)	(e)
POLY 6	P=0.566N	P=0.665N	P=0.486N	P=0.671N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.579N	P=0.669N	P=0.499N	P=0.674	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.577N	P=0.691N	P=0.500N	P=0.691N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.593N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
All Organs Mesothelioma: Malignant								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.35	2/45.38	1/44.28	2/45.47	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	4.6%	4.4%	2.3%	4.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	675	729 (T)	676	562	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.566N	P=0.649N	P=0.475N	P=0.670N	(e)	(e)	(e)	(e)
POLY 3	P=0.567N	P=0.678N	P=0.493N	P=0.677N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.570N	P=0.687N	P=0.498N	P=0.683N	(e)	(e)	(e)	(e)
POLY 6	P=0.566N	P=0.665N	P=0.486N	P=0.671N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.579N	P=0.669N	P=0.499N	P=0.674	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.577N	P=0.691N	P=0.500N	P=0.691N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.593N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Osteosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.75	2/45.81	0/44.07	0/44.93	0/42.30	1/44.21	0/43.84	1/37.73
POLY-3 PERCENT (g)	2.3%	4.4%	0.0%	0.0%	0.0%	2.3%	0.0%	2.7%
TERMINAL (d)	0/31 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	1/22 (5%)
FIRST INCIDENCE	536	605	---	---	---	487	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.187N	P=0.522	P=0.500N	P=0.496N	P=0.373	P=0.517	(e)	P=0.419
POLY 3	P=0.184N	P=0.516	P=0.499N	P=0.495N	P=0.378	P=0.509	(e)	P=0.477
POLY 1.5	P=0.186N	P=0.507	P=0.500N	P=0.496N	P=0.391	P=0.506	(e)	P=0.488
POLY 6	P=0.182N	P=0.529	P=0.496N	P=0.493N	P=0.357	P=0.509	(e)	P=0.458
LOGISTIC REGRESSION	P=0.197N	P=0.516	P=0.442N	P=0.674N	P=0.454	P=0.435	(e)	P=0.419
COCH-ARM / FISHERS	P=0.188N	P=0.500	P=0.500N	P=0.500N	P=0.405	P=0.500	(e)	P=0.500
ORDER RESTRICTED	P=0.171N	(e)	(e)	(e)	P=0.229	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Osteosarcoma or Osteoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.75	2/45.81	0/44.07	0/44.93	0/42.30	1/44.21	0/43.84	1/37.73
POLY-3 PERCENT (g)	2.3%	4.4%	0.0%	0.0%	0.0%	2.3%	0.0%	2.7%
TERMINAL (d)	0/31 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	1/22 (5%)
FIRST INCIDENCE	536	605	---	---	---	487	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.187N	P=0.522	P=0.500N	P=0.496N	P=0.373	P=0.517	(e)	P=0.419
POLY 3	P=0.184N	P=0.516	P=0.499N	P=0.495N	P=0.378	P=0.509	(e)	P=0.477
POLY 1.5	P=0.186N	P=0.507	P=0.500N	P=0.496N	P=0.391	P=0.506	(e)	P=0.488
POLY 6	P=0.182N	P=0.529	P=0.496N	P=0.493N	P=0.357	P=0.509	(e)	P=0.458
LOGISTIC REGRESSION	P=0.197N	P=0.516	P=0.442N	P=0.674N	P=0.454	P=0.435	(e)	P=0.419
COCH-ARM / FISHERS	P=0.188N	P=0.500	P=0.500N	P=0.500N	P=0.405	P=0.500	(e)	P=0.500
ORDER RESTRICTED	P=0.171N	(e)	(e)	(e)	P=0.229	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	49/50 (98%)	49/50 (98%)	48/50 (96%)	48/50 (96%)	43/50 (86%)	42/50 (84%)	45/50 (90%)	36/50 (72%)
POLY-3 RATE (b)	49/49.12	49/49.00	48/48.98	48/49.17	43/46.94	42/47.57	45/48.01	36/43.88
POLY-3 PERCENT (g)	99.8%	100.0%	98.0%	97.6%	91.6%	88.3%	93.7%	82.0%
TERMINAL (d)	31/31 (100%)	35/35 (100%)	32/32 (100%)	32/32 (100%)	31/33 (94%)	26/30 (87%)	32/33 (97%)	20/22 (91%)
FIRST INCIDENCE	506	393	460	562	455	374	481	523
STATISTICAL TESTS								
LIFE TABLE	P=0.432N	P=0.210N	P=0.385N	P=0.361N	P=0.151	P=0.459	P=0.468	P=0.207
POLY 3	P=0.198N	P=1.000	P=0.554N	P=0.477N	P=0.103N	P=0.418N	P=0.498	P=0.114N
POLY 1.5	P=0.187N	P=0.980	P=0.608N	P=0.446N	P=0.066N	P=0.437N	P=0.446	P=0.084N
POLY 6	P=0.281N	P=1.000	P=0.526N	P=0.626N	P=0.248N	P=0.428N	P=0.537	P=0.244N
LOGISTIC REGRESSION	P=0.110N	(e)	P=0.629N	P=0.198N	P=0.095N	P=0.363N	P=0.505	P=0.111N
COCH-ARM / FISHERS	P=0.337N	P=0.753N	P=0.500N	P=0.500N	P=0.043N*	P=0.500N	P=0.380	P=0.070N
ORDER RESTRICTED	P=0.184N	(e)	(e)	(e)	P=0.078N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	29/50 (58%)	20/50 (40%)	24/50 (48%)	18/50 (36%)	17/50 (34%)	27/50 (54%)	28/50 (56%)	27/50 (54%)
POLY-3 RATE (b)	29/48.05	20/48.14	24/45.66	18/47.96	17/45.21	27/48.77	28/48.74	27/45.16
POLY-3 PERCENT (g)	60.4%	41.6%	52.6%	37.5%	37.6%	55.4%	57.5%	59.8%
TERMINAL (d)	15/31 (48%)	10/35 (29%)	16/32 (50%)	6/32 (19%)	9/33 (27%)	11/30 (37%)	14/33 (42%)	8/22 (36%)
FIRST INCIDENCE	355	393	544	562	436	374	374	516
STATISTICAL TESTS								
LIFE TABLE	P=0.069N	P=0.046N*	P=0.211N	P=0.040N*	P=0.008 **	P=0.055	P=0.059	P=0.008 **
POLY 3	P=0.037N*	P=0.048N*	P=0.288N	P=0.018N*	P=0.038 *	P=0.062	P=0.040 *	P=0.025 *
POLY 1.5	P=0.037N*	P=0.053N	P=0.265N	P=0.019N*	P=0.042 *	P=0.050	P=0.032 *	P=0.027 *
POLY 6	P=0.038N*	P=0.042N*	P=0.322N	P=0.018N*	P=0.031 *	P=0.074	P=0.048 *	P=0.021 *
LOGISTIC REGRESSION	P=0.042N*	P=0.061N	P=0.210N	P=0.032N*	P=0.082	P=0.027 *	P=0.018 *	P=0.040 *
COCH-ARM / FISHERS	P=0.040N*	P=0.055N	P=0.212N	P=0.022N*	P=0.055	P=0.035 *	P=0.022 *	P=0.035 *
ORDER RESTRICTED	P=0.014N*	(e)	(e)	(e)	P=0.024 *	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - DIVINYLBENZENE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	49/50 (98%)	49/50 (98%)	49/50 (98%)	46/50 (92%)	46/50 (92%)	49/50 (98%)	47/50 (94%)
POLY-3 RATE (b)	50/50.00	49/49.00	49/49.00	49/49.35	46/48.43	46/50.00	49/50.00	47/48.56
POLY-3 PERCENT (g)	100.0%	100.0%	100.0%	99.3%	95.0%	92.0%	98.0%	96.8%
TERMINAL (d)	31/31 (100%)	35/35 (100%)	32/32 (100%)	32/32 (100%)	31/33 (94%)	26/30 (87%)	32/33 (97%)	21/22 (96%)
FIRST INCIDENCE	355	393	460	562	436	374	374	516
STATISTICAL TESTS								
LIFE TABLE	P=0.457N	P=0.167N	P=0.388N	P=0.362N	P=0.010 *	P=0.412	P=0.411	P=0.020 *
POLY 3	P=0.660N	P=1.000N	P=1.000N	P=0.968N	P=0.276	P=0.423N	P=0.391	P=0.528
POLY 1.5	P=0.366N	P=1.000N	P=1.000N	P=0.754N	P=0.265	P=0.500N	P=0.298	P=0.483
POLY 6	P=1.000N	P=1.000N	P=1.000N	P=1.000N	P=0.272	P=0.371N	P=0.465	P=0.547
LOGISTIC REGRESSION	P=0.062N	(e)	(e)	P=0.288N	P=0.266	P=0.620N	P=0.208	P=0.387
COCH-ARM / FISHERS	P=0.384N	P=0.500N	P=0.500N	P=0.500N	P=0.344	P=0.643N	P=0.181	P=0.500
ORDER RESTRICTED	P=0.119N	(e)	(e)	(e)	P=0.273	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.
(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

NTP
LAB: Battelle Northwest
EXPERIMENT: 88004 TEST: 05
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: RENNE, ROGER
Rats(F 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 07/14/05
TIME: 13:30:09

NTP C#: 88004B
CAS: 1321-74-0

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Kidney
Kidney, Renal Tubule (Step Section)
Kidney, Renal Tubule (Step and Original Sections)

NTP
LAB: Battelle Northwest
EXPERIMENT: 88004 TEST: 05
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 07/14/05
TIME: 13:30:09

NTP C#: 88004B
CAS: 1321-74-0

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF DIVINYLBENZENE

Male Rats

Organ	Morphology
Kidney, Renal Tubule (Step Section)	Hyperplasia
	Hyperplasia and Adenoma
	Hyperplasia, Carcinoma or Adenoma
Kidney, Renal Tubule (Step and Original Sections)	Carcinoma
	Carcinoma and Adenoma
	Hyperplasia
	Hyperplasia and Adenoma
	Hyperplasia, Carcinoma or Adenoma
Kidney: Renal Tubule	Carcinoma

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney, Renal Tubule (Step Section) Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	2/50 (4%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	2/44.46	1/44.04	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	2.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	619	708	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.250	(e)	P=0.249	P=0.517	(e)	(e)	(e)	(e)
POLY 3	P=0.249	(e)	P=0.244	P=0.504	(e)	(e)	(e)	(e)
POLY 1.5	P=0.247	(e)	P=0.240	P=0.501	(e)	(e)	(e)	(e)
POLY 6	P=0.248	(e)	P=0.249	P=0.507	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.240	(e)	P=0.238	P=0.503	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.242	(e)	P=0.247	P=0.495	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.172	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney, Renal Tubule (Step Section) Carcinoma and Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	2/50 (4%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	2/44.46	1/44.04	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	2.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	619	708	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.250	(e)	P=0.249	P=0.517	(e)	(e)	(e)	(e)
POLY 3	P=0.249	(e)	P=0.244	P=0.504	(e)	(e)	(e)	(e)
POLY 1.5	P=0.247	(e)	P=0.240	P=0.501	(e)	(e)	(e)	(e)
POLY 6	P=0.248	(e)	P=0.249	P=0.507	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.240	(e)	P=0.238	P=0.503	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.242	(e)	P=0.247	P=0.495	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.172	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney, Renal Tubule (Step Section) Hyperplasia								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/49 (6%)	5/50 (10%)	14/49 (29%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.15	3/45.37	5/45.22	14/44.97	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	4.6%	6.6%	11.1%	31.1%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	3/35 (9%)	2/32 (6%)	10/32 (31%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	578	569	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.556	P=0.237	P=0.002 **	(e)	(e)	(e)	(e)
POLY 3	P<0.001 **	P=0.523	P=0.235	P<0.001 **	(e)	(e)	(e)	(e)
POLY 1.5	P<0.001 **	P=0.509	P=0.225	P<0.001 **	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.540	P=0.250	P<0.001 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.556	P=0.217	P<0.001 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.490	P=0.218	P<0.001 **	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney, Renal Tubule (Step Section) Hyperplasia and Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/49 (6%)	7/50 (14%)	14/49 (29%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.15	3/45.37	7/45.61	14/44.97	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	4.6%	6.6%	15.4%	31.1%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	3/35 (9%)	3/32 (9%)	10/32 (31%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	578	569	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.556	P=0.097	P=0.002 **	(e)	(e)	(e)	(e)
POLY 3	P<0.001 **	P=0.523	P=0.092	P<0.001 **	(e)	(e)	(e)	(e)
POLY 1.5	P<0.001 **	P=0.509	P=0.085	P<0.001 **	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.540	P=0.103	P<0.001 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.556	P=0.081	P<0.001 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.490	P=0.080	P<0.001 **	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(F 344) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney, Renal Tubule (Step Section) Hyperplasia, Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/49 (6%)	7/50 (14%)	14/49 (29%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.15	3/45.37	7/45.61	14/44.97	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	4.6%	6.6%	15.4%	31.1%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	3/35 (9%)	3/32 (9%)	10/32 (31%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	578	569	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.556	P=0.097	P=0.002 **	(e)	(e)	(e)	(e)
POLY 3	P<0.001 **	P=0.523	P=0.092	P<0.001 **	(e)	(e)	(e)	(e)
POLY 1.5	P<0.001 **	P=0.509	P=0.085	P<0.001 **	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.540	P=0.103	P<0.001 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.556	P=0.081	P<0.001 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.490	P=0.080	P<0.001 **	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney, Renal Tubule (Step and Original Sections) Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	2/50 (4%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	2/44.46	1/44.04	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	2.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	619	708	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.250	(e)	P=0.249	P=0.517	(e)	(e)	(e)	(e)
POLY 3	P=0.249	(e)	P=0.244	P=0.504	(e)	(e)	(e)	(e)
POLY 1.5	P=0.247	(e)	P=0.240	P=0.501	(e)	(e)	(e)	(e)
POLY 6	P=0.248	(e)	P=0.249	P=0.507	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.240	(e)	P=0.238	P=0.503	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.242	(e)	P=0.247	P=0.495	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.172	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney, Renal Tubule (Step and Original Sections) Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	2/44.14	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	682	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.046 *	(e)	(e)	P=0.252	(e)	(e)	(e)	(e)
POLY 3	P=0.044 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
POLY 1.5	P=0.045 *	(e)	(e)	P=0.239	(e)	(e)	(e)	(e)
POLY 6	P=0.044 *	(e)	(e)	P=0.246	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.046 *	(e)	(e)	P=0.240	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.045 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.031 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney, Renal Tubule (Step and Original Sections) Carcinoma and Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	2/50 (4%)	3/49 (6%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	2/44.46	3/44.22	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	6.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	1/32 (3%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	619	682	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.029 *	(e)	P=0.249	P=0.136	(e)	(e)	(e)	(e)
POLY 3	P=0.027 *	(e)	P=0.244	P=0.123	(e)	(e)	(e)	(e)
POLY 1.5	P=0.027 *	(e)	P=0.240	P=0.120	(e)	(e)	(e)	(e)
POLY 6	P=0.027 *	(e)	P=0.249	P=0.126	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.027 *	(e)	P=0.238	P=0.122	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.027 *	(e)	P=0.247	P=0.117	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.038 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney, Renal Tubule (Step and Original Sections) Hyperplasia								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	5/49 (10%)	5/50 (10%)	15/49 (31%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/43.15	5/45.37	5/45.22	15/45.18	1/42.30	1/43.64	0/43.33	0/37.73
POLY-3 PERCENT (g)	7.0%	11.0%	11.1%	33.2%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	3/31 (10%)	5/35 (14%)	2/32 (6%)	10/32 (31%)	1/33 (3%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	578	569	731 (T)	696	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.423	P=0.379	P=0.004 **	P=0.283N	P=0.750	P=0.500N	P=0.581N
POLY 3	P<0.001 **	P=0.384	P=0.382	P=0.002 **	P=0.237N	P=0.754N	P=0.495N	P=0.523N
POLY 1.5	P<0.001 **	P=0.368	P=0.368	P<0.001 **	P=0.238N	P=0.756N	P=0.498N	P=0.512N
POLY 6	P<0.001 **	P=0.406	P=0.402	P=0.002 **	P=0.234N	P=0.755N	P=0.493N	P=0.542N
LOGISTIC REGRESSION	P<0.001 **	P=0.423	P=0.356	P=0.002 **	P=0.256N	P=0.758N	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.346	P=0.357	P<0.001 **	P=0.236N	P=0.753N	P=0.505N	P=0.500N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.274N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney, Renal Tubule (Step and Original Sections) Hyperplasia and Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	5/49 (10%)	7/50 (14%)	15/49 (31%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/43.15	5/45.37	7/45.61	15/45.18	1/42.30	1/43.64	0/43.33	0/37.73
POLY-3 PERCENT (g)	7.0%	11.0%	15.4%	33.2%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	3/31 (10%)	5/35 (14%)	3/32 (9%)	10/32 (31%)	1/33 (3%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	578	569	731 (T)	696	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.423	P=0.181	P=0.004 **	P=0.283N	P=0.750	P=0.500N	P=0.581N
POLY 3	P<0.001 **	P=0.384	P=0.180	P=0.002 **	P=0.237N	P=0.754N	P=0.495N	P=0.523N
POLY 1.5	P<0.001 **	P=0.368	P=0.168	P<0.001 **	P=0.238N	P=0.756N	P=0.498N	P=0.512N
POLY 6	P<0.001 **	P=0.406	P=0.198	P=0.002 **	P=0.234N	P=0.755N	P=0.493N	P=0.542N
LOGISTIC REGRESSION	P<0.001 **	P=0.423	P=0.159	P=0.002 **	P=0.256N	P=0.758N	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.346	P=0.159	P<0.001 **	P=0.236N	P=0.753N	P=0.505N	P=0.500N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.274N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney, Renal Tubule (Step and Original Sections) Hyperplasia, Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	5/49 (10%)	7/50 (14%)	17/49 (35%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/43.15	5/45.37	7/45.61	17/45.36	1/42.30	1/43.64	0/43.33	0/37.73
POLY-3 PERCENT (g)	7.0%	11.0%	15.4%	37.5%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	3/31 (10%)	5/35 (14%)	3/32 (9%)	11/32 (34%)	1/33 (3%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	578	569	731 (T)	696	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.423	P=0.181	P<0.001 **	P=0.283N	P=0.750	P=0.500N	P=0.581N
POLY 3	P<0.001 **	P=0.384	P=0.180	P<0.001 **	P=0.237N	P=0.754N	P=0.495N	P=0.523N
POLY 1.5	P<0.001 **	P=0.368	P=0.168	P<0.001 **	P=0.238N	P=0.756N	P=0.498N	P=0.512N
POLY 6	P<0.001 **	P=0.406	P=0.198	P<0.001 **	P=0.234N	P=0.755N	P=0.493N	P=0.542N
LOGISTIC REGRESSION	P<0.001 **	P=0.423	P=0.159	P<0.001 **	P=0.256N	P=0.758N	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.346	P=0.159	P<0.001 **	P=0.236N	P=0.753N	P=0.505N	P=0.500N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.274N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney: Renal Tubule Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	2/44.14	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	682	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.046 *	(e)	(e)	P=0.252	(e)	(e)	(e)	(e)
POLY 3	P=0.044 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
POLY 1.5	P=0.045 *	(e)	(e)	P=0.239	(e)	(e)	(e)	(e)
POLY 6	P=0.044 *	(e)	(e)	P=0.246	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.046 *	(e)	(e)	P=0.240	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.045 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.031 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney: Renal Tubule Hyperplasia								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/49 (4%)	0/50 (0%)	2/49 (4%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	2/45.37	0/44.07	2/44.25	1/42.30	1/43.64	0/43.33	0/37.73
POLY-3 PERCENT (g)	2.3%	4.4%	0.0%	4.5%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	0/32 (0%)	1/33 (3%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	674	731 (T)	696	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.476	P=0.543	P=0.494N	P=0.528	P=0.283N	P=0.750	P=0.500N	P=0.581N
POLY 3	P=0.476	P=0.518	P=0.496N	P=0.509	P=0.237N	P=0.754N	P=0.495N	P=0.523N
POLY 1.5	P=0.472	P=0.507	P=0.499N	P=0.503	P=0.238N	P=0.756N	P=0.498N	P=0.512N
POLY 6	P=0.480	P=0.531	P=0.492N	P=0.515	P=0.234N	P=0.755N	P=0.493N	P=0.542N
LOGISTIC REGRESSION	P=0.470	P=0.543	(e)	P=0.503	P=0.256N	P=0.758N	(e)	(e)
COCH-ARM / FISHERS	P=0.465	P=0.492	P=0.500N	P=0.492	P=0.236N	P=0.753N	P=0.505N	P=0.500N
ORDER RESTRICTED	P=0.418	(e)	(e)	(e)	P=0.274N	(e)	(e)	(e)

Dose	Males CONTROL	100 PPM	200 PPM	400 PPM	Females CONTROL	100 PPM	200 PPM	400 PPM
Kidney: Renal Tubule Hyperplasia and Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/49 (4%)	0/50 (0%)	2/49 (4%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	2/45.37	0/44.07	2/44.25	1/42.30	1/43.64	0/43.33	0/37.73
POLY-3 PERCENT (g)	2.3%	4.4%	0.0%	4.5%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	0/32 (0%)	1/33 (3%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	674	731 (T)	696	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.476	P=0.543	P=0.494N	P=0.528	P=0.283N	P=0.750	P=0.500N	P=0.581N
POLY 3	P=0.476	P=0.518	P=0.496N	P=0.509	P=0.237N	P=0.754N	P=0.495N	P=0.523N
POLY 1.5	P=0.472	P=0.507	P=0.499N	P=0.503	P=0.238N	P=0.756N	P=0.498N	P=0.512N
POLY 6	P=0.480	P=0.531	P=0.492N	P=0.515	P=0.234N	P=0.755N	P=0.493N	P=0.542N
LOGISTIC REGRESSION	P=0.470	P=0.543	(e)	P=0.503	P=0.256N	P=0.758N	(e)	(e)
COCH-ARM / FISHERS	P=0.465	P=0.492	P=0.500N	P=0.492	P=0.236N	P=0.753N	P=0.505N	P=0.500N
ORDER RESTRICTED	P=0.418	(e)	(e)	(e)	P=0.274N	(e)	(e)	(e)

Dose	Males CONTROL	Males 100 PPM	Males 200 PPM	Males 400 PPM	Females CONTROL	Females 100 PPM	Females 200 PPM	Females 400 PPM
Kidney: Renal Tubule Hyperplasia, Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/49 (4%)	0/50 (0%)	4/49 (8%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.15	2/45.37	0/44.07	4/44.43	1/42.30	1/43.64	0/43.33	0/37.73
POLY-3 PERCENT (g)	2.3%	4.4%	0.0%	9.0%	2.4%	2.3%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	1/32 (3%)	1/33 (3%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	674	731 (T)	696	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.112	P=0.543	P=0.494N	P=0.207	P=0.283N	P=0.750	P=0.500N	P=0.581N
POLY 3	P=0.108	P=0.518	P=0.496N	P=0.187	P=0.237N	P=0.754N	P=0.495N	P=0.523N
POLY 1.5	P=0.107	P=0.507	P=0.499N	P=0.182	P=0.238N	P=0.756N	P=0.498N	P=0.512N
POLY 6	P=0.110	P=0.531	P=0.492N	P=0.194	P=0.234N	P=0.755N	P=0.493N	P=0.542N
LOGISTIC REGRESSION	P=0.107	P=0.543	(e)	P=0.182	P=0.256N	P=0.758N	(e)	(e)
COCH-ARM / FISHERS	P=0.105	P=0.492	P=0.500N	P=0.175	P=0.236N	P=0.753N	P=0.505N	P=0.500N
ORDER RESTRICTED	P=0.079	(e)	(e)	(e)	P=0.274N	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.
(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] DIVINYLBENZENE

FINAL #1 RATS

Facility: Battelle Northwest

Chemical CAS #: 1321-74-0

Lock Date: 04/16/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	16	14	26
Natural Death	7	3	3	2
Accidently Killed		1		
Survivors				
Terminal Sacrifice	33	30	33	22
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(50)	(49)	(49)	(50)
Epithelium, Metaplasia, Focal, Squamous		1 [3.0]		
Liver	(50)	(50)	(50)	(50)
Clear Cell Focus	5 [2.0]	7 [2.4]	6 [2.8]	
Hepatodiaphragmatic Nodule	5 [4.0]	7 [4.0]	6 [3.5]	9 [4.0]
Necrosis			1 [3.0]	
Vacuolization Cytoplasmic	4 [2.0]	3 [3.0]		3 [2.0]
Bile Duct, Hyperplasia			1 [4.0]	
Hepatocyte, Regeneration		1 [4.0]	1 [4.0]	
Periportal, Inflammation, Chronic	3 [2.3]	2 [3.0]	1 [2.0]	2 [1.5]
Portal, Bile Stasis	1 [3.0]	3 [3.7]	2 [3.5]	1 [3.0]
Serosa, Fibrosis			1 [3.0]	
Mesentery	(15)	(20)	(17)	(6)
Necrosis	14 [3.0]	20 [3.0]	16 [3.1]	6 [3.0]
Oral Mucosa	(1)			
Pharyngeal, Ulcer	1 [4.0]			
Pancreas	(50)	(49)	(50)	(50)
Acinus, Atrophy	3 [1.7]	5 [1.2]	2 [1.0]	4 [2.8]
Salivary Glands	(50)	(50)	(50)	(50)
Inflammation, Chronic		1 [3.0]		
Stomach, Forestomach	(50)	(50)	(49)	(49)
Hyperplasia, Focal, Squamous		1 [4.0]	1 [3.0]	
Ulcer	1 [4.0]	1 [3.0]	1 [4.0]	1 [4.0]
Stomach, Glandular	(50)	(50)	(49)	(49)
Erosion			1 [2.0]	1 [2.0]
Ulcer			1 [4.0]	
Epithelium, Hyperplasia	1 [2.0]			
Tongue	(1)	(1)	(3)	(3)
Epithelium, Hyperplasia	1 [4.0]		3 [2.7]	2 [4.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
ALIMENTARY SYSTEM - CONT				
Tooth			(1)	
Peridontal Tissue, Inflammation			1 [4.0]	
Pulp, Inflammation, Suppurative			1 [4.0]	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy				3 [1.7]
Atrium, Thrombosis		1 [4.0]	2 [4.0]	
Pericardium, Infiltration Cellular, Lymphoid				1 [3.0]
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule			1 [4.0]	
Hemorrhage		1 [2.0]		
Hyperplasia				1 [2.0]
Necrosis		1 [4.0]		
Vacuolization Cytoplasmic	14 [1.9]	5 [1.8]	7 [1.6]	12 [1.5]
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	1 [2.0]	1 [2.0]	5 [2.6]	2 [3.0]
Parathyroid Gland	(49)	(49)	(47)	(49)
Hyperplasia			1 [2.0]	
Pituitary Gland	(50)	(50)	(50)	(50)
Cyst	6 [3.5]	6 [2.8]	1 [4.0]	5 [2.8]
Pars Distalis, Angiectasis	1 [3.0]			
Pars Distalis, Hematocyst				1 [4.0]
Pars Distalis, Hyperplasia	4 [3.0]	8 [2.9]	4 [3.0]	7 [2.3]
Thyroid Gland	(50)	(50)	(50)	(50)
Ultimobranchial Cyst	1 [2.0]			
C-Cell, Hyperplasia	5 [2.8]	8 [2.0]	6 [1.8]	1 [1.0]
Follicular Cell, Hyperplasia		1 [2.0]		1 [2.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
GENITAL SYSTEM - CONT				
Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	3 [3.7]		1 [4.0]	
Hyperplasia	1 [3.0]	3 [4.0]	2 [2.5]	2 [4.0]
Inflammation, Chronic	2 [3.5]	1 [2.0]	1 [3.0]	
Ovary	(50)	(50)	(50)	(50)
Cyst	5 [3.6]	6 [2.7]	11 [3.2]	4 [2.8]
Bilateral, Cyst	1 [3.0]			
Uterus	(50)	(50)	(50)	(50)
Hemorrhage			1 [4.0]	
Necrosis		1 [4.0]		
Endometrium, Hyperplasia	2 [2.5]	1 [2.0]	1 [3.0]	2 [1.5]
Myometrium, Hyperplasia			1 [3.0]	
Vagina		(2)		(3)
Inflammation, Suppurative		1 [4.0]		
Muscularis, Hypertrophy				1 [4.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Myelofibrosis			1 [3.0]	
Lymph Node	(6)	(10)	(9)	(8)
Deep Cervical, Infiltration Cellular, Histiocyte		3 [3.3]		1 [2.0]
Pancreatic, Pigmentation		1 [4.0]	1 [4.0]	
Lymph Node, Bronchial	(8)	(9)	(5)	(14)
Infiltration Cellular, Histiocyte				1 [3.0]
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Infiltration Cellular, Histiocyte	2 [2.5]	1 [3.0]	2 [3.5]	
Pigmentation				1 [4.0]
Lymph Node, Mediastinal	(32)	(37)	(44)	(34)
Fibrosis			1 [3.0]	
Hyperplasia, Lymphoid	1 [4.0]		1 [3.0]	
Infiltration Cellular, Histiocyte	2 [3.0]	1 [3.0]		
Inflammation, Suppurative	1 [3.0]			
Spleen	(50)	(50)	(50)	(50)
Accessory Spleen	2	1	1	
Fibrosis	3 [3.0]	1 [4.0]	3 [3.3]	1 [2.0]
Hematopoietic Cell Proliferation		1 [4.0]		
Hemorrhage	2 [3.5]	1 [4.0]	1 [4.0]	2 [4.0]
Hyperplasia, Focal, Lymphoid		2 [3.5]		
Inflammation, Chronic Active			1 [3.0]	
Necrosis				1 [4.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
HEMATOPOIETIC SYSTEM - CONT				
Thymus	(45)	(41)	(46)	(39)
Cyst				1 [4.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	1 [1.0]	2 [2.0]		
Hyperplasia			1 [3.0]	
Inflammation, Chronic			1 [3.0]	
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion		2 [4.0]		1 [4.0]
Hyperkeratosis		1 [3.0]		
Inflammation, Granulomatous				1 [4.0]
Ulcer	1 [4.0]		1 [4.0]	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Joint, Fracture		1 [4.0]		
Tibia, Fracture			1 [4.0]	
Skeletal Muscle	(2)	(3)	(7)	(5)
Inflammation, Chronic		1 [4.0]		
Necrosis	1 [4.0]	1 [3.0]		
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	9 [3.1]	10 [3.1]	11 [2.9]	7 [3.1]
Congestion		1 [1.0]		
Hemorrhage	2 [1.0]	2 [4.0]	6 [2.8]	3 [3.7]
Infarct			1 [2.0]	
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(49)	(50)
Foreign Body		1 [4.0]	3 [4.0]	
Inflammation, Suppurative		2 [2.0]	1 [2.0]	
Epiglottis, Metaplasia, Squamous	1 [2.0]			
Lung	(50)	(50)	(50)	(50)

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
RESPIRATORY SYSTEM - CONT				
Atrophy	1 [4.0]			
Cyst			1 [4.0]	
Foreign Body			1 [2.0]	
Hemorrhage	1 [2.0]	1 [1.0]	1 [2.0]	1 [3.0]
Infiltration Cellular, Histiocyte	1 [4.0]			
Inflammation, Chronic			1 [2.0]	
Inflammation, Chronic, Diffuse	1 [3.0]			1 [2.0]
Inflammation, Chronic, Focal	27 [1.3]	22 [1.4]	26 [1.3]	33 [1.2]
Alveolar Epithelium, Hyperplasia	4 [2.3]	2 [1.5]	3 [1.7]	1 [3.0]
Alveolar Epithelium, Hypertrophy	1 [1.0]	1 [1.0]		1 [2.0]
Alveolus, Infiltration Cellular, Focal, Histiocyte	8 [1.1]	3 [1.3]	6 [1.3]	5 [1.2]
Interstitium, Fibrosis				1 [1.0]
Mediastinum, Necrosis, Fatty	1 [4.0]			
Nose	(50)	(50)	(49)	(49)
Foreign Body	1 [3.0]	5 [2.0]	1 [3.0]	
Inflammation, Suppurative	5 [2.4]	12 [1.7]	8 [1.3]	7 [1.6]
Ulcer	1 [4.0]			
Glands, Dilatation		17 [1.3]	38 [1.3]	44 [1.7]
Goblet Cell, Hyperplasia	1 [2.0]	3 [1.7]	1 [1.0]	4 [1.5]
Nasolacrimal Duct, Inflammation, Suppurative	3 [2.0]	1 [3.0]	3 [2.3]	1 [2.0]
Nasopharyngeal Duct, Inflammation, Suppurative			1 [3.0]	
Olfactory Epithelium, Degeneration		50 [1.5]	49 [1.8]	48 [2.0]
Olfactory Epithelium, Degeneration, Hyaline	10 [1.5]	14 [1.1]	15 [1.1]	4 [1.0]
Olfactory Epithelium, Hyperplasia, Basal Cell		25 [1.0]	42 [1.3]	45 [1.8]
Olfactory Epithelium, Regeneration, Focal	1 [1.0]			
Respiratory Epithelium, Degeneration, Hyaline	5 [1.8]	3 [2.0]	4 [1.3]	
Respiratory Epithelium, Hyperplasia	1 [2.0]		1 [3.0]	
Respiratory Epithelium, Metaplasia, Squamous				1 [2.0]
Pleura	(50)	(50)	(50)	(49)
Fibrosis	1 [2.0]			
Infiltration Cellular, Lymphoid				1 [4.0]
Trachea	(50)	(50)	(50)	(50)
Glands, Degeneration, Cystic			1 [1.0]	1 [2.0]
SPECIAL SENSES SYSTEM				
Eye	(50)	(48)	(49)	(49)
Atrophy			1 [4.0]	
Inflammation, Chronic	1 [1.0]			
Anterior Chamber, Hemorrhage			1 [4.0]	

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
SPECIAL SENSES SYSTEM - CONT				
Ciliary Body, Inflammation		1 [2.0]		
Cornea, Inflammation	1 [2.0]			
Lens, Cataract	1 [4.0]	3 [2.7]	4 [3.8]	1 [4.0]
Harderian Gland	(50)	(50)	(50)	(50)
Inflammation, Suppurative	1 [4.0]			
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Cyst			1 [4.0]	
Nephropathy, Chronic	19 [1.4]	21 [1.3]	19 [1.7]	10 [2.2]
Bilateral, Cortex, Renal Tubule, Degeneration				1 [4.0]
Cortex, Infarct				2 [2.0]
Cortex, Renal Tubule, Accumulation, Hyaline Droplet				1 [4.0]
Cortex, Renal Tubule, Hyperplasia	1 [3.0]	1 [1.0]		
Medulla, Renal Tubule, Degeneration				1 [3.0]
Pelvis, Transitional Epithelium, Hyperplasia	1 [2.0]			1 [2.0]
Pelvis, Transitional Epithelium, Mineralization	1 [2.0]			
Renal Tubule, Dilatation	1 [4.0]			
Urinary Bladder	(50)	(50)	(49)	(49)
Transitional Epithelium, Hyperplasia	1 [4.0]			

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	15	9	12	13
Natural Death	4	6	6	5
Survivors				
Terminal Sacrifice				
Natural Death	31	35	31	32
			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Foreign Body				1
Intestine Small, Jejunum	(46)	(47)	(47)	(46)
Necrosis		1 [3.0]		
Intestine Small, Ileum	(46)	(47)	(45)	(46)
Dilatation		1 [4.0]		
Liver	(50)	(49)	(50)	(50)
Angiectasis			1 [4.0]	1 [3.0]
Clear Cell Focus	2 [1.0]	5 [2.5]	1 [4.0]	1 [4.0]
Hemorrhage	1 [3.0]			
Hepatodiaphragmatic Nodule	2 [4.0]	2 [4.0]	4 [4.0]	8 [4.0]
Inflammation, Granulomatous		1 [3.0]		
Necrosis	1 [4.0]	1 [2.0]	3 [2.3]	2 [3.5]
Vacuolization Cytoplasmic	1 [3.0]	2 [2.0]	3 [2.7]	3 [2.3]
Bile Duct, Hyperplasia			3 [2.0]	
Hepatocyte, Regeneration			1 [4.0]	
Periportal, Inflammation, Chronic			2 [2.0]	
Serosa, Fibrosis		1 [4.0]		1 [4.0]
Serosa, Hemorrhage				1 [4.0]
Mesentery	(12)	(13)	(18)	(11)
Necrosis	7 [2.9]	13 [2.9]	18 [2.9]	9 [3.0]
Fat, Hemorrhage				1 [4.0]
Oral Mucosa	(1)		(1)	(4)
Gingival, Cyst				1 [4.0]
Gingival, Hyperplasia, Squamous	1 [1.0]			
Pancreas	(50)	(49)	(50)	(50)
Thrombosis			1 [4.0]	
Acinus, Atrophy	15 [1.8]	18 [1.8]	27 [1.7]	21 [2.0]
Acinus, Hyperplasia			1 [3.0]	

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
ALIMENTARY SYSTEM - CONT				
Acinus, Inflammation		1 [2.0]		
Duct, Cyst	1 [1.0]	2 [2.5]	3 [3.0]	
Stomach, Forestomach	(50)	(48)	(50)	(50)
Diverticulum		1 [3.0]		
Hyperplasia, Squamous	1 [2.0]			
Inflammation, Suppurative		1 [1.0]		
Ulcer	4 [3.0]	1 [4.0]	1 [4.0]	
Stomach, Glandular	(50)	(48)	(50)	(49)
Erosion		2 [2.5]	2 [2.5]	2 [2.5]
Ulcer	1 [4.0]	2 [4.0]	1 [3.0]	
Epithelium, Hyperplasia				1 [2.0]
Tongue	(1)	(1)		
Epithelium, Hyperplasia		1 [3.0]		
CARDIOVASCULAR SYSTEM				
Blood Vessel	(50)	(50)	(50)	(50)
Thrombosis	1 [3.0]			
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	7 [1.6]	5 [2.2]	1 [2.0]	1 [2.0]
Atrium, Thrombosis	2 [3.5]	1 [4.0]	2 [4.0]	1 [4.0]
Pericardium, Inflammation			1 [3.0]	
Pericardium, Pigmentation			1 [4.0]	
Pericardium, Epicardium, Infiltration				
Cellular, Histiocyte		1 [4.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hyperplasia	1 [3.0]			2 [1.5]
Necrosis		2 [2.5]		
Vacuolization Cytoplasmic	8 [2.1]	8 [1.8]	7 [1.7]	6 [1.8]
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	12 [3.2]	13 [2.7]	8 [2.4]	14 [2.3]
Bilateral, Hyperplasia				1 [4.0]
Islets, Pancreatic	(50)	(48)	(50)	(50)
Hyperplasia	1 [1.0]	1 [1.0]	2 [2.0]	2 [3.0]
Parathyroid Gland	(46)	(48)	(49)	(47)
Hyperplasia	1 [2.0]	1 [3.0]		
Pituitary Gland	(50)	(50)	(50)	(49)
Cyst	1 [2.0]	1 [4.0]	1 [4.0]	1 [3.0]

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
ENDOCRINE SYSTEM - CONT				
Hemorrhage	1 [3.0]			1 [3.0]
Pars Distalis, Hematocyst		1 [4.0]		
Pars Distalis, Hyperplasia	5 [2.2]	8 [2.3]	9 [2.6]	8 [2.8]
Thyroid Gland	(50)	(50)	(50)	(49)
C-Cell, Hyperplasia	2 [2.5]	4 [3.0]	9 [2.6]	7 [2.4]
Follicular Cell, Hyperplasia		2 [2.0]	2 [2.5]	1 [1.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Penis			(2)	
Inflammation			1 [4.0]	
Preputial Gland	(48)	(50)	(50)	(49)
Cyst	1 [3.0]	1 [4.0]	2 [4.0]	1 [4.0]
Hyperplasia	1 [4.0]	4 [3.8]	1 [4.0]	1 [4.0]
Prostate	(50)	(50)	(50)	(50)
Hyperplasia			1 [1.0]	
Inflammation, Suppurative	5 [2.0]	1 [2.0]	4 [3.5]	2 [1.5]
Seminal Vesicle	(50)	(49)	(50)	(50)
Dilatation				1 [4.0]
Hyperplasia		1 [3.0]		
Inflammation, Suppurative	1 [3.0]			
Testes	(50)	(50)	(50)	(50)
Artery, Inflammation, Chronic Active			2 [3.0]	
Germinal Epithelium, Atrophy	16 [3.9]	12 [3.1]	11 [3.3]	9 [3.4]
Interstitial Cell, Hyperplasia	7 [3.0]	6 [2.8]	2 [2.5]	3 [2.7]
HEMATOPOIETIC SYSTEM				
Lymph Node	(11)	(5)	(11)	(6)
Deep Cervical, Angiectasis	1 [4.0]			1 [2.0]
Deep Cervical, Cyst		1 [2.0]		
Deep Cervical, Hemorrhage			1 [3.0]	
Deep Cervical, Hyperplasia, Lymphoid	1 [3.0]			
Pancreatic, Ectasia			1 [3.0]	
Pancreatic, Hemorrhage				1 [3.0]
Pancreatic, Infiltration Cellular, Histiocyte			1 [3.0]	

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
MUSCULOSKELETAL SYSTEM - CONT				
Femur, Fracture		1 [4.0]		
NERVOUS SYSTEM				
Brain	(49)	(50)	(50)	(50)
Compression	10 [2.9]	5 [2.4]	8 [2.9]	6 [3.5]
Gliosis				1 [3.0]
Hemorrhage		1 [4.0]		1 [3.0]
RESPIRATORY SYSTEM				
Larynx	(49)	(49)	(50)	(49)
Foreign Body	1 [4.0]	2 [4.0]	3 [4.0]	2 [2.5]
Inflammation, Suppurative		1 [2.0]	1 [4.0]	1 [1.0]
Epiglottis, Metaplasia, Squamous			1 [3.0]	1 [2.0]
Lung	(50)	(50)	(50)	(50)
Congestion				1 [2.0]
Hemorrhage	2 [3.0]	1 [2.0]	4 [1.8]	4 [1.5]
Inflammation, Chronic			1 [3.0]	
Inflammation, Chronic, Diffuse			1 [2.0]	
Inflammation, Chronic, Focal	4 [1.0]	4 [1.5]	5 [1.6]	14 [1.1]
Inflammation, Suppurative	1 [1.0]			
Necrosis	1 [2.0]		1 [4.0]	
Thrombosis	1 [4.0]			
Alveolar Epithelium, Hyperplasia	4 [2.5]	8 [1.8]	6 [1.7]	6 [3.2]
Alveolar Epithelium, Hypertrophy		1 [1.0]	1 [1.0]	2 [1.0]
Alveolus, Hypertrophy				1 [1.0]
Alveolus, Infiltration Cellular, Focal, Histiocyte	9 [1.6]	12 [1.6]	11 [1.5]	4 [1.5]
Interstitium, Fibrosis	1 [2.0]	1 [1.0]	1 [1.0]	1 [1.0]
Mediastinum, Abscess	1 [3.0]			
Mediastinum, Inflammation, Chronic			1 [2.0]	
Mediastinum, Pigmentation			1 [4.0]	
Perivascular, Edema				1 [1.0]
Perivascular, Infiltration Cellular, Eosinophil				1 [1.0]
Nose	(50)	(48)	(50)	(49)
Foreign Body	5 [2.0]	1 [3.0]	3 [1.7]	
Inflammation, Suppurative	5 [2.4]	9 [1.4]	17 [1.7]	10 [1.6]
Glands, Dilatation	3 [1.7]	30 [1.2]	48 [1.5]	46 [1.5]
Goblet Cell, Hyperplasia	1 [2.0]	3 [1.7]	7 [1.7]	16 [1.6]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
RESPIRATORY SYSTEM - CONT				
Nasolacrimal Duct, Inflammation, Suppurative	2 [1.0]	6 [1.7]	1 [1.0]	4 [2.3]
Nasopharyngeal Duct, Cyst				1 [4.0]
Nasopharyngeal Duct, Foreign Body				1 [1.0]
Nasopharyngeal Duct, Inflammation, Suppurative			1 [2.0]	
Nasopharyngeal Duct, Respiratory Epithelium, Hyperplasia				1 [4.0]
Olfactory Epithelium, Degeneration		47 [1.6]	49 [1.7]	49 [2.0]
Olfactory Epithelium, Degeneration, Hyaline	4 [1.3]		2 [1.0]	1 [2.0]
Olfactory Epithelium, Hyperplasia, Basal Cell		21 [1.0]	44 [1.4]	48 [1.7]
Olfactory Epithelium, Metaplasia		1 [1.0]		2 [1.5]
Respiratory Epithelium, Hyperplasia	1 [3.0]			
Turbinate, Cyst		1 [2.0]		
Pleura	(50)	(50)	(50)	(50)
Mesothelium, Hyperplasia			1 [2.0]	
Trachea	(50)	(49)	(50)	(49)
Glands, Degeneration, Cystic	1 [2.0]			5 [1.6]
SPECIAL SENSES SYSTEM				
Eye	(50)	(48)	(48)	(49)
Anterior Chamber, Hemorrhage			1 [4.0]	
Cornea, Mineralization				1 [1.0]
Lens, Cataract	2 [2.0]	1 [4.0]	3 [3.0]	1 [2.0]
Retina, Atrophy		1 [4.0]		
Harderian Gland	(50)	(50)	(50)	(50)
Atrophy			1 [4.0]	
Zymbal's Gland	(1)		(3)	
Inflammation, Suppurative			1 [4.0]	
URINARY SYSTEM				
Kidney	(50)	(49)	(50)	(49)
Cyst		1 [4.0]		1 [4.0]
Nephropathy, Chronic	37 [1.8]	41 [1.5]	41 [2.1]	45 [1.8]
Cortex, Infarct	1 [4.0]	1 [2.0]		
Cortex, Renal Tubule, Degeneration				1 [2.0]
Cortex, Renal Tubule, Hyperplasia	1 [2.0]	2 [1.0]		2 [4.0]
Cortex, Renal Tubule, Hypertrophy	1 [1.0]			
Medulla, Infarct		1 [4.0]		
Medulla, Infiltration Cellular, Lipocyte		1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
URINARY SYSTEM - CONT				
Papilla, Renal Tubule, Dilatation				1 [4.0]
Pelvis, Transitional Epithelium, Hyperplasia	1 [4.0]	1 [2.0]		
Pelvis, Transitional Epithelium, Mineralization				1 [3.0]
Urethra			(1)	
Transitional Epithelium, Hyperplasia			1 [3.0]	
Urinary Bladder	(50)	(49)	(50)	(49)
Calculus Micro Observation Only	4 [2.0]	2 [2.5]	4 [3.3]	4 [2.0]
Hemorrhage	2 [3.0]	1 [4.0]	1 [3.0]	
Transitional Epithelium, Hyperplasia			1 [2.0]	

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

END OF REPORT

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
HEMATOPOIETIC SYSTEM - CONT				
Lymph Node, Bronchial	(7)	(6)	(12)	(5)
Hemorrhage				1 [3.0]
Infiltration Cellular				1 [3.0]
Pigmentation				1 [3.0]
Lymph Node, Mesenteric	(49)	(49)	(50)	(50)
Angiectasis	1 [4.0]			
Ectasia		1 [4.0]		
Hemorrhage				1 [3.0]
Hyperplasia, Lymphoid			1 [4.0]	
Infiltration Cellular, Histiocyte	1 [1.0]		1 [4.0]	3 [3.3]
Lymph Node, Mediastinal	(19)	(23)	(25)	(38)
Angiectasis				1 [4.0]
Hyperplasia, Lymphoid				1 [3.0]
Spleen	(50)	(49)	(50)	(50)
Accessory Spleen		3		1
Fibrosis	2 [3.5]	6 [3.2]	4 [3.3]	1 [4.0]
Hematopoietic Cell Proliferation				1 [4.0]
Hemorrhage		2 [4.0]	1 [4.0]	1 [4.0]
Hyperplasia, Focal, Lymphoid		1 [3.0]		
Necrosis	3 [4.0]	1 [4.0]	1 [4.0]	1 [4.0]
Lymphocyte, Hyperplasia, Diffuse	1 [2.0]			
Thymus	(48)	(44)	(46)	(42)
Hemorrhage			1 [3.0]	
INTEGUMENTARY SYSTEM				
Mammary Gland	(35)	(43)	(47)	(48)
Galactocele	3 [3.7]	2 [1.5]	6 [4.0]	3 [4.0]
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	4 [4.0]	1 [4.0]	3 [4.0]	2 [4.0]
Hyperkeratosis	2 [3.5]	1 [3.0]	2 [3.5]	
Inflammation, Acute			2 [4.0]	
Inflammation, Granulomatous				1 [4.0]
Ulcer			2 [3.5]	
Subcutaneous Tissue, Thrombosis			1 [4.0]	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hyperostosis			1 [3.0]	
Cartilage, Femur, Hyperplasia	1 [1.0]			

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

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-534 Divinylbenzene

Pathology Tables - Mice

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)
Study Type: CHRONIC DIVINYLBENZENE
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05
Date: 08/14/03
Time: 13:01:09

FINAL #1 MICE

Facility: Battelle Northwest

Chemical CAS #: 1321-74-0

Lock Date: 06/17/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Report: PEIRPT05
Study Type: CHRONIC DIVINYLBENZENE Date: 08/14/03
Route: RESPIRATORY EXPOSURE WHOLE BODY Time: 13:01:09

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	11	12	8	7
Natural Death	6	3	3	1
Accidently Killed			1	
Survivors				
Terminal Sacrifice	33	35	38	42
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Gallbladder	(45)	(41)	(36)	(41)
Intestine Large, Colon	(48)	(50)	(50)	(50)
Intestine Large, Cecum	(47)	(49)	(48)	(50)
Intestine Small, Duodenum	(46)	(48)	(48)	(49)
Carcinoma			1 (2%)	
Histiocytic Sarcoma	1 (2%)			
Intestine Small, Jejunum	(46)	(48)	(48)	(49)
Carcinoma		2 (4%)		
Liver	(49)	(50)	(50)	(50)
Hepatocellular Carcinoma	3 (6%)	4 (8%)	3 (6%)	2 (4%)
Hepatocellular Carcinoma, Multiple	2 (4%)			
Hepatocellular Adenoma	12 (24%)	4 (8%)	5 (10%)	4 (8%)
Hepatocellular Adenoma, Multiple	5 (10%)	3 (6%)	1 (2%)	1 (2%)
Hepatocholangiocarcinoma	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Mesentery	(17)	(16)	(4)	(5)
Pancreas	(48)	(50)	(50)	(50)
Histiocytic Sarcoma	1 (2%)			
Salivary Glands	(50)	(50)	(50)	(50)
Stomach, Forestomach	(50)	(50)	(50)	(50)
Stomach, Glandular	(49)	(50)	(49)	(49)
Adenoma	1 (2%)			

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland				1 (2%)
Sarcoma		1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma	1 (2%)			
Adrenal Medulla	(49)	(50)	(49)	(50)
Histiocytic Sarcoma	1 (2%)			
Pheochromocytoma Malignant				2 (4%)
Pheochromocytoma Benign			1 (2%)	
Islets, Pancreatic	(48)	(49)	(49)	(50)
Carcinoma	1 (2%)			
Pituitary Gland	(47)	(50)	(49)	(45)
Histiocytic Sarcoma	1 (2%)			
Pars Distalis, Adenoma	8 (17%)	8 (16%)	1 (2%)	1 (2%)
Pars Intermedia, Adenoma	1 (2%)			
Thyroid Gland	(49)	(49)	(50)	(48)
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Ovary	(48)	(50)	(49)	(49)
Cystadenoma	3 (6%)			1 (2%)
Hemangioma				1 (2%)
Histiocytic Sarcoma	1 (2%)			
Luteoma	1 (2%)			
Uterus	(49)	(50)	(50)	(49)
Adenoma				1 (2%)
Carcinoma				1 (2%)
Fibroma		1 (2%)		
Histiocytic Sarcoma			2 (4%)	
Polyp Stromal	1 (2%)	3 (6%)		2 (4%)

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(49)	(50)	(50)
Hemangiosarcoma		2 (4%)		
Histiocytic Sarcoma	1 (2%)			
Sarcoma, Metastatic, Skin			1 (2%)	
Lymph Node	(9)	(3)	(5)	(2)
Renal, Carcinoma, Metastatic, Mammary Gland				1 (50%)
Lymph Node, Bronchial	(43)	(46)	(39)	(39)
Lymph Node, Mandibular	(41)	(45)	(44)	(41)
Histiocytic Sarcoma	1 (2%)			
Lymph Node, Mesenteric	(49)	(50)	(49)	(49)
Carcinoma, Metastatic, Mammary Gland				1 (2%)
Histiocytic Sarcoma	1 (2%)			
Lymph Node, Mediastinal	(44)	(44)	(38)	(38)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung				1 (3%)
Carcinoma, Metastatic, Mammary Gland				1 (3%)
Hepatocholangiocarcinoma, Metastatic, Liver				1 (3%)
Histiocytic Sarcoma	1 (2%)			
Spleen	(49)	(50)	(49)	(49)
Hemangiosarcoma		3 (6%)		
Histiocytic Sarcoma	1 (2%)			
Thymus	(49)	(47)	(46)	(44)
Carcinoma, Metastatic, Mammary Gland				1 (2%)
Histiocytic Sarcoma	1 (2%)			
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(50)	(49)
Carcinoma		2 (4%)		
Carcinoma, Multiple				1 (2%)
Skin	(50)	(50)	(50)	(50)
Squamous Cell Papilloma	1 (2%)			
Subcutaneous Tissue, Hemangiosarcoma	1 (2%)	1 (2%)		
Subcutaneous Tissue, Neural Crest Tumor	1 (2%)			
Subcutaneous Tissue, Sarcoma	1 (2%)	1 (2%)	2 (4%)	1 (2%)
Subcutaneous Tissue, Sarcoma, Multiple		1 (2%)	1 (2%)	

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteoma		1 (2%)		
Osteosarcoma			1 (2%)	
Skeletal Muscle		(1)		(1)
Carcinoma, Metastatic, Mammary Gland				1 (100%)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Meningioma Benign			1 (2%)	
RESPIRATORY SYSTEM				
Larynx	(48)	(50)	(50)	(49)
Lung	(50)	(50)	(50)	(49)
Alveolar/Bronchiolar Adenoma	4 (8%)	9 (18%)	4 (8%)	6 (12%)
Alveolar/Bronchiolar Adenoma, Multiple				2 (4%)
Alveolar/Bronchiolar Carcinoma	2 (4%)	3 (6%)	4 (8%)	5 (10%)
Alveolar/Bronchiolar Carcinoma, Multiple		2 (4%)		
Carcinoma, Metastatic, Mammary Gland				1 (2%)
Hemangiosarcoma, Metastatic, Spleen		1 (2%)		
Hepatocellular Carcinoma, Metastatic, Liver	3 (6%)	2 (4%)		1 (2%)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Sarcoma, Metastatic, Skin		2 (4%)	1 (2%)	
Nose	(50)	(50)	(50)	(49)
Hemangioma	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Olfactory Epithelium, Neuroblastoma				1 (2%)
Trachea	(49)	(50)	(50)	(50)
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(49)
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma	4 (8%)	1 (2%)	4 (8%)	5 (10%)
Carcinoma	2 (4%)	4 (8%)	1 (2%)	2 (4%)

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland				1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
Histiocytic Sarcoma	1 (2%)			
Renal Tubule, Adenoma				1 (2%)
Urinary Bladder	(49)	(50)	(50)	(49)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)		2 (4%)	
Lymphoma Malignant	11 (22%)	10 (20%)	5 (10%)	1 (2%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	40	40	26	26
Total Primary Neoplasms	68	66	37	41
Total Animals with Benign Neoplasms	28	21	14	19
Total Benign Neoplasms	42	30	17	25
Total Animals with Malignant Neoplasms	22	29	19	13
Total Malignant Neoplasms	25	36	20	16
Total Animals with Metastatic Neoplasms	4	5	2	2
Total Metastatic Neoplasm	4	6	2	12
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant	1			
Total Uncertain Neoplasms	1			

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	7	6	5	4
Natural Death	2	6	3	3
Survivors				
Terminal Sacrifice	41	38	42	43
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Gallbladder	(42)	(34)	(42)	(45)
Adenoma	1 (2%)			
Intestine Large, Rectum	(48)	(45)	(46)	(47)
Leiomyosarcoma		1 (2%)		
Intestine Large, Cecum	(48)	(46)	(47)	(48)
Carcinoma		1 (2%)		
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Leiomyoma				1 (2%)
Polyp Adenomatous	1 (2%)			
Intestine Small, Duodenum	(48)	(45)	(47)	(47)
Carcinoma		1 (2%)		
Intestine Small, Jejunum	(48)	(45)	(47)	(47)
Carcinoma	3 (6%)			4 (9%)
Intestine Small, Ileum	(48)	(45)	(47)	(47)
Carcinoma				1 (2%)
Liver	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Pancreas			1 (2%)	
Cholangiocarcinoma		1 (2%)		
Hemangiosarcoma	3 (6%)	1 (2%)		
Hepatoblastoma			2 (4%)	
Hepatocellular Carcinoma	12 (24%)	9 (18%)	7 (14%)	7 (14%)
Hepatocellular Carcinoma, Multiple	1 (2%)	2 (4%)	2 (4%)	3 (6%)
Hepatocellular Adenoma	10 (20%)	12 (24%)	10 (20%)	11 (22%)
Hepatocellular Adenoma, Multiple	12 (24%)	5 (10%)	2 (4%)	1 (2%)
Hepatocholangiocarcinoma	1 (2%)	1 (2%)		
Histiocytic Sarcoma				1 (2%)
Oral Mucosa	(1)			
Pharyngeal, Squamous Cell Carcinoma	1 (100%)			
Pancreas	(49)	(48)	(50)	(50)

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
ALIMENTARY SYSTEM - cont				
Carcinoma			1 (2%)	
Stomach, Forestomach	(49)	(50)	(49)	(50)
Squamous Cell Carcinoma				1 (2%)
Squamous Cell Papilloma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Stomach, Glandular	(48)	(48)	(47)	(49)
Carcinoma			1 (2%)	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(49)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung				1 (2%)
Cholangiocarcinoma, Metastatic, Liver		1 (2%)		
Hemangiosarcoma	2 (4%)			
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma	1 (2%)			
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(49)	(50)	(50)
Adenoma		1 (2%)		
Capsule, Adenoma	3 (6%)			
Adrenal Medulla	(49)	(49)	(50)	(50)
Pheochromocytoma Malignant			1 (2%)	
Pheochromocytoma Benign	2 (4%)			
Islets, Pancreatic	(49)	(48)	(50)	(50)
Adenoma	1 (2%)			
Thyroid Gland	(49)	(49)	(50)	(50)
Follicular Cell, Adenoma		1 (2%)		
GENERAL BODY SYSTEM				
None				

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Histiocytic Sarcoma				1 (2%)
Sarcoma	1 (2%)			
Testes	(50)	(50)	(50)	(50)
Hemangioma		1 (2%)		
Interstitial Cell, Adenoma	1 (2%)	2 (4%)		1 (2%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(48)	(50)	(50)
Hemangiosarcoma	2 (4%)	1 (2%)		
Mast Cell Tumor Malignant	1 (2%)			
Lymph Node		(2)	(1)	
Iliac, Leiomyosarcoma, Metastatic, Intestine Large, Rectum		1 (50%)		
Pancreatic, Hepatocholangiocarcinoma, Metastatic, Liver		1 (50%)		
Lymph Node, Bronchial	(35)	(34)	(33)	(37)
Cholangiocarcinoma, Metastatic, Liver		1 (3%)		
Hepatocholangiocarcinoma, Metastatic, Liver		1 (3%)		
Histiocytic Sarcoma	1 (3%)			
Lymph Node, Mandibular	(39)	(27)	(35)	(38)
Lymph Node, Mesenteric	(44)	(46)	(47)	(50)
Carcinoma, Metastatic, Pancreas			1 (2%)	
Hemangiosarcoma	1 (2%)			
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Lymph Node, Mediastinal	(37)	(38)	(33)	(29)
Carcinoma, Metastatic, Pancreas			1 (3%)	
Carcinoma, Metastatic, Intestine Small, Duodenum		1 (3%)		
Cholangiocarcinoma, Metastatic, Liver		1 (3%)		
Hepatocholangiocarcinoma, Metastatic, Liver		1 (3%)		
Histiocytic Sarcoma	1 (3%)			
Mast Cell Tumor Malignant, Metastatic, Bone Marrow	1 (3%)			
Sarcoma, Metastatic, Skin	1 (3%)			
Spleen	(49)	(48)	(50)	(50)
Hemangiosarcoma	1 (2%)	2 (4%)		
Mast Cell Tumor Malignant, Metastatic, Bone Marrow	1 (2%)			
Squamous Cell Carcinoma, Metastatic, Stomach,				

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
HEMATOPOIETIC SYSTEM - cont				
Forestomach				1 (2%)
Thymus	(44)	(41)	(43)	(44)
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Subcutaneous Tissue, Fibrous Histiocytoma	2 (4%)		1 (2%)	
Subcutaneous Tissue, Hemangioma		1 (2%)		
Subcutaneous Tissue, Sarcoma	1 (2%)	1 (2%)		1 (2%)
MUSCULOSKELETAL SYSTEM				
Skeletal Muscle		(2)		
Cholangiocarcinoma, Metastatic, Liver		1 (50%)		
Hepatocholangiocarcinoma, Metastatic, Liver		1 (50%)		
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
Lung	(49)	(49)	(49)	(49)
Alveolar/Bronchiolar Adenoma	10 (20%)	5 (10%)	6 (12%)	13 (27%)
Alveolar/Bronchiolar Adenoma, Multiple	2 (4%)	1 (2%)		2 (4%)
Alveolar/Bronchiolar Carcinoma	5 (10%)	4 (8%)	2 (4%)	8 (16%)
Alveolar/Bronchiolar Carcinoma, Multiple			1 (2%)	1 (2%)
Carcinoma, Metastatic, Pancreas			1 (2%)	
Cholangiocarcinoma, Metastatic, Liver		1 (2%)		
Fibroma				1 (2%)
Hemangiosarcoma, Metastatic, Liver	1 (2%)	1 (2%)		
Hepatocellular Carcinoma, Metastatic, Liver	6 (12%)	5 (10%)	3 (6%)	1 (2%)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)	1 (2%)		
Histiocytic Sarcoma	1 (2%)			
Mast Cell Tumor Malignant, Metastatic, Bone Marrow	1 (2%)			
Sarcoma, Metastatic, Skin	1 (2%)			
Bronchus, Adenoma				1 (2%)

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Report: PEIRPT05
Study Type: CHRONIC DIVINYLBENZENE Date: 08/14/03
Route: RESPIRATORY EXPOSURE WHOLE BODY Time: 13:01:09

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
SPECIAL SENSES SYSTEM				
Harderian Gland	(50)	(49)	(50)	(50)
Adenoma	5 (10%)	3 (6%)	6 (12%)	7 (14%)
Carcinoma	1 (2%)	1 (2%)		
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)	1 (2%)		
Renal Tubule, Adenoma		1 (2%)		
Renal Tubule, Carcinoma	1 (2%)			
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)			1 (2%)
Lymphoma Malignant	1 (2%)		1 (2%)	1 (2%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	43	38	29	41
Total Primary Neoplasms	90	60	44	67
Total Animals with Benign Neoplasms	35	24	21	27
Total Benign Neoplasms	49	34	25	40
Total Animals with Malignant Neoplasms	26	21	14	23
Total Malignant Neoplasms	41	26	19	27
Total Animals with Metastatic Neoplasms	9	10	4	3
Total Metastatic Neoplasm	14	23	7	3
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

FINAL #1 MICE

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Battelle Northwest
EXPERIMENT: 88004 TEST: 06
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: GRUMBEIN, SONDR
Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 08/14/03
TIME: 13:01:16

NTP C#: 88004B
CAS: 1321-74-0

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Bone Marrow
Brain
Epididymis
Gallbladder
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Nose
Ovary
Pancreas
Pituitary Gland
Spleen
Testes
Thyroid Gland

NTP
LAB: Battelle Northwest
EXPERIMENT: 88004 TEST: 06
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: GRUMBEIN, SONDR

STATISTICAL ANALYSIS OF PRIMARY TUMORS
DIVINYLBENZENE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 08/14/03
TIME: 13:01:16

NTP C#: 88004B
CAS: 1321-74-0

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF DIVINYLBENZENE

Male Mice

Organ	Morphology
Adrenal Cortex	Adenoma
Adrenal Medulla	Pheochromocytoma Benign
Heart	Hemangiosarcoma
Liver	Hemangiosarcoma
	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Lung	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Skin	Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma
	Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma
All Organs	Hemangiosarcoma
	Hemangiosarcoma or Hemangioma
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Female Mice

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Malignant
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Ovary	Cystadenoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
All Organs	Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Adrenal Cortex Adenoma								
TUMOR RATES								
OVERALL (a)	3/49 (6%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/45.45	1/45.52	0/46.42	0/47.18	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	6.6%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/41 (7%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.101N	P=0.333N	P=0.117N	P=0.113N	(e)	(e)	(e)	(e)
POLY 3	P=0.104N	P=0.305N	P=0.115N	P=0.112N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.105N	P=0.306N	P=0.115N	P=0.114N	(e)	(e)	(e)	(e)
POLY 6	P=0.103N	P=0.304N	P=0.114N	P=0.110N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.101N	P=0.333N	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.107N	P=0.309N	P=0.117N	P=0.117N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.018N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	2/49 (4%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	1/49 (2%)	0/50 (0%)
POLY-3 RATE (b)	2/45.45	0/45.52	0/46.42	0/47.18	0/41.71	0/44.99	1/43.89	0/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/32 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.251N	P=0.255N	P=0.233N	P=0.228N	P=0.744N	(e)	P=0.534	(e)
POLY 3	P=0.257N	P=0.237N	P=0.232N	P=0.229N	P=0.765N	(e)	P=0.510	(e)
POLY 1.5	P=0.257N	P=0.237N	P=0.233N	P=0.231N	P=0.771N	(e)	P=0.507	(e)
POLY 6	P=0.257N	P=0.236N	P=0.232N	P=0.226N	P=0.756N	(e)	P=0.515	(e)
LOGISTIC REGRESSION	P=0.251N	(e)	(e)	(e)	(e)	(e)	P=0.534	(e)
COCH-ARM / FISHERS	P=0.259N	P=0.247N	P=0.242N	P=0.242N	P=0.777N	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.027N*	(e)	(e)	(e)	P=0.391	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Adrenal Medulla Pheochromocytoma Malignant								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	0/49 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/49 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/45.45	0/45.52	1/46.42	0/47.18	0/41.71	0/44.99	0/43.89	2/46.93
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	4.3%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/32 (0%)	0/35 (0%)	0/38 (0%)	2/42 (5%)
FIRST INCIDENCE	---	---	729 (T)	---	---	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.767N	(e)	P=0.505	(e)	P=0.061	(e)	(e)	P=0.300
POLY 3	P=0.773N	(e)	P=0.504	(e)	P=0.046 *	(e)	(e)	P=0.264
POLY 1.5	P=0.775N	(e)	P=0.504	(e)	P=0.044 *	(e)	(e)	P=0.254
POLY 6	P=0.771N	(e)	P=0.505	(e)	P=0.049 *	(e)	(e)	P=0.278
LOGISTIC REGRESSION	(e)	(e)	P=0.505	(e)	(e)	(e)	(e)	P=0.300
COCH-ARM / FISHERS	P=0.777N	(e)	P=0.505	(e)	P=0.043 *	(e)	(e)	P=0.253
ORDER RESTRICTED	P=0.385	(e)	(e)	(e)	P=0.040 *	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Adrenal Medulla Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	2/49 (4%)	0/49 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	1/49 (2%)	2/50 (4%)
POLY-3 RATE (b)	2/45.45	0/45.52	1/46.42	0/47.18	0/41.71	0/44.99	1/43.89	2/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	2.2%	0.0%	0.0%	0.0%	2.3%	4.3%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/32 (0%)	0/35 (0%)	1/38 (3%)	2/42 (5%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	731 (T)	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.261N	P=0.255N	P=0.492N	P=0.228N	P=0.127	(e)	P=0.534	P=0.300
POLY 3	P=0.269N	P=0.237N	P=0.493N	P=0.229N	P=0.104	(e)	P=0.510	P=0.264
POLY 1.5	P=0.270N	P=0.237N	P=0.493N	P=0.231N	P=0.098	(e)	P=0.507	P=0.254
POLY 6	P=0.266N	P=0.236N	P=0.492N	P=0.226N	P=0.113	(e)	P=0.515	P=0.278
LOGISTIC REGRESSION	P=0.261N	(e)	P=0.492N	(e)	(e)	(e)	P=0.534	P=0.300
COCH-ARM / FISHERS	P=0.272N	P=0.247N	P=0.492N	P=0.242N	P=0.092	(e)	P=0.500	P=0.253
ORDER RESTRICTED	P=0.069N	(e)	(e)	(e)	P=0.093	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Bone Marrow Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	1/48 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/46.11	1/45.48	0/46.42	0/47.18	0/41.88	2/44.33	0/43.99	0/46.93
POLY-3 PERCENT (g)	4.3%	2.2%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	1/35 (3%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	716	---	---	---	656	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.179N	P=0.512N	P=0.237N	P=0.232N	P=0.359N	P=0.249	(e)	(e)
POLY 3	P=0.183N	P=0.505N	P=0.236N	P=0.232N	P=0.365N	P=0.250	(e)	(e)
POLY 1.5	P=0.184N	P=0.508N	P=0.236N	P=0.234N	P=0.374N	P=0.246	(e)	(e)
POLY 6	P=0.182N	P=0.504N	P=0.235N	P=0.230N	P=0.355N	P=0.253	(e)	(e)
LOGISTIC REGRESSION	P=0.186N	P=0.557N	P=0.247N	P=0.254N	P=0.388N	P=0.238	(e)	(e)
COCH-ARM / FISHERS	P=0.183N	P=0.515N	P=0.247N	P=0.247N	P=0.388N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.072N	(e)	(e)	(e)	P=0.237N	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Harderian Gland Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	3/50 (6%)	6/50 (12%)	7/50 (14%)	4/50 (8%)	1/50 (2%)	4/50 (8%)	5/50 (10%)
POLY-3 RATE (b)	5/45.69	3/46.01	6/46.42	7/47.18	4/43.26	1/44.99	4/43.99	5/46.96
POLY-3 PERCENT (g)	10.9%	6.5%	12.9%	14.8%	9.3%	2.2%	9.1%	10.7%
TERMINAL (d)	5/41 (12%)	2/38 (5%)	6/42 (14%)	7/43 (16%)	2/33 (6%)	1/35 (3%)	4/38 (11%)	4/42 (10%)
FIRST INCIDENCE	729 (T)	711	729 (T)	729 (T)	596	731 (T)	731 (T)	725
STATISTICAL TESTS								
LIFE TABLE	P=0.252	P=0.396N	P=0.517	P=0.412	P=0.343	P=0.167N	P=0.576N	P=0.633N
POLY 3	P=0.221	P=0.353N	P=0.511	P=0.402	P=0.258	P=0.167N	P=0.634N	P=0.551
POLY 1.5	P=0.214	P=0.355N	P=0.507	P=0.393	P=0.241	P=0.170N	P=0.638N	P=0.528
POLY 6	P=0.231	P=0.351N	P=0.516	P=0.414	P=0.283	P=0.166N	P=0.629N	P=0.579
LOGISTIC REGRESSION	P=0.249	P=0.362N	P=0.517	P=0.412	P=0.277	P=0.171N	P=0.629N	P=0.543
COCH-ARM / FISHERS	P=0.204	P=0.357N	P=0.500	P=0.380	P=0.228	P=0.181N	P=0.643N	P=0.500
ORDER RESTRICTED	P=0.281	(e)	(e)	(e)	P=0.299	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Harderian Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/45.69	1/45.94	0/46.42	0/47.18	2/42.88	4/44.99	1/43.99	2/46.93
POLY-3 PERCENT (g)	2.2%	2.2%	0.0%	0.0%	4.7%	8.9%	2.3%	4.3%
TERMINAL (d)	1/41 (2%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	1/33 (3%)	4/35 (11%)	1/38 (3%)	2/42 (5%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---	687	731 (T)	731 (T)	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.311N	P=0.745	P=0.495N	P=0.490N	P=0.365N	P=0.368	P=0.456N	P=0.605N
POLY 3	P=0.323N	P=0.759N	P=0.497N	P=0.494N	P=0.430N	P=0.359	P=0.491N	P=0.661N
POLY 1.5	P=0.324N	P=0.760N	P=0.498N	P=0.496N	P=0.447N	P=0.354	P=0.495N	P=0.676N
POLY 6	P=0.322N	P=0.759N	P=0.495N	P=0.490N	P=0.410N	P=0.362	P=0.486N	P=0.642N
LOGISTIC REGRESSION	P=0.311N	P=0.745	(e)	(e)	P=0.392N	P=0.367	P=0.487N	P=0.657N
COCH-ARM / FISHERS	P=0.325N	P=0.753N	P=0.500N	P=0.500N	P=0.465N	P=0.339	P=0.500N	P=0.691N
ORDER RESTRICTED	P=0.245N	(e)	(e)	(e)	P=0.355N	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Harderian Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	4/50 (8%)	6/50 (12%)	7/50 (14%)	6/50 (12%)	5/50 (10%)	5/50 (10%)	7/50 (14%)
POLY-3 RATE (b)	6/45.69	4/46.01	6/46.42	7/47.18	6/43.43	5/44.99	5/43.99	7/46.96
POLY-3 PERCENT (g)	13.1%	8.7%	12.9%	14.8%	13.8%	11.1%	11.4%	14.9%
TERMINAL (d)	6/41 (15%)	3/38 (8%)	6/42 (14%)	7/43 (16%)	3/33 (9%)	5/35 (14%)	5/38 (13%)	6/42 (14%)
FIRST INCIDENCE	729 (T)	711	729 (T)	729 (T)	596	731 (T)	731 (T)	725
STATISTICAL TESTS								
LIFE TABLE	P=0.385	P=0.415N	P=0.605N	P=0.537	P=0.536	P=0.458N	P=0.417N	P=0.559N
POLY 3	P=0.347	P=0.365N	P=0.610N	P=0.525	P=0.417	P=0.475N	P=0.491N	P=0.560
POLY 1.5	P=0.338	P=0.368N	P=0.614N	P=0.514	P=0.391	P=0.480N	P=0.494N	P=0.533
POLY 6	P=0.359	P=0.364N	P=0.605N	P=0.538	P=0.453	P=0.477N	P=0.486N	P=0.591
LOGISTIC REGRESSION	P=0.383	P=0.378N	P=0.605N	P=0.537	P=0.458	P=0.465N	P=0.479N	P=0.561
COCH-ARM / FISHERS	P=0.325	P=0.370N	P=0.620N	P=0.500	P=0.367	P=0.500N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.448	(e)	(e)	(e)	P=0.540	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Heart								
Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.95	0/45.52	0/46.42	0/47.18	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	662	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.252N	P=0.248N	P=0.235N	P=0.227N	(e)	(e)	(e)	(e)
POLY 3	P=0.261N	P=0.239N	P=0.235N	P=0.231N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.260N	P=0.240N	P=0.236N	P=0.234N	(e)	(e)	(e)	(e)
POLY 6	P=0.260N	P=0.239N	P=0.234N	P=0.229N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.264N	P=0.243N	P=0.240N	P=0.243N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.261N	P=0.253N	P=0.247N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.027N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Intestine Small: Jejunum								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	0/50 (0%)	0/50 (0%)	4/50 (8%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/46.11	0/45.94	0/46.42	4/47.74	0/42.71	2/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	6.5%	0.0%	0.0%	8.4%	0.0%	4.5%	0.0%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	0/42 (0%)	3/43 (7%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	---	---	558	---	731 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.136	P=0.131N	P=0.120N	P=0.522	P=0.350N	P=0.251	(e)	(e)
POLY 3	P=0.122	P=0.119N	P=0.118N	P=0.519	P=0.370N	P=0.249	(e)	(e)
POLY 1.5	P=0.120	P=0.119N	P=0.118N	P=0.511	P=0.378N	P=0.246	(e)	(e)
POLY 6	P=0.126	P=0.120N	P=0.117N	P=0.528	P=0.360N	P=0.251	(e)	(e)
LOGISTIC REGRESSION	P=0.108	P=0.120N	P=0.124N	P=0.476	(e)	P=0.251	(e)	(e)
COCH-ARM / FISHERS	P=0.119	P=0.121N	P=0.121N	P=0.500	P=0.392N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.082	(e)	(e)	(e)	P=0.240N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Intestine Small: Site Unspecified								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	5/50 (10%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/46.11	1/46.26	0/46.42	5/47.74	0/42.71	2/44.99	1/43.99	0/46.93
POLY-3 PERCENT (g)	6.5%	2.2%	0.0%	10.5%	0.0%	4.5%	2.3%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	0/42 (0%)	4/43 (9%)	0/33 (0%)	2/35 (6%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	609	641	---	558	---	731 (T)	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.098	P=0.317N	P=0.120N	P=0.381	P=0.330N	P=0.251	P=0.528	(e)
POLY 3	P=0.084	P=0.304N	P=0.118N	P=0.376	P=0.353N	P=0.249	P=0.506	(e)
POLY 1.5	P=0.082	P=0.305N	P=0.118N	P=0.368	P=0.366N	P=0.246	P=0.503	(e)
POLY 6	P=0.086	P=0.304N	P=0.117N	P=0.385	P=0.338N	P=0.251	P=0.510	(e)
LOGISTIC REGRESSION	P=0.072	P=0.302N	P=0.124N	P=0.337	(e)	P=0.251	P=0.528	(e)
COCH-ARM / FISHERS	P=0.081	P=0.309N	P=0.121N	P=0.357	P=0.383N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	P=0.060	(e)	(e)	(e)	P=0.318N	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Liver								
Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/46.36	1/45.99	0/46.42	0/47.18	0/41.88	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	6.5%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	716	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.105N	P=0.318N	P=0.121N	P=0.116N	(e)	(e)	(e)	(e)
POLY 3	P=0.106N	P=0.308N	P=0.119N	P=0.116N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.107N	P=0.307N	P=0.119N	P=0.117N	(e)	(e)	(e)	(e)
POLY 6	P=0.105N	P=0.311N	P=0.119N	P=0.114N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.115N	P=0.303N	P=0.128N	P=0.133N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.110N	P=0.309N	P=0.121N	P=0.121N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.019N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Liver								
Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.69	0/45.94	2/47.35	0/47.18	0/41.88	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	---	---	479	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.668N	(e)	P=0.247	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.666N	(e)	P=0.245	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.670N	(e)	P=0.242	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.660N	(e)	P=0.249	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.747N	(e)	P=0.179	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.675N	(e)	P=0.247	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.254	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Liver								
Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	22/50 (44%)	17/50 (34%)	12/50 (24%)	12/50 (24%)	17/49 (35%)	7/50 (14%)	6/50 (12%)	5/50 (10%)
POLY-3 RATE (b)	22/46.70	17/47.51	12/47.55	12/47.18	17/42.80	7/45.62	6/44.08	5/46.93
POLY-3 PERCENT (g)	47.1%	35.8%	25.2%	25.4%	39.7%	15.4%	13.6%	10.7%
TERMINAL (d)	20/41 (49%)	13/38 (34%)	9/42 (21%)	12/43 (28%)	13/33 (39%)	5/35 (14%)	5/38 (13%)	5/42 (12%)
FIRST INCIDENCE	456	543	526	729 (T)	625	537	709	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.028N*	P=0.290N	P=0.028N*	P=0.019N*	P=0.006N**	P=0.014N*	P=0.004N**	P<0.001N**
POLY 3	P=0.039N*	P=0.181N	P=0.020N*	P=0.022N*	P=0.010N*	P=0.008N**	P=0.004N**	P<0.001N**
POLY 1.5	P=0.040N*	P=0.193N	P=0.023N*	P=0.024N*	P=0.012N*	P=0.009N**	P=0.005N**	P<0.001N**
POLY 6	P=0.037N*	P=0.167N	P=0.018N*	P=0.019N*	P=0.008N**	P=0.008N**	P=0.004N**	P<0.001N**
LOGISTIC REGRESSION	P=0.039N*	P=0.204N	P=0.027N*	P=0.020N*	P=0.010N*	P=0.010N*	P=0.005N**	P<0.001N**
COCH-ARM / FISHERS	P=0.043N*	P=0.206N	P=0.028N*	P=0.028N*	P=0.017N*	P=0.015N*	P=0.007N**	P=0.003N**
ORDER RESTRICTED	P=0.015N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Liver								
Hepatocellular Carcinoma								
TUMOR RATES								
OVERALL (a)	13/50 (26%)	11/50 (22%)	9/50 (18%)	10/50 (20%)	5/49 (10%)	4/50 (8%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	13/47.80	11/47.65	9/48.87	10/47.79	5/42.74	4/45.04	3/44.67	2/46.93
POLY-3 PERCENT (g)	27.2%	23.1%	18.4%	20.9%	11.7%	8.9%	6.7%	4.3%
TERMINAL (d)	8/41 (20%)	5/38 (13%)	4/42 (10%)	9/43 (21%)	3/33 (9%)	3/35 (9%)	2/38 (5%)	2/42 (5%)
FIRST INCIDENCE	565	600	479	533	586	719	501	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.298N	P=0.447N	P=0.236N	P=0.287N	P=0.129N	P=0.465N	P=0.313N	P=0.149N
POLY 3	P=0.347N	P=0.411N	P=0.216N	P=0.317N	P=0.162N	P=0.467N	P=0.332N	P=0.180N
POLY 1.5	P=0.345N	P=0.411N	P=0.223N	P=0.316N	P=0.173N	P=0.471N	P=0.337N	P=0.192N
POLY 6	P=0.352N	P=0.411N	P=0.212N	P=0.321N	P=0.147N	P=0.470N	P=0.327N	P=0.166N
LOGISTIC REGRESSION	P=0.403N	P=0.411N	P=0.264N	P=0.347N	P=0.181N	P=0.470N	P=0.351N	P=0.204N
COCH-ARM / FISHERS	P=0.346N	P=0.408N	P=0.235N	P=0.318N	P=0.183N	P=0.487N	P=0.346N	P=0.210N
ORDER RESTRICTED	P=0.300N	(e)	(e)	(e)	P=0.148N	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Liver								
Hepatocellular Carcinoma or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	13/50 (26%)	11/50 (22%)	9/50 (18%)	10/50 (20%)	5/49 (10%)	4/50 (8%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	13/47.80	11/47.65	9/48.87	10/47.79	5/42.74	4/45.04	3/44.67	2/46.93
POLY-3 PERCENT (g)	27.2%	23.1%	18.4%	20.9%	11.7%	8.9%	6.7%	4.3%
TERMINAL (d)	8/41 (20%)	5/38 (13%)	4/42 (10%)	9/43 (21%)	3/33 (9%)	3/35 (9%)	2/38 (5%)	2/42 (5%)
FIRST INCIDENCE	565	600	479	533	586	719	501	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.298N	P=0.447N	P=0.236N	P=0.287N	P=0.129N	P=0.465N	P=0.313N	P=0.149N
POLY 3	P=0.347N	P=0.411N	P=0.216N	P=0.317N	P=0.162N	P=0.467N	P=0.332N	P=0.180N
POLY 1.5	P=0.345N	P=0.411N	P=0.223N	P=0.316N	P=0.173N	P=0.471N	P=0.337N	P=0.192N
POLY 6	P=0.352N	P=0.411N	P=0.212N	P=0.321N	P=0.147N	P=0.470N	P=0.327N	P=0.166N
LOGISTIC REGRESSION	P=0.403N	P=0.411N	P=0.264N	P=0.347N	P=0.181N	P=0.470N	P=0.351N	P=0.204N
COCH-ARM / FISHERS	P=0.346N	P=0.408N	P=0.235N	P=0.318N	P=0.183N	P=0.487N	P=0.346N	P=0.210N
ORDER RESTRICTED	P=0.300N	(e)	(e)	(e)	P=0.148N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	30/50 (60%)	26/50 (52%)	20/50 (40%)	22/50 (44%)	19/49 (39%)	10/50 (20%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)	30/48.55	26/48.90	20/50.00	22/47.79	19/43.29	10/45.66	8/44.75	7/46.93
POLY-3 PERCENT (g)	61.8%	53.2%	40.0%	46.0%	43.9%	21.9%	17.9%	14.9%
TERMINAL (d)	24/41 (59%)	17/38 (45%)	12/42 (29%)	21/43 (49%)	14/33 (42%)	7/35 (20%)	6/38 (16%)	7/42 (17%)
FIRST INCIDENCE	456	543	479	533	586	537	501	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.084N	P=0.394N	P=0.051N	P=0.062N	P=0.006N**	P=0.031N*	P=0.006N**	P<0.001N**
POLY 3	P=0.131N	P=0.256N	P=0.023N*	P=0.086N	P=0.012N*	P=0.021N*	P=0.006N**	P=0.002N**
POLY 1.5	P=0.122N	P=0.267N	P=0.027N*	P=0.083N	P=0.014N*	P=0.023N*	P=0.007N**	P=0.002N**
POLY 6	P=0.145N	P=0.241N	P=0.019N*	P=0.092N	P=0.009N**	P=0.021N*	P=0.006N**	P<0.001N**
LOGISTIC REGRESSION	P=0.131N	P=0.275N	P=0.039N*	P=0.077N	P=0.013N*	P=0.023N*	P=0.008N**	P=0.002N**
COCH-ARM / FISHERS	P=0.112N	P=0.273N	P=0.036N*	P=0.080N	P=0.019N*	P=0.033N*	P=0.010N*	P=0.005N**
ORDER RESTRICTED	P=0.045N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Liver								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	30/50 (60%)	26/50 (52%)	20/50 (40%)	22/50 (44%)	19/49 (39%)	10/50 (20%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)	30/48.55	26/48.90	20/50.00	22/47.79	19/43.29	10/45.66	8/44.75	7/46.93
POLY-3 PERCENT (g)	61.8%	53.2%	40.0%	46.0%	43.9%	21.9%	17.9%	14.9%
TERMINAL (d)	24/41 (59%)	17/38 (45%)	12/42 (29%)	21/43 (49%)	14/33 (42%)	7/35 (20%)	6/38 (16%)	7/42 (17%)
FIRST INCIDENCE	456	543	479	533	586	537	501	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.084N	P=0.394N	P=0.051N	P=0.062N	P=0.006N**	P=0.031N*	P=0.006N**	P<0.001N**
POLY 3	P=0.131N	P=0.256N	P=0.023N*	P=0.086N	P=0.012N*	P=0.021N*	P=0.006N**	P=0.002N**
POLY 1.5	P=0.122N	P=0.267N	P=0.027N*	P=0.083N	P=0.014N*	P=0.023N*	P=0.007N**	P=0.002N**
POLY 6	P=0.145N	P=0.241N	P=0.019N*	P=0.092N	P=0.009N**	P=0.021N*	P=0.006N**	P<0.001N**
LOGISTIC REGRESSION	P=0.131N	P=0.275N	P=0.039N*	P=0.077N	P=0.013N*	P=0.023N*	P=0.008N**	P=0.002N**
COCH-ARM / FISHERS	P=0.112N	P=0.273N	P=0.036N*	P=0.080N	P=0.019N*	P=0.033N*	P=0.010N*	P=0.005N**
ORDER RESTRICTED	P=0.045N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Lung								
Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	12/49 (24%)	6/49 (12%)	6/49 (12%)	15/49 (31%)	4/50 (8%)	9/50 (18%)	4/50 (8%)	8/49 (16%)
POLY-3 RATE (b)	12/46.05	6/45.52	6/46.05	15/47.42	4/42.71	9/44.99	4/44.08	8/46.89
POLY-3 PERCENT (g)	26.1%	13.2%	13.0%	31.6%	9.4%	20.0%	9.1%	17.1%
TERMINAL (d)	11/41 (27%)	6/38 (16%)	6/42 (14%)	13/43 (30%)	4/33 (12%)	9/35 (26%)	3/38 (8%)	7/42 (17%)
FIRST INCIDENCE	536	729 (T)	729 (T)	598	731 (T)	731 (T)	709	697
STATISTICAL TESTS								
LIFE TABLE	P=0.091	P=0.126N	P=0.087N	P=0.381	P=0.469	P=0.134	P=0.565N	P=0.315
POLY 3	P=0.067	P=0.097N	P=0.093N	P=0.358	P=0.352	P=0.134	P=0.626N	P=0.225
POLY 1.5	P=0.063	P=0.097N	P=0.094N	P=0.343	P=0.316	P=0.129	P=0.633N	P=0.199
POLY 6	P=0.075	P=0.098N	P=0.091N	P=0.381	P=0.399	P=0.137	P=0.615N	P=0.259
LOGISTIC REGRESSION	P=0.070	P=0.094N	P=0.090N	P=0.340	P=0.446	P=0.134	P=0.592N	P=0.289
COCH-ARM / FISHERS	P=0.060	P=0.096N	P=0.096N	P=0.326	P=0.276	P=0.117	P=0.643N	P=0.168
ORDER RESTRICTED	P=0.063	(e)	(e)	(e)	P=0.233	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Lung								
Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	5/49 (10%)	4/49 (8%)	3/49 (6%)	9/49 (18%)	2/50 (4%)	5/50 (10%)	4/50 (8%)	5/49 (10%)
POLY-3 RATE (b)	5/45.45	4/45.59	3/46.05	9/47.20	2/42.71	5/45.04	4/44.59	5/46.77
POLY-3 PERCENT (g)	11.0%	8.8%	6.5%	19.1%	4.7%	11.1%	9.0%	10.7%
TERMINAL (d)	5/41 (12%)	3/38 (8%)	3/42 (7%)	7/43 (16%)	2/33 (6%)	4/35 (11%)	3/38 (8%)	4/42 (10%)
FIRST INCIDENCE	729 (T)	711	729 (T)	669	731 (T)	719	536	729
STATISTICAL TESTS								
LIFE TABLE	P=0.088	P=0.544N	P=0.343N	P=0.228	P=0.443	P=0.245	P=0.395	P=0.326
POLY 3	P=0.069	P=0.498N	P=0.349N	P=0.214	P=0.360	P=0.238	P=0.357	P=0.255
POLY 1.5	P=0.066	P=0.500N	P=0.353N	P=0.205	P=0.330	P=0.232	P=0.349	P=0.234
POLY 6	P=0.075	P=0.496N	P=0.345N	P=0.229	P=0.397	P=0.242	P=0.369	P=0.280
LOGISTIC REGRESSION	P=0.074	P=0.509N	P=0.343N	P=0.213	P=0.358	P=0.251	P=0.343	P=0.333
COCH-ARM / FISHERS	P=0.062	P=0.500N	P=0.357N	P=0.194	P=0.295	P=0.218	P=0.339	P=0.210
ORDER RESTRICTED	P=0.088	(e)	(e)	(e)	P=0.256	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Lung Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	16/49 (33%)	10/49 (20%)	8/49 (16%)	20/49 (41%)	6/50 (12%)	12/50 (24%)	8/50 (16%)	13/49 (27%)
POLY-3 RATE (b)	16/46.05	10/45.59	8/46.05	20/47.65	6/42.71	12/45.04	8/44.68	13/46.90
POLY-3 PERCENT (g)	34.7%	21.9%	17.4%	42.0%	14.1%	26.7%	17.9%	27.7%
TERMINAL (d)	15/41 (37%)	9/38 (24%)	8/42 (19%)	17/43 (40%)	6/33 (18%)	11/35 (31%)	6/38 (16%)	11/42 (26%)
FIRST INCIDENCE	536	711	729 (T)	598	731 (T)	719	536	697
STATISTICAL TESTS								
LIFE TABLE	P=0.079	P=0.174N	P=0.042N*	P=0.332	P=0.284	P=0.117	P=0.491	P=0.171
POLY 3	P=0.053	P=0.128N	P=0.046N*	P=0.306	P=0.161	P=0.114	P=0.421	P=0.092
POLY 1.5	P=0.048 *	P=0.128N	P=0.047N*	P=0.286	P=0.133	P=0.109	P=0.407	P=0.074
POLY 6	P=0.062	P=0.128N	P=0.044N*	P=0.339	P=0.204	P=0.117	P=0.443	P=0.118
LOGISTIC REGRESSION	P=0.056	P=0.121N	P=0.044N*	P=0.287	P=0.205	P=0.127	P=0.413	P=0.155
COCH-ARM / FISHERS	P=0.045 *	P=0.126N	P=0.049N*	P=0.265	P=0.105	P=0.096	P=0.387	P=0.056
ORDER RESTRICTED	P=0.041 *	(e)	(e)	(e)	P=0.088	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.69	0/45.94	0/46.42	0/47.18	0/42.71	2/45.40	0/43.99	1/46.94
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	2.1%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	1/35 (3%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	---	---	---	---	---	613	---	729
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.661	P=0.251	(e)	P=0.553
POLY 3	(e)	(e)	(e)	(e)	P=0.647	P=0.251	(e)	P=0.519
POLY 1.5	(e)	(e)	(e)	(e)	P=0.634	P=0.247	(e)	P=0.510
POLY 6	(e)	(e)	(e)	(e)	P=0.663	P=0.254	(e)	P=0.529
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.616	P=0.221	(e)	P=0.546
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.617	P=0.247	(e)	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.331	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Ovary								
Cystadenoma								
TUMOR RATES								
OVERALL (a)					3/48 (6%)	0/50 (0%)	0/49 (0%)	1/49 (2%)
POLY-3 RATE (b)					3/40.96	0/44.99	0/42.99	1/45.93
POLY-3 PERCENT (g)					7.3%	0.0%	0.0%	2.2%
TERMINAL (d)					3/33 (9%)	0/35 (0%)	0/37 (0%)	1/41 (2%)
FIRST INCIDENCE					731 (T)	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.414N	P=0.110N	P=0.101N	P=0.231N
POLY 3					P=0.475N	P=0.102N	P=0.110N	P=0.265N
POLY 1.5					P=0.477N	P=0.105N	P=0.112N	P=0.280N
POLY 6					P=0.469N	P=0.101N	P=0.107N	P=0.249N
LOGISTIC REGRESSION					P=0.414N	(e)	(e)	P=0.231N
COCH-ARM / FISHERS					P=0.473N	P=0.114N	P=0.117N	P=0.301N
ORDER RESTRICTED					P=0.027N*	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Pituitary Gland: Pars Distalis or Unspecified Site								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/48 (0%)	0/47 (0%)	0/47 (0%)	0/46 (0%)	8/47 (17%)	8/50 (16%)	1/49 (2%)	1/45 (2%)
POLY-3 RATE (b)	0/43.90	0/44.39	0/44.18	0/44.12	8/40.43	8/45.23	1/42.99	1/42.76
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	19.8%	17.7%	2.3%	2.3%
TERMINAL (d)	0/40 (0%)	0/38 (0%)	0/41 (0%)	0/41 (0%)	6/31 (19%)	6/35 (17%)	1/37 (3%)	1/38 (3%)
FIRST INCIDENCE	---	---	---	---	596	693	731 (T)	731 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.004N**	P=0.511N	P=0.010N*	P=0.009N**
POLY 3	(e)	(e)	(e)	(e)	P=0.005N**	P=0.511N	P=0.011N*	P=0.012N*
POLY 1.5	(e)	(e)	(e)	(e)	P=0.006N**	P=0.523N	P=0.012N*	P=0.014N*
POLY 6	(e)	(e)	(e)	(e)	P=0.004N**	P=0.506N	P=0.011N*	P=0.009N**
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.006N**	P=0.499N	P=0.013N*	P=0.014N*
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.009N**	P=0.554N	P=0.013N*	P=0.018N*
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.006N**	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	3/46.30	1/46.06	1/46.42	0/47.18	1/43.48	2/45.99	3/44.61	1/47.06
POLY-3 PERCENT (g)	6.5%	2.2%	2.2%	0.0%	2.3%	4.4%	6.7%	2.1%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	536	697	729 (T)	---	450	506	564	697
STATISTICAL TESTS								
LIFE TABLE	P=0.117N	P=0.317N	P=0.301N	P=0.118N	P=0.453N	P=0.525	P=0.335	P=0.731N
POLY 3	P=0.120N	P=0.307N	P=0.304N	P=0.115N	P=0.469N	P=0.520	P=0.314	P=0.743N
POLY 1.5	P=0.121N	P=0.307N	P=0.305N	P=0.117N	P=0.485N	P=0.514	P=0.310	P=0.751N
POLY 6	P=0.118N	P=0.308N	P=0.304N	P=0.113N	P=0.446N	P=0.525	P=0.322	P=0.731N
LOGISTIC REGRESSION	P=0.129N	P=0.301N	P=0.316N	P=0.134N	P=0.503N	P=0.230	P=0.284	P=0.750
COCH-ARM / FISHERS	P=0.123N	P=0.309N	P=0.309N	P=0.121N	P=0.500N	P=0.500	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.035N*	(e)	(e)	(e)	P=0.446N	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
Skin Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	3/46.30	1/46.06	1/46.42	0/47.18	1/43.48	2/45.99	3/44.61	1/47.06
POLY-3 PERCENT (g)	6.5%	2.2%	2.2%	0.0%	2.3%	4.4%	6.7%	2.1%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	536	697	729 (T)	---	450	506	564	697
STATISTICAL TESTS								
LIFE TABLE	P=0.117N	P=0.317N	P=0.301N	P=0.118N	P=0.453N	P=0.525	P=0.335	P=0.731N
POLY 3	P=0.120N	P=0.307N	P=0.304N	P=0.115N	P=0.469N	P=0.520	P=0.314	P=0.743N
POLY 1.5	P=0.121N	P=0.307N	P=0.305N	P=0.117N	P=0.485N	P=0.514	P=0.310	P=0.751N
POLY 6	P=0.118N	P=0.308N	P=0.304N	P=0.113N	P=0.446N	P=0.525	P=0.322	P=0.731N
LOGISTIC REGRESSION	P=0.129N	P=0.301N	P=0.316N	P=0.134N	P=0.503N	P=0.230	P=0.284	P=0.750
COCH-ARM / FISHERS	P=0.123N	P=0.309N	P=0.309N	P=0.121N	P=0.500N	P=0.500	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.035N*	(e)	(e)	(e)	P=0.446N	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Skin								
Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.69	0/45.94	1/46.42	0/47.18	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.261N	P=0.255N	P=0.492N	P=0.228N	(e)	(e)	(e)	(e)
POLY 3	P=0.271N	P=0.236N	P=0.495N	P=0.230N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.273N	P=0.237N	P=0.497N	P=0.233N	(e)	(e)	(e)	(e)
POLY 6	P=0.268N	P=0.236N	P=0.492N	P=0.226N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.261N	(e)	P=0.492N	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.276N	P=0.247N	P=0.500N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.070N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Skin								
Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	1/46.30	1/46.06	0/46.42	0/47.18	1/43.48	2/45.99	3/44.61	1/47.06
POLY-3 PERCENT (g)	2.2%	2.2%	0.0%	0.0%	2.3%	4.4%	6.7%	2.1%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	536	697	---	---	450	506	564	697
STATISTICAL TESTS								
LIFE TABLE	P=0.321N	P=0.755N	P=0.500N	P=0.500N	P=0.453N	P=0.525	P=0.335	P=0.731N
POLY 3	P=0.323N	P=0.759	P=0.499N	P=0.496N	P=0.469N	P=0.520	P=0.314	P=0.743N
POLY 1.5	P=0.324N	P=0.760	P=0.500N	P=0.498N	P=0.485N	P=0.514	P=0.310	P=0.751N
POLY 6	P=0.322N	P=0.759	P=0.499N	P=0.494N	P=0.446N	P=0.525	P=0.322	P=0.731N
LOGISTIC REGRESSION	P=0.358N	P=0.749N	P=0.566N	P=0.543N	P=0.503N	P=0.230	P=0.284	P=0.750
COCH-ARM / FISHERS	P=0.325N	P=0.753N	P=0.500N	P=0.500N	P=0.500N	P=0.500	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.247N	(e)	(e)	(e)	P=0.446N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Spleen								
Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	1/49 (2%)	2/48 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	3/50 (6%)	0/49 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/45.70	2/45.48	0/46.42	0/47.18	0/41.88	3/45.27	0/43.50	0/46.76
POLY-3 PERCENT (g)	2.2%	4.4%	0.0%	0.0%	0.0%	6.6%	0.0%	0.0%
TERMINAL (d)	0/41 (0%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	662	716	---	---	---	656	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.217N	P=0.485	P=0.495N	P=0.487N	P=0.240N	P=0.131	(e)	(e)
POLY 3	P=0.221N	P=0.498	P=0.497N	P=0.494N	P=0.246N	P=0.133	(e)	(e)
POLY 1.5	P=0.222N	P=0.497	P=0.497N	P=0.495N	P=0.257N	P=0.130	(e)	(e)
POLY 6	P=0.219N	P=0.498	P=0.497N	P=0.492N	P=0.236N	P=0.135	(e)	(e)
LOGISTIC REGRESSION	P=0.223N	P=0.482	P=0.490N	P=0.496N	P=0.269N	P=0.130	(e)	(e)
COCH-ARM / FISHERS	P=0.223N	P=0.492	P=0.495N	P=0.495N	P=0.277N	P=0.125	(e)	(e)
ORDER RESTRICTED	P=0.161N	(e)	(e)	(e)	P=0.158N	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Stomach, Forestomach								
Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.69	1/45.94	1/46.42	2/47.63	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	2.2%	2.2%	2.2%	4.2%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	1/38 (3%)	1/42 (2%)	1/43 (2%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	598	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.389	P=0.745	P=0.756N	P=0.516	(e)	(e)	(e)	(e)
POLY 3	P=0.379	P=0.759N	P=0.757N	P=0.514	(e)	(e)	(e)	(e)
POLY 1.5	P=0.373	P=0.760N	P=0.758N	P=0.508	(e)	(e)	(e)	(e)
POLY 6	P=0.388	P=0.759N	P=0.756N	P=0.522	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.361	P=0.745	P=0.756N	P=0.483	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.364	P=0.753N	P=0.753N	P=0.500	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.434	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Testes Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)				
POLY-3 RATE (b)	1/45.69	2/45.94	0/46.42	1/47.18				
POLY-3 PERCENT (g)	2.2%	4.4%	0.0%	2.1%				
TERMINAL (d)	1/41 (2%)	2/38 (5%)	0/42 (0%)	1/43 (2%)				
FIRST INCIDENCE	729 (T)	729 (T)	---	729 (T)				
STATISTICAL TESTS								
LIFE TABLE	P=0.551N	P=0.473	P=0.495N	P=0.751N				
POLY 3	P=0.571N	P=0.502	P=0.497N	P=0.753N				
POLY 1.5	P=0.573N	P=0.501	P=0.498N	P=0.756N				
POLY 6	P=0.567N	P=0.502	P=0.495N	P=0.750N				
LOGISTIC REGRESSION	P=0.551N	P=0.473	(e)	P=0.751N				
COCH-ARM / FISHERS	P=0.577N	P=0.500	P=0.500N	P=0.753N				
ORDER RESTRICTED	P=0.370N	(e)	(e)	(e)				

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					1/50 (2%)	3/50 (6%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)					1/42.71	3/44.99	0/43.99	2/46.93
POLY-3 PERCENT (g)					2.3%	6.7%	0.0%	4.3%
TERMINAL (d)					1/33 (3%)	3/35 (9%)	0/38 (0%)	2/42 (5%)
FIRST INCIDENCE					731 (T)	731 (T)	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.639N	P=0.326	P=0.472N	P=0.584
POLY 3					P=0.596	P=0.324	P=0.494N	P=0.533
POLY 1.5					P=0.581	P=0.319	P=0.497N	P=0.518
POLY 6					P=0.615	P=0.327	P=0.490N	P=0.551
LOGISTIC REGRESSION					P=0.639N	P=0.326	(e)	P=0.584
COCH-ARM / FISHERS					P=0.563	P=0.309	P=0.500N	P=0.500
ORDER RESTRICTED					P=0.424N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - DIVINYLBENZENE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
All Organs Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.69	2/45.94	0/46.42	1/47.18	1/42.80	0/44.99	0/43.99	1/46.93
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	2.1%	2.3%	0.0%	0.0%	2.1%
TERMINAL (d)	0/41 (0%)	2/38 (5%)	0/42 (0%)	1/43 (2%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	1/42 (2%)
FIRST INCIDENCE	---	729 (T)	---	729 (T)	709	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.636	P=0.222	(e)	P=0.510	P=0.578	P=0.484N	P=0.474N	P=0.711N
POLY 3	P=0.626	P=0.238	(e)	P=0.506	P=0.546	P=0.490N	P=0.495N	P=0.740N
POLY 1.5	P=0.622	P=0.238	(e)	P=0.504	P=0.540	P=0.493N	P=0.497N	P=0.749N
POLY 6	P=0.631	P=0.238	(e)	P=0.510	P=0.555	P=0.489N	P=0.491N	P=0.728N
LOGISTIC REGRESSION	(e)	P=0.222	(e)	P=0.510	P=0.558	P=0.491N	P=0.495N	P=0.741N
COCH-ARM / FISHERS	P=0.617	P=0.247	(e)	P=0.500	P=0.536	P=0.500N	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.326	(e)	(e)	(e)	P=0.376N	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
All Organs Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	6/46.36	2/45.99	0/46.42	0/47.18	1/42.79	3/45.27	0/43.99	0/46.93
POLY-3 PERCENT (g)	12.9%	4.4%	0.0%	0.0%	2.3%	6.6%	0.0%	0.0%
TERMINAL (d)	4/41 (10%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	716	---	---	711	656	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.017N*	P=0.157N	P=0.018N*	P=0.017N*	P=0.138N	P=0.330	P=0.468N	P=0.449N
POLY 3	P=0.016N*	P=0.136N	P=0.015N*	P=0.014N*	P=0.149N	P=0.326	P=0.495N	P=0.482N
POLY 1.5	P=0.016N*	P=0.135N	P=0.015N*	P=0.015N*	P=0.155N	P=0.320	P=0.497N	P=0.490N
POLY 6	P=0.015N*	P=0.138N	P=0.015N*	P=0.014N*	P=0.141N	P=0.330	P=0.491N	P=0.471N
LOGISTIC REGRESSION	P=0.019N*	P=0.134N	P=0.018N*	P=0.018N*	P=0.159N	P=0.319	P=0.494N	P=0.488N
COCH-ARM / FISHERS	P=0.019N*	P=0.134N	P=0.013N*	P=0.013N*	P=0.166N	P=0.309	P=0.500N	P=0.500N
ORDER RESTRICTED	P<0.001N**	(e)	(e)	(e)	P=0.108N	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
All Organs Hemangiosarcoma or Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	4/50 (8%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	6/46.36	4/45.99	0/46.42	1/47.18	2/42.88	3/45.27	0/43.99	1/46.93
POLY-3 PERCENT (g)	12.9%	8.7%	0.0%	2.1%	4.7%	6.6%	0.0%	2.1%
TERMINAL (d)	4/41 (10%)	3/38 (8%)	0/42 (0%)	1/43 (2%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	1/42 (2%)
FIRST INCIDENCE	609	716	---	729 (T)	709	656	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.042N*	P=0.407N	P=0.018N*	P=0.055N	P=0.259N	P=0.530	P=0.208N	P=0.420N
POLY 3	P=0.043N*	P=0.375N	P=0.015N*	P=0.053N	P=0.296N	P=0.525	P=0.231N	P=0.469N
POLY 1.5	P=0.044N*	P=0.373N	P=0.015N*	P=0.055N	P=0.306N	P=0.518	P=0.234N	P=0.483N
POLY 6	P=0.042N*	P=0.380N	P=0.015N*	P=0.052N	P=0.284N	P=0.530	P=0.228N	P=0.452N
LOGISTIC REGRESSION	P=0.046N*	P=0.368N	P=0.018N*	P=0.060N	P=0.298N	P=0.519	P=0.231N	P=0.468N
COCH-ARM / FISHERS	P=0.048N*	P=0.370N	P=0.013N*	P=0.056N	P=0.316N	P=0.500	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.009N**	(e)	(e)	(e)	P=0.178N	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/45.69	0/45.94	0/46.42	1/47.63	1/43.43	0/44.99	2/43.99	0/46.93
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	2.1%	2.3%	0.0%	4.6%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	2/38 (5%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	---	---	598	479	---	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.548	P=0.515N	P=0.495N	P=0.750N	P=0.404N	P=0.483N	P=0.538	P=0.496N
POLY 3	P=0.544	P=0.499N	P=0.497N	P=0.751N	P=0.422N	P=0.493N	P=0.504	P=0.485N
POLY 1.5	P=0.540	P=0.500N	P=0.498N	P=0.755N	P=0.433N	P=0.495N	P=0.502	P=0.492N
POLY 6	P=0.548	P=0.499N	P=0.495N	P=0.746N	P=0.407N	P=0.492N	P=0.509	P=0.475N
LOGISTIC REGRESSION	P=0.516	(e)	(e)	P=0.745	P=0.447N	P=0.767N	P=0.490	P=0.489N
COCH-ARM / FISHERS	P=0.536	P=0.500N	P=0.500N	P=0.753N	P=0.441N	P=0.500N	P=0.500	P=0.500N
ORDER RESTRICTED	P=0.391N	(e)	(e)	(e)	P=0.311N	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
All Organs Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	11/50 (22%)	10/50 (20%)	5/50 (10%)	1/50 (2%)
POLY-3 RATE (b)	1/45.69	0/45.94	1/46.42	1/47.18	11/44.81	10/46.74	5/44.70	1/46.93
POLY-3 PERCENT (g)	2.2%	0.0%	2.2%	2.1%	24.6%	21.4%	11.2%	2.1%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	1/42 (2%)	1/43 (2%)	5/33 (15%)	5/35 (14%)	2/38 (5%)	1/42 (2%)
FIRST INCIDENCE	729 (T)	---	729 (T)	729 (T)	386	550	550	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.580	P=0.515N	P=0.756N	P=0.751N	P<0.001N**	P=0.448N	P=0.071N	P<0.001N**
POLY 3	P=0.569	P=0.499N	P=0.757N	P=0.753N	P<0.001N**	P=0.456N	P=0.083N	P<0.001N**
POLY 1.5	P=0.565	P=0.500N	P=0.758N	P=0.756N	P<0.001N**	P=0.468N	P=0.084N	P=0.002N**
POLY 6	P=0.574	P=0.499N	P=0.756N	P=0.750N	P<0.001N**	P=0.450N	P=0.081N	P<0.001N**
LOGISTIC REGRESSION	P=0.580	(e)	P=0.756N	P=0.751N	P=0.002N**	P=0.554N	P=0.089N	P=0.003N**
COCH-ARM / FISHERS	P=0.559	P=0.500N	P=0.753N	P=0.753N	P=0.002N**	P=0.500N	P=0.086N	P=0.002N**
ORDER RESTRICTED	P=0.542	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males CONTROL	Males 10 PPM	Males 30 PPM	Males 100 PPM	Females CONTROL	Females 10 PPM	Females 30 PPM	Females 100 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	35/50 (70%)	24/50 (48%)	21/50 (42%)	27/50 (54%)	28/50 (56%)	21/50 (42%)	14/50 (28%)	19/50 (38%)
POLY-3 RATE (b)	35/47.30	24/47.58	21/47.55	27/47.81	28/44.18	21/45.86	14/44.08	19/47.09
POLY-3 PERCENT (g)	74.0%	50.4%	44.2%	56.5%	63.4%	45.8%	31.8%	40.4%
TERMINAL (d)	32/41 (78%)	19/38 (50%)	18/42 (43%)	25/43 (58%)	22/33 (67%)	17/35 (49%)	13/38 (34%)	17/42 (41%)
FIRST INCIDENCE	456	543	526	598	596	537	709	697
STATISTICAL TESTS								
LIFE TABLE	P=0.182N	P=0.057N	P=0.004N**	P=0.041N*	P=0.021N*	P=0.074N	P<0.001N**	P=0.005N**
POLY 3	P=0.279N	P=0.012N*	P=0.002N**	P=0.052N	P=0.077N	P=0.066N	P=0.002N**	P=0.020N*
POLY 1.5	P=0.290N	P=0.015N*	P=0.002N**	P=0.061N	P=0.100N	P=0.076N	P=0.002N**	P=0.031N*
POLY 6	P=0.261N	P=0.010N*	P<0.001N**	P=0.041N*	P=0.054N	P=0.063N	P=0.002N**	P=0.013N*
LOGISTIC REGRESSION	P=0.260N	P=0.019N*	P=0.003N**	P=0.047N*	P=0.044N*	P=0.060N	P<0.001N**	P=0.012N*
COCH-ARM / FISHERS	P=0.306N	P=0.021N*	P=0.004N**	P=0.074N	P=0.131N	P=0.115N	P=0.004N**	P=0.054N
ORDER RESTRICTED	P=0.011N*	(e)	(e)	(e)	P=0.004N**	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	26/50 (52%)	21/50 (42%)	14/50 (28%)	23/50 (46%)	22/50 (44%)	29/50 (58%)	19/50 (38%)	13/50 (26%)
POLY-3 RATE (b)	26/48.60	21/48.86	14/48.87	23/49.20	22/47.00	29/49.13	19/46.60	13/47.07
POLY-3 PERCENT (g)	53.5%	43.0%	28.7%	46.8%	46.8%	59.0%	40.8%	27.6%
TERMINAL (d)	19/41 (46%)	11/38 (29%)	9/42 (21%)	18/43 (42%)	10/33 (30%)	18/35 (51%)	12/38 (32%)	11/42 (26%)
FIRST INCIDENCE	536	338	479	533	386	506	501	697
STATISTICAL TESTS								
LIFE TABLE	P=0.424N	P=0.309N	P=0.019N*	P=0.293N	P=0.002N**	P=0.240	P=0.240N	P=0.016N*
POLY 3	P=0.520N	P=0.202N	P=0.009N**	P=0.322N	P=0.004N**	P=0.158	P=0.352N	P=0.041N*
POLY 1.5	P=0.528N	P=0.204N	P=0.010N*	P=0.330N	P=0.004N**	P=0.144	P=0.349N	P=0.044N*
POLY 6	P=0.511N	P=0.203N	P=0.010N*	P=0.314N	P=0.003N**	P=0.169	P=0.352N	P=0.038N*
LOGISTIC REGRESSION	P=0.500	P=0.215N	P=0.013N*	P=0.379N	P=0.005N**	P=0.084	P=0.353N	P=0.048N*
COCH-ARM / FISHERS	P=0.537N	P=0.212N	P=0.012N*	P=0.345N	P=0.005N**	P=0.115	P=0.342N	P=0.046N*
ORDER RESTRICTED	P=0.084N	(e)	(e)	(e)	P=0.007N**	(e)	(e)	(e)

Dose	Males CONTROL	10 PPM	30 PPM	100 PPM	Females CONTROL	10 PPM	30 PPM	100 PPM
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	43/50 (86%)	38/50 (76%)	29/50 (58%)	41/50 (82%)	40/50 (80%)	40/50 (80%)	26/50 (52%)	26/50 (52%)
POLY-3 RATE (b)	43/49.36	38/50.00	29/50.00	41/49.20	40/47.46	40/50.00	26/46.60	26/47.10
POLY-3 PERCENT (g)	87.1%	76.0%	58.0%	83.3%	84.3%	80.0%	55.8%	55.2%
TERMINAL (d)	35/41 (85%)	26/38 (68%)	21/42 (50%)	36/43 (84%)	27/33 (82%)	25/35 (71%)	19/38 (50%)	23/42 (55%)
FIRST INCIDENCE	456	338	479	533	386	506	501	697
STATISTICAL TESTS								
LIFE TABLE	P=0.423N	P=0.377N	P=0.009N**	P=0.276N	P<0.001N**	P=0.409N	P=0.003N**	P<0.001N**
POLY 3	P=0.409	P=0.120N	P<0.001N**	P=0.403N	P<0.001N**	P=0.387N	P=0.002N**	P<0.001N**
POLY 1.5	P=0.421	P=0.132N	P<0.001N**	P=0.401N	P<0.001N**	P=0.455N	P=0.002N**	P=0.002N**
POLY 6	P=0.400	P=0.110N	P<0.001N**	P=0.401N	P<0.001N**	P=0.330N	P=0.002N**	P<0.001N**
LOGISTIC REGRESSION	P=0.407	P=0.156N	P=0.002N**	P=0.374N	P<0.001N**	P=0.577N	P=0.002N**	P<0.001N**
COCH-ARM / FISHERS	P=0.450	P=0.154N	P=0.002N**	P=0.393N	P<0.001N**	P=0.598N	P=0.003N**	P=0.003N**
ORDER RESTRICTED	P=0.033N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] DIVINYLBENZENE

FINAL #1 MICE

Facility: Battelle Northwest

Chemical CAS #: 1321-74-0

Lock Date: 06/17/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	11	12	8	7
Natural Death	6	3	3	1
Accidently Killed			1	
Survivors				
Terminal Sacrifice	33	35	38	42
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Infiltration Cellular, Mixed Cell				1 [3.0]
Gallbladder	(45)	(41)	(36)	(41)
Hemorrhage, Chronic	1 [3.0]			
Inflammation, Acute			1 [3.0]	
Inflammation, Chronic				1 [2.0]
Intestine Large, Rectum	(46)	(48)	(50)	(50)
Artery, Inflammation, Chronic Active	1 [3.0]			
Liver	(49)	(50)	(50)	(50)
Angiectasis	1 [1.0]			
Basophilic Focus	4	2		2
Clear Cell Focus	4	2	3	
Eosinophilic Focus	12	8	3	4
Fatty Change	2 [2.0]	1 [2.0]		
Hematopoietic Cell Proliferation		1 [4.0]	1 [3.0]	1 [2.0]
Infarct		1		
Inflammation, Acute			1 [3.0]	
Inflammation, Chronic				1 [2.0]
Inflammation, Granulomatous	1 [3.0]		1 [1.0]	
Mixed Cell Focus				1
Necrosis	1 [2.0]		3 [2.0]	1 [3.0]
Tension Lipidosis	1 [2.0]	5 [1.4]	2 [1.5]	4 [1.5]
Vacuolization Cytoplasmic, Focal				1 [3.0]
Centrilobular, Hypertrophy	1 [3.0]			
Mesentery	(17)	(16)	(4)	(5)
Artery, Inflammation, Chronic Active	1 [2.0]			
Fat, Congestion		1 [2.0]		
Fat, Hemorrhage			1 [2.0]	
Fat, Necrosis	17 [2.0]	15 [2.0]	3 [2.0]	5 [2.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
ALIMENTARY SYSTEM - CONT				
Pancreas	(48)	(50)	(50)	(50)
Atrophy		2 [4.0]	1 [4.0]	
Basophilic Focus			1 [2.0]	
Duct, Cyst			2 [4.0]	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperplasia, Squamous	3 [1.7]	5 [2.2]		1 [2.0]
Inflammation, Chronic Active	1 [1.0]			2 [2.0]
Ulcer		1 [2.0]	1 [1.0]	
Stomach, Glandular	(49)	(50)	(49)	(49)
Hemorrhage		1 [2.0]		
Necrosis	1 [2.0]			
Tooth	(9)	(13)	(8)	(15)
Incisor, Dysplasia	9 [1.7]	13 [1.7]	8 [1.5]	15 [1.7]
CARDIOVASCULAR SYSTEM				
Blood Vessel	(1)			
Aorta, Mineralization	1 [2.0]			
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	3 [1.0]	6 [1.0]	1 [1.0]	1 [1.0]
Infiltration Cellular, Polymorphonuclear			1 [2.0]	
Inflammation, Suppurative		1 [2.0]		
Mineralization	1 [1.0]	1 [2.0]		1 [1.0]
Necrosis			1 [2.0]	
Thrombosis		1 [3.0]		
Artery, Inflammation, Chronic Active	2 [2.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation		1 [3.0]		
Hyperplasia	1 [3.0]	2 [2.0]	5 [2.2]	4 [2.0]
Hypertrophy		3 [2.0]	2 [1.0]	8 [2.0]
Adrenal Medulla	(49)	(50)	(49)	(50)
Hyperplasia	1 [2.0]	1 [2.0]		2 [2.0]
Necrosis	1 [2.0]			
Islets, Pancreatic	(48)	(49)	(49)	(50)
Hyperplasia			1 [3.0]	
Pituitary Gland	(47)	(50)	(49)	(45)
Cyst				1 [2.0]
Pars Distalis, Angiectasis	3 [2.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
ENDOCRINE SYSTEM - CONT				
Pars Distalis, Hyperplasia	8 [2.4]	16 [2.1]	6 [1.7]	5 [2.2]
Thyroid Gland	(49)	(49)	(50)	(48)
C-Cell, Hyperplasia		1 [1.0]		
Follicular Cell, Hyperplasia	1 [2.0]	2 [3.0]		1 [1.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Ovary	(48)	(50)	(49)	(49)
Angiectasis	2 [2.5]	3 [2.7]		
Cyst	9 [2.1]	14 [2.5]	10 [2.6]	9 [2.2]
Inflammation, Acute			1 [4.0]	
Mineralization	1 [2.0]			
Necrosis			1 [4.0]	
Thrombosis				1 [3.0]
Uterus	(49)	(50)	(50)	(49)
Angiectasis		1 [3.0]	2 [3.0]	1 [4.0]
Endometrium, Hyperplasia, Cystic	2 [3.0]	8 [3.8]	5 [2.8]	8 [3.3]
HEMATOPOIETIC SYSTEM				
Lymph Node	(9)	(3)	(5)	(2)
Ectasia	1 [3.0]			
Deep Cervical, Hyperplasia, Lymphoid	1 [4.0]			
Deep Cervical, Infiltration Cellular, Plasma Cell				1 [3.0]
Iliac, Angiectasis				1 [3.0]
Iliac, Ectasia	1 [3.0]			
Lumbar, Angiectasis			1 [3.0]	
Renal, Angiectasis			1 [3.0]	
Lymph Node, Mesenteric	(49)	(50)	(49)	(49)
Angiectasis	1 [3.0]			
Ectasia			1 [3.0]	
Inflammation, Granulomatous		1 [2.0]		
Spleen	(49)	(50)	(49)	(49)
Hematopoietic Cell Proliferation	3 [2.7]	3 [3.0]	3 [2.7]	1 [3.0]
Inflammation, Acute			1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
HEMATOPOIETIC SYSTEM - CONT				
Necrosis			1 [3.0]	
Sinusoid, Dilatation				1 [3.0]
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Inflammation, Chronic Active	3 [1.7]	2 [3.5]		1 [4.0]
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Degeneration, Focal				1 [2.0]
Hemorrhage		1 [2.0]		
Meninges, Infiltration Cellular, Mononuclear Cell	1 [1.0]	1 [2.0]		
RESPIRATORY SYSTEM				
Larynx	(48)	(50)	(50)	(49)
Hyperplasia, Squamous				1 [2.0]
Inflammation, Suppurative		1 [2.0]		1 [1.0]
Lung	(50)	(50)	(50)	(49)
Hemorrhage	1 [1.0]			
Infiltration Cellular, Polymorphonuclear			1 [2.0]	
Inflammation, Acute			1 [2.0]	
Thrombosis			1 [2.0]	
Alveolar Epithelium, Hyperplasia	4 [1.8]	3 [1.7]	4 [2.3]	8 [2.5]
Alveolus, Granuloma			1 [1.0]	
Alveolus, Infiltration Cellular, Histiocyte	3 [1.0]	6 [1.0]	9 [1.1]	17 [1.2]
Bronchiole, Hyperplasia				1 [4.0]
Bronchiole, Hyperplasia, Atypical		39 [1.3]	45 [1.8]	48 [2.1]
Nose	(50)	(50)	(50)	(49)
Inflammation, Suppurative	1 [1.0]	50 [1.7]	49 [2.0]	49 [2.4]
Glands, Respiratory Epithelium, Metaplasia	3 [1.0]	50 [3.1]	50 [3.6]	49 [4.0]
Olfactory Epithelium, Atrophy	8 [1.1]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
RESPIRATORY SYSTEM - CONT				
Olfactory Epithelium, Degeneration, Hyaline	2 [1.5]	50 [2.4]	40 [1.8]	8 [1.6]
Olfactory Epithelium, Respiratory Epithelium, Metaplasia		50 [3.1]	50 [3.9]	49 [3.9]
Trachea	(49)	(50)	(50)	(50)
Inflammation, Suppurative		1 [2.0]		
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(49)
Cataract	1 [3.0]	2 [2.5]		1 [2.0]
Inflammation				1 [2.0]
Phthisis Bulbi	1 [4.0]	1 [3.0]		
Cornea, Hyperplasia, Squamous			1 [2.0]	
Cornea, Inflammation, Chronic Active	1 [2.0]	3 [2.3]		3 [3.0]
Cornea, Inflammation, Suppurative				1 [3.0]
Cornea, Mineralization				6 [1.0]
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia	1 [3.0]	4 [2.5]	2 [2.0]	3 [2.3]
Inflammation, Chronic Active	1 [4.0]			
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Amyloid Deposition		1 [3.0]		
Infarct			1 [4.0]	
Inflammation, Suppurative		2 [2.5]	2 [3.5]	
Metaplasia, Osseous	2 [1.5]	3 [1.3]	3 [1.0]	1 [1.0]
Mineralization	1 [1.0]			
Nephropathy	25 [1.3]	31 [1.3]	22 [1.2]	17 [1.1]
Artery, Inflammation, Chronic Active				1 [2.0]
Urinary Bladder	(49)	(50)	(50)	(49)
Inflammation, Suppurative			1 [2.0]	
Artery, Inflammation, Chronic Active	1 [2.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	7	6	5	4
Natural Death	2	6	3	3
Survivors				
Terminal Sacrifice	41	38	42	43
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Liver	(50)	(50)	(50)	(50)
Angiectasis				1 [1.0]
Basophilic Focus	3	6	7	4
Clear Cell Focus	9	11	6	5
Eosinophilic Focus	8	7		2
Fatty Change		2 [1.5]	1 [2.0]	
Infarct	2		1	
Inflammation, Granulomatous	1 [1.0]			
Mineralization	1 [1.0]			
Mixed Cell Focus	2	1	2	1
Necrosis	1 [1.0]	2 [1.5]	2 [3.0]	2 [3.0]
Tension Lipidosis	2 [2.0]	1 [2.0]	2 [1.5]	1 [2.0]
Vacuolization Cytoplasmic, Focal	2 [2.5]			
Mesentery	(11)	(4)	(4)	(5)
Fat, Necrosis	10 [2.0]	4 [2.0]	4 [2.0]	5 [2.0]
Pancreas	(49)	(48)	(50)	(50)
Duct, Cyst	2 [3.5]			
Stomach, Forestomach	(49)	(50)	(49)	(50)
Hyperplasia, Squamous	1 [2.0]	4 [2.5]	2 [1.0]	4 [2.3]
Inflammation		1 [2.0]		
Inflammation, Acute		2 [1.5]		1 [1.0]
Inflammation, Chronic Active	1 [2.0]	1 [2.0]		3 [2.3]
Mineralization				1 [1.0]
Ulcer		2 [2.5]	1 [2.0]	1 [3.0]
Stomach, Glandular	(48)	(48)	(47)	(49)
Inflammation, Acute		1 [1.0]		
Mineralization		1 [2.0]		
Necrosis		1 [2.0]		1 [1.0]
Tooth	(41)	(43)	(41)	(35)
Incisor, Dysplasia	41 [2.2]	43 [2.6]	41 [2.5]	35 [2.3]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
CARDIOVASCULAR SYSTEM				
Heart	(50)	(49)	(50)	(50)
Cardiomyopathy	14 [1.1]	5 [1.0]	5 [1.0]	5 [1.0]
Mineralization	1 [1.0]	1 [1.0]		1 [1.0]
Artery, Inflammation, Chronic Active	1 [3.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(49)	(50)	(50)
Hyperplasia	9 [2.0]	10 [1.9]	6 [1.7]	5 [2.0]
Hypertrophy	24 [2.0]	25 [1.9]	26 [2.0]	24 [1.6]
Adrenal Medulla	(49)	(49)	(50)	(50)
Hyperplasia	1 [2.0]	2 [2.0]		2 [2.5]
Parathyroid Gland	(35)	(39)	(36)	(35)
Hyperplasia			1 [3.0]	
Pituitary Gland	(48)	(47)	(47)	(46)
Cyst		1 [3.0]		
Pars Distalis, Hyperplasia	2 [2.5]	1 [2.0]	2 [1.5]	1 [1.0]
Thyroid Gland	(49)	(49)	(50)	(50)
Follicular Cell, Hyperplasia		2 [1.5]	1 [3.0]	
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm	1 [2.0]	2 [1.5]		
Penis			(1)	
Inflammation, Acute			1 [4.0]	
Preputial Gland	(50)	(50)	(50)	(50)
Ectasia	1 [2.0]	3 [2.3]	2 [3.0]	1 [3.0]
Inflammation, Chronic Active			2 [3.0]	
Seminal Vesicle	(49)	(48)	(50)	(49)
Inflammation, Chronic		1 [3.0]		
Testes	(50)	(50)	(50)	(50)
Atrophy	2 [3.0]			
Mineralization	1 [4.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
GENITAL SYSTEM - CONT				
Interstitial Cell, Hyperplasia			1 [2.0]	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(48)	(50)	(50)
Necrosis	1 [4.0]			
Spleen	(49)	(48)	(50)	(50)
Hematopoietic Cell Proliferation	1 [3.0]		1 [2.0]	
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1 [3.0]			
Inflammation, Chronic Active	3 [2.0]	1 [1.0]		2 [3.5]
Inflammation, Granulomatous				1 [2.0]
Subcutaneous Tissue, Cyst Epithelial Inclusion		1		
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Necrosis, Focal	1 [2.0]			
Artery, Inflammation, Chronic Active	1 [2.0]			
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(50)	(50)
Inflammation, Suppurative	1 [3.0]			
Lung	(49)	(49)	(49)	(49)
Hemorrhage	1 [2.0]			1 [4.0]
Mineralization		1 [2.0]		
Alveolar Epithelium, Hyperplasia	1 [1.0]	5 [3.2]	5 [2.0]	7 [2.0]
Alveolus, Infiltration Cellular, Histiocyte	2 [1.5]	4 [1.0]	5 [1.0]	1 [1.0]
Bronchiole, Hyperplasia			1 [1.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
DIVINYLBENZENE

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
RESPIRATORY SYSTEM - CONT				
Bronchiole, Hyperplasia, Atypical		38 [1.1]	46 [1.8]	46 [1.9]
Bronchiole, Inflammation, Chronic Active				1 [3.0]
Nose	(50)	(50)	(49)	(50)
Inflammation, Suppurative	3 [1.0]	47 [1.4]	49 [1.9]	49 [1.9]
Glands, Necrosis		1 [2.0]		
Glands, Respiratory Epithelium, Metaplasia	12 [1.0]	50 [2.9]	49 [4.0]	50 [3.9]
Olfactory Epithelium, Atrophy	14 [1.1]			
Olfactory Epithelium, Degeneration, Hyaline	5 [1.0]	50 [1.9]	48 [1.8]	11 [1.1]
Olfactory Epithelium, Respiratory Epithelium, Metaplasia	1 [2.0]	50 [3.1]	49 [4.0]	50 [3.9]
Respiratory Epithelium, Metaplasia, Squamous				1 [2.0]
Sinus, Foreign Body			1	
SPECIAL SENSES SYSTEM				
Eye	(49)	(47)	(47)	(50)
Phthisis Bulbi			1 [4.0]	1 [3.0]
Cornea, Inflammation, Chronic Active		2 [2.0]	1 [3.0]	1 [2.0]
Cornea, Mineralization				2 [1.0]
Harderian Gland	(50)	(49)	(50)	(50)
Hyperplasia	2 [2.0]	2 [2.0]	3 [2.7]	2 [1.5]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Cyst	1 [2.0]		2 [2.0]	
Infarct	1 [3.0]	2 [2.5]	1 [2.0]	
Inflammation, Suppurative	1 [2.0]			
Metaplasia, Osseous	7 [1.0]	3 [1.0]	5 [1.0]	1 [1.0]
Nephropathy	45 [1.6]	43 [1.5]	40 [1.3]	34 [1.3]
Capsule, Fibrosis	1 [1.0]			
Papilla, Necrosis	1 [2.0]			
Pelvis, Dilatation		1 [2.0]		
Renal Tubule, Hyperplasia	2 [1.0]	1 [1.0]		
Renal Tubule, Necrosis				1 [2.0]
Urinary Bladder	(48)	(48)	(49)	(49)
Transitional Epithelium, Hyperplasia	1 [3.0]			

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

END OF REPORT

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-535 4-Methylimidazole

Pathology Tables - Mice

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

NTP Experiment-Test: 92013-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)
Study Type: CHRONIC 4-METHYLIMIDAZOLE
Route: DOSED FEED

Report: PEIRPT05
Date: 01/12/04
Time: 14:34:49

FINAL #1 MICE

Facility: Southern Research Institute

Chemical CAS #: 822-36-6

Lock Date: 09/13/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	3	4	3	3
Natural Death	4	6	4	7
Survivors				
Terminal Sacrifice	42	40	41	39
Natural Death	1		2	1
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(48)	(50)	(50)	(49)
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (2%)	
Intestine Large, Cecum	(49)	(48)	(46)	(46)
Histiocytic Sarcoma				1 (2%)
Intestine Small, Duodenum	(48)	(47)	(49)	(48)
Carcinoma			2 (4%)	
Histiocytic Sarcoma				1 (2%)
Polyp Adenomatous	1 (2%)			
Intestine Small, Jejunum	(50)	(48)	(47)	(47)
Intestine Small, Ileum	(48)	(45)	(48)	(48)
Liver	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma	1 (2%)	2 (4%)		1 (2%)
Hepatocellular Adenoma	4 (8%)	5 (10%)		1 (2%)
Histiocytic Sarcoma		1 (2%)	1 (2%)	2 (4%)
Mast Cell Tumor Malignant				1 (2%)
Sarcoma, Metastatic, Skin	1 (2%)			
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (2%)	
Mesentery	(3)	(7)	(7)	(4)
Carcinoma, Metastatic, Mammary Gland		1 (14%)		
Histiocytic Sarcoma		1 (14%)		
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (14%)	
Pancreas	(49)	(48)	(48)	(49)
Sarcoma, Metastatic, Skin	1 (2%)			
Salivary Glands	(50)	(48)	(50)	(49)
Stomach, Forestomach	(50)	(50)	(50)	(50)

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
ALIMENTARY SYSTEM - cont				
Squamous Cell Carcinoma			2 (4%)	
Squamous Cell Papilloma	2 (4%)		1 (2%)	2 (4%)
Stomach, Glandular	(49)	(49)	(50)	(49)
Adenoma				1 (2%)
Sarcoma, Metastatic, Skin	1 (2%)			
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (2%)	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Capsule, Adenoma		1 (2%)		
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant	1 (2%)			1 (2%)
Pheochromocytoma Benign		1 (2%)		
Islets, Pancreatic	(49)	(48)	(47)	(49)
Adenoma		3 (6%)		
Carcinoma		1 (2%)	1 (2%)	
Pituitary Gland	(49)	(46)	(49)	(50)
Pars Distalis, Adenoma	5 (10%)	4 (9%)	3 (6%)	2 (4%)
Thyroid Gland	(50)	(49)	(50)	(48)
Bilateral, Adenoma	1 (2%)			
Follicular Cell, Adenoma			1 (2%)	1 (2%)
GENERAL BODY SYSTEM				
None				

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
GENITAL SYSTEM				
Ovary	(48)	(49)	(49)	(50)
Cystadenoma	2 (4%)		1 (2%)	1 (2%)
Granulosa Cell Tumor Benign	2 (4%)			
Hemangiosarcoma		1 (2%)		
Histiocytic Sarcoma			1 (2%)	
Luteoma		1 (2%)	2 (4%)	2 (4%)
Tubulostromal Adenoma		1 (2%)		1 (2%)
Uterus	(50)	(50)	(50)	(50)
Carcinoma		1 (2%)		
Hemangiosarcoma		1 (2%)		1 (2%)
Histiocytic Sarcoma	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Leiomyoma			1 (2%)	
Polyp Stromal		2 (4%)		2 (4%)
Sarcoma, Metastatic, Skin	1 (2%)			
Sarcoma Stromal			1 (2%)	
Schwannoma Malignant	1 (2%)			
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hemangiosarcoma		1 (2%)		1 (2%)
Histiocytic Sarcoma				1 (2%)
Mast Cell Tumor Malignant				1 (2%)
Lymph Node	(3)	(9)	(12)	(7)
Iliac, Histiocytic Sarcoma		1 (11%)		
Mediastinal, Histiocytic Sarcoma				1 (14%)
Pancreatic, Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			1 (8%)	
Lymph Node, Mandibular	(47)	(47)	(48)	(48)
Histiocytic Sarcoma		1 (2%)		
Lymph Node, Mesenteric	(49)	(47)	(49)	(50)
Histiocytic Sarcoma				1 (2%)
Mast Cell Tumor Malignant				1 (2%)
Sarcoma, Metastatic, Skin	1 (2%)			
Spleen	(49)	(49)	(49)	(49)
Fibrosarcoma, Metastatic, Skin	1 (2%)			
Hemangiosarcoma	2 (4%)	2 (4%)		
Histiocytic Sarcoma			1 (2%)	
Mast Cell Tumor Malignant				1 (2%)
Thymus	(49)	(49)	(50)	(48)

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(49)	(49)
Adenoma				1 (2%)
Carcinoma	1 (2%)	1 (2%)		1 (2%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma			1 (2%)	
Subcutaneous Tissue, Fibrosarcoma	1 (2%)			1 (2%)
Subcutaneous Tissue, Hemangiosarcoma	2 (4%)			1 (2%)
Subcutaneous Tissue, Melanoma Benign		1 (2%)		
Subcutaneous Tissue, Sarcoma, Poorly Differentiated	1 (2%)			
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma				1 (2%)
Skeletal Muscle	(1)	(1)	(2)	(2)
Sarcoma, Metastatic, Skin	1 (100%)			
Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach			2 (100%)	
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Histiocytic Sarcoma		1 (2%)		
Mast Cell Tumor Malignant				1 (2%)
Spinal Cord		(2)		(1)
Osteosarcoma, Metastatic, Bone				1 (100%)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma		8 (16%)	12 (24%)	6 (12%)
Alveolar/Bronchiolar Adenoma, Multiple			4 (8%)	2 (4%)
Alveolar/Bronchiolar Carcinoma	3 (6%)		2 (4%)	6 (12%)
Alveolar/Bronchiolar Carcinoma, Multiple				1 (2%)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Histiocytic Sarcoma				2 (4%)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
Harderian Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/48.29	1/47.90	0/45.68	1/47.85	1/46.61	1/47.80	0/48.01	2/46.12
POLY-3 PERCENT (g)	2.1%	2.1%	0.0%	2.1%	2.2%	2.1%	0.0%	4.3%
TERMINAL (d)	0/45 (0%)	1/44 (2%)	0/42 (0%)	1/46 (2%)	1/43 (2%)	1/40 (3%)	0/43 (0%)	1/40 (3%)
FIRST INCIDENCE	715	729 (T)	---	729 (T)	729 (T)	729 (T)	---	711
STATISTICAL TESTS								
LIFE TABLE	P=0.611N	P=0.758	P=0.518N	P=0.758N	P=0.353	P=0.746	P=0.500N	P=0.478
POLY 3	P=0.620N	P=0.759	P=0.511N	P=0.758	P=0.364	P=0.755N	P=0.494N	P=0.496
POLY 1.5	P=0.618N	P=0.759	P=0.507N	P=0.759	P=0.366	P=0.755N	P=0.495N	P=0.500
POLY 6	P=0.621N	P=0.758	P=0.515N	P=0.758	P=0.362	P=0.756N	P=0.494N	P=0.492
LOGISTIC REGRESSION	P=0.618N	P=0.761	P=0.506N	P=0.761	P=0.356	P=0.746	(e)	P=0.491
COCH-ARM / FISHERS	P=0.616N	P=0.753N	P=0.500N	P=0.753N	P=0.366	P=0.753N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.542N	(e)	(e)	(e)	P=0.265	(e)	(e)	(e)

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
Harderian Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	10/50 (20%)	4/50 (8%)	8/50 (16%)	7/50 (14%)	2/50 (4%)	5/50 (10%)	8/50 (16%)
POLY-3 RATE (b)	5/48.29	10/48.10	4/45.68	8/47.85	7/47.07	2/47.80	5/48.04	8/46.29
POLY-3 PERCENT (g)	10.4%	20.8%	8.8%	16.7%	14.9%	4.2%	10.4%	17.3%
TERMINAL (d)	4/45 (9%)	9/44 (21%)	4/42 (10%)	8/46 (17%)	6/43 (14%)	2/40 (5%)	4/43 (9%)	6/40 (15%)
FIRST INCIDENCE	715	676	729 (T)	729 (T)	593	729 (T)	720	685
STATISTICAL TESTS								
LIFE TABLE	P=0.421	P=0.127	P=0.544N	P=0.291	P=0.221	P=0.097N	P=0.377N	P=0.448
POLY 3	P=0.390	P=0.128	P=0.535N	P=0.270	P=0.233	P=0.076N	P=0.365N	P=0.486
POLY 1.5	P=0.394	P=0.129	P=0.522N	P=0.272	P=0.238	P=0.075N	P=0.366N	P=0.496
POLY 6	P=0.385	P=0.128	P=0.548N	P=0.269	P=0.228	P=0.078N	P=0.367N	P=0.473
LOGISTIC REGRESSION	P=0.392	P=0.127	P=0.555N	P=0.269	P=0.235	P=0.078N	P=0.366N	P=0.494
COCH-ARM / FISHERS	P=0.404	P=0.131	P=0.500N	P=0.277	P=0.246	P=0.080N	P=0.380N	P=0.500
ORDER RESTRICTED	P=0.292	(e)	(e)	(e)	P=0.188	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Intestine Small: Duodenum Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/48.24	2/47.90	0/45.68	0/47.85	0/46.61	0/47.80	2/48.01	0/46.05
POLY-3 PERCENT (g)	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%
TERMINAL (d)	0/45 (0%)	2/44 (5%)	0/42 (0%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	2/43 (5%)	0/40 (0%)
FIRST INCIDENCE	---	729 (T)	---	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.401N	P=0.234	(e)	(e)	P=0.585	(e)	P=0.238	(e)
POLY 3	P=0.410N	P=0.236	(e)	(e)	P=0.582	(e)	P=0.244	(e)
POLY 1.5	P=0.408N	P=0.236	(e)	(e)	P=0.589	(e)	P=0.243	(e)
POLY 6	P=0.412N	P=0.235	(e)	(e)	P=0.574	(e)	P=0.244	(e)
LOGISTIC REGRESSION	(e)	P=0.234	(e)	(e)	(e)	(e)	P=0.238	(e)
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	P=0.247N	(e)	(e)	(e)	P=0.254	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Intestine Small: Site Unspecified Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/48.24	3/47.90	0/45.68	0/47.85	0/46.61	0/47.80	2/48.01	0/46.05
POLY-3 PERCENT (g)	0.0%	6.3%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%
TERMINAL (d)	0/45 (0%)	3/44 (7%)	0/42 (0%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	2/43 (5%)	0/40 (0%)
FIRST INCIDENCE	---	729 (T)	---	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.308N	P=0.117	(e)	(e)	P=0.585	(e)	P=0.238	(e)
POLY 3	P=0.315N	P=0.118	(e)	(e)	P=0.582	(e)	P=0.244	(e)
POLY 1.5	P=0.313N	P=0.118	(e)	(e)	P=0.589	(e)	P=0.243	(e)
POLY 6	P=0.317N	P=0.117	(e)	(e)	P=0.574	(e)	P=0.244	(e)
LOGISTIC REGRESSION	(e)	P=0.117	(e)	(e)	(e)	(e)	P=0.238	(e)
COCH-ARM / FISHERS	P=0.311N	P=0.121	(e)	(e)	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	P=0.163N	(e)	(e)	(e)	P=0.254	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	1/49 (2%)	0/50 (0%)	1/50 (2%)	0/49 (0%)	3/48 (6%)	0/47 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/47.37	1/47.79	0/45.68	1/47.85	0/46.61	3/46.38	0/45.13	0/45.05
POLY-3 PERCENT (g)	0.0%	2.1%	0.0%	2.1%	0.0%	6.5%	0.0%	0.0%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	1/46 (2%)	0/43 (0%)	2/40 (5%)	0/42 (0%)	0/39 (0%)
FIRST INCIDENCE	---	613	---	729 (T)	---	668	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.408	P=0.500	(e)	P=0.504	P=0.326N	P=0.116	(e)	(e)
POLY 3	P=0.406	P=0.502	(e)	P=0.502	P=0.314N	P=0.118	(e)	(e)
POLY 1.5	P=0.408	P=0.501	(e)	P=0.503	P=0.312N	P=0.117	(e)	(e)
POLY 6	P=0.405	P=0.503	(e)	P=0.501	P=0.316N	P=0.118	(e)	(e)
LOGISTIC REGRESSION	P=0.420	P=0.543	(e)	P=0.504	P=0.306N	P=0.113	(e)	(e)
COCH-ARM / FISHERS	P=0.410	P=0.500	(e)	P=0.505	P=0.312N	P=0.117	(e)	(e)
ORDER RESTRICTED	P=0.254	(e)	(e)	(e)	P=0.168N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	1/49 (2%)	0/50 (0%)	1/50 (2%)	0/49 (0%)	4/48 (8%)	1/47 (2%)	0/49 (0%)
POLY-3 RATE (b)	0/47.37	1/47.79	0/45.68	1/47.85	0/46.61	4/46.38	1/45.13	0/45.05
POLY-3 PERCENT (g)	0.0%	2.1%	0.0%	2.1%	0.0%	8.6%	2.2%	0.0%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	1/46 (2%)	0/43 (0%)	3/40 (8%)	1/42 (2%)	0/39 (0%)
FIRST INCIDENCE	---	613	---	729 (T)	---	668	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.408	P=0.500	(e)	P=0.504	P=0.316N	P=0.059	P=0.495	(e)
POLY 3	P=0.406	P=0.502	(e)	P=0.502	P=0.304N	P=0.060	P=0.494	(e)
POLY 1.5	P=0.408	P=0.501	(e)	P=0.503	P=0.300N	P=0.059	P=0.493	(e)
POLY 6	P=0.405	P=0.503	(e)	P=0.501	P=0.310N	P=0.060	P=0.494	(e)
LOGISTIC REGRESSION	P=0.420	P=0.543	(e)	P=0.504	P=0.300N	P=0.059	P=0.495	(e)
COCH-ARM / FISHERS	P=0.410	P=0.500	(e)	P=0.505	P=0.296N	P=0.056	P=0.490	(e)
ORDER RESTRICTED	P=0.254	(e)	(e)	(e)	P=0.155N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Kidney: Renal Tubule Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/48.24	0/47.90	2/45.68	0/47.85	0/46.61	0/47.80	0/48.01	0/46.05
POLY-3 PERCENT (g)	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	2/42 (5%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.598	(e)	P=0.223	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.596	(e)	P=0.225	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.595	(e)	P=0.230	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.597	(e)	P=0.221	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.223	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.237	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Kidney: Renal Tubule Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/48.24	0/47.90	3/45.68	0/47.85	0/46.61	0/47.80	0/48.01	0/46.05
POLY-3 PERCENT (g)	0.0%	0.0%	6.6%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	3/42 (7%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.544	(e)	P=0.109	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.540	(e)	P=0.109	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.539	(e)	P=0.113	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.541	(e)	P=0.106	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.109	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.539	(e)	P=0.121	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.153	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Liver Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/48.24	0/47.90	2/46.46	1/47.85	0/46.61	0/47.80	0/48.01	0/46.05
POLY-3 PERCENT (g)	0.0%	0.0%	4.3%	2.1%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	1/42 (2%)	1/46 (2%)	0/43 (0%)	0/40 (0%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	441	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.251	(e)	P=0.230	P=0.504	(e)	(e)	(e)	(e)
POLY 3	P=0.244	(e)	P=0.229	P=0.498	(e)	(e)	(e)	(e)
POLY 1.5	P=0.244	(e)	P=0.232	P=0.499	(e)	(e)	(e)	(e)
POLY 6	P=0.244	(e)	P=0.226	P=0.498	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.257	(e)	P=0.342	P=0.504	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.246	(e)	P=0.247	P=0.500	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.161	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Liver Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	17/50 (34%)	9/50 (18%)	11/50 (22%)	11/50 (22%)	4/50 (8%)	5/50 (10%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	17/48.29	9/47.90	11/45.68	11/48.73	4/46.61	5/47.80	0/48.01	1/46.05
POLY-3 PERCENT (g)	35.2%	18.8%	24.1%	22.6%	8.6%	10.5%	0.0%	2.2%
TERMINAL (d)	16/45 (36%)	9/44 (21%)	11/42 (26%)	10/46 (22%)	4/43 (9%)	5/40 (13%)	0/43 (0%)	1/40 (3%)
FIRST INCIDENCE	715	729 (T)	729 (T)	355	729 (T)	729 (T)	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.171N	P=0.062N	P=0.183N	P=0.123N	P=0.055N	P=0.455	P=0.063N	P=0.202N
POLY 3	P=0.179N	P=0.055N	P=0.170N	P=0.125N	P=0.048N*	P=0.516	P=0.057N	P=0.183N
POLY 1.5	P=0.180N	P=0.055N	P=0.155N	P=0.127N	P=0.048N*	P=0.514	P=0.057N	P=0.179N
POLY 6	P=0.178N	P=0.056N	P=0.187N	P=0.124N	P=0.049N*	P=0.513	P=0.057N	P=0.187N
LOGISTIC REGRESSION	P=0.194N	P=0.058N	P=0.195N	P=0.132N	P=0.055N	P=0.455	(e)	P=0.202N
COCH-ARM / FISHERS	P=0.185N	P=0.055N	P=0.133N	P=0.133N	P=0.050N	P=0.500	P=0.059N	P=0.181N
ORDER RESTRICTED	P=0.093N	(e)	(e)	(e)	P=0.049N*	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Liver								
Hepatocellular Carcinoma								
TUMOR RATES								
OVERALL (a)	10/50 (20%)	13/50 (26%)	11/50 (22%)	10/50 (20%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	10/49.18	13/49.04	11/46.97	10/48.52	1/46.61	2/48.07	0/48.01	1/46.05
POLY-3 PERCENT (g)	20.3%	26.5%	23.4%	20.6%	2.2%	4.2%	0.0%	2.2%
TERMINAL (d)	7/45 (16%)	9/44 (21%)	8/42 (19%)	8/46 (17%)	1/43 (2%)	1/40 (3%)	0/43 (0%)	1/40 (3%)
FIRST INCIDENCE	459	586	535	628	729 (T)	656	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.444N	P=0.312	P=0.434	P=0.582N	P=0.513N	P=0.488	P=0.500N	P=0.746
POLY 3	P=0.475N	P=0.315	P=0.453	P=0.585	P=0.499N	P=0.511	P=0.494N	P=0.758
POLY 1.5	P=0.469N	P=0.314	P=0.469	P=0.588	P=0.498N	P=0.509	P=0.495N	P=0.760
POLY 6	P=0.478N	P=0.320	P=0.440	P=0.585	P=0.501N	P=0.511	P=0.494N	P=0.755
LOGISTIC REGRESSION	P=0.441N	P=0.330	P=0.557	P=0.585N	P=0.500N	P=0.495	(e)	P=0.746
COCH-ARM / FISHERS	P=0.454N	P=0.318	P=0.500	P=0.598N	P=0.500N	P=0.500	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.554	(e)	(e)	(e)	P=0.388N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	23/50 (46%)	18/50 (36%)	18/50 (36%)	20/50 (40%)	5/50 (10%)	6/50 (12%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	23/49.18	18/49.04	18/46.97	20/49.40	5/46.61	6/48.07	0/48.01	2/46.05
POLY-3 PERCENT (g)	46.8%	36.7%	38.3%	40.5%	10.7%	12.5%	0.0%	4.3%
TERMINAL (d)	20/45 (44%)	14/44 (32%)	15/42 (36%)	17/46 (37%)	5/43 (12%)	5/40 (13%)	0/43 (0%)	2/40 (5%)
FIRST INCIDENCE	459	586	535	355	729 (T)	656	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.359N	P=0.249N	P=0.309N	P=0.327N	P=0.074N	P=0.457	P=0.033N*	P=0.246N
POLY 3	P=0.375N	P=0.211N	P=0.264N	P=0.336N	P=0.065N	P=0.521	P=0.028N*	P=0.221N
POLY 1.5	P=0.374N	P=0.213N	P=0.245N	P=0.339N	P=0.064N	P=0.518	P=0.029N*	P=0.217N
POLY 6	P=0.376N	P=0.204N	P=0.282N	P=0.332N	P=0.066N	P=0.521	P=0.028N*	P=0.227N
LOGISTIC REGRESSION	P=0.371N	P=0.205N	P=0.221N	P=0.330N	P=0.069N	P=0.516	(e)	P=0.246N
COCH-ARM / FISHERS	P=0.375N	P=0.208N	P=0.208N	P=0.343N	P=0.066N	P=0.500	P=0.028N*	P=0.218N
ORDER RESTRICTED	P=0.319N	(e)	(e)	(e)	P=0.050N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Liver								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	23/50 (46%)	18/50 (36%)	18/50 (36%)	20/50 (40%)	5/50 (10%)	6/50 (12%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	23/49.18	18/49.04	18/46.97	20/49.40	5/46.61	6/48.07	0/48.01	2/46.05
POLY-3 PERCENT (g)	46.8%	36.7%	38.3%	40.5%	10.7%	12.5%	0.0%	4.3%
TERMINAL (d)	20/45 (44%)	14/44 (32%)	15/42 (36%)	17/46 (37%)	5/43 (12%)	5/40 (13%)	0/43 (0%)	2/40 (5%)
FIRST INCIDENCE	459	586	535	355	729 (T)	656	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.359N	P=0.249N	P=0.309N	P=0.327N	P=0.074N	P=0.457	P=0.033N*	P=0.246N
POLY 3	P=0.375N	P=0.211N	P=0.264N	P=0.336N	P=0.065N	P=0.521	P=0.028N*	P=0.221N
POLY 1.5	P=0.374N	P=0.213N	P=0.245N	P=0.339N	P=0.064N	P=0.518	P=0.029N*	P=0.217N
POLY 6	P=0.376N	P=0.204N	P=0.282N	P=0.332N	P=0.066N	P=0.521	P=0.028N*	P=0.227N
LOGISTIC REGRESSION	P=0.371N	P=0.205N	P=0.221N	P=0.330N	P=0.069N	P=0.516	(e)	P=0.246N
COCH-ARM / FISHERS	P=0.375N	P=0.208N	P=0.208N	P=0.343N	P=0.066N	P=0.500	P=0.028N*	P=0.218N
ORDER RESTRICTED	P=0.319N	(e)	(e)	(e)	P=0.050N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Lung								
Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	8/50 (16%)	11/50 (22%)	13/50 (26%)	15/50 (30%)	0/50 (0%)	8/50 (16%)	16/50 (32%)	8/50 (16%)
POLY-3 RATE (b)	8/48.24	11/47.95	13/45.68	15/47.85	0/46.61	8/48.15	16/48.18	8/46.05
POLY-3 PERCENT (g)	16.6%	22.9%	28.5%	31.4%	0.0%	16.6%	33.2%	17.4%
TERMINAL (d)	8/45 (18%)	10/44 (23%)	13/42 (31%)	15/46 (33%)	0/43 (0%)	7/40 (18%)	15/43 (35%)	8/40 (20%)
FIRST INCIDENCE	729 (T)	716	729 (T)	729 (T)	---	632	684	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.070	P=0.288	P=0.120	P=0.084	P=0.019 *	P=0.004 **	P<0.001 **	P=0.004 **
POLY 3	P=0.055	P=0.300	P=0.128	P=0.071	P=0.017 *	P=0.004 **	P<0.001 **	P=0.003 **
POLY 1.5	P=0.056	P=0.301	P=0.140	P=0.072	P=0.019 *	P=0.004 **	P<0.001 **	P=0.004 **
POLY 6	P=0.053	P=0.298	P=0.116	P=0.070	P=0.015 *	P=0.004 **	P<0.001 **	P=0.003 **
LOGISTIC REGRESSION	P=0.059	P=0.291	P=0.120	P=0.084	P=0.019 *	P=0.005 **	P<0.001 **	P=0.004 **
COCH-ARM / FISHERS	P=0.061	P=0.306	P=0.163	P=0.077	P=0.025 *	P=0.003 **	P<0.001 **	P=0.003 **
ORDER RESTRICTED	P=0.067	(e)	(e)	(e)	P<0.001 **	(e)	(e)	(e)

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
Lung								
Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	4/50 (8%)	4/50 (8%)	8/50 (16%)	3/50 (6%)	0/50 (0%)	2/50 (4%)	7/50 (14%)
POLY-3 RATE (b)	2/48.89	4/48.31	4/45.68	8/47.85	3/46.61	0/47.80	2/48.01	7/46.21
POLY-3 PERCENT (g)	4.1%	8.3%	8.8%	16.7%	6.4%	0.0%	4.2%	15.2%
TERMINAL (d)	1/45 (2%)	3/44 (7%)	4/42 (10%)	8/46 (17%)	3/43 (7%)	0/40 (0%)	2/43 (5%)	6/40 (15%)
FIRST INCIDENCE	513	613	729 (T)	729 (T)	729 (T)	---	729 (T)	687
STATISTICAL TESTS								
LIFE TABLE	P=0.032 *	P=0.333	P=0.311	P=0.053	P=0.018 *	P=0.134N	P=0.500N	P=0.133
POLY 3	P=0.024 *	P=0.332	P=0.307	P=0.042 *	P=0.019 *	P=0.114N	P=0.487N	P=0.154
POLY 1.5	P=0.025 *	P=0.334	P=0.318	P=0.043 *	P=0.020 *	P=0.115N	P=0.489N	P=0.158
POLY 6	P=0.023 *	P=0.331	P=0.296	P=0.041 *	P=0.019 *	P=0.115N	P=0.486N	P=0.149
LOGISTIC REGRESSION	P=0.027 *	P=0.362	P=0.364	P=0.049 *	P=0.018 *	(e)	P=0.500N	P=0.144
COCH-ARM / FISHERS	P=0.027 *	P=0.339	P=0.339	P=0.046 *	P=0.022 *	P=0.121N	P=0.500N	P=0.159
ORDER RESTRICTED	P=0.021 *	(e)	(e)	(e)	P=0.011 *	(e)	(e)	(e)

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
Lung								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	9/50 (18%)	13/50 (26%)	16/50 (32%)	22/50 (44%)	3/50 (6%)	8/50 (16%)	17/50 (34%)	14/50 (28%)
POLY-3 RATE (b)	9/48.89	13/48.36	16/45.68	22/47.85	3/46.61	8/48.15	17/48.18	14/46.21
POLY-3 PERCENT (g)	18.4%	26.9%	35.0%	46.0%	6.4%	16.6%	35.3%	30.3%
TERMINAL (d)	8/45 (18%)	11/44 (25%)	16/42 (38%)	22/46 (48%)	3/43 (7%)	7/40 (18%)	16/43 (37%)	13/40 (33%)
FIRST INCIDENCE	513	613	729 (T)	729 (T)	729 (T)	632	684	687
STATISTICAL TESTS								
LIFE TABLE	P=0.003 **	P=0.225	P=0.056	P=0.006 **	P=0.002 **	P=0.084	P<0.001 **	P=0.002 **
POLY 3	P<0.001 **	P=0.226	P=0.053	P=0.003 **	P=0.002 **	P=0.109	P<0.001 **	P=0.002 **
POLY 1.5	P=0.002 **	P=0.228	P=0.063	P=0.003 **	P=0.002 **	P=0.108	P<0.001 **	P=0.003 **
POLY 6	P<0.001 **	P=0.224	P=0.045 *	P=0.002 **	P<0.001 **	P=0.109	P<0.001 **	P=0.002 **
LOGISTIC REGRESSION	P=0.002 **	P=0.237	P=0.061	P=0.004 **	P=0.002 **	P=0.107	P<0.001 **	P=0.003 **
COCH-ARM / FISHERS	P=0.002 **	P=0.235	P=0.083	P=0.004 **	P=0.003 **	P=0.100	P<0.001 **	P=0.003 **
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P<0.001 **	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Mammary Gland								
Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/48.24	0/47.90	0/45.68	0/47.85	1/46.61	1/47.92	0/48.01	2/46.05
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.2%	2.1%	0.0%	4.3%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	1/43 (2%)	0/40 (0%)	0/43 (0%)	2/40 (5%)
FIRST INCIDENCE	---	---	---	---	729 (T)	697	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.349	P=0.752	P=0.500N	P=0.475
POLY 3	(e)	(e)	(e)	(e)	P=0.363	P=0.754N	P=0.494N	P=0.496
POLY 1.5	(e)	(e)	(e)	(e)	P=0.366	P=0.755N	P=0.495N	P=0.499
POLY 6	(e)	(e)	(e)	(e)	P=0.361	P=0.755N	P=0.494N	P=0.491
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.360	P=0.761N	(e)	P=0.475
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.366	P=0.753N	P=0.500N	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.264	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Mammary Gland								
Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/48.24	0/47.90	0/45.68	0/47.85	1/46.61	1/47.92	0/48.01	2/46.05
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.2%	2.1%	0.0%	4.3%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	1/43 (2%)	0/40 (0%)	0/43 (0%)	2/40 (5%)
FIRST INCIDENCE	---	---	---	---	729 (T)	697	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.349	P=0.752	P=0.500N	P=0.475
POLY 3	(e)	(e)	(e)	(e)	P=0.363	P=0.754N	P=0.494N	P=0.496
POLY 1.5	(e)	(e)	(e)	(e)	P=0.366	P=0.755N	P=0.495N	P=0.499
POLY 6	(e)	(e)	(e)	(e)	P=0.361	P=0.755N	P=0.494N	P=0.491
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.360	P=0.761N	(e)	P=0.475
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.366	P=0.753N	P=0.500N	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.264	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Ovary								
Cystadenoma								
TUMOR RATES								
OVERALL (a)					2/48 (4%)	0/49 (0%)	1/49 (2%)	1/50 (2%)
POLY-3 RATE (b)					2/44.61	0/46.80	1/47.01	1/46.05
POLY-3 PERCENT (g)					4.5%	0.0%	2.1%	2.2%
TERMINAL (d)					2/41 (5%)	0/39 (0%)	1/42 (2%)	1/40 (3%)
FIRST INCIDENCE					729 (T)	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.502N	P=0.249N	P=0.492N	P=0.509N
POLY 3					P=0.495N	P=0.227N	P=0.482N	P=0.489N
POLY 1.5					P=0.493N	P=0.227N	P=0.484N	P=0.486N
POLY 6					P=0.495N	P=0.228N	P=0.481N	P=0.494N
LOGISTIC REGRESSION					P=0.502N	(e)	P=0.492N	P=0.509N
COCH-ARM / FISHERS					P=0.489N	P=0.242N	P=0.492N	P=0.485N
ORDER RESTRICTED					P=0.257N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Ovary								
Granulosa Cell Tumor Benign								
TUMOR RATES								
OVERALL (a)					2/48 (4%)	0/49 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)					2/44.61	0/46.80	0/47.01	0/46.05
POLY-3 PERCENT (g)					4.5%	0.0%	0.0%	0.0%
TERMINAL (d)					2/41 (5%)	0/39 (0%)	0/42 (0%)	0/40 (0%)
FIRST INCIDENCE					729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE					P=0.115N	P=0.249N	P=0.233N	P=0.244N
POLY 3					P=0.111N	P=0.227N	P=0.226N	P=0.230N
POLY 1.5					P=0.112N	P=0.227N	P=0.227N	P=0.228N
POLY 6					P=0.110N	P=0.228N	P=0.225N	P=0.233N
LOGISTIC REGRESSION					P=0.115N	(e)	(e)	(e)
COCH-ARM / FISHERS					P=0.112N	P=0.242N	P=0.242N	P=0.237N
ORDER RESTRICTED					P=0.027N*	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Ovary								
Luteoma								
TUMOR RATES								
OVERALL (a)					0/48 (0%)	1/49 (2%)	2/49 (4%)	2/50 (4%)
POLY-3 RATE (b)					0/44.61	1/46.89	2/47.01	2/46.21
POLY-3 PERCENT (g)					0.0%	2.1%	4.3%	4.3%
TERMINAL (d)					0/41 (0%)	0/39 (0%)	2/42 (5%)	1/40 (3%)
FIRST INCIDENCE					---	705	729 (T)	687
STATISTICAL TESTS								
LIFE TABLE					P=0.154	P=0.491	P=0.244	P=0.230
POLY 3					P=0.165	P=0.510	P=0.249	P=0.245
POLY 1.5					P=0.168	P=0.509	P=0.248	P=0.247
POLY 6					P=0.162	P=0.509	P=0.249	P=0.243
LOGISTIC REGRESSION					P=0.166	P=0.502	P=0.244	P=0.247
COCH-ARM / FISHERS					P=0.168	P=0.505	P=0.253	P=0.258
ORDER RESTRICTED					P=0.162	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Pituitary Gland: Pars Distalis or Unspecified Site								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	1/48 (2%)	0/49 (0%)	0/50 (0%)	5/49 (10%)	4/46 (9%)	3/49 (6%)	2/50 (4%)
POLY-3 RATE (b)	0/47.37	1/46.38	0/44.68	0/47.85	5/45.61	4/44.25	3/47.04	2/46.05
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	0.0%	11.0%	9.0%	6.4%	4.3%
TERMINAL (d)	0/45 (0%)	1/43 (2%)	0/41 (0%)	0/46 (0%)	5/42 (12%)	4/38 (11%)	3/43 (7%)	2/40 (5%)
FIRST INCIDENCE	---	729 (T)	---	---	729 (T)	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.561N	P=0.491	(e)	(e)	P=0.154N	P=0.563N	P=0.343N	P=0.236N
POLY 3	P=0.567N	P=0.496	(e)	(e)	P=0.145N	P=0.519N	P=0.340N	P=0.212N
POLY 1.5	P=0.565N	P=0.496	(e)	(e)	P=0.142N	P=0.522N	P=0.343N	P=0.209N
POLY 6	P=0.568N	P=0.496	(e)	(e)	P=0.149N	P=0.518N	P=0.338N	P=0.218N
LOGISTIC REGRESSION	(e)	P=0.491	(e)	(e)	P=0.154N	P=0.563N	P=0.343N	P=0.236N
COCH-ARM / FISHERS	P=0.563N	P=0.495	(e)	(e)	P=0.139N	P=0.541N	P=0.357N	P=0.210N
ORDER RESTRICTED	P=0.375N	(e)	(e)	(e)	P=0.182N	(e)	(e)	(e)

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
RESPIRATORY SYSTEM - cont				
Mast Cell Tumor Malignant				1 (2%)
Osteosarcoma, Metastatic, Bone				1 (2%)
Sarcoma, Metastatic, Skin	1 (2%)			
Nose	(50)	(49)	(50)	(50)
SPECIAL SENSES SYSTEM				
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma	6 (12%)	1 (2%)	5 (10%)	6 (12%)
Carcinoma	1 (2%)	1 (2%)		2 (4%)
Zymbal's Gland	(1)		(1)	
Carcinoma	1 (100%)		1 (100%)	
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Histiocytic Sarcoma			1 (2%)	
Urinary Bladder	(50)	(50)	(50)	(50)
Histiocytic Sarcoma		1 (2%)		
Sarcoma, Metastatic, Skin	1 (2%)			
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)	1 (2%)	3 (6%)	2 (4%)
Lymphoma Malignant	7 (14%)	10 (20%)	12 (24%)	13 (26%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	29	36	37	40
Total Primary Neoplasms	46	50	55	66
Total Animals with Benign Neoplasms	18	23	23	21
Total Benign Neoplasms	23	28	30	28
Total Animals with Malignant Neoplasms	20	20	23	29
Total Malignant Neoplasms	23	22	25	38
Total Animals with Metastatic Neoplasms	2	1	2	1
Total Metastatic Neoplasm	9	6	7	2
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-535 4-Methylimidazole

Pathology Tables - Rats

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)

- P08 - Statistical Analysis of Primary Tumors

- P18 - Incidence Rates of Non-Neoplastic Lesions

FINAL #1 RATS

Facility: Southern Research Institute

Chemical CAS #: 822-36-6

Lock Date: 09/13/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Natural Death	2	6	11	6
Moribund Sacrifice	5	5	5	9
Survivors				
Terminal Sacrifice	40	39	34	33
Natural Death	3			2
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(49)	(48)	(45)	(46)
Histiocytic Sarcoma	1 (2%)			
Intestine Large, Cecum	(48)	(46)	(43)	(43)
Intestine Small, Duodenum	(49)	(48)	(43)	(45)
Intestine Small, Ileum	(45)	(47)	(42)	(43)
Liver	(50)	(50)	(48)	(50)
Cholangiocarcinoma			1 (2%)	
Hepatocellular Adenoma			1 (2%)	2 (4%)
Histiocytic Sarcoma	2 (4%)			
Osteosarcoma, Metastatic, Uncertain Primary Site			1 (2%)	
Mesentery	(9)	(7)	(11)	(8)
Fibrosarcoma	1 (11%)			
Histiocytic Sarcoma	1 (11%)			
Pancreas	(49)	(49)	(47)	(47)
Histiocytic Sarcoma	1 (2%)			
Salivary Glands	(50)	(50)	(50)	(50)
Stomach, Forestomach	(50)	(50)	(49)	(50)
Stomach, Glandular	(50)	(50)	(49)	(49)
Tongue		(5)	(4)	(3)
Squamous Cell Papilloma		1 (20%)	1 (25%)	1 (33%)

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(48)	(50)
Schwannoma Benign	1 (2%)	1 (2%)	3 (6%)	
Schwannoma Benign, Multiple			1 (2%)	
Schwannoma Malignant			1 (2%)	
Epicardium, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(50)	(50)
Adenoma	1 (2%)		1 (2%)	1 (2%)
Carcinoma			1 (2%)	
Adrenal Medulla	(48)	(50)	(50)	(50)
Pheochromocytoma Malignant	1 (2%)			
Pheochromocytoma Benign	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Bilateral, Pheochromocytoma Benign	1 (2%)			
Islets, Pancreatic	(49)	(50)	(48)	(47)
Adenoma		1 (2%)		
Mixed Tumor Benign		1 (2%)		
Pituitary Gland	(48)	(50)	(50)	(50)
Pars Distalis, Adenoma	29 (60%)	19 (38%)	20 (40%)	9 (18%)
Pars Distalis, Carcinoma		1 (2%)		
Thyroid Gland	(47)	(44)	(40)	(45)
Bilateral, C-Cell, Adenoma			1 (3%)	
C-Cell, Adenoma	10 (21%)	8 (18%)	5 (13%)	8 (18%)
C-Cell, Carcinoma	1 (2%)		2 (5%)	
Follicular Cell, Adenoma	2 (4%)	3 (7%)		
GENERAL BODY SYSTEM				
Tissue NOS	(5)	(3)	(6)	(6)
Neoplasm NOS			1 (17%)	
Mediastinum, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (33%)		
Mediastinum, Schwannoma Malignant	1 (20%)			

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(50)	(50)
Adenoma	8 (16%)	1 (2%)		
Carcinoma	2 (4%)	1 (2%)		
Ovary	(50)	(50)	(48)	(50)
Granulosa-Theca Tumor Malignant		1 (2%)		
Histiocytic Sarcoma	1 (2%)			
Oviduct			(2)	(1)
Uterus	(50)	(50)	(48)	(50)
Carcinoma			1 (2%)	
Endometrium, Polyp Stromal	16 (32%)	5 (10%)	2 (4%)	2 (4%)
Endometrium, Sarcoma Stromal	1 (2%)			
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(48)	(49)	(48)
Osteosarcoma, Metastatic, Bone	1 (2%)			
Lymph Node	(24)	(11)	(24)	(35)
Mediastinal, Carcinoma, Metastatic, Thyroid Gland	1 (4%)			
Pancreatic, Histiocytic Sarcoma	2 (8%)			
Lymph Node, Mandibular	(1)	(3)	(1)	(4)
Lymph Node, Mesenteric	(49)	(49)	(49)	(47)
Spleen	(50)	(48)	(47)	(48)
Histiocytic Sarcoma	1 (2%)			
Thymus	(47)	(50)	(48)	(48)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (2%)		
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(50)	(50)
Carcinoma	2 (4%)	1 (2%)	2 (4%)	
Fibroadenoma	20 (40%)	5 (10%)	3 (6%)	1 (2%)
Fibroadenoma, Multiple	4 (8%)	1 (2%)	1 (2%)	
Skin	(50)	(50)	(50)	(50)
Basal Cell Adenoma				1 (2%)
Squamous Cell Papilloma	1 (2%)			
Trichoepithelioma	1 (2%)			
Pinna, Neural Crest Tumor				1 (2%)
Subcutaneous Tissue, Fibroma	1 (2%)	1 (2%)	5 (10%)	

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
INTEGUMENTARY SYSTEM - cont				
Subcutaneous Tissue, Histiocytic Sarcoma	1 (2%)			
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma	1 (2%)	1 (2%)		
Maxilla, Sarcoma				1 (2%)
Skeletal Muscle		(1)	(1)	
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (100%)		
Carcinoma, Metastatic, Thyroid Gland			1 (100%)	
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant		1 (2%)		
Carcinoma, Metastatic, Pituitary Gland		1 (2%)		
Spinal Cord	(7)	(3)	(24)	(50)
RESPIRATORY SYSTEM				
Larynx			(1)	
Carcinoma, Metastatic, Thyroid Gland			1 (100%)	
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma		2 (4%)		
Histiocytic Sarcoma, Metastatic, Uncertain Primary Site	1 (2%)			
Osteosarcoma, Metastatic, Bone		1 (2%)		
Nose	(49)	(50)	(50)	(50)
Trachea	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Thyroid Gland			1 (2%)	
SPECIAL SENSES SYSTEM				
Eye	(48)	(45)	(40)	(45)
Lids, Neural Crest Tumor		1 (2%)	1 (3%)	
Harderian Gland	(50)	(50)	(50)	(50)
Zymbal's Gland		(3)	(1)	
Carcinoma		1 (33%)	1 (100%)	

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
SPECIAL SENSES SYSTEM - cont				
Carcinosarcoma		1 (33%)		
URINARY SYSTEM				
Kidney	(48)	(48)	(43)	(43)
Bilateral, Renal Tubule, Adenoma		1 (2%)		
Pelvis, Transitional Epithelium, Papilloma	1 (2%)			
Urinary Bladder	(49)	(50)	(49)	(48)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	2 (4%)			
Leukemia Mononuclear	9 (18%)	7 (14%)	16 (32%)	20 (40%)

* Number of animals with any tissue examined microscopically

NTP Experiment-Test: 92013-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Report: PEIRPT05
Study Type: CHRONIC 4-METHYLIMIDAZOLE Date: 12/06/04
Route: DOSED FEED Time: 08:36:54

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	48	39	42	36
Total Primary Neoplasms	118	67	73	49
Total Animals with Benign Neoplasms	48	32	29	20
Total Benign Neoplasms	97	49	46	27
Total Animals with Malignant Neoplasms	19	15	24	21
Total Malignant Neoplasms	21	17	25	21
Total Animals with Metastatic Neoplasms	3	3	2	
Total Metastatic Neoplasm	3	6	4	
Total Animals with Malignant Neoplasms Uncertain Primary Site	1		1	
Total Animals with Neoplasms Uncertain-Benign or Malignant		1	2	1
Total Uncertain Neoplasms		1	2	1

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	13	11	12	10
Natural Death	6	5	5	8
Survivors				
Terminal Sacrifice	31	34	33	32
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(48)	(49)	(49)	(46)
Intestine Large, Cecum	(46)	(46)	(46)	(46)
Intestine Small, Duodenum	(49)	(48)	(47)	(47)
Intestine Small, Jejunum	(47)	(45)	(45)	(43)
Intestine Small, Ileum	(46)	(45)	(45)	(44)
Liver	(50)	(50)	(50)	(50)
Basal Cell Carcinoma, Metastatic, Skin			1 (2%)	
Histiocytic Sarcoma				1 (2%)
Ito Cell Tumor Benign			1 (2%)	
Mesentery	(13)	(10)	(11)	(10)
Basal Cell Carcinoma, Metastatic, Skin			1 (9%)	
Histiocytic Sarcoma				1 (10%)
Pancreas	(50)	(48)	(48)	(49)
Acinus, Adenoma	1 (2%)			2 (4%)
Salivary Glands	(50)	(50)	(50)	(50)
Fibrosarcoma			1 (2%)	
Stomach, Forestomach	(50)	(50)	(50)	(49)
Stomach, Glandular	(50)	(50)	(49)	(49)
Tongue		(3)	(1)	(1)
Squamous Cell Carcinoma		1 (33%)		
Squamous Cell Papilloma		1 (33%)		
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant		2 (4%)		
Pheochromocytoma Complex	2 (4%)			
Pheochromocytoma Benign	6 (12%)	3 (6%)	3 (6%)	3 (6%)
Bilateral, Pheochromocytoma Benign	2 (4%)	2 (4%)		
Islets, Pancreatic	(50)	(49)	(49)	(49)
Adenoma	3 (6%)	2 (4%)	1 (2%)	1 (2%)
Carcinoma			1 (2%)	
Parathyroid Gland	(48)	(50)	(48)	(50)
Adenoma	1 (2%)			
Pituitary Gland	(49)	(49)	(48)	(48)
Pars Distalis, Adenoma	16 (33%)	13 (27%)	10 (21%)	7 (15%)
Pars Intermedia, Adenoma				1 (2%)
Thyroid Gland	(47)	(46)	(48)	(44)
Chemodectoma Benign				1 (2%)
Bilateral, C-Cell, Adenoma		1 (2%)		1 (2%)
C-Cell, Adenoma	11 (23%)	6 (13%)	3 (6%)	9 (20%)
C-Cell, Carcinoma			2 (4%)	
Follicular Cell, Adenoma		1 (2%)		
GENERAL BODY SYSTEM				
Peritoneum				
Tissue NOS	(6)	(2)	(3)	(1)
		(4)	(6)	(5)
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Preputial Gland	(50)	(50)	(50)	(49)
Adenoma	2 (4%)	1 (2%)		
Carcinoma			1 (2%)	
Prostate	(50)	(50)	(50)	(49)
Seminal Vesicle	(50)	(50)	(50)	(50)
Testes	(50)	(50)	(50)	(50)
Bilateral, Interstitial Cell, Adenoma	40 (80%)	40 (80%)	34 (68%)	31 (62%)
Interstitial Cell, Adenoma	6 (12%)	4 (8%)	13 (26%)	14 (28%)

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
HEMATOPOIETIC SYSTEM				
Bone Marrow	(47)	(50)	(48)	(50)
Lymph Node	(19)	(18)	(26)	(27)
Lymph Node, Mandibular		(1)	(1)	(2)
Lymph Node, Mesenteric	(50)	(48)	(48)	(49)
Spleen	(50)	(48)	(48)	(49)
Fibroma		1 (2%)		
Thymus	(48)	(49)	(46)	(45)
INTEGUMENTARY SYSTEM				
Mammary Gland	(47)	(46)	(41)	(45)
Fibroadenoma	3 (6%)	1 (2%)	1 (2%)	1 (2%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Adenoma	1 (2%)		1 (2%)	2 (4%)
Basal Cell Carcinoma			1 (2%)	
Keratoacanthoma	1 (2%)		3 (6%)	
Squamous Cell Carcinoma	1 (2%)			
Subcutaneous Tissue, Fibroma	7 (14%)	2 (4%)	4 (8%)	3 (6%)
Subcutaneous Tissue, Fibroma, Multiple	1 (2%)			
Subcutaneous Tissue, Hemangioma			1 (2%)	
Subcutaneous Tissue, Histiocytic Sarcoma			1 (2%)	
Subcutaneous Tissue, Lipoma				1 (2%)
Subcutaneous Tissue, Sarcoma			1 (2%)	
MUSCULOSKELETAL SYSTEM				
Skeletal Muscle		(2)	(2)	
Histiocytic Sarcoma			1 (50%)	
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant				1 (2%)
Glioma Malignant			1 (2%)	1 (2%)
Pineal Gland, Neoplasm NOS		1 (2%)		
Spinal Cord	(2)	(3)	(2)	(3)

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma		1 (2%)		1 (2%)
Alveolar/Bronchiolar Carcinoma			1 (2%)	
Basal Cell Carcinoma, Metastatic, Skin			1 (2%)	
Chordoma, Metastatic, Uncertain Primary Site				1 (2%)
Nose	(49)	(50)	(50)	(50)
Olfactory Epithelium, Carcinoma			1 (2%)	
SPECIAL SENSES SYSTEM				
Harderian Gland	(50)	(50)	(50)	(50)
Zymbal's Gland	(3)	(1)	(2)	
Carcinoma	3 (100%)	1 (100%)	2 (100%)	
URINARY SYSTEM				
Kidney	(48)	(49)	(48)	(50)
Histiocytic Sarcoma				1 (2%)
Sarcoma	1 (2%)			
Urinary Bladder	(49)	(50)	(50)	(50)
Transitional Epithelium, Papilloma			1 (2%)	
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma			1 (2%)	1 (2%)
Leukemia Mononuclear	15 (30%)	18 (36%)	22 (44%)	20 (40%)
Lymphoma Malignant				1 (2%)
Mesothelioma Malignant		2 (4%)	3 (6%)	1 (2%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	49	50	50
Total Primary Neoplasms	124	104	114	103
Total Animals with Benign Neoplasms	50	49	48	47
Total Benign Neoplasms	102	79	76	78
Total Animals with Malignant Neoplasms	22	21	30	23
Total Malignant Neoplasms	22	24	38	25
Total Animals with Metastatic Neoplasms			2	1
Total Metastatic Neoplasm			19	1
Total Animals with Malignant Neoplasms Uncertain Primary Site			1	1
Total Animals with Neoplasms Uncertain-Benign or Malignant		1		
Total Uncertain Neoplasms		1		

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

FINAL #1 RATS

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Southern Research Inst
EXPERIMENT: 92013 TEST: 05
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: FARNELL, DANIEL R.
Rats(FISCHER 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
4-METHYLIMIDAZOLE

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED FEED

REPORT: PEIRPT08
DATE: 12/06/04
TIME: 08:37:02

NTP C#: 92013B
CAS: 822-36-6

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Brain
Clitoral/Preputial Gland
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Nose
Ovary
Pancreas
Parathyroid Gland
Pituitary Gland
Salivary Glands
Spleen
Testes
Thyroid Gland
Urinary Bladder

NTP
LAB: Southern Research Inst
EXPERIMENT: 92013 TEST: 05
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: FARNELL, DANIEL R.

STATISTICAL ANALYSIS OF PRIMARY TUMORS
4-METHYLIMIDAZOLE

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED FEED

REPORT: PEIRPT08
DATE: 12/06/04
TIME: 08:37:02

NTP C#: 92013B
CAS: 822-36-6

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF 4-METHYLIMIDAZOLE

Male Rats

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Complex
	Pheochromocytoma: Benign, Complex, Malignant, NOS
Brain	Oligodendroglioma, Glioma, or Astrocytoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
	Carcinoma or Adenoma
Skin	Fibroma
	Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma
Thyroid Gland: C-Cell	Adenoma
All Organs	Benign Tumors

Female Rats

Organ	Morphology
Clitoral/Preputial Gland	Adenoma
	Carcinoma or Adenoma
Mammary Gland	Fibroadenoma
	Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
	Carcinoma or Adenoma
Uterus	Polyp Stromal
	Sarcoma Stromal or Polyp Stromal
All Organs	Histiocytic Sarcoma
	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Benign Tumors
	Malignant and Benign Tumors

Dose	Males 0 PPM	Males 625 PPM	Males 1250 PPM	Males 2500 PPM	Females 0 PPM	Females 1250 PPM	Females 2500 PPM	Females 5000 PPM
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	8/50 (16%)	5/50 (10%)	3/50 (6%)	3/50 (6%)	2/48 (4%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	8/45.33	5/43.44	3/44.41	3/44.07	2/44.67	1/45.69	2/43.88	2/44.39
POLY-3 PERCENT (g)	17.7%	11.5%	6.8%	6.8%	4.5%	2.2%	4.6%	4.5%
TERMINAL (d)	7/31 (23%)	2/34 (6%)	3/33 (9%)	2/32 (6%)	2/42 (5%)	1/39 (3%)	1/34 (3%)	2/35 (6%)
FIRST INCIDENCE	700	700	729 (T)	607	729 (T)	729 (T)	700	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.070N	P=0.247N	P=0.082N	P=0.096N	P=0.453	P=0.526N	P=0.619	P=0.628
POLY 3	P=0.066N	P=0.303N	P=0.104N	P=0.106N	P=0.520	P=0.492N	P=0.687	P=0.692
POLY 1.5	P=0.065N	P=0.298N	P=0.102N	P=0.104N	P=0.530	P=0.486N	P=0.689N	P=0.686N
POLY 6	P=0.068N	P=0.298N	P=0.105N	P=0.109N	P=0.506	P=0.500N	P=0.672	P=0.678
LOGISTIC REGRESSION	P=0.074N	P=0.299N	P=0.096N	P=0.115N	P=0.490	P=0.526N	P=0.673	P=0.628
COCH-ARM / FISHERS	P=0.066N	P=0.277N	P=0.100N	P=0.100N	P=0.539	P=0.485N	P=0.676N	P=0.676N
ORDER RESTRICTED	P=0.070N	(e)	(e)	(e)	P=0.600	(e)	(e)	(e)

Dose	Males 0 PPM	Males 625 PPM	Males 1250 PPM	Males 2500 PPM	Females 0 PPM	Females 1250 PPM	Females 2500 PPM	Females 5000 PPM
Adrenal Medulla Pheochromocytoma Complex								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.39	0/43.15	0/44.41	0/43.64	0/44.67	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	0/42 (0%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	685	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.120N	P=0.235N	P=0.238N	P=0.253N	(e)	(e)	(e)	(e)
POLY 3	P=0.109N	P=0.249N	P=0.242N	P=0.246N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.110N	P=0.246N	P=0.240N	P=0.243N	(e)	(e)	(e)	(e)
POLY 6	P=0.108N	P=0.249N	P=0.244N	P=0.250N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.117N	P=0.246N	P=0.240N	P=0.244N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.115N	P=0.247N	P=0.247N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.032N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Adrenal Medulla Pheochromocytoma Malignant								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/48 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	2/43.26	0/44.41	0/43.64	1/44.67	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	4.6%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	0/33 (0%)	0/32 (0%)	1/42 (2%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	700	---	---	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.419N	P=0.244	(e)	(e)	P=0.331N	P=0.515N	P=0.542N	P=0.536N
POLY 3	P=0.417N	P=0.227	(e)	(e)	P=0.298N	P=0.495N	P=0.504N	P=0.501N
POLY 1.5	P=0.414N	P=0.229	(e)	(e)	P=0.301N	P=0.492N	P=0.498N	P=0.496N
POLY 6	P=0.419N	P=0.228	(e)	(e)	P=0.296N	P=0.500N	P=0.513N	P=0.509N
LOGISTIC REGRESSION	P=0.412N	P=0.228	(e)	(e)	P=0.331N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)	P=0.301N	P=0.490N	P=0.490N	P=0.490N
ORDER RESTRICTED	P=0.245N	(e)	(e)	(e)	P=0.121N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Adrenal Medulla Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	10/50 (20%)	6/50 (12%)	3/50 (6%)	3/50 (6%)	3/48 (6%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	10/45.50	6/43.44	3/44.41	3/44.07	3/44.67	1/45.69	2/43.88	2/44.39
POLY-3 PERCENT (g)	22.0%	13.8%	6.8%	6.8%	6.7%	2.2%	4.6%	4.5%
TERMINAL (d)	8/31 (26%)	3/34 (9%)	3/33 (9%)	2/32 (6%)	3/42 (7%)	1/39 (3%)	1/34 (3%)	2/35 (6%)
FIRST INCIDENCE	685	700	729 (T)	607	729 (T)	729 (T)	700	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.022N*	P=0.182N	P=0.030N*	P=0.038N*	P=0.578N	P=0.332N	P=0.592N	P=0.583N
POLY 3	P=0.019N*	P=0.234N	P=0.037N*	P=0.039N*	P=0.501N	P=0.297N	P=0.508N	P=0.503N
POLY 1.5	P=0.019N*	P=0.229N	P=0.037N*	P=0.038N*	P=0.494N	P=0.291N	P=0.494N	P=0.490N
POLY 6	P=0.019N*	P=0.231N	P=0.038N*	P=0.040N*	P=0.512N	P=0.305N	P=0.528N	P=0.520N
LOGISTIC REGRESSION	P=0.022N*	P=0.230N	P=0.037N*	P=0.044N*	P=0.542N	P=0.332N	P=0.538N	P=0.583N
COCH-ARM / FISHERS	P=0.020N*	P=0.207N	P=0.036N*	P=0.036N*	P=0.486N	P=0.293N	P=0.480N	P=0.480N
ORDER RESTRICTED	P=0.017N*	(e)	(e)	(e)	P=0.396N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Brain								
Oligodendroglioma, Glioma, or Astrocytoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	0/43.15	1/44.84	2/45.37	0/46.53	1/46.50	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	4.4%	0.0%	2.2%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	---	605	369	---	421	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.075	(e)	P=0.500	P=0.238	P=0.569N	P=0.508	(e)	(e)
POLY 3	P=0.073	(e)	P=0.498	P=0.238	P=0.574N	P=0.500	(e)	(e)
POLY 1.5	P=0.072	(e)	P=0.499	P=0.238	P=0.569N	P=0.502	(e)	(e)
POLY 6	P=0.072	(e)	P=0.499	P=0.236	P=0.581N	P=0.497	(e)	(e)
LOGISTIC REGRESSION	P=0.043 *	(e)	P=0.531	(e)	P=0.648N	P=0.350	(e)	(e)
COCH-ARM / FISHERS	P=0.070	(e)	P=0.500	P=0.247	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.075	(e)	(e)	(e)	P=0.389N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Clitoral/Preputial Gland								
Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	8/50 (16%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.22	1/43.26	0/44.41	0/42.87	8/47.04	1/46.48	0/43.76	0/44.39
POLY-3 PERCENT (g)	4.4%	2.3%	0.0%	0.0%	17.0%	2.2%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	6/43 (14%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	729 (T)	700	---	---	624	434	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.104N	P=0.485N	P=0.224N	P=0.231N	P=0.002N**	P=0.027N*	P=0.012N*	P=0.011N*
POLY 3	P=0.102N	P=0.515N	P=0.241N	P=0.249N	P<0.001N**	P=0.017N*	P=0.005N**	P=0.005N**
POLY 1.5	P=0.102N	P=0.512N	P=0.240N	P=0.247N	P<0.001N**	P=0.016N*	P=0.004N**	P=0.004N**
POLY 6	P=0.102N	P=0.514N	P=0.242N	P=0.252N	P<0.001N**	P=0.018N*	P=0.006N**	P=0.006N**
LOGISTIC REGRESSION	P=0.106N	P=0.514N	(e)	(e)	P<0.001N**	P=0.019N*	P=0.006N**	P=0.005N**
COCH-ARM / FISHERS	P=0.102N	P=0.500N	P=0.247N	P=0.253N	P<0.001N**	P=0.015N*	P=0.003N**	P=0.003N**
ORDER RESTRICTED	P=0.082N	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Clitoral/Preputial Gland Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/49 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	0/43.15	1/45.01	0/42.87	2/46.53	1/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	4.3%	2.2%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	2/43 (5%)	1/39 (3%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	---	538	---	729 (T)	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.692	(e)	P=0.492	(e)	P=0.127N	P=0.534N	P=0.291N	P=0.285N
POLY 3	P=0.682	(e)	P=0.499	(e)	P=0.103N	P=0.506N	P=0.251N	P=0.248N
POLY 1.5	P=0.686	(e)	P=0.499	(e)	P=0.102N	P=0.500N	P=0.244N	P=0.242N
POLY 6	P=0.676	(e)	P=0.499	(e)	P=0.105N	P=0.513N	P=0.261N	P=0.256N
LOGISTIC REGRESSION	P=0.702	(e)	P=0.543	(e)	P=0.127N	P=0.534N	(e)	(e)
COCH-ARM / FISHERS	P=0.692	(e)	P=0.500	(e)	P=0.101N	P=0.500N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.380	(e)	(e)	(e)	P=0.081N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Clitoral/Preputial Gland Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	0/49 (0%)	10/50 (20%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.22	1/43.26	1/45.01	0/42.87	10/47.04	2/46.48	0/43.76	0/44.39
POLY-3 PERCENT (g)	4.4%	2.3%	2.2%	0.0%	21.3%	4.3%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	8/43 (19%)	1/39 (3%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	729 (T)	700	538	---	624	434	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.159N	P=0.485N	P=0.490N	P=0.231N	P<0.001N**	P=0.025N*	P=0.004N**	P=0.004N**
POLY 3	P=0.158N	P=0.515N	P=0.502N	P=0.249N	P<0.001N**	P=0.014N*	P<0.001N**	P<0.001N**
POLY 1.5	P=0.157N	P=0.512N	P=0.501N	P=0.247N	P<0.001N**	P=0.013N*	P<0.001N**	P<0.001N**
POLY 6	P=0.159N	P=0.514N	P=0.501N	P=0.252N	P<0.001N**	P=0.016N*	P=0.002N**	P<0.001N**
LOGISTIC REGRESSION	P=0.153N	P=0.514N	P=0.480N	(e)	P<0.001N**	P=0.016N*	P=0.002N**	P=0.002N**
COCH-ARM / FISHERS	P=0.156N	P=0.500N	P=0.500N	P=0.253N	P<0.001N**	P=0.014N*	P<0.001N**	P<0.001N**
ORDER RESTRICTED	P=0.128N	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Heart Schwannoma Benign								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	4/48 (8%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	0/43.15	0/44.41	0/43.64	1/46.53	1/45.69	4/42.10	0/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.2%	2.2%	9.5%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	1/43 (2%)	1/39 (3%)	4/33 (12%)	0/35 (0%)
FIRST INCIDENCE	---	---	---	---	729 (T)	729 (T)	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.522N	P=0.740	P=0.109	P=0.541N
POLY 3	(e)	(e)	(e)	(e)	P=0.470N	P=0.756	P=0.150	P=0.509N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.457N	P=0.760	P=0.158	P=0.504N
POLY 6	(e)	(e)	(e)	(e)	P=0.488N	P=0.752	P=0.138	P=0.517N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.522N	P=0.740	P=0.109	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.446N	P=0.753N	P=0.168	P=0.500N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.178N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	2/49 (4%)	1/49 (2%)	1/49 (2%)	0/49 (0%)	1/50 (2%)	0/48 (0%)	0/47 (0%)
POLY-3 RATE (b)	3/45.50	2/42.28	1/43.75	1/43.07	0/45.90	1/45.69	0/42.98	0/41.55
POLY-3 PERCENT (g)	6.6%	4.7%	2.3%	2.3%	0.0%	2.2%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	2/34 (6%)	1/33 (3%)	1/32 (3%)	0/43 (0%)	1/39 (3%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	653	729 (T)	729 (T)	729 (T)	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.199N	P=0.475N	P=0.298N	P=0.309N	P=0.607N	P=0.481	(e)	(e)
POLY 3	P=0.207N	P=0.533N	P=0.319N	P=0.325N	P=0.583N	P=0.499	(e)	(e)
POLY 1.5	P=0.206N	P=0.528N	P=0.317N	P=0.321N	P=0.577N	P=0.503	(e)	(e)
POLY 6	P=0.210N	P=0.535N	P=0.321N	P=0.331N	P=0.591N	P=0.494	(e)	(e)
LOGISTIC REGRESSION	P=0.211N	P=0.529N	P=0.316N	P=0.322N	(e)	P=0.481	(e)	(e)
COCH-ARM / FISHERS	P=0.204N	P=0.510N	P=0.316N	P=0.316N	P=0.575N	P=0.505	(e)	(e)
ORDER RESTRICTED	P=0.240N	(e)	(e)	(e)	P=0.397N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	2/49 (4%)	2/49 (4%)	1/49 (2%)	0/49 (0%)	1/50 (2%)	0/48 (0%)	0/47 (0%)
POLY-3 RATE (b)	3/45.50	2/42.28	2/43.75	1/43.07	0/45.90	1/45.69	0/42.98	0/41.55
POLY-3 PERCENT (g)	6.6%	4.7%	4.6%	2.3%	0.0%	2.2%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	2/34 (6%)	2/33 (6%)	1/32 (3%)	0/43 (0%)	1/39 (3%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	653	729 (T)	729 (T)	729 (T)	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.232N	P=0.475N	P=0.486N	P=0.309N	P=0.607N	P=0.481	(e)	(e)
POLY 3	P=0.243N	P=0.533N	P=0.518N	P=0.325N	P=0.583N	P=0.499	(e)	(e)
POLY 1.5	P=0.241N	P=0.528N	P=0.515N	P=0.321N	P=0.577N	P=0.503	(e)	(e)
POLY 6	P=0.248N	P=0.535N	P=0.521N	P=0.331N	P=0.591N	P=0.494	(e)	(e)
LOGISTIC REGRESSION	P=0.248N	P=0.529N	P=0.515N	P=0.322N	(e)	P=0.481	(e)	(e)
COCH-ARM / FISHERS	P=0.238N	P=0.510N	P=0.510N	P=0.316N	P=0.575N	P=0.505	(e)	(e)
ORDER RESTRICTED	P=0.267N	(e)	(e)	(e)	P=0.397N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Liver Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/48 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/45.22	0/43.15	0/44.41	0/43.64	0/46.53	0/45.69	1/43.90	2/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	4.5%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	2/35 (6%)
FIRST INCIDENCE	---	---	---	---	---	---	653	729 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.058	(e)	P=0.472	P=0.194
POLY 3	(e)	(e)	(e)	(e)	P=0.066	(e)	P=0.488	P=0.227
POLY 1.5	(e)	(e)	(e)	(e)	P=0.068	(e)	P=0.493	P=0.233
POLY 6	(e)	(e)	(e)	(e)	P=0.063	(e)	P=0.481	P=0.219
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.069	(e)	P=0.474	P=0.194
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.071	(e)	P=0.490	P=0.247
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.067	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Lung								
Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	0/43.15	1/44.41	0/43.64	0/46.53	2/46.30	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	2.3%	0.0%	0.0%	4.3%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	1/33 (3%)	0/32 (0%)	0/43 (0%)	1/39 (3%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	---	729 (T)	---	---	536	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.697	(e)	P=0.512	(e)	P=0.424N	P=0.229	(e)	(e)
POLY 3	P=0.684	(e)	P=0.496	(e)	P=0.418N	P=0.236	(e)	(e)
POLY 1.5	P=0.688	(e)	P=0.498	(e)	P=0.409N	P=0.239	(e)	(e)
POLY 6	P=0.678	(e)	P=0.495	(e)	P=0.429N	P=0.233	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.512	(e)	P=0.410N	P=0.211	(e)	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)	P=0.405N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.377	(e)	(e)	(e)	P=0.255N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Lung								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	1/43.15	1/44.41	1/43.64	0/46.53	2/46.30	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	2.3%	2.3%	2.3%	0.0%	4.3%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	1/33 (3%)	1/32 (3%)	0/43 (0%)	1/39 (3%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	729 (T)	---	536	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.384	P=0.518	P=0.512	P=0.506	P=0.424N	P=0.229	(e)	(e)
POLY 3	P=0.373	P=0.491	P=0.496	P=0.493	P=0.418N	P=0.236	(e)	(e)
POLY 1.5	P=0.377	P=0.493	P=0.498	P=0.495	P=0.409N	P=0.239	(e)	(e)
POLY 6	P=0.366	P=0.491	P=0.495	P=0.490	P=0.429N	P=0.233	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.518	P=0.512	P=0.506	P=0.410N	P=0.211	(e)	(e)
COCH-ARM / FISHERS	P=0.384	P=0.500	P=0.500	P=0.500	P=0.405N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.321	(e)	(e)	(e)	P=0.255N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	0/43.15	0/44.41	0/43.64	2/46.67	1/45.79	2/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.3%	2.2%	4.6%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	1/43 (2%)	0/39 (0%)	2/34 (6%)	0/35 (0%)
FIRST INCIDENCE	---	---	---	---	694	705	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.249N	P=0.525N	P=0.610	P=0.282N
POLY 3	(e)	(e)	(e)	(e)	P=0.212N	P=0.507N	P=0.671	P=0.249N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.206N	P=0.501N	P=0.682	P=0.242N
POLY 6	(e)	(e)	(e)	(e)	P=0.222N	P=0.514N	P=0.653	P=0.258N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.214N	P=0.500N	P=0.663	P=0.242N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.200N	P=0.500N	P=0.691N	P=0.247N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.165N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Mammary Gland Fibroadenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	24/50 (48%)	6/50 (12%)	4/50 (8%)	1/50 (2%)
POLY-3 RATE (b)	3/45.22	1/43.15	1/45.01	1/43.64	24/47.04	6/45.69	4/43.76	1/44.39
POLY-3 PERCENT (g)	6.6%	2.3%	2.2%	2.3%	51.0%	13.1%	9.1%	2.3%
TERMINAL (d)	3/31 (10%)	1/34 (3%)	0/33 (0%)	1/32 (3%)	22/43 (51%)	6/39 (15%)	4/34 (12%)	1/35 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	538	729 (T)	624	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.239N	P=0.272N	P=0.293N	P=0.293N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 3	P=0.242N	P=0.322N	P=0.307N	P=0.318N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 1.5	P=0.241N	P=0.319N	P=0.307N	P=0.314N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 6	P=0.244N	P=0.322N	P=0.306N	P=0.323N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
LOGISTIC REGRESSION	P=0.243N	P=0.272N	P=0.294N	P=0.293N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS	P=0.242N	P=0.309N	P=0.309N	P=0.309N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
ORDER RESTRICTED	P=0.199N	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Mammary Gland Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	25/50 (50%)	7/50 (14%)	6/50 (12%)	1/50 (2%)
POLY-3 RATE (b)	3/45.22	1/43.15	1/45.01	1/43.64	25/47.04	7/45.79	6/43.76	1/44.39
POLY-3 PERCENT (g)	6.6%	2.3%	2.2%	2.3%	53.1%	15.3%	13.7%	2.3%
TERMINAL (d)	3/31 (10%)	1/34 (3%)	0/33 (0%)	1/32 (3%)	23/43 (54%)	6/39 (15%)	6/34 (18%)	1/35 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	538	729 (T)	624	705	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.239N	P=0.272N	P=0.293N	P=0.293N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 3	P=0.242N	P=0.322N	P=0.307N	P=0.318N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 1.5	P=0.241N	P=0.319N	P=0.307N	P=0.314N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 6	P=0.244N	P=0.322N	P=0.306N	P=0.323N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
LOGISTIC REGRESSION	P=0.243N	P=0.272N	P=0.294N	P=0.293N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS	P=0.242N	P=0.309N	P=0.309N	P=0.309N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
ORDER RESTRICTED	P=0.199N	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/45.22	2/43.72	0/44.41	0/43.64	0/46.53	1/45.98	1/44.26	1/44.39
POLY-3 PERCENT (g)	0.0%	4.6%	0.0%	0.0%	0.0%	2.2%	2.3%	2.3%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	0/33 (0%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	1/35 (3%)
FIRST INCIDENCE	---	547	---	---	---	653	581	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.406N	P=0.243	(e)	(e)	P=0.356	P=0.496	P=0.491	P=0.459
POLY 3	P=0.416N	P=0.230	(e)	(e)	P=0.367	P=0.498	P=0.490	P=0.491
POLY 1.5	P=0.413N	P=0.231	(e)	(e)	P=0.377	P=0.500	P=0.495	P=0.496
POLY 6	P=0.418N	P=0.231	(e)	(e)	P=0.353	P=0.495	P=0.483	P=0.483
LOGISTIC REGRESSION	P=0.399N	P=0.272	(e)	(e)	P=0.383	P=0.488	P=0.498	P=0.459
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)	P=0.384	P=0.500	P=0.500	P=0.500
ORDER RESTRICTED	P=0.247N	(e)	(e)	(e)	P=0.318	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Pancreas Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/48 (0%)	0/48 (0%)	2/49 (4%)	0/49 (0%)	0/49 (0%)	0/47 (0%)	0/47 (0%)
POLY-3 RATE (b)	1/45.22	0/41.86	0/43.18	2/43.07	0/45.90	0/45.30	0/42.54	0/41.55
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	0/33 (0%)	2/32 (6%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	---	---	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.245	P=0.482N	P=0.488N	P=0.511	(e)	(e)	(e)	(e)
POLY 3	P=0.245	P=0.515N	P=0.509N	P=0.483	(e)	(e)	(e)	(e)
POLY 1.5	P=0.246	P=0.515N	P=0.509N	P=0.486	(e)	(e)	(e)	(e)
POLY 6	P=0.242	P=0.513N	P=0.508N	P=0.479	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.245	(e)	(e)	P=0.511	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.244	P=0.510N	P=0.510N	P=0.492	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.122	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma								
TUMOR RATES								
OVERALL (a)	16/49 (33%)	13/49 (27%)	10/48 (21%)	7/48 (15%)	29/48 (60%)	19/50 (38%)	20/50 (40%)	9/50 (18%)
POLY-3 RATE (b)	16/46.40	13/43.61	10/42.84	7/43.47	29/46.70	19/46.68	20/44.79	9/44.91
POLY-3 PERCENT (g)	34.5%	29.8%	23.3%	16.1%	62.1%	40.7%	44.7%	20.0%
TERMINAL (d)	10/31 (32%)	10/33 (30%)	10/32 (31%)	6/32 (19%)	25/42 (60%)	15/39 (39%)	17/34 (50%)	6/35 (17%)
FIRST INCIDENCE	464	477	729 (T)	384	498	636	555	642
STATISTICAL TESTS								
LIFE TABLE	P=0.018N*	P=0.309N	P=0.121N	P=0.034N*	P<0.001N**	P=0.084N	P=0.266N	P<0.001N**
POLY 3	P=0.022N*	P=0.402N	P=0.176N	P=0.037N*	P<0.001N**	P=0.029N*	P=0.068N	P<0.001N**
POLY 1.5	P=0.020N*	P=0.382N	P=0.160N	P=0.033N*	P<0.001N**	P=0.024N*	P=0.052N	P<0.001N**
POLY 6	P=0.027N*	P=0.413N	P=0.197N	P=0.044N*	P<0.001N**	P=0.034N*	P=0.099N	P<0.001N**
LOGISTIC REGRESSION	P=0.020N*	P=0.331N	P=0.144N	P=0.028N*	P<0.001N**	P=0.027N*	P=0.064N	P<0.001N**
COCH-ARM / FISHERS	P=0.020N*	P=0.329N	P=0.139N	P=0.031N*	P<0.001N**	P=0.022N*	P=0.034N*	P<0.001N**
ORDER RESTRICTED	P=0.029N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	Males 625 PPM	Males 1250 PPM	Males 2500 PPM	Females 0 PPM	Females 1250 PPM	Females 2500 PPM	Females 5000 PPM
Pituitary Gland: Pars Distalis or Unspecified Site								
Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	16/49 (33%)	13/49 (27%)	10/48 (21%)	7/48 (15%)	29/48 (60%)	20/50 (40%)	20/50 (40%)	9/50 (18%)
POLY-3 RATE (b)	16/46.40	13/43.61	10/42.84	7/43.47	29/46.70	20/46.68	20/44.79	9/44.91
POLY-3 PERCENT (g)	34.5%	29.8%	23.3%	16.1%	62.1%	42.9%	44.7%	20.0%
TERMINAL (d)	10/31 (32%)	10/33 (30%)	10/32 (31%)	6/32 (19%)	25/42 (60%)	16/39 (41%)	17/34 (50%)	6/35 (17%)
FIRST INCIDENCE	464	477	729 (T)	384	498	636	555	642
STATISTICAL TESTS								
LIFE TABLE	P=0.018N*	P=0.309N	P=0.121N	P=0.034N*	P<0.001N**	P=0.118N	P=0.266N	P<0.001N**
POLY 3	P=0.022N*	P=0.402N	P=0.176N	P=0.037N*	P<0.001N**	P=0.046N*	P=0.068N	P<0.001N**
POLY 1.5	P=0.020N*	P=0.382N	P=0.160N	P=0.033N*	P<0.001N**	P=0.039N*	P=0.052N	P<0.001N**
POLY 6	P=0.027N*	P=0.413N	P=0.197N	P=0.044N*	P<0.001N**	P=0.054N	P=0.099N	P<0.001N**
LOGISTIC REGRESSION	P=0.020N*	P=0.331N	P=0.144N	P=0.028N*	P<0.001N**	P=0.042N*	P=0.064N	P<0.001N**
COCH-ARM / FISHERS	P=0.020N*	P=0.329N	P=0.139N	P=0.031N*	P<0.001N**	P=0.034N*	P=0.034N*	P<0.001N**
ORDER RESTRICTED	P=0.029N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	Males 625 PPM	Males 1250 PPM	Males 2500 PPM	Females 0 PPM	Females 1250 PPM	Females 2500 PPM	Females 5000 PPM
Skin								
Basal Cell Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/45.22	0/43.15	1/44.41	2/43.64	0/46.53	0/45.69	0/43.76	1/44.39
POLY-3 PERCENT (g)	2.2%	0.0%	2.3%	4.6%	0.0%	0.0%	0.0%	2.3%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	1/33 (3%)	2/32 (6%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	1/35 (3%)
FIRST INCIDENCE	729 (T)	---	729 (T)	729 (T)	---	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.246	P=0.482N	P=0.748N	P=0.511	P=0.178	(e)	(e)	P=0.459
POLY 3	P=0.246	P=0.509N	P=0.757	P=0.488	P=0.193	(e)	(e)	P=0.491
POLY 1.5	P=0.248	P=0.507N	P=0.758	P=0.492	P=0.196	(e)	(e)	P=0.496
POLY 6	P=0.241	P=0.509N	P=0.756	P=0.482	P=0.190	(e)	(e)	P=0.483
LOGISTIC REGRESSION	P=0.246	(e)	P=0.748N	P=0.511	(e)	(e)	(e)	P=0.459
COCH-ARM / FISHERS	P=0.247	P=0.500N	P=0.753N	P=0.500	P=0.198	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.215	(e)	(e)	(e)	P=0.112	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/45.22	0/43.15	1/44.41	2/43.64	1/46.53	0/45.69	0/43.76	1/44.39
POLY-3 PERCENT (g)	2.2%	0.0%	2.3%	4.6%	2.2%	0.0%	0.0%	2.3%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	1/33 (3%)	2/32 (6%)	1/43 (2%)	0/39 (0%)	0/34 (0%)	1/35 (3%)
FIRST INCIDENCE	729 (T)	---	729 (T)	729 (T)	729 (T)	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.246	P=0.482N	P=0.748N	P=0.511	P=0.552	P=0.519N	P=0.547N	P=0.715
POLY 3	P=0.246	P=0.509N	P=0.757	P=0.488	P=0.588	P=0.504N	P=0.512N	P=0.750
POLY 1.5	P=0.248	P=0.507N	P=0.758	P=0.492	P=0.591	P=0.500N	P=0.506N	P=0.756
POLY 6	P=0.241	P=0.509N	P=0.756	P=0.482	P=0.584	P=0.508N	P=0.521N	P=0.742
LOGISTIC REGRESSION	P=0.246	(e)	P=0.748N	P=0.511	P=0.552	(e)	(e)	P=0.715
COCH-ARM / FISHERS	P=0.247	P=0.500N	P=0.753N	P=0.500	P=0.595	P=0.500N	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.215	(e)	(e)	(e)	P=0.390	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/45.22	0/43.15	2/44.46	2/43.64	1/46.53	0/45.69	0/43.76	1/44.39
POLY-3 PERCENT (g)	2.2%	0.0%	4.5%	4.6%	2.2%	0.0%	0.0%	2.3%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	1/33 (3%)	2/32 (6%)	1/43 (2%)	0/39 (0%)	0/34 (0%)	1/35 (3%)
FIRST INCIDENCE	729 (T)	---	717	729 (T)	729 (T)	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.243	P=0.482N	P=0.518	P=0.511	P=0.552	P=0.519N	P=0.547N	P=0.715
POLY 3	P=0.241	P=0.509N	P=0.494	P=0.488	P=0.588	P=0.504N	P=0.512N	P=0.750
POLY 1.5	P=0.244	P=0.507N	P=0.496	P=0.492	P=0.591	P=0.500N	P=0.506N	P=0.756
POLY 6	P=0.236	P=0.509N	P=0.493	P=0.482	P=0.584	P=0.508N	P=0.521N	P=0.742
LOGISTIC REGRESSION	P=0.224	(e)	P=0.497	P=0.511	P=0.552	(e)	(e)	P=0.715
COCH-ARM / FISHERS	P=0.245	P=0.500N	P=0.500	P=0.500	P=0.595	P=0.500N	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.259	(e)	(e)	(e)	P=0.390	(e)	(e)	(e)

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Natural Death	4	6	8	
Moribund Sacrifice	1			3
Survivors				
Natural Death	1			
Terminal Sacrifice	44	44	42	46
Other				1
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Small, Duodenum	(50)	(49)	(48)	(50)
Carcinoma		2 (4%)		
Polyp Adenomatous		1 (2%)		
Intestine Small, Jejunum	(48)	(47)	(48)	(50)
Carcinoma		1 (2%)		
Intestine Small, Ileum	(49)	(46)	(48)	(49)
Liver	(50)	(50)	(50)	(50)
Hemangiosarcoma			1 (2%)	1 (2%)
Hemangiosarcoma, Multiple			1 (2%)	
Hepatocellular Carcinoma	8 (16%)	11 (22%)	10 (20%)	7 (14%)
Hepatocellular Carcinoma, Multiple	2 (4%)	2 (4%)	1 (2%)	3 (6%)
Hepatocellular Adenoma	14 (28%)	7 (14%)	10 (20%)	11 (22%)
Hepatocellular Adenoma, Multiple	3 (6%)	2 (4%)	1 (2%)	
Mesentery	(4)	(7)	(2)	(3)
Hemangiosarcoma		1 (14%)		1 (33%)
Hepatocellular Carcinoma, Metastatic, Liver		1 (14%)		
Sarcoma, Poorly Differentiated		1 (14%)		
Oral Mucosa			(1)	
Squamous Cell Carcinoma			1 (100%)	
Pancreas	(49)	(49)	(50)	(50)
Sarcoma, Metastatic, Mesentery		1 (2%)		
Salivary Glands	(50)	(50)	(50)	(50)
Stomach, Forestomach	(49)	(50)	(50)	(50)
Squamous Cell Carcinoma	1 (2%)			
Squamous Cell Papilloma		2 (4%)		3 (6%)
Stomach, Glandular	(49)	(50)	(49)	(50)
Hepatocellular Carcinoma, Metastatic, Liver			1 (2%)	

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Hemangiosarcoma			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Adenoma	1 (2%)			
Capsule, Adenoma	3 (6%)	1 (2%)	1 (2%)	
Capsule, Carcinoma		1 (2%)		
Islets, Pancreatic	(49)	(49)	(50)	(50)
Adenoma		1 (2%)		1 (2%)
Pituitary Gland	(49)	(48)	(49)	(50)
Pars Distalis, Adenoma		1 (2%)		
Thyroid Gland	(50)	(50)	(50)	(50)
Follicular Cell, Adenoma	1 (2%)	1 (2%)		
GENERAL BODY SYSTEM				
Tissue NOS	(1)			
Schwannoma Malignant	1 (100%)			
GENITAL SYSTEM				
Prostate	(50)	(50)	(50)	(50)
Carcinoma			1 (2%)	
Testes	(50)	(50)	(50)	(50)
Hemangiosarcoma			1 (2%)	1 (2%)
Interstitial Cell, Adenoma		2 (4%)		
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hemangiosarcoma	1 (2%)	1 (2%)		
Lymph Node	(2)	(2)	(1)	(2)
Lymph Node, Mandibular	(48)	(50)	(48)	(45)
Lymph Node, Mesenteric	(49)	(48)	(48)	(50)

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
HEMATOPOIETIC SYSTEM - cont				
Spleen	(49)	(49)	(50)	(50)
Hemangiosarcoma		1 (2%)		1 (2%)
Thymus	(48)	(49)	(45)	(45)
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(49)
Squamous Cell Carcinoma		1 (2%)		
Sebaceous Gland, Adenoma				1 (2%)
MUSCULOSKELETAL SYSTEM				
Skeletal Muscle	(1)	(2)	(1)	(1)
Carcinoma, Metastatic, Prostate			1 (100%)	
Hemangiosarcoma	1 (100%)			
Sarcoma, Metastatic, Mesentery		1 (50%)		
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	6 (12%)	10 (20%)	10 (20%)	14 (28%)
Alveolar/Bronchiolar Adenoma, Multiple	2 (4%)	1 (2%)	3 (6%)	1 (2%)
Alveolar/Bronchiolar Carcinoma	2 (4%)	3 (6%)	4 (8%)	7 (14%)
Alveolar/Bronchiolar Carcinoma, Multiple		1 (2%)		1 (2%)
Carcinoma, Metastatic, Prostate			1 (2%)	
Hepatocellular Carcinoma, Metastatic, Liver	3 (6%)	3 (6%)	3 (6%)	3 (6%)
Schwannoma Malignant, Metastatic, Tissue NOS	1 (2%)			
Mediastinum, Hemangiosarcoma	1 (2%)			

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
SPECIAL SENSES SYSTEM				
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma	3 (6%)	8 (16%)	4 (8%)	6 (12%)
Adenoma, Multiple	1 (2%)			1 (2%)
Carcinoma	1 (2%)			1 (2%)
Bilateral, Adenoma		1 (2%)		
Bilateral, Carcinoma		1 (2%)		
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)			
Renal Tubule, Adenoma			2 (4%)	
Renal Tubule, Carcinoma			1 (2%)	
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Lymphoma Malignant	3 (6%)	3 (6%)	4 (8%)	2 (4%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	34	38	36	39
Total Primary Neoplasms	55	68	57	63
Total Animals with Benign Neoplasms	26	29	23	27
Total Benign Neoplasms	34	38	31	38
Total Animals with Malignant Neoplasms	15	25	21	22
Total Malignant Neoplasms	21	30	26	25
Total Animals with Metastatic Neoplasms	4	3	4	3
Total Metastatic Neoplasm	5	6	6	3
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

FINAL #1 MICE

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Southern Research Inst
EXPERIMENT: 92013 TEST: 06
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: HEATH, JAMES
Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
4-METHYLIMIDAZOLE

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED FEED

REPORT: PEIRPT08
DATE: 01/12/04
TIME: 14:42:07

NTP C#: 92013B
CAS: 822-36-6

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Bone Marrow
Brain
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Ovary
Pituitary Gland
Prostate
Spleen
Testes
Thyroid Gland

NTP
LAB: Southern Research Inst
EXPERIMENT: 92013 TEST: 06
TEST TYPE: CHRONIC
CONT: N01-ES-85420
PATHOLOGIST: HEATH, JAMES

STATISTICAL ANALYSIS OF PRIMARY TUMORS
4-METHYLIMIDAZOLE

CAGES FROM 0000 TO LAST CAGE
ROUTE: DOSED FEED

REPORT: PEIRPT08
DATE: 01/12/04
TIME: 14:42:07

NTP C#: 92013B
CAS: 822-36-6

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF 4-METHYLIMIDAZOLE

Male Mice

Organ	Morphology
Adrenal Cortex	Adenoma
Lung	Alveolar/Bronchiolar Carcinoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Stomach, Forestomach	Squamous Cell Papilloma
All Organs	Malignant Tumors

Female Mice

Organ	Morphology
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Lung	Alveolar/Bronchiolar Adenoma
	Alveolar/Bronchiolar Carcinoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Ovary	Granulosa Cell Tumor Benign
All Organs	Malignant Tumors
	Malignant and Benign Tumors

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
Adrenal Cortex Adenoma								
TUMOR RATES								
OVERALL (a)	4/50 (8%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	4/48.24	1/47.90	1/45.68	0/47.85	0/46.61	1/47.80	0/48.01	0/46.05
POLY-3 PERCENT (g)	8.3%	2.1%	2.2%	0.0%	0.0%	2.1%	0.0%	0.0%
TERMINAL (d)	4/45 (9%)	1/44 (2%)	1/42 (2%)	0/46 (0%)	0/43 (0%)	1/40 (3%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---	---	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.035N*	P=0.187N	P=0.201N	P=0.061N	P=0.574N	P=0.486	(e)	(e)
POLY 3	P=0.034N*	P=0.181N	P=0.196N	P=0.062N	P=0.562N	P=0.505	(e)	(e)
POLY 1.5	P=0.034N*	P=0.181N	P=0.190N	P=0.061N	P=0.563N	P=0.505	(e)	(e)
POLY 6	P=0.034N*	P=0.182N	P=0.203N	P=0.062N	P=0.563N	P=0.504	(e)	(e)
LOGISTIC REGRESSION	P=0.035N*	P=0.187N	P=0.201N	(e)	(e)	P=0.486	(e)	(e)
COCH-ARM / FISHERS	P=0.034N*	P=0.181N	P=0.181N	P=0.059N	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.012N*	(e)	(e)	(e)	P=0.388N	(e)	(e)	(e)

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
Harderian Gland Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	9/50 (18%)	4/50 (8%)	7/50 (14%)	6/50 (12%)	1/50 (2%)	5/50 (10%)	6/50 (12%)
POLY-3 RATE (b)	4/48.24	9/48.10	4/45.68	7/47.85	6/47.07	1/47.80	5/48.04	6/46.22
POLY-3 PERCENT (g)	8.3%	18.7%	8.8%	14.6%	12.8%	2.1%	10.4%	13.0%
TERMINAL (d)	4/45 (9%)	8/44 (18%)	4/42 (10%)	7/46 (15%)	5/43 (12%)	1/40 (3%)	4/43 (9%)	5/40 (13%)
FIRST INCIDENCE	729 (T)	676	729 (T)	729 (T)	593	729 (T)	720	685
STATISTICAL TESTS								
LIFE TABLE	P=0.401	P=0.111	P=0.605	P=0.274	P=0.310	P=0.069N	P=0.496N	P=0.574
POLY 3	P=0.373	P=0.115	P=0.613	P=0.257	P=0.323	P=0.054N	P=0.486N	P=0.608
POLY 1.5	P=0.376	P=0.115	P=0.624	P=0.258	P=0.329	P=0.054N	P=0.486N	P=0.617
POLY 6	P=0.369	P=0.115	P=0.601	P=0.256	P=0.317	P=0.055N	P=0.488N	P=0.596
LOGISTIC REGRESSION	P=0.374	P=0.114	P=0.605	P=0.274	P=0.329	P=0.057N	P=0.489N	P=0.618
COCH-ARM / FISHERS	P=0.385	P=0.117	P=0.643N	P=0.262	P=0.338	P=0.056N	P=0.500N	P=0.620N
ORDER RESTRICTED	P=0.275	(e)	(e)	(e)	P=0.284	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/48.24	0/47.90	0/45.68	0/47.85	2/47.26	0/47.80	0/48.01	1/46.22
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	2.2%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	---	555	---	---	685
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.470N	P=0.240N	P=0.235N	P=0.513N
POLY 3	(e)	(e)	(e)	(e)	P=0.461N	P=0.235N	P=0.234N	P=0.508N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.462N	P=0.234N	P=0.234N	P=0.503N
POLY 6	(e)	(e)	(e)	(e)	P=0.459N	P=0.237N	P=0.235N	P=0.514N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.493N	P=0.283N	P=0.283N	P=0.525N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.461N	P=0.247N	P=0.247N	P=0.500N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.135N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Skin Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/48.24	0/47.90	0/45.68	0/47.85	2/47.26	0/47.80	0/48.01	1/46.22
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	2.2%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	---	555	---	---	685
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.470N	P=0.240N	P=0.235N	P=0.513N
POLY 3	(e)	(e)	(e)	(e)	P=0.461N	P=0.235N	P=0.234N	P=0.508N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.462N	P=0.234N	P=0.234N	P=0.503N
POLY 6	(e)	(e)	(e)	(e)	P=0.459N	P=0.237N	P=0.235N	P=0.514N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.493N	P=0.283N	P=0.283N	P=0.525N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.461N	P=0.247N	P=0.247N	P=0.500N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.135N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Skin Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/48.24	0/47.90	0/45.68	0/47.85	2/46.61	0/47.80	0/48.01	1/46.29
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	2.2%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	2/43 (5%)	0/40 (0%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	---	---	---	729 (T)	---	---	665
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.472N	P=0.254N	P=0.238N	P=0.519N
POLY 3	(e)	(e)	(e)	(e)	P=0.463N	P=0.232N	P=0.231N	P=0.502N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.463N	P=0.232N	P=0.232N	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	P=0.461N	P=0.233N	P=0.230N	P=0.506N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.461N	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.461N	P=0.247N	P=0.247N	P=0.500N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.131N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Spleen Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	0/49 (0%)	1/49 (2%)	0/50 (0%)	1/50 (2%)	2/49 (4%)	2/49 (4%)	0/49 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/47.24	1/47.38	0/45.68	1/47.85	2/46.70	2/47.15	0/47.04	0/45.35
POLY-3 PERCENT (g)	0.0%	2.1%	0.0%	2.1%	4.3%	4.2%	0.0%	0.0%
TERMINAL (d)	0/44 (0%)	1/44 (2%)	0/42 (0%)	1/46 (2%)	1/43 (2%)	2/40 (5%)	0/43 (0%)	0/40 (0%)
FIRST INCIDENCE	---	729 (T)	---	729 (T)	706	729 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.415	P=0.500	(e)	P=0.509	P=0.092N	P=0.667	P=0.240N	P=0.258N
POLY 3	P=0.407	P=0.501	(e)	P=0.503	P=0.087N	P=0.690N	P=0.236N	P=0.244N
POLY 1.5	P=0.408	P=0.500	(e)	P=0.503	P=0.087N	P=0.691N	P=0.236N	P=0.242N
POLY 6	P=0.407	P=0.501	(e)	P=0.502	P=0.088N	P=0.691N	P=0.236N	P=0.247N
LOGISTIC REGRESSION	(e)	P=0.500	(e)	P=0.509	P=0.088N	P=0.691N	P=0.237N	P=0.242N
COCH-ARM / FISHERS	P=0.410	P=0.500	(e)	P=0.505	P=0.086N	P=0.691N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.254	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Stomach, Forestomach Squamous Cell Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/48.24	0/47.90	0/45.68	0/47.85	0/46.61	0/47.80	2/48.01	0/46.05
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%
TERMINAL (d)	1/45 (2%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	0/43 (0%)	0/40 (0%)	2/43 (5%)	0/40 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.306N	P=0.504N	P=0.514N	P=0.496N	P=0.585	(e)	P=0.238	(e)
POLY 3	P=0.308N	P=0.501N	P=0.511N	P=0.502N	P=0.582	(e)	P=0.244	(e)
POLY 1.5	P=0.307N	P=0.501N	P=0.507N	P=0.501N	P=0.589	(e)	P=0.243	(e)
POLY 6	P=0.309N	P=0.502N	P=0.515N	P=0.502N	P=0.574	(e)	P=0.244	(e)
LOGISTIC REGRESSION	P=0.306N	(e)	(e)	(e)	(e)	(e)	P=0.238	(e)
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	P=0.122N	(e)	(e)	(e)	P=0.254	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Stomach, Forestomach Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	3/50 (6%)	2/50 (4%)	0/50 (0%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	1/48.24	2/47.90	0/45.68	3/47.85	2/46.61	0/47.80	3/48.01	2/46.05
POLY-3 PERCENT (g)	2.1%	4.2%	0.0%	6.3%	4.3%	0.0%	6.3%	4.3%
TERMINAL (d)	1/45 (2%)	2/44 (5%)	0/42 (0%)	3/46 (7%)	2/43 (5%)	0/40 (0%)	3/43 (7%)	2/40 (5%)
FIRST INCIDENCE	729 (T)	729 (T)	---	729 (T)	729 (T)	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.252	P=0.492	P=0.514N	P=0.313	P=0.403	P=0.254N	P=0.500	P=0.669
POLY 3	P=0.237	P=0.498	P=0.511N	P=0.303	P=0.410	P=0.232N	P=0.513	P=0.689
POLY 1.5	P=0.239	P=0.498	P=0.507N	P=0.303	P=0.416	P=0.232N	P=0.511	P=0.693
POLY 6	P=0.236	P=0.497	P=0.515N	P=0.302	P=0.404	P=0.233N	P=0.514	P=0.684
LOGISTIC REGRESSION	P=0.252	P=0.492	(e)	P=0.313	P=0.403	(e)	P=0.500	P=0.669
COCH-ARM / FISHERS	P=0.242	P=0.500	P=0.500N	P=0.309	P=0.422	P=0.247N	P=0.500	P=0.691N
ORDER RESTRICTED	P=0.184	(e)	(e)	(e)	P=0.333	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Stomach, Forestomach								
Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	3/50 (6%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/48.24	2/47.90	0/45.68	3/47.85	2/46.61	0/47.80	1/48.01	2/46.05
POLY-3 PERCENT (g)	0.0%	4.2%	0.0%	6.3%	4.3%	0.0%	2.1%	4.3%
TERMINAL (d)	0/45 (0%)	2/44 (5%)	0/42 (0%)	3/46 (7%)	2/43 (5%)	0/40 (0%)	1/43 (2%)	2/40 (5%)
FIRST INCIDENCE	---	729 (T)	---	729 (T)	729 (T)	---	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.103	P=0.234	(e)	P=0.125	P=0.453	P=0.254N	P=0.500N	P=0.669
POLY 3	P=0.093	P=0.236	(e)	P=0.118	P=0.461	P=0.232N	P=0.490N	P=0.689
POLY 1.5	P=0.094	P=0.236	(e)	P=0.118	P=0.464	P=0.232N	P=0.491N	P=0.693
POLY 6	P=0.092	P=0.235	(e)	P=0.117	P=0.458	P=0.233N	P=0.489N	P=0.684
LOGISTIC REGRESSION	(e)	P=0.234	(e)	P=0.125	P=0.453	(e)	P=0.500N	P=0.669
COCH-ARM / FISHERS	P=0.097	P=0.247	(e)	P=0.121	P=0.469	P=0.247N	P=0.500N	P=0.691N
ORDER RESTRICTED	P=0.036 *	(e)	(e)	(e)	P=0.402	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Testes								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)				
POLY-3 RATE (b)	0/48.24	2/47.90	0/45.68	0/47.85				
POLY-3 PERCENT (g)	0.0%	4.2%	0.0%	0.0%				
TERMINAL (d)	0/45 (0%)	2/44 (5%)	0/42 (0%)	0/46 (0%)				
FIRST INCIDENCE	---	729 (T)	---	---				
STATISTICAL TESTS								
LIFE TABLE	P=0.401N	P=0.234	(e)	(e)				
POLY 3	P=0.410N	P=0.236	(e)	(e)				
POLY 1.5	P=0.408N	P=0.236	(e)	(e)				
POLY 6	P=0.412N	P=0.235	(e)	(e)				
LOGISTIC REGRESSION	(e)	P=0.234	(e)	(e)				
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)				
ORDER RESTRICTED	P=0.247N	(e)	(e)	(e)				

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Uterus								
Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					0/50 (0%)	2/50 (4%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)					0/46.61	2/47.80	0/48.01	2/46.05
POLY-3 PERCENT (g)					0.0%	4.2%	0.0%	4.3%
TERMINAL (d)					0/43 (0%)	2/40 (5%)	0/43 (0%)	2/40 (5%)
FIRST INCIDENCE					---	729 (T)	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.235	P=0.223	(e)	P=0.223
POLY 3					P=0.246	P=0.243	(e)	P=0.235
POLY 1.5					P=0.248	P=0.243	(e)	P=0.237
POLY 6					P=0.242	P=0.242	(e)	P=0.231
LOGISTIC REGRESSION					(e)	P=0.223	(e)	P=0.223
COCH-ARM / FISHERS					P=0.248	P=0.247	(e)	P=0.247
ORDER RESTRICTED					P=0.114	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
Uterus								
Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					0/50 (0%)	2/50 (4%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)					0/46.61	2/47.80	1/48.01	2/46.05
POLY-3 PERCENT (g)					0.0%	4.2%	2.1%	4.3%
TERMINAL (d)					0/43 (0%)	2/40 (5%)	1/43 (2%)	2/40 (5%)
FIRST INCIDENCE					---	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.232	P=0.223	P=0.500	P=0.223
POLY 3					P=0.242	P=0.243	P=0.506	P=0.235
POLY 1.5					P=0.246	P=0.243	P=0.505	P=0.237
POLY 6					P=0.238	P=0.242	P=0.506	P=0.231
LOGISTIC REGRESSION					(e)	P=0.223	P=0.500	P=0.223
COCH-ARM / FISHERS					P=0.246	P=0.247	P=0.500	P=0.247
ORDER RESTRICTED					P=0.153	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
All Organs Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	3/50 (6%)	3/50 (6%)	3/50 (6%)	4/50 (8%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/48.24	2/47.90	3/46.46	3/47.85	3/46.70	4/47.83	0/48.01	2/46.29
POLY-3 PERCENT (g)	2.1%	4.2%	6.5%	6.3%	6.4%	8.4%	0.0%	4.3%
TERMINAL (d)	1/45 (2%)	2/44 (5%)	2/42 (5%)	3/46 (7%)	2/43 (5%)	3/40 (8%)	0/43 (0%)	1/40 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	441	729 (T)	706	721	---	665
STATISTICAL TESTS								
LIFE TABLE	P=0.237	P=0.492	P=0.287	P=0.313	P=0.283N	P=0.465	P=0.123N	P=0.530N
POLY 3	P=0.224	P=0.498	P=0.292	P=0.303	P=0.263N	P=0.513	P=0.114N	P=0.504N
POLY 1.5	P=0.226	P=0.498	P=0.297	P=0.303	P=0.261N	P=0.512	P=0.115N	P=0.500N
POLY 6	P=0.224	P=0.497	P=0.287	P=0.302	P=0.265N	P=0.510	P=0.114N	P=0.510N
LOGISTIC REGRESSION	P=0.231	P=0.492	P=0.376	P=0.313	P=0.266N	P=0.509	P=0.116N	P=0.501N
COCH-ARM / FISHERS	P=0.227	P=0.500	P=0.309	P=0.309	P=0.263N	P=0.500	P=0.121N	P=0.500N
ORDER RESTRICTED	P=0.255	(e)	(e)	(e)	P=0.182N	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	0/48.24	0/47.90	0/45.68	0/47.85	1/46.61	1/48.42	3/48.01	2/46.35
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	2.2%	2.1%	6.3%	4.3%
TERMINAL (d)	0/45 (0%)	0/44 (0%)	0/42 (0%)	0/46 (0%)	1/43 (2%)	0/40 (0%)	3/43 (7%)	1/40 (3%)
FIRST INCIDENCE	---	---	---	---	729 (T)	525	729 (T)	647
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.311	P=0.755	P=0.305	P=0.483
POLY 3	(e)	(e)	(e)	(e)	P=0.316	P=0.752N	P=0.316	P=0.498
POLY 1.5	(e)	(e)	(e)	(e)	P=0.321	P=0.753N	P=0.315	P=0.501
POLY 6	(e)	(e)	(e)	(e)	P=0.311	P=0.752N	P=0.317	P=0.495
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.319	P=0.714	P=0.305	P=0.500
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.324	P=0.753N	P=0.309	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.333	(e)	(e)	(e)

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
All Organs Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	3/50 (6%)	4/50 (8%)	2/50 (4%)	7/50 (14%)	10/50 (20%)	12/50 (24%)	13/50 (26%)
POLY-3 RATE (b)	3/48.24	3/47.95	4/46.05	2/47.85	7/46.61	10/48.51	12/49.23	13/48.13
POLY-3 PERCENT (g)	6.2%	6.3%	8.7%	4.2%	15.0%	20.6%	24.4%	27.0%
TERMINAL (d)	3/45 (7%)	2/44 (5%)	3/42 (7%)	2/46 (4%)	7/43 (16%)	6/40 (15%)	7/43 (16%)	9/40 (23%)
FIRST INCIDENCE	729 (T)	716	623	729 (T)	729 (T)	629	541	409
STATISTICAL TESTS								
LIFE TABLE	P=0.412N	P=0.653	P=0.463	P=0.490N	P=0.081	P=0.264	P=0.170	P=0.088
POLY 3	P=0.426N	P=0.659	P=0.475	P=0.504N	P=0.100	P=0.329	P=0.187	P=0.119
POLY 1.5	P=0.425N	P=0.660	P=0.484	P=0.503N	P=0.099	P=0.322	P=0.177	P=0.117
POLY 6	P=0.428N	P=0.659	P=0.467	P=0.504N	P=0.100	P=0.334	P=0.198	P=0.119
LOGISTIC REGRESSION	P=0.425N	P=0.658	P=0.488	P=0.490N	P=0.089	P=0.312	P=0.154	P=0.103
COCH-ARM / FISHERS	P=0.420N	P=0.661N	P=0.500	P=0.500N	P=0.089	P=0.298	P=0.154	P=0.105
ORDER RESTRICTED	P=0.448N	(e)	(e)	(e)	P=0.124	(e)	(e)	(e)

Dose	Males 0 PPM	Males 312 PPM	Males 625 PPM	Males 1250 PPM	Females 0 PPM	Females 312 PPM	Females 625 PPM	Females 1250 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	26/50 (52%)	29/50 (58%)	23/50 (46%)	27/50 (54%)	18/50 (36%)	23/50 (46%)	23/50 (46%)	21/50 (42%)
POLY-3 RATE (b)	26/48.29	29/48.56	23/45.68	27/48.73	18/47.07	23/48.47	23/48.22	21/46.68
POLY-3 PERCENT (g)	53.8%	59.7%	50.4%	55.4%	38.2%	47.5%	47.7%	45.0%
TERMINAL (d)	25/45 (56%)	26/44 (59%)	23/42 (55%)	26/46 (57%)	17/43 (40%)	20/40 (50%)	21/43 (49%)	18/40 (45%)
FIRST INCIDENCE	715	613	729 (T)	355	593	632	684	647
STATISTICAL TESTS								
LIFE TABLE	P=0.462N	P=0.306	P=0.475N	P=0.545	P=0.299	P=0.144	P=0.212	P=0.251
POLY 3	P=0.508N	P=0.352	P=0.448N	P=0.519	P=0.347	P=0.241	P=0.234	P=0.325
POLY 1.5	P=0.505N	P=0.345	P=0.408N	P=0.514	P=0.366	P=0.237	P=0.232	P=0.339
POLY 6	P=0.519N	P=0.364	P=0.491N	P=0.519	P=0.330	P=0.240	P=0.232	P=0.311
LOGISTIC REGRESSION	P=0.538	P=0.325	P=0.509N	P=0.487	P=0.332	P=0.237	P=0.244	P=0.314
COCH-ARM / FISHERS	P=0.509N	P=0.344	P=0.345N	P=0.500	P=0.377	P=0.208	P=0.208	P=0.341
ORDER RESTRICTED	P=0.550N	(e)	(e)	(e)	P=0.326	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - 4-METHYLIMIDAZOLE
Terminal Sacrifice at 105 weeks

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
All Organs — Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	15/50 (30%)	25/50 (50%)	21/50 (42%)	22/50 (44%)	20/50 (40%)	20/50 (40%)	23/50 (46%)	29/50 (58%)
POLY-3 RATE (b)	15/49.83	25/49.10	21/48.76	22/48.52	20/47.95	20/49.64	23/49.83	29/50.00
POLY-3 PERCENT (g)	30.1%	50.9%	43.1%	45.4%	41.7%	40.3%	46.2%	58.0%
TERMINAL (d)	11/45 (24%)	20/44 (46%)	15/42 (36%)	20/46 (44%)	16/43 (37%)	12/40 (30%)	17/43 (40%)	19/40 (48%)
FIRST INCIDENCE	459	586	441	628	539	525	539	409
STATISTICAL TESTS								
LIFE TABLE	P=0.242	P=0.042 *	P=0.124	P=0.135	P=0.033 *	P=0.499	P=0.367	P=0.055
POLY 3	P=0.163	P=0.027 *	P=0.130	P=0.087	P=0.038 *	P=0.525N	P=0.406	P=0.078
POLY 1.5	P=0.173	P=0.028 *	P=0.135	P=0.093	P=0.035 *	P=0.536N	P=0.392	P=0.072
POLY 6	P=0.157	P=0.027 *	P=0.126	P=0.085	P=0.042 *	P=0.516N	P=0.419	P=0.086
LOGISTIC REGRESSION	P=0.207	P=0.034 *	P=0.233	P=0.111	P=0.030 *	P=0.565	P=0.330	P=0.054
COCH-ARM / FISHERS	P=0.198	P=0.033 *	P=0.149	P=0.107	P=0.028 *	P=0.581N	P=0.343	P=0.055
ORDER RESTRICTED	P=0.074	(e)	(e)	(e)	P=0.068	(e)	(e)	(e)

Dose	Males 0 PPM	312 PPM	625 PPM	1250 PPM	Females 0 PPM	312 PPM	625 PPM	1250 PPM
All Organs — Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	34/50 (68%)	38/50 (76%)	36/50 (72%)	39/50 (78%)	29/50 (58%)	36/50 (72%)	37/50 (74%)	40/50 (80%)
POLY-3 RATE (b)	34/49.83	38/49.10	36/48.76	39/49.40	29/48.41	36/49.99	37/50.00	40/50.00
POLY-3 PERCENT (g)	68.2%	77.4%	73.8%	79.0%	59.9%	72.0%	74.0%	80.0%
TERMINAL (d)	30/45 (67%)	33/44 (75%)	30/42 (71%)	36/46 (78%)	24/43 (56%)	27/40 (68%)	30/43 (70%)	30/40 (75%)
FIRST INCIDENCE	459	586	441	355	539	525	539	409
STATISTICAL TESTS								
LIFE TABLE	P=0.285	P=0.239	P=0.268	P=0.256	P=0.024 *	P=0.091	P=0.115	P=0.019 *
POLY 3	P=0.179	P=0.213	P=0.348	P=0.162	P=0.025 *	P=0.146	P=0.101	P=0.023 *
POLY 1.5	P=0.188	P=0.220	P=0.367	P=0.170	P=0.023 *	P=0.137	P=0.094	P=0.021 *
POLY 6	P=0.172	P=0.215	P=0.337	P=0.157	P=0.027 *	P=0.153	P=0.107	P=0.025 *
LOGISTIC REGRESSION	P=0.197	P=0.249	P=0.430	P=0.187	P=0.016 *	P=0.109	P=0.074	P=0.015 *
COCH-ARM / FISHERS	P=0.201	P=0.252	P=0.414	P=0.184	P=0.015 *	P=0.104	P=0.069	P=0.015 *
ORDER RESTRICTED	P=0.169	(e)	(e)	(e)	P=0.018 *	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

NTP Experiment-Test: 92013-06
Study Type: CHRONIC
Route: DOSED FEED

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FINAL #1 MICE

Report: PEIRPT18
Date: 01/12/04
Time: 15:11:56

Facility: Southern Research Institute

Chemical CAS #: 822-36-6

Lock Date: 09/13/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	3	4	3	3
Natural Death	4	6	4	7
Survivors				
Terminal Sacrifice	42	40	41	39
Natural Death	1		2	1
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(49)	(48)	(46)	(46)
Edema	3 [2.0]	4 [2.0]	2 [2.0]	2 [2.0]
Intestine Small, Jejunum	(50)	(48)	(47)	(47)
Hyperplasia, Lymphoid	4 [3.3]	2 [3.5]	2 [2.5]	
Intestine Small, Ileum	(48)	(45)	(48)	(48)
Hyperplasia, Lymphoid	1 [4.0]			
Liver	(50)	(50)	(50)	(50)
Angiectasis			2 [2.5]	
Basophilic Focus	1		1	1
Cyst	3 [3.0]			1 [3.0]
Eosinophilic Focus	1	2	1	
Hematopoietic Cell Proliferation	6 [2.7]		5 [3.4]	3 [2.3]
Hemorrhage				1 [3.0]
Hyperplasia, Lymphoid	2 [2.0]	3 [3.0]	1 [4.0]	
Infiltration Cellular, Mixed Cell	1 [4.0]	3 [2.0]	1 [3.0]	1 [2.0]
Mixed Cell Focus	1		1	
Necrosis, Focal	4 [3.3]	3 [1.3]	2 [2.0]	6 [2.7]
Centrilobular, Necrosis	1 [2.0]		1 [3.0]	1 [4.0]
Hepatocyte, Hypertrophy	1 [3.0]			
Hepatocyte, Vacuolization Cytoplasmic	1 [3.0]	1 [3.0]	1 [3.0]	1 [4.0]
Kupffer Cell, Pigmentation	1 [2.0]	1 [2.0]	2 [3.0]	
Mesentery	(3)	(7)	(7)	(4)
Hemorrhage				1 [2.0]
Fat, Necrosis	3 [2.7]	3 [3.0]	3 [3.0]	3 [2.7]
Pancreas	(49)	(48)	(48)	(49)
Atrophy		1 [4.0]		
Cyst	3 [3.0]	1 [3.0]		
Hyperplasia, Lymphoid		1 [2.0]		1 [2.0]
Necrosis	1 [3.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
ALIMENTARY SYSTEM - CONT				
Acinus, Cytoplasmic Alteration	1 [3.0]	1 [3.0]		
Salivary Glands	(50)	(48)	(50)	(49)
Atrophy				2 [2.0]
Hyperplasia, Lymphoid	3 [2.7]	4 [2.5]	3 [2.0]	3 [2.7]
Stomach, Forestomach	(50)	(50)	(50)	(50)
Diverticulum	2			
Hyperplasia, Squamous			1 [4.0]	
Inflammation, Chronic			1 [2.0]	1 [2.0]
Ulcer	1 [2.0]	1 [3.0]		
Epithelium, Hyperplasia	3 [2.0]	5 [2.6]	2 [2.0]	5 [1.8]
Stomach, Glandular	(49)	(49)	(50)	(49)
Erosion			2 [2.5]	1 [1.0]
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Inflammation, Chronic	1 [2.0]		1 [1.0]	
Mineralization				4 [2.0]
Thrombosis			1 [3.0]	
Myocardium, Necrosis		1 [2.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	9	9	9	5
Hyperplasia, Diffuse	1 [3.0]			
Hyperplasia, Focal			1 [1.0]	2 [2.5]
Capsule, Hyperplasia		2 [2.0]		
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia			1 [2.0]	2 [2.5]
Islets, Pancreatic	(49)	(48)	(47)	(49)
Hyperplasia	1 [2.0]			2 [2.0]
Parathyroid Gland	(49)	(49)	(48)	(47)
Cyst		1 [3.0]	5 [3.0]	2 [3.0]
Pituitary Gland	(49)	(46)	(49)	(50)
Pars Distalis, Cyst	1 [3.0]	3 [3.0]	4 [3.0]	
Pars Distalis, Hyperplasia, Focal	2 [3.0]	4 [2.0]	1 [2.0]	
Thyroid Gland	(50)	(49)	(50)	(48)
Follicle, Cyst	20 [1.6]	22 [1.7]	29 [1.8]	30 [2.1]
Follicular Cell, Hyperplasia	1 [2.0]		1 [4.0]	1 [1.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(49)	(50)	(50)
Inflammation, Chronic	1 [2.0]	3 [2.0]	5 [2.4]	3 [2.3]
Ovary	(48)	(49)	(49)	(50)
Angiectasis	9 [2.4]	9 [2.4]	7 [2.9]	6 [2.5]
Cyst	16 [3.0]	20 [3.0]	14 [3.0]	19 [3.0]
Inflammation, Granulomatous		1 [3.0]		
Corpus Luteum, Hyperplasia				1 [3.0]
Granulosa Cell, Hyperplasia	1 [2.0]	1 [3.0]		
Thecal Cell, Hyperplasia			1 [3.0]	
Uterus	(50)	(50)	(50)	(50)
Angiectasis		3 [2.3]		3 [2.0]
Hyperplasia, Cystic	45 [3.2]	47 [3.2]	46 [3.0]	47 [3.1]
Inflammation, Chronic	1 [2.0]	1 [3.0]	1 [3.0]	3 [2.7]
Metaplasia, Squamous	2 [2.5]	3 [2.7]	1 [3.0]	5 [2.2]
Thrombosis			1 [4.0]	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia	13 [2.9]	13 [2.6]	10 [3.2]	17 [2.4]
Infiltration Cellular, Mast Cell		1 [3.0]		
Lymph Node	(3)	(9)	(12)	(7)
Bronchial, Hyperplasia, Lymphoid			1 [2.0]	
Iliac, Hemorrhage		1 [3.0]		1 [2.0]
Iliac, Hyperplasia, Lymphoid		2 [2.5]	1 [3.0]	1 [3.0]
Iliac, Pigmentation				1 [3.0]
Inguinal, Hyperplasia, Lymphoid		2 [2.5]	1 [3.0]	
Mediastinal, Hyperplasia, Lymphoid		2 [2.5]		
Renal, Hematopoietic Cell Proliferation			1 [3.0]	
Renal, Hyperplasia, Lymphoid			1 [2.0]	1 [3.0]
Renal, Pigmentation				1 [3.0]
Lymph Node, Mandibular	(47)	(47)	(48)	(48)
Hematopoietic Cell Proliferation	1 [2.0]		2 [2.5]	
Hemorrhage			1 [2.0]	3 [1.7]
Hyperplasia, Lymphoid	6 [2.5]	8 [2.3]	7 [2.7]	13 [2.4]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
HEMATOPOIETIC SYSTEM - CONT				
Pigmentation	12 [2.4]	19 [2.2]	18 [2.2]	19 [2.2]
Lymph Node, Mesenteric	(49)	(47)	(49)	(50)
Atrophy		2 [2.5]		
Ectasia	1 [4.0]		1 [2.0]	
Hematopoietic Cell Proliferation	2 [2.0]	1 [3.0]	2 [1.5]	
Hyperplasia, Lymphoid	3 [2.7]	8 [2.3]	9 [2.6]	10 [2.1]
Spleen	(49)	(49)	(49)	(49)
Hematopoietic Cell Proliferation	15 [2.8]	16 [2.3]	13 [2.8]	11 [1.9]
Hyperplasia, Lymphoid	8 [3.5]	11 [3.5]	8 [3.8]	11 [3.3]
Pigmentation		1 [3.0]	1 [2.0]	
Lymphoid Follicle, Atrophy	1 [3.0]	1 [3.0]		1 [2.0]
Lymphoid Follicle, Hyperplasia	14 [2.3]	12 [2.3]	12 [2.4]	13 [2.4]
Red Pulp, Congestion				1 [3.0]
Thymus	(49)	(49)	(50)	(48)
Atrophy	3 [3.0]	6 [2.7]	2 [3.5]	5 [2.8]
Hyperplasia, Lymphoid	3 [2.3]	1 [3.0]	2 [3.0]	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(49)	(49)
Galactocele				1
Hyperplasia	16 [1.1]	10 [1.1]	14 [1.1]	24 [1.2]
Skin	(50)	(50)	(50)	(50)
Edema			1 [2.0]	1 [2.0]
Epidermis, Hyperplasia		1 [1.0]		
Subcutaneous Tissue, Inflammation, Granulomatous	1 [3.0]			
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hyperostosis	10 [2.5]	12 [2.2]	10 [2.4]	6 [2.2]
Skeletal Muscle	(1)	(1)	(2)	(2)
Mineralization				1 [2.0]
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression				1 [4.0]
Hemorrhage		2 [3.0]	1 [2.0]	2 [1.5]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
NERVOUS SYSTEM - CONT				
Peripheral Nerve		(2)		(2)
Atrophy				1 [3.0]
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Hemorrhage	1 [1.0]	2 [1.5]	3 [1.7]	4 [1.8]
Hyperplasia, Lymphoid	6 [1.8]	6 [2.2]	8 [1.8]	8 [1.8]
Infiltration Cellular, Histiocyte	1 [1.0]	5 [1.4]	1 [1.0]	8 [2.0]
Metaplasia, Osseous	1 [1.0]			
Alveolar Epithelium, Hyperplasia	3 [1.7]	2 [2.5]	3 [1.7]	11 [1.9]
Nose	(50)	(49)	(50)	(50)
Inflammation, Chronic	1 [3.0]			
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Cataract			2 [2.0]	1 [2.0]
Inflammation, Chronic			1 [2.0]	1 [1.0]
Cornea, Hyperplasia			1 [2.0]	
Cornea, Mineralization			1 [1.0]	
Retina, Degeneration			1 [2.0]	
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia		1 [3.0]		
Hyperplasia, Focal	2 [2.0]	3 [2.7]	2 [2.0]	
Inflammation, Chronic	1 [3.0]			
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Cyst	1 [3.0]	1 [3.0]		
Hydronephrosis		1 [2.0]		
Hyperplasia, Lymphoid	1 [2.0]	2 [3.0]	6 [2.2]	3 [2.0]
Metaplasia, Osseous	1 [3.0]	1 [2.0]		1 [2.0]
Nephropathy	21 [1.2]	20 [1.3]	17 [1.0]	25 [1.0]
Renal Tubule, Accumulation, Hyaline Droplet	3 [2.7]	2 [3.5]	1 [3.0]	2 [3.5]
Renal Tubule, Hyperplasia	1 [2.0]			
Renal Tubule, Necrosis		1 [2.0]		
Urinary Bladder	(50)	(50)	(50)	(50)
Edema			1 [3.0]	1 [4.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE FEMALE	0 PPM	312 PPM	625 PPM	1250 PPM
URINARY SYSTEM - CONT				
Hemorrhage		1 [3.0]		
Hyperplasia, Lymphoid	1 [3.0]	3 [2.0]	4 [2.0]	3 [2.0]
Inflammation, Chronic	1 [2.0]	1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Natural Death	4	6	8	
Moribund Sacrifice	1			3
Survivors				
Natural Death	1			
Terminal Sacrifice	44	44	42	46
Other				1
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(50)	(49)	(47)	(50)
Edema	3 [2.0]	1 [2.0]	3 [2.0]	4 [2.0]
Hyperplasia, Lymphoid			1 [4.0]	
Inflammation			1 [4.0]	
Ulcer	1 [4.0]		1 [4.0]	
Intestine Small, Jejunum	(48)	(47)	(48)	(50)
Hemorrhage			1 [3.0]	
Hyperplasia, Lymphoid	2 [3.0]	2 [2.5]	3 [2.7]	1 [3.0]
Intestine Small, Ileum	(49)	(46)	(48)	(49)
Hyperplasia, Lymphoid		1 [3.0]		
Liver	(50)	(50)	(50)	(50)
Basophilic Focus	1		1	1
Clear Cell Focus	3	3	2	3
Cyst		1 [3.0]		1 [3.0]
Eosinophilic Focus	5	2	1	1
Hyperplasia, Lymphoid				1 [4.0]
Infiltration Cellular, Mixed Cell			3 [1.7]	1 [2.0]
Mixed Cell Focus	3	7	2	
Necrosis, Focal	2 [2.0]	3 [1.0]	2 [2.0]	
Tension Lipidosis	1		1	
Centrilobular, Necrosis			1 [1.0]	
Hepatocyte, Hypertrophy		1 [3.0]		1 [3.0]
Hepatocyte, Vacuolization Cytoplasmic	4 [3.0]	5 [3.4]	2 [3.5]	
Mesentery	(4)	(7)	(2)	(3)
Hemorrhage	1 [4.0]			
Fat, Necrosis	3 [2.7]	3 [2.0]	2 [2.5]	2 [2.0]
Pancreas	(49)	(49)	(50)	(50)
Cyst			1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
ALIMENTARY SYSTEM - CONT				
Acinus, Hyperplasia, Focal				1 [2.0]
Stomach, Forestomach	(49)	(50)	(50)	(50)
Diverticulum		2	1	1
Erosion			1 [1.0]	
Hyperplasia				1 [4.0]
Inflammation, Chronic			2 [2.5]	
Ulcer		1 [3.0]	1 [3.0]	
Epithelium, Hyperplasia	3 [1.7]	2 [3.5]	4 [2.3]	
Stomach, Glandular	(49)	(50)	(49)	(50)
Erosion	2 [2.0]		1 [2.0]	1 [2.0]
Glands, Hyperplasia				1 [3.0]
Tooth	(4)			(3)
Inflammation, Chronic	3 [2.3]			2 [2.5]
Malformation	1			
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Inflammation, Chronic	2 [2.5]		2 [1.5]	1 [2.0]
Mineralization			2 [2.0]	
Thrombosis				1 [4.0]
Myocardium, Necrosis			1 [3.0]	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	2	4	6	8
Hyperplasia, Focal	3 [1.7]	2 [2.0]	1 [1.0]	1 [1.0]
Hypertrophy, Focal	17 [1.5]	11 [1.9]	10 [1.5]	14 [1.9]
Capsule, Hyperplasia	1 [2.0]	1 [2.0]	2 [2.0]	5 [2.0]
Islets, Pancreatic	(49)	(49)	(50)	(50)
Hyperplasia	4 [2.0]	2 [2.0]		1 [2.0]
Parathyroid Gland	(47)	(49)	(49)	(49)
Cyst	1 [3.0]		1 [3.0]	1 [3.0]
Pituitary Gland	(49)	(48)	(49)	(50)
Pars Distalis, Cyst	1 [3.0]	3 [3.0]	3 [3.0]	2 [3.0]
Thyroid Gland	(50)	(50)	(50)	(50)
Follicle, Cyst	13 [1.8]	13 [1.7]	13 [1.8]	14 [2.0]
Follicular Cell, Hyperplasia		1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Atypia Cellular	1 [2.0]	1 [3.0]		
Spermatocele	1 [2.0]			1 [3.0]
Preputial Gland	(50)	(50)	(50)	(50)
Cyst	29 [3.0]	27 [3.0]	31 [3.0]	36 [2.9]
Inflammation, Chronic	17 [2.1]	19 [2.1]	24 [2.1]	23 [2.1]
Seminal Vesicle	(50)	(50)	(50)	(50)
Degeneration	1 [3.0]			
Testes	(50)	(50)	(50)	(50)
Germinal Epithelium, Atrophy		3 [2.3]	1 [3.0]	3 [2.7]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia	13 [2.2]	15 [2.1]	14 [2.4]	15 [2.3]
Lymph Node	(2)	(2)	(1)	(2)
Inguinal, Hyperplasia, Lymphoid				1 [2.0]
Inguinal, Pigmentation	1 [3.0]			
Pancreatic, Hyperplasia, Lymphoid				1 [2.0]
Lymph Node, Mandibular	(48)	(50)	(48)	(45)
Hematopoietic Cell Proliferation		2 [2.0]		1 [2.0]
Hyperplasia, Lymphoid	10 [2.2]	8 [2.3]	9 [2.1]	12 [2.1]
Pigmentation	10 [2.1]	5 [2.2]	7 [2.1]	12 [2.0]
Lymph Node, Mesenteric	(49)	(48)	(48)	(50)
Hematopoietic Cell Proliferation				1 [2.0]
Hemorrhage	4 [1.5]	7 [2.0]	4 [1.5]	14 [2.0]
Hyperplasia, Lymphoid	7 [2.6]	4 [2.8]	4 [2.8]	7 [2.6]
Spleen	(49)	(49)	(50)	(50)
Angiectasis	1 [3.0]	1 [3.0]		1 [3.0]
Hematopoietic Cell Proliferation	10 [2.4]	14 [2.7]	9 [2.7]	12 [2.7]
Hyperplasia, Lymphoid	1 [4.0]	1 [3.0]	2 [3.0]	2 [4.0]
Lymphoid Follicle, Atrophy		1 [3.0]	1 [4.0]	1 [3.0]
Lymphoid Follicle, Hyperplasia	10 [2.4]	8 [2.1]	2 [2.5]	7 [2.0]
Thymus	(48)	(49)	(45)	(45)
Atrophy	7 [2.4]	7 [2.6]	5 [2.6]	8 [2.8]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(49)
Cyst Epithelial Inclusion				1
Edema		2 [2.5]		
Ulcer			1 [4.0]	
Epidermis, Hyperplasia	2 [1.0]		2 [2.0]	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Fibrous Osteodystrophy		1 [2.0]		1 [2.0]
Skeletal Muscle	(1)	(2)	(1)	(1)
Atrophy				1 [2.0]
Necrosis		1 [3.0]		
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Hemorrhage	1 [2.0]			
Inflammation, Chronic	1 [3.0]			
Peripheral Nerve				(2)
Atrophy				1 [3.0]
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion			1 [2.0]	1 [4.0]
Hemorrhage	3 [1.7]	2 [2.0]	1 [2.0]	5 [1.2]
Hyperplasia, Lymphoid	3 [1.7]	2 [2.0]	6 [1.8]	2 [2.0]
Infiltration Cellular, Histiocyte	5 [2.2]	6 [1.7]	5 [1.8]	11 [1.7]
Metaplasia, Osseous			1 [1.0]	
Thrombosis	1 [2.0]			
Alveolar Epithelium, Hyperplasia	7 [2.0]	3 [1.0]	1 [2.0]	9 [1.9]
Bronchiole, Epithelium, Hyperplasia			1 [1.0]	1 [1.0]
Nose	(50)	(50)	(50)	(50)
Inflammation, Chronic	1 [2.0]		2 [2.5]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

B6C3F1 MICE MALE	0 PPM	312 PPM	625 PPM	1250 PPM
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(50)
Cataract	1 [3.0]			2 [1.5]
Inflammation, Chronic	1 [1.0]			1 [2.0]
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia, Focal	1 [3.0]	1 [2.0]	1 [3.0]	3 [2.3]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Cyst	13 [3.0]	12 [3.0]	12 [3.0]	7 [3.0]
Hydronephrosis			1 [2.0]	1 [2.0]
Hyperplasia, Lymphoid	2 [2.0]	2 [3.0]		2 [2.0]
Inflammation, Chronic Active		1 [3.0]		
Metaplasia, Osseous	2 [2.0]	3 [1.7]		2 [2.0]
Mineralization			2 [3.0]	
Nephropathy	34 [1.4]	40 [1.2]	38 [1.3]	35 [1.6]
Renal Tubule, Necrosis			1 [2.0]	
Urinary Bladder	(50)	(49)	(49)	(50)
Edema	1 [3.0]	1 [3.0]		

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

END OF REPORT

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	0/50 (0%)	5/50 (10%)	2/50 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	3/45.22	0/43.15	5/44.46	2/43.64	2/46.53	0/45.69	0/43.76	1/44.39
POLY-3 PERCENT (g)	6.6%	0.0%	11.3%	4.6%	4.3%	0.0%	0.0%	2.3%
TERMINAL (d)	3/31 (10%)	0/34 (0%)	4/33 (12%)	2/32 (6%)	2/43 (5%)	0/39 (0%)	0/34 (0%)	1/35 (3%)
FIRST INCIDENCE	729 (T)	---	717	729 (T)	729 (T)	---	---	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.546	P=0.105N	P=0.389	P=0.485N	P=0.515N	P=0.260N	P=0.291N	P=0.572N
POLY 3	P=0.536	P=0.127N	P=0.347	P=0.516N	P=0.462N	P=0.241N	P=0.251N	P=0.516N
POLY 1.5	P=0.541	P=0.126N	P=0.351	P=0.510N	P=0.463N	P=0.238N	P=0.244N	P=0.507N
POLY 6	P=0.525	P=0.127N	P=0.344	P=0.523N	P=0.462N	P=0.246N	P=0.261N	P=0.529N
LOGISTIC REGRESSION	P=0.517	(e)	P=0.362	P=0.485N	P=0.515N	(e)	(e)	P=0.572N
COCH-ARM / FISHERS	P=0.544	P=0.121N	P=0.357	P=0.500N	P=0.461N	P=0.247N	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.277	(e)	(e)	(e)	P=0.143N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Fibroma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	8/50 (16%)	2/50 (4%)	4/50 (8%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	5/50 (10%)	0/50 (0%)
POLY-3 RATE (b)	8/46.10	2/44.09	4/44.91	3/44.29	1/46.53	1/45.81	5/44.09	0/44.39
POLY-3 PERCENT (g)	17.4%	4.5%	8.9%	6.8%	2.2%	2.2%	11.3%	0.0%
TERMINAL (d)	5/31 (16%)	1/34 (3%)	1/33 (3%)	1/32 (3%)	1/43 (2%)	0/39 (0%)	4/34 (12%)	0/35 (0%)
FIRST INCIDENCE	589	275	635	628	729 (T)	700	638	---
STATISTICAL TESTS								
LIFE TABLE	P=0.140N	P=0.047N*	P=0.181N	P=0.117N	P=0.545N	P=0.744	P=0.063	P=0.541N
POLY 3	P=0.124N	P=0.052N	P=0.189N	P=0.111N	P=0.502N	P=0.757	P=0.089	P=0.509N
POLY 1.5	P=0.123N	P=0.050N	P=0.185N	P=0.107N	P=0.486N	P=0.760	P=0.096	P=0.504N
POLY 6	P=0.127N	P=0.054N	P=0.193N	P=0.116N	P=0.522N	P=0.753	P=0.081	P=0.517N
LOGISTIC REGRESSION	P=0.117N	P=0.029N*	P=0.177N	P=0.096N	P=0.489N	P=0.761	P=0.090	(e)
COCH-ARM / FISHERS	P=0.124N	P=0.046N*	P=0.178N	P=0.100N	P=0.474N	P=0.753N	P=0.102	P=0.500N
ORDER RESTRICTED	P=0.060N	(e)	(e)	(e)	P=0.152N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	8/50 (16%)	2/50 (4%)	5/50 (10%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	5/50 (10%)	0/50 (0%)
POLY-3 RATE (b)	8/46.10	2/44.09	5/45.05	3/44.29	1/46.53	1/45.81	5/44.09	0/44.39
POLY-3 PERCENT (g)	17.4%	4.5%	11.1%	6.8%	2.2%	2.2%	11.3%	0.0%
TERMINAL (d)	5/31 (16%)	1/34 (3%)	1/33 (3%)	1/32 (3%)	1/43 (2%)	0/39 (0%)	4/34 (12%)	0/35 (0%)
FIRST INCIDENCE	589	275	635	628	729 (T)	700	638	---
STATISTICAL TESTS								
LIFE TABLE	P=0.160N	P=0.047N*	P=0.277N	P=0.117N	P=0.545N	P=0.744	P=0.063	P=0.541N
POLY 3	P=0.141N	P=0.052N	P=0.290N	P=0.111N	P=0.502N	P=0.757	P=0.089	P=0.509N
POLY 1.5	P=0.139N	P=0.050N	P=0.285N	P=0.107N	P=0.486N	P=0.760	P=0.096	P=0.504N
POLY 6	P=0.144N	P=0.054N	P=0.294N	P=0.116N	P=0.522N	P=0.753	P=0.081	P=0.517N
LOGISTIC REGRESSION	P=0.132N	P=0.029N*	P=0.275N	P=0.096N	P=0.489N	P=0.761	P=0.090	(e)
COCH-ARM / FISHERS	P=0.139N	P=0.046N*	P=0.277N	P=0.100N	P=0.474N	P=0.753N	P=0.102	P=0.500N
ORDER RESTRICTED	P=0.067N	(e)	(e)	(e)	P=0.152N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.22	0/43.15	3/44.41	0/43.64	0/46.53	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	2.2%	0.0%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	3/33 (9%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.498N	P=0.482N	P=0.327	P=0.494N	(e)	(e)	(e)	(e)
POLY 3	P=0.507N	P=0.509N	P=0.299	P=0.507N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.503N	P=0.507N	P=0.301	P=0.505N	(e)	(e)	(e)	(e)
POLY 6	P=0.514N	P=0.509N	P=0.296	P=0.510N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.498N	(e)	P=0.327	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.500N	P=0.500N	P=0.309	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.266N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.22	0/43.15	3/44.41	0/43.64	1/46.53	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	4.4%	0.0%	6.8%	0.0%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	2/31 (7%)	0/34 (0%)	3/33 (9%)	0/32 (0%)	1/43 (2%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.291N	P=0.218N	P=0.529	P=0.231N	P=0.334N	P=0.519N	P=0.547N	P=0.541N
POLY 3	P=0.298N	P=0.248N	P=0.492	P=0.245N	P=0.303N	P=0.504N	P=0.512N	P=0.509N
POLY 1.5	P=0.296N	P=0.246N	P=0.495	P=0.242N	P=0.306N	P=0.500N	P=0.506N	P=0.504N
POLY 6	P=0.304N	P=0.247N	P=0.489	P=0.248N	P=0.301N	P=0.508N	P=0.521N	P=0.517N
LOGISTIC REGRESSION	P=0.291N	(e)	P=0.529	(e)	P=0.334N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.296N	P=0.247N	P=0.500	P=0.247N	P=0.306N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.158N	(e)	(e)	(e)	P=0.130N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Skin Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.22	0/43.15	3/44.41	0/43.64	1/46.53	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	2.2%	0.0%	6.8%	0.0%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/34 (0%)	3/33 (9%)	0/32 (0%)	1/43 (2%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	729 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.498N	P=0.482N	P=0.327	P=0.494N	P=0.334N	P=0.519N	P=0.547N	P=0.541N
POLY 3	P=0.507N	P=0.509N	P=0.299	P=0.507N	P=0.303N	P=0.504N	P=0.512N	P=0.509N
POLY 1.5	P=0.503N	P=0.507N	P=0.301	P=0.505N	P=0.306N	P=0.500N	P=0.506N	P=0.504N
POLY 6	P=0.514N	P=0.509N	P=0.296	P=0.510N	P=0.301N	P=0.508N	P=0.521N	P=0.517N
LOGISTIC REGRESSION	P=0.498N	(e)	P=0.327	(e)	P=0.334N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.500N	P=0.500N	P=0.309	P=0.500N	P=0.306N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.266N	(e)	(e)	(e)	P=0.130N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Testes								
Adenoma								
TUMOR RATES								
OVERALL (a)	46/50 (92%)	44/50 (88%)	47/50 (94%)	45/50 (90%)				
POLY-3 RATE (b)	46/48.36	44/46.88	47/49.24	45/47.41				
POLY-3 PERCENT (g)	95.1%	93.9%	95.5%	94.9%				
TERMINAL (d)	30/31 (97%)	32/34 (94%)	32/33 (97%)	31/32 (97%)				
FIRST INCIDENCE	582	516	498	607				
STATISTICAL TESTS								
LIFE TABLE	P=0.498	P=0.281N	P=0.533N	P=0.524N				
POLY 3	P=0.571	P=0.579N	P=0.670	P=0.689N				
POLY 1.5	P=0.584	P=0.535N	P=0.595	P=0.625N				
POLY 6	P=0.563	P=0.571N	P=0.677N	P=0.735N				
LOGISTIC REGRESSION	P=0.560	P=0.597	P=0.405	P=0.653N				
COCH-ARM / FISHERS	P=0.533N	P=0.370N	P=0.500	P=0.500N				
ORDER RESTRICTED	P=0.664	(e)	(e)	(e)				

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Thyroid Gland: C-Cell								
Adenoma								
TUMOR RATES								
OVERALL (a)	11/47 (23%)	7/46 (15%)	3/48 (6%)	10/44 (23%)	10/47 (21%)	8/44 (18%)	6/40 (15%)	8/45 (18%)
POLY-3 RATE (b)	11/43.77	7/40.94	3/43.27	10/39.55	10/44.16	8/42.14	6/38.47	8/40.99
POLY-3 PERCENT (g)	25.1%	17.1%	6.9%	25.3%	22.7%	19.0%	15.6%	19.5%
TERMINAL (d)	9/31 (29%)	7/34 (21%)	2/33 (6%)	10/32 (31%)	9/42 (21%)	8/38 (21%)	5/34 (15%)	7/34 (21%)
FIRST INCIDENCE	667	729 (T)	706	729 (T)	700	729 (T)	700	642
STATISTICAL TESTS								
LIFE TABLE	P=0.489N	P=0.162N	P=0.018N*	P=0.480N	P=0.528N	P=0.487N	P=0.356N	P=0.581N
POLY 3	P=0.552N	P=0.262N	P=0.019N*	P=0.593	P=0.411N	P=0.439N	P=0.299N	P=0.465N
POLY 1.5	P=0.547N	P=0.254N	P=0.019N*	P=0.594N	P=0.393N	P=0.435N	P=0.296N	P=0.442N
POLY 6	P=0.552	P=0.262N	P=0.020N*	P=0.588	P=0.437N	P=0.451N	P=0.309N	P=0.498N
LOGISTIC REGRESSION	P=0.551	P=0.224N	P=0.021N*	P=0.587N	P=0.459N	P=0.459N	P=0.308N	P=0.495N
COCH-ARM / FISHERS	P=0.538N	P=0.231N	P=0.018N*	P=0.569N	P=0.384N	P=0.458N	P=0.319N	P=0.437N
ORDER RESTRICTED	P=0.207N	(e)	(e)	(e)	P=0.439N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Thyroid Gland: C-Cell Carcinoma								
TUMOR RATES								
OVERALL (a)	0/47 (0%)	0/46 (0%)	2/48 (4%)	0/44 (0%)	1/47 (2%)	0/44 (0%)	2/40 (5%)	0/45 (0%)
POLY-3 RATE (b)	0/43.51	0/40.94	2/43.18	0/39.55	1/44.04	0/42.14	2/38.35	0/40.67
POLY-3 PERCENT (g)	0.0%	0.0%	4.6%	0.0%	2.3%	0.0%	5.2%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	2/33 (6%)	0/32 (0%)	1/42 (2%)	0/38 (0%)	2/34 (6%)	0/34 (0%)
FIRST INCIDENCE	---	---	729 (T)	---	729 (T)	---	729 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.597	(e)	P=0.252	(e)	P=0.515N	P=0.520N	P=0.426	P=0.542N
POLY 3	P=0.575	(e)	P=0.235	(e)	P=0.488N	P=0.509N	P=0.452	P=0.516N
POLY 1.5	P=0.578	(e)	P=0.238	(e)	P=0.480N	P=0.508N	P=0.453	P=0.510N
POLY 6	P=0.575	(e)	P=0.234	(e)	P=0.499N	P=0.511N	P=0.447	P=0.523N
LOGISTIC REGRESSION	(e)	(e)	P=0.252	(e)	P=0.515N	(e)	P=0.426	(e)
COCH-ARM / FISHERS	P=0.584	(e)	P=0.253	(e)	P=0.472N	P=0.516N	P=0.439	P=0.511N
ORDER RESTRICTED	P=0.247	(e)	(e)	(e)	P=0.318N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Thyroid Gland: C-Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	11/47 (23%)	7/46 (15%)	5/48 (10%)	10/44 (23%)	11/47 (23%)	8/44 (18%)	8/40 (20%)	8/45 (18%)
POLY-3 RATE (b)	11/43.77	7/40.94	5/43.27	10/39.55	11/44.16	8/42.14	8/38.47	8/40.99
POLY-3 PERCENT (g)	25.1%	17.1%	11.6%	25.3%	24.9%	19.0%	20.8%	19.5%
TERMINAL (d)	9/31 (29%)	7/34 (21%)	4/33 (12%)	10/32 (31%)	10/42 (24%)	8/38 (21%)	7/34 (21%)	7/34 (21%)
FIRST INCIDENCE	667	729 (T)	706	729 (T)	700	729 (T)	700	642
STATISTICAL TESTS								
LIFE TABLE	P=0.515N	P=0.162N	P=0.071N	P=0.480N	P=0.481N	P=0.391N	P=0.496N	P=0.488N
POLY 3	P=0.523	P=0.262N	P=0.085N	P=0.593	P=0.363N	P=0.344N	P=0.429N	P=0.369N
POLY 1.5	P=0.528	P=0.254N	P=0.082N	P=0.594N	P=0.343N	P=0.340N	P=0.424N	P=0.347N
POLY 6	P=0.517	P=0.262N	P=0.087N	P=0.588	P=0.391N	P=0.355N	P=0.442N	P=0.401N
LOGISTIC REGRESSION	P=0.519	P=0.224N	P=0.083N	P=0.587N	P=0.412N	P=0.363N	P=0.446N	P=0.400N
COCH-ARM / FISHERS	P=0.538	P=0.231N	P=0.078N	P=0.569N	P=0.332N	P=0.362N	P=0.453N	P=0.342N
ORDER RESTRICTED	P=0.316N	(e)	(e)	(e)	P=0.427N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Thyroid Gland: Follicular Cell Adenoma								
TUMOR RATES								
OVERALL (a)	0/47 (0%)	1/46 (2%)	0/48 (0%)	0/44 (0%)	2/47 (4%)	3/44 (7%)	0/40 (0%)	0/45 (0%)
POLY-3 RATE (b)	0/43.51	1/40.94	0/43.18	0/39.55	2/44.04	3/42.48	0/38.35	0/40.67
POLY-3 PERCENT (g)	0.0%	2.4%	0.0%	0.0%	4.5%	7.1%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	0/33 (0%)	0/32 (0%)	2/42 (5%)	2/38 (5%)	0/34 (0%)	0/34 (0%)
FIRST INCIDENCE	---	729 (T)	---	---	729 (T)	636	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.567N	P=0.518	(e)	(e)	P=0.097N	P=0.464	P=0.286N	P=0.286N
POLY 3	P=0.583N	P=0.488	(e)	(e)	P=0.082N	P=0.484	P=0.268N	P=0.255N
POLY 1.5	P=0.581N	P=0.490	(e)	(e)	P=0.080N	P=0.484	P=0.267N	P=0.249N
POLY 6	P=0.584N	P=0.488	(e)	(e)	P=0.086N	P=0.482	P=0.271N	P=0.264N
LOGISTIC REGRESSION	(e)	P=0.518	(e)	(e)	P=0.081N	P=0.473	(e)	(e)
COCH-ARM / FISHERS	P=0.576N	P=0.495	(e)	(e)	P=0.081N	P=0.468	P=0.289N	P=0.258N
ORDER RESTRICTED	P=0.388N	(e)	(e)	(e)	P=0.087N	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Tongue Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/45.22	2/43.72	0/44.41	0/43.64	0/46.53	1/45.98	1/44.26	1/44.39
POLY-3 PERCENT (g)	0.0%	4.6%	0.0%	0.0%	0.0%	2.2%	2.3%	2.3%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	0/33 (0%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	1/35 (3%)
FIRST INCIDENCE	---	547	---	---	---	653	581	729 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.406N	P=0.243	(e)	(e)	P=0.356	P=0.496	P=0.491	P=0.459
POLY 3	P=0.416N	P=0.230	(e)	(e)	P=0.367	P=0.498	P=0.490	P=0.491
POLY 1.5	P=0.413N	P=0.231	(e)	(e)	P=0.377	P=0.500	P=0.495	P=0.496
POLY 6	P=0.418N	P=0.231	(e)	(e)	P=0.353	P=0.495	P=0.483	P=0.483
LOGISTIC REGRESSION	P=0.399N	P=0.272	(e)	(e)	P=0.383	P=0.488	P=0.498	P=0.459
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)	P=0.384	P=0.500	P=0.500	P=0.500
ORDER RESTRICTED	P=0.247N	(e)	(e)	(e)	P=0.318	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					16/50 (32%)	5/50 (10%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)					16/47.69	5/45.89	2/43.76	2/44.39
POLY-3 PERCENT (g)					33.6%	10.9%	4.6%	4.5%
TERMINAL (d)					14/43 (33%)	4/39 (10%)	2/34 (6%)	2/35 (6%)
FIRST INCIDENCE					302	677	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P<0.001N**	P=0.014N*	P=0.002N**	P=0.002N**
POLY 3					P<0.001N**	P=0.007N**	P<0.001N**	P<0.001N**
POLY 1.5					P<0.001N**	P=0.006N**	P<0.001N**	P<0.001N**
POLY 6					P<0.001N**	P=0.008N**	P<0.001N**	P<0.001N**
LOGISTIC REGRESSION					P<0.001N**	P=0.007N**	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS					P<0.001N**	P=0.006N**	P<0.001N**	P<0.001N**
ORDER RESTRICTED					P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Uterus Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					17/50 (34%)	5/50 (10%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)					17/47.69	5/45.89	2/43.76	2/44.39
POLY-3 PERCENT (g)					35.6%	10.9%	4.6%	4.5%
TERMINAL (d)					15/43 (35%)	4/39 (10%)	2/34 (6%)	2/35 (6%)
FIRST INCIDENCE					302	677	729 (T)	729 (T)
STATISTICAL TESTS								
LIFE TABLE					P<0.001N**	P=0.009N**	P<0.001N**	P<0.001N**
POLY 3					P<0.001N**	P=0.004N**	P<0.001N**	P<0.001N**
POLY 1.5					P<0.001N**	P=0.003N**	P<0.001N**	P<0.001N**
POLY 6					P<0.001N**	P=0.004N**	P<0.001N**	P<0.001N**
LOGISTIC REGRESSION					P<0.001N**	P=0.004N**	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS					P<0.001N**	P=0.004N**	P<0.001N**	P<0.001N**
ORDER RESTRICTED					P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
Zymbal's Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/46.20	1/43.15	2/45.02	0/43.64	0/46.53	2/45.69	1/43.88	0/44.39
POLY-3 PERCENT (g)	6.5%	2.3%	4.4%	0.0%	0.0%	4.4%	2.3%	0.0%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	1/33 (3%)	0/32 (0%)	0/43 (0%)	2/39 (5%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	547	729 (T)	531	---	---	729 (T)	700	---
STATISTICAL TESTS								
LIFE TABLE	P=0.114N	P=0.319N	P=0.515N	P=0.146N	P=0.510N	P=0.217	P=0.465	(e)
POLY 3	P=0.107N	P=0.330N	P=0.512N	P=0.129N	P=0.480N	P=0.233	P=0.488	(e)
POLY 1.5	P=0.105N	P=0.323N	P=0.507N	P=0.125N	P=0.468N	P=0.237	P=0.494	(e)
POLY 6	P=0.110N	P=0.335N	P=0.518N	P=0.135N	P=0.495N	P=0.229	P=0.480	(e)
LOGISTIC REGRESSION	P=0.097N	P=0.258N	P=0.443N	P=0.080N	P=0.480N	P=0.217	P=0.498	(e)
COCH-ARM / FISHERS	P=0.104N	P=0.309N	P=0.500N	P=0.121N	P=0.461N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	P=0.064N	(e)	(e)	(e)	P=0.319	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	0/43.15	1/44.48	1/44.02	2/47.21	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	0.0%	2.3%	2.3%	4.2%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/34 (0%)	0/33 (0%)	0/32 (0%)	1/43 (2%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	---	712	622	498	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.235	(e)	P=0.506	P=0.504	P=0.127N	P=0.253N	P=0.265N	P=0.262N
POLY 3	P=0.233	(e)	P=0.497	P=0.495	P=0.112N	P=0.245N	P=0.255N	P=0.251N
POLY 1.5	P=0.235	(e)	P=0.498	P=0.496	P=0.113N	P=0.240N	P=0.246N	P=0.244N
POLY 6	P=0.230	(e)	P=0.496	P=0.493	P=0.111N	P=0.250N	P=0.266N	P=0.261N
LOGISTIC REGRESSION	P=0.237	(e)	P=0.496	P=0.552	P=0.118N	P=0.261N	P=0.234N	P=0.249N
COCH-ARM / FISHERS	P=0.236	(e)	P=0.500	P=0.500	P=0.115N	P=0.247N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.246	(e)	(e)	(e)	P=0.035N*	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	15/50 (30%)	18/50 (36%)	22/50 (44%)	20/50 (40%)	9/50 (18%)	7/50 (14%)	16/50 (32%)	20/50 (40%)
POLY-3 RATE (b)	15/47.00	18/45.55	22/47.58	20/47.38	9/47.04	7/47.43	16/46.44	20/47.92
POLY-3 PERCENT (g)	31.9%	39.5%	46.2%	42.2%	19.1%	14.8%	34.5%	41.7%
TERMINAL (d)	5/31 (16%)	9/34 (27%)	12/33 (36%)	7/32 (22%)	7/43 (16%)	4/39 (10%)	7/34 (21%)	11/35 (31%)
FIRST INCIDENCE	582	567	493	584	624	434	578	368
STATISTICAL TESTS								
LIFE TABLE	P=0.181	P=0.375	P=0.160	P=0.211	P<0.001 **	P=0.458N	P=0.041 *	P=0.007 **
POLY 3	P=0.184	P=0.292	P=0.110	P=0.205	P<0.001 **	P=0.386N	P=0.073	P=0.013 *
POLY 1.5	P=0.175	P=0.297	P=0.108	P=0.198	P<0.001 **	P=0.379N	P=0.078	P=0.014 *
POLY 6	P=0.200	P=0.303	P=0.113	P=0.221	P<0.001 **	P=0.398N	P=0.068	P=0.012 *
LOGISTIC REGRESSION	P=0.172	P=0.325	P=0.115	P=0.226	P=0.002 **	P=0.402N	P=0.081	P=0.014 *
COCH-ARM / FISHERS	P=0.168	P=0.335	P=0.107	P=0.201	P=0.002 **	P=0.393N	P=0.083	P=0.013 *
ORDER RESTRICTED	P=0.169	(e)	(e)	(e)	P=0.003 **	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Mesothelioma: Benign, Malignant, NOS								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	3/50 (6%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	2/43.68	3/44.87	1/43.94	0/46.53	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	4.6%	6.7%	2.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	2/33 (6%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	567	594	650	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.449	P=0.243	P=0.130	P=0.491	(e)	(e)	(e)	(e)
POLY 3	P=0.428	P=0.229	P=0.117	P=0.494	(e)	(e)	(e)	(e)
POLY 1.5	P=0.434	P=0.231	P=0.118	P=0.496	(e)	(e)	(e)	(e)
POLY 6	P=0.421	P=0.231	P=0.117	P=0.492	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.450	P=0.264	P=0.124	P=0.529	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.444	P=0.247	P=0.121	P=0.500	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.183	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Mesothelioma: Malignant								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	3/50 (6%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.22	2/43.68	3/44.87	1/43.94	0/46.53	0/45.69	0/43.76	0/44.39
POLY-3 PERCENT (g)	0.0%	4.6%	6.7%	2.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	1/34 (3%)	2/33 (6%)	0/32 (0%)	0/43 (0%)	0/39 (0%)	0/34 (0%)	0/35 (0%)
FIRST INCIDENCE	---	567	594	650	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.449	P=0.243	P=0.130	P=0.491	(e)	(e)	(e)	(e)
POLY 3	P=0.428	P=0.229	P=0.117	P=0.494	(e)	(e)	(e)	(e)
POLY 1.5	P=0.434	P=0.231	P=0.118	P=0.496	(e)	(e)	(e)	(e)
POLY 6	P=0.421	P=0.231	P=0.117	P=0.492	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.450	P=0.264	P=0.124	P=0.529	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.444	P=0.247	P=0.121	P=0.500	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.183	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	49/50 (98%)	48/50 (96%)	47/50 (94%)	48/50 (96%)	32/50 (64%)	29/50 (58%)	20/50 (40%)
POLY-3 RATE (b)	50/50.00	49/49.05	48/49.24	47/48.27	48/49.00	32/47.78	29/45.80	20/45.23
POLY-3 PERCENT (g)	100.0%	99.9%	97.5%	97.4%	98.0%	67.0%	63.3%	44.2%
TERMINAL (d)	31/31 (100%)	34/34 (100%)	33/33 (100%)	32/32 (100%)	42/43 (98%)	25/39 (64%)	22/34 (65%)	16/35 (46%)
FIRST INCIDENCE	464	275	498	384	302	434	555	642
STATISTICAL TESTS								
LIFE TABLE	P=0.369N	P=0.354N	P=0.331N	P=0.390N	P<0.001N**	P=0.011N*	P=0.022N*	P<0.001N**
POLY 3	P=0.123N	P=1.000N	P=0.399N	P=0.362N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 1.5	P=0.071N	P=0.999N	P=0.317N	P=0.213N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 6	P=0.289N	P=1.000N	P=0.512N	P=0.750N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
LOGISTIC REGRESSION	P=0.046N*	(e)	P=0.267N	P=0.215N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS	P=0.062N	P=0.500N	P=0.247N	P=0.121N	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
ORDER RESTRICTED	P=0.116N	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	22/50 (44%)	21/50 (42%)	30/50 (60%)	24/50 (48%)	19/50 (38%)	15/50 (30%)	25/50 (50%)	21/50 (42%)
POLY-3 RATE (b)	22/48.23	21/46.12	30/49.89	24/49.35	19/47.72	15/49.00	25/46.69	21/47.92
POLY-3 PERCENT (g)	45.6%	45.5%	60.1%	48.6%	39.8%	30.6%	53.5%	43.8%
TERMINAL (d)	7/31 (23%)	11/34 (32%)	14/33 (42%)	8/32 (25%)	16/43 (37%)	8/39 (21%)	14/34 (41%)	12/35 (34%)
FIRST INCIDENCE	547	547	493	369	498	421	578	368
STATISTICAL TESTS								
LIFE TABLE	P=0.281	P=0.482N	P=0.159	P=0.384	P=0.102	P=0.371N	P=0.051	P=0.220
POLY 3	P=0.354	P=0.579N	P=0.106	P=0.462	P=0.201	P=0.232N	P=0.128	P=0.425
POLY 1.5	P=0.328	P=0.562N	P=0.095	P=0.446	P=0.214	P=0.231N	P=0.141	P=0.438
POLY 6	P=0.376	P=0.582	P=0.121	P=0.478	P=0.187	P=0.240N	P=0.117	P=0.405
LOGISTIC REGRESSION	P=0.302	P=0.492N	P=0.090	P=0.533	P=0.226	P=0.269N	P=0.142	P=0.422
COCH-ARM / FISHERS	P=0.275	P=0.500N	P=0.080	P=0.421	P=0.217	P=0.263N	P=0.157	P=0.419
ORDER RESTRICTED	P=0.300	(e)	(e)	(e)	P=0.138	(e)	(e)	(e)

Dose	Males 0 PPM	625 PPM	1250 PPM	2500 PPM	Females 0 PPM	1250 PPM	2500 PPM	5000 PPM
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	49/50 (98%)	50/50 (100%)	50/50 (100%)	48/50 (96%)	39/50 (78%)	42/50 (84%)	36/50 (72%)
POLY-3 RATE (b)	50/50.00	49/49.05	50/50.00	50/50.00	48/49.00	39/50.00	42/47.58	36/48.81
POLY-3 PERCENT (g)	100.0%	99.9%	100.0%	100.0%	98.0%	78.0%	88.3%	73.8%
TERMINAL (d)	31/31 (100%)	34/34 (100%)	33/33 (100%)	32/32 (100%)	42/43 (98%)	28/39 (72%)	29/34 (85%)	23/35 (66%)
FIRST INCIDENCE	464	275	493	369	302	421	555	368
STATISTICAL TESTS								
LIFE TABLE	P=0.457	P=0.354N	(e)	(e)	P=0.343N	P=0.201N	P=0.320	P=0.252N
POLY 3	P=1.000	P=1.000N	(e)	(e)	P=0.004N**	P=0.002N**	P=0.062N	P<0.001N**
POLY 1.5	P=0.992	P=0.999N	(e)	(e)	P=0.003N**	P=0.002N**	P=0.045N*	P<0.001N**
POLY 6	P=1.000	P=1.000N	(e)	(e)	P=0.005N**	P=0.002N**	P=0.080N	P<0.001N**
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.005N**	P=0.007N**	P=0.039N*	P<0.001N**
COCH-ARM / FISHERS	P=0.567	P=0.500N	(e)	(e)	P=0.005N**	P=0.007N**	P=0.046N*	P<0.001N**
ORDER RESTRICTED	P=0.379	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

NTP Experiment-Test: 92013-05
Study Type: CHRONIC
Route: DOSED FEED

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FINAL #1 RATS

Report: PEIRPT18
Date: 12/06/04
Time: 09:00:53

Facility: Southern Research Institute

Chemical CAS #: 822-36-6

Lock Date: 09/13/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Natural Death	2	6	11	6
Moribund Sacrifice	5	5	5	9
Survivors				
Terminal Sacrifice	40	39	34	33
Natural Death	3			2
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(48)	(46)	(43)	(43)
Edema	1 [3.0]			
Liver	(50)	(50)	(48)	(50)
Basophilic Focus	46	43	31	25
Clear Cell Focus	20	32	23	27
Congestion	2 [3.0]	2 [2.5]		1 [3.0]
Degeneration, Cystic, Focal	1 [1.0]		1 [3.0]	3 [3.0]
Eosinophilic Focus	1	2	5	11
Hematopoietic Cell Proliferation	1 [3.0]			
Hemorrhage				1 [2.0]
Hepatodiaphragmatic Nodule	5	4	6	11
Histiocytosis	40 [1.0]	50 [1.3]	48 [1.9]	50 [2.5]
Hyperplasia, Focal, Histiocytic				2 [2.0]
Infiltration Cellular, Mixed Cell	5 [1.0]	5 [1.4]		5 [1.6]
Inflammation, Chronic	17 [1.2]	28 [1.5]	34 [1.8]	35 [1.7]
Inflammation, Chronic, Focal			1 [1.0]	
Inflammation, Granulomatous	1 [1.0]			
Mixed Cell Focus	10	7	6	18
Thrombosis			1 [2.0]	
Bile Duct, Cyst				1
Bile Duct, Dilatation, Focal			2 [2.5]	1 [2.0]
Bile Duct, Hyperplasia	31 [1.5]	38 [1.6]	43 [1.9]	35 [1.9]
Hepatocyte, Fatty Change, Focal	16 [1.2]	29 [1.6]	29 [2.0]	32 [2.2]
Hepatocyte, Hyperplasia, Focal	1 [3.0]			
Hepatocyte, Necrosis, Focal	1 [2.0]			1 [2.0]
Hepatocyte, Vacuolization Cytoplasmic	6 [2.7]	12 [2.3]	17 [2.4]	11 [2.4]
Hepatocyte, Centrilobular, Necrosis	2 [3.0]		1 [3.0]	1 [4.0]
Oval Cell, Hyperplasia, Focal	1 [2.0]			2 [2.0]
Serosa, Fibrosis			1 [2.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
ALIMENTARY SYSTEM - CONT				
Mesentery	(9)	(7)	(11)	(8)
Inflammation, Chronic	1 [3.0]		1 [1.0]	
Fat, Necrosis, Focal	8 [2.5]	3 [2.0]		1 [1.0]
Lymphatic, Angiectasis				1 [2.0]
Pancreas	(49)	(49)	(47)	(47)
Acinus, Atrophy, Diffuse	1 [4.0]			
Acinus, Atrophy, Focal	13 [1.3]	22 [1.7]	26 [1.8]	30 [1.7]
Duct, Cyst, Focal, Multiple	10 [1.5]	18 [2.0]	11 [1.4]	9 [1.7]
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy, Focal			2 [1.5]	
Inflammation, Chronic		1 [4.0]	1 [3.0]	1 [3.0]
Stomach, Forestomach	(50)	(50)	(49)	(50)
Diverticulum			1	
Edema	1 [3.0]	1 [3.0]	2 [3.0]	1 [3.0]
Inflammation			2 [2.0]	
Ulcer	1 [1.0]	1 [2.0]	3 [1.7]	2 [1.0]
Epithelium, Hyperplasia		1 [2.0]	6 [2.0]	1 [1.0]
Stomach, Glandular	(50)	(50)	(49)	(49)
Erosion	2 [2.0]	1 [2.0]	1 [3.0]	4 [1.5]
Ulcer		1 [2.0]		
Tongue		(5)	(4)	(3)
Epithelium, Hyperplasia		1 [2.0]	1 [1.0]	
Tooth	(1)	(1)	(2)	
Malformation		1 [2.0]	2 [2.0]	
Peridontal Tissue, Inflammation	1 [4.0]	1 [3.0]		
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(48)	(50)
Cardiomyopathy	30 [1.3]	43 [1.5]	38 [1.8]	44 [1.9]
Inflammation, Focal, Suppurative		1 [2.0]		
Thrombosis			2 [3.0]	5 [3.4]
Artery, Inflammation, Chronic			1 [2.0]	
Epicardium, Inflammation	1 [3.0]			
Myocardium, Fibrosis, Focal	1 [2.0]			
Pericardium, Infiltration Cellular, Mixed Cell	1 [1.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(50)	(50)	(50)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
ENDOCRINE SYSTEM - CONT				
Accessory Adrenal Cortical Nodule	8 [1.3]	6 [1.2]	3 [1.3]	2 [1.0]
Angiectasis	4 [2.5]	2 [2.5]	7 [2.6]	4 [2.8]
Cytoplasmic Alteration, Focal	1 [2.0]	2 [1.0]	2 [1.5]	2 [2.0]
Hematopoietic Cell Proliferation		1 [1.0]		
Hemorrhage, Focal			2 [3.0]	1 [3.0]
Vacuolization Cytoplasmic, Focal	8 [2.3]	9 [2.0]	13 [2.2]	12 [1.6]
Adrenal Medulla	(48)	(50)	(50)	(50)
Angiectasis	1 [2.0]			1 [2.0]
Atrophy			1 [3.0]	
Hyperplasia, Focal	2 [1.0]		2 [2.5]	
Hyperplasia, Lymphoid		1 [3.0]		
Islets, Pancreatic	(49)	(50)	(48)	(47)
Atrophy			1 [3.0]	
Parathyroid Gland	(50)	(49)	(48)	(49)
Hyperplasia, Focal				1 [2.0]
Pituitary Gland	(48)	(50)	(50)	(50)
Angiectasis	6 [2.8]	4 [2.3]	3 [2.0]	4 [2.5]
Cyst		4	2	5
Hyperplasia, Focal, Histiocytic		1 [2.0]		
Pars Distalis, Angiectasis	1 [3.0]	2 [1.0]	3 [2.0]	
Pars Distalis, Degeneration, Cystic, Focal	9 [1.9]	6 [2.5]	5 [1.8]	3 [1.7]
Pars Distalis, Hemorrhage, Focal			1 [2.0]	
Pars Distalis, Hyperplasia, Focal	4 [1.8]	4 [2.3]	5 [2.4]	4 [2.0]
Pars Distalis, Hypertrophy, Focal	1 [3.0]		1 [2.0]	4 [1.5]
Thyroid Gland	(47)	(44)	(40)	(45)
C-Cell, Hyperplasia	45 [2.0]	42 [1.7]	36 [1.9]	35 [1.7]
Follicle, Cyst		1		
Follicle, Degeneration, Focal			1 [1.0]	1 [1.0]
Follicle, Mineralization	2 [1.0]	7 [1.0]	6 [1.0]	19 [1.0]
Follicular Cell, Hyperplasia, Focal	1 [2.0]	1 [2.0]	1 [2.0]	2 [2.0]
GENERAL BODY SYSTEM				
Tissue NOS	(5)	(3)	(6)	(6)
Fibrosis, Focal	1 [2.0]			
Mediastinum, Cyst	1 [2.0]			
Mediastinum, Infiltration Cellular, Mixed Cell	1 [1.0]			
GENITAL SYSTEM				

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
GENITAL SYSTEM - CONT				
Clitoral Gland	(50)	(50)	(50)	(50)
Degeneration, Cystic	4 [2.3]		5 [3.0]	3 [2.3]
Hyperplasia, Cystic	7 [2.4]	4 [2.3]	1 [2.0]	1 [3.0]
Hyperplasia, Focal, Histiocytic			1 [2.0]	
Inflammation, Chronic	2 [2.0]	2 [1.5]		3 [1.7]
Ovary	(50)	(50)	(48)	(50)
Angiectasis				2 [3.0]
Cyst	7	3	5	
Periovarian Tissue, Hemorrhage				1 [3.0]
Uterus	(50)	(50)	(48)	(50)
Inflammation, Chronic, Granulomatous	1 [3.0]			
Ulcer			1 [4.0]	
Cervix, Hypertrophy	1 [3.0]			
Endometrium, Hyperplasia, Cystic	25 [1.5]	26 [1.9]	18 [2.1]	26 [1.5]
Vagina	(1)	(2)	(5)	(4)
Angiectasis				1 [3.0]
Infiltration Cellular, Polymorphonuclear		1 [2.0]		1 [2.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(48)	(49)	(48)
Atrophy				2 [3.0]
Fibrosis		1 [3.0]	1 [3.0]	
Hyperplasia	3 [3.0]	2 [3.0]	1 [3.0]	2 [2.5]
Hyperplasia, Focal, Histiocytic		1 [2.0]	2 [2.0]	3 [2.0]
Erythroid Cell, Hyperplasia		1 [3.0]		
Lymph Node	(24)	(11)	(24)	(35)
Hyperplasia, Plasma Cell				1 [3.0]
Deep Cervical, Hemorrhage	3 [3.0]			
Mediastinal, Congestion		1 [3.0]		
Mediastinal, Ectasia	3 [3.3]	1 [3.0]		1 [3.0]
Mediastinal, Hemorrhage	5 [3.0]	3 [2.7]	5 [3.0]	3 [3.0]
Mediastinal, Hyperplasia, Histiocytic	4 [3.0]	1 [3.0]	1 [3.0]	6 [3.0]
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]			1 [3.0]
Mediastinal, Hyperplasia, Plasma Cell			1 [3.0]	
Mediastinal, Pigmentation	1 [3.0]			
Pancreatic, Hemorrhage	1 [2.0]		2 [2.5]	2 [3.0]
Pancreatic, Hyperplasia, Histiocytic	6 [2.8]	1 [3.0]	7 [3.0]	7 [3.1]
Pancreatic, Hyperplasia, Lymphoid				1 [3.0]
Pancreatic, Hyperplasia, Plasma Cell	1 [3.0]			
Pancreatic, Pigmentation	1 [2.0]			
Renal, Hyperplasia, Histiocytic				1 [3.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
HEMATOPOIETIC SYSTEM - CONT				
Lymph Node, Mandibular	(1)	(3)	(1)	(4)
Ectasia		1 [3.0]		
Hyperplasia, Histiocytic				1 [3.0]
Hyperplasia, Lymphoid			1 [3.0]	
Lymph Node, Mesenteric	(49)	(49)	(49)	(47)
Ectasia			2 [3.0]	
Hemorrhage				1 [3.0]
Hyperplasia, Histiocytic	7 [3.0]		1 [3.0]	2 [3.0]
Hyperplasia, Lymphoid				1 [3.0]
Spleen	(50)	(48)	(47)	(48)
Accessory Spleen	3		1	1
Atrophy			2 [2.5]	
Congestion			1 [3.0]	
Fibrosis, Focal	1 [3.0]		1 [3.0]	1 [2.0]
Hematopoietic Cell Proliferation	6 [3.0]	2 [2.5]		
Inflammation, Granulomatous		3 [2.7]	10 [3.2]	3 [1.7]
Stromal Hyperplasia		1 [3.0]		
Capsule, Infiltration Cellular, Focal, Mixed Cell				
Thymus	(47)	(50)	2 [2.0]	1 [1.0]
Angiectasis			(48)	(48)
Cyst	2 [2.5]		1 [2.0]	
Hemorrhage		1 [3.0]		
Hyperplasia, Lymphoid	1 [4.0]		1 [2.0]	1 [3.0]
Epithelial Cell, Hyperplasia	1 [3.0]			
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(50)	(50)
Dilatation	37 [2.7]	16 [2.3]	8 [2.0]	1 [2.0]
Fibrosis	1 [3.0]			
Hyperplasia	6 [2.5]	3 [1.7]	3 [1.7]	1 [2.0]
Skin	(50)	(50)	(50)	(50)
Inflammation, Focal			1 [2.0]	
Ulcer	1 [2.0]	1 [3.0]		1 [3.0]
Epidermis, Hyperplasia, Focal			1 [1.0]	2 [2.5]
Lip, Cyst Epithelial Inclusion				1 [2.0]
Pinna, Inflammation, Chronic, Focal		1 [2.0]		
Subcutaneous Tissue, Edema	1 [3.0]	1 [2.0]		1 [3.0]
Subcutaneous Tissue, Fibrosis, Focal		1 [2.0]		
Subcutaneous Tissue, Hemorrhage, Focal			1 [2.0]	
Subcutaneous Tissue, Necrosis, Fatty, Focal			1 [3.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression, Focal	13 [2.8]	8 [3.0]	8 [3.0]	2 [2.5]
Hemorrhage, Focal	1 [2.0]	2 [3.0]	4 [2.0]	2 [1.5]
Meninges, Hemorrhage, Focal				1 [3.0]
Thalamus, Mineralization, Focal			1 [2.0]	1 [2.0]
Spinal Cord	(7)	(3)	(24)	(50)
Hemorrhage, Focal				2 [3.0]
Necrosis, Focal				1 [3.0]
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	1 [2.0]	5 [2.2]	3 [3.0]	5 [2.2]
Hemorrhage, Focal	1 [3.0]		2 [3.0]	2 [2.0]
Hyperplasia, Focal, Histiocytic		1 [2.0]		2 [3.0]
Infiltration Cellular, Mixed Cell	3 [1.7]	1 [1.0]		1 [3.0]
Inflammation, Chronic, Focal	25 [1.1]	40 [1.2]	39 [1.0]	43 [1.2]
Alveolar Epithelium, Hyperplasia, Focal	4 [2.0]	3 [1.3]		2 [1.5]
Interstitium, Edema	1 [2.0]		1 [2.0]	
Mediastinum, Congestion			1 [3.0]	
Mediastinum, Edema	1 [2.0]	1 [2.0]	1 [3.0]	
Mediastinum, Mineralization, Focal			1 [3.0]	
Nose	(49)	(50)	(50)	(50)
Foreign Body		2 [1.5]		
Inflammation, Suppurative		3 [2.0]	1 [2.0]	
Nasolacrimal Duct, Hemorrhage				1 [1.0]
Nasolacrimal Duct, Inflammation	2 [2.5]	5 [2.0]	4 [2.0]	5 [2.6]
SPECIAL SENSES SYSTEM				
Eye	(48)	(45)	(40)	(45)
Atrophy			3 [3.3]	4 [3.3]
Cataract	4 [2.8]		1 [2.0]	1 [3.0]
Inflammation, Chronic		1 [4.0]		1 [3.0]

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

FISCHER 344 RATS FEMALE	0 PPM	1250 PPM	2500 PPM	5000 PPM
SPECIAL SENSES SYSTEM - CONT				
Synechia	1 [3.0]			2 [3.0]
Anterior Chamber, Exudate		1 [3.0]		1 [3.0]
Cornea, Inflammation, Chronic		1 [4.0]		
Cornea, Necrosis, Focal		1 [4.0]	1 [4.0]	2 [3.5]
Retina, Degeneration	4 [3.0]	1 [3.0]		3 [3.0]
Harderian Gland	(50)	(50)	(50)	(50)
Cytoplasmic Alteration, Focal			1 [1.0]	
Hyperplasia, Focal, Histiocytic	1 [1.0]	4 [1.5]	5 [1.2]	
Inflammation	1 [1.0]	1 [1.0]		
Epithelium, Hyperplasia, Focal			1 [1.0]	
Zymbal's Gland		(3)	(1)	
Cyst		1 [4.0]		
URINARY SYSTEM				
Kidney	(48)	(48)	(43)	(43)
Cyst			2 [2.5]	
Hydronephrosis				1 [2.0]
Infarct	1 [2.0]	1 [2.0]	1 [4.0]	2 [2.0]
Mineralization, Focal		1 [2.0]		
Nephropathy	45 [1.1]	37 [1.1]	36 [1.1]	38 [1.4]
Pelvis, Dilatation	1 [3.0]			
Renal Tubule, Accumulation, Hyaline Droplet	3 [2.7]		2 [2.5]	1 [3.0]
Renal Tubule, Hyperplasia, Focal				1 [2.0]
Renal Tubule, Pigmentation				2 [3.0]
Urinary Bladder	(49)	(50)	(49)	(48)
Hemorrhage			1 [1.0]	2 [3.0]
Inflammation			1 [3.0]	1 [2.0]
Transitional Epithelium, Hyperplasia			1 [2.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	13	11	12	10
Natural Death	6	5	5	8
Survivors				
Terminal Sacrifice	31	34	33	32
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(46)	(46)	(46)	(46)
Congestion		1 [3.0]		
Edema				1 [3.0]
Liver	(50)	(50)	(50)	(50)
Angiectasis, Focal		1 [2.0]		
Atrophy, Focal			1 [2.0]	
Basophilic Focus	31	26	30	36
Clear Cell Focus	31	28	29	31
Congestion	2 [2.0]			
Degeneration, Cystic, Focal	4 [1.3]	3 [1.3]	1 [2.0]	7 [2.0]
Eosinophilic Focus	4	3	7	12
Fibrosis	1 [2.0]			
Hepatodiaphragmatic Nodule	5	2	5	4
Histiocytosis	38 [1.1]	45 [1.4]	50 [1.9]	50 [2.3]
Hyperplasia, Focal, Histiocytic	1 [1.0]		1 [2.0]	3 [2.0]
Infiltration Cellular, Mixed Cell	15 [1.2]	5 [1.2]	5 [1.6]	17 [1.1]
Inflammation, Chronic	18 [1.1]	32 [1.2]	31 [1.3]	36 [1.3]
Inflammation, Granulomatous	1 [1.0]			
Mixed Cell Focus	5	7	11	27
Thrombosis			1 [3.0]	
Bile Duct, Dilatation, Focal	2 [1.5]	2 [2.0]	2 [1.5]	2 [1.5]
Bile Duct, Hyperplasia	48 [2.8]	48 [2.9]	49 [2.9]	42 [3.0]
Hepatocyte, Fatty Change, Focal	21 [1.5]	24 [1.8]	37 [1.9]	33 [2.5]
Hepatocyte, Necrosis, Focal		2 [2.0]	1 [2.0]	
Hepatocyte, Vacuolization Cytoplasmic	11 [2.2]	14 [2.9]	12 [2.3]	18 [2.3]
Serosa, Inflammation, Chronic, Focal	1 [2.0]			
Mesentery	(13)	(10)	(11)	(10)
Inflammation, Chronic			1 [2.0]	1 [3.0]
Artery, Thrombosis				1 [3.0]
Fat, Hemorrhage, Focal	1 [2.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
ALIMENTARY SYSTEM - CONT				
Fat, Necrosis, Focal	9 [2.8]	4 [3.0]	6 [3.0]	5 [2.8]
Oral Mucosa	(1)	(1)	(1)	
Foreign Body		1 [3.0]		
Hyperplasia, Focal, Squamous			1 [2.0]	
Inflammation, Chronic, Focal		1 [3.0]		
Pancreas	(50)	(48)	(48)	(49)
Angiectasis			1 [3.0]	
Inflammation, Chronic				1 [3.0]
Acinus, Atrophy, Diffuse			1 [3.0]	
Acinus, Atrophy, Focal	23 [1.7]	24 [1.7]	24 [2.1]	25 [1.9]
Duct, Cyst, Focal, Multiple	15 [1.7]	12 [1.8]	16 [1.9]	10 [1.9]
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy, Focal	1 [2.0]			
Inflammation, Chronic		1 [2.0]		
Stomach, Forestomach	(50)	(50)	(50)	(49)
Diverticulum				1 [2.0]
Edema	3 [3.0]			
Hyperkeratosis, Focal		1 [2.0]		
Inflammation	1 [2.0]		1 [2.0]	3 [2.0]
Ulcer	5 [2.0]	2 [3.0]	2 [2.5]	3 [2.3]
Epithelium, Hyperplasia	4 [2.5]	3 [2.7]	2 [2.0]	4 [1.8]
Stomach, Glandular	(50)	(50)	(49)	(49)
Cyst				1 [2.0]
Edema	2 [2.5]			
Erosion	3 [1.7]	1 [2.0]	1 [1.0]	6 [1.8]
Hyperplasia, Focal, Histiocytic			1 [1.0]	
Inflammation, Focal		1 [2.0]		
Ulcer	1 [2.0]	1 [3.0]	2 [2.5]	
Epithelium, Hyperplasia			1 [2.0]	
Tongue		(3)	(1)	(1)
Epithelium, Cyst		1 [2.0]		
Epithelium, Hyperplasia			1 [1.0]	1 [1.0]
Tooth	(1)	(1)		
Peridontal Tissue, Inflammation	1 [3.0]	1 [3.0]		
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	40 [1.7]	38 [1.7]	36 [1.6]	39 [1.8]
Thrombosis	1 [4.0]	3 [3.0]	1 [3.0]	4 [2.8]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	9 [1.2]	6 [1.2]	5 [1.2]	9 [1.0]
Angiectasis		1 [2.0]		
Cytoplasmic Alteration, Focal	3 [1.0]	2 [1.5]	1 [2.0]	2 [1.0]
Degeneration, Cystic		1 [4.0]		
Hematopoietic Cell Proliferation	1 [3.0]			
Hemorrhage, Focal	1 [2.0]			
Hyperplasia, Focal				1 [1.0]
Necrosis	1 [2.0]	1 [4.0]	1 [2.0]	
Vacuolization Cytoplasmic, Focal	6 [1.3]	5 [1.4]	13 [1.4]	7 [1.3]
Capsule, Hyperplasia, Focal				1 [2.0]
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia, Focal	7 [1.4]	1 [1.0]	3 [1.3]	
Necrosis		1 [3.0]		
Islets, Pancreatic	(50)	(49)	(49)	(49)
Hyperplasia	1 [2.0]			1 [2.0]
Parathyroid Gland	(48)	(50)	(48)	(50)
Hyperplasia, Focal	1 [2.0]			2 [2.5]
Pituitary Gland	(49)	(49)	(48)	(48)
Angiectasis	1 [2.0]		4 [2.5]	1 [3.0]
Cyst	4	2	6	1
Fibrosis, Focal				1 [3.0]
Hemorrhage				1 [3.0]
Pars Distalis, Cytoplasmic Alteration, Focal			2 [1.5]	
Pars Distalis, Degeneration, Cystic, Focal		1 [2.0]		
Pars Distalis, Hemorrhage, Focal	2 [2.5]			
Pars Distalis, Hyperplasia	1 [3.0]			
Pars Distalis, Hyperplasia, Focal	3 [2.3]	1 [2.0]	1 [2.0]	1 [2.0]
Pars Distalis, Hypertrophy, Focal	8 [1.8]	9 [1.6]	20 [1.8]	22 [2.0]
Pars Nervosa, Inflammation	1 [1.0]			
Thyroid Gland	(47)	(46)	(48)	(44)
C-Cell, Hyperplasia	41 [1.5]	28 [1.6]	26 [1.5]	29 [1.7]
Follicle, Cyst		3	1	5
Follicle, Degeneration, Focal	6 [1.0]	4 [1.5]	8 [1.3]	4 [1.3]
Follicle, Mineralization	3 [1.0]	3 [1.0]	5 [1.0]	6 [1.0]
Follicular Cell, Hyperplasia, Focal	1 [1.0]	1 [1.0]	1 [2.0]	
GENERAL BODY SYSTEM				
Peritoneum		(2)	(3)	(1)
Inflammation, Chronic, Focal			1 [2.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
GENERAL BODY SYSTEM - CONT				
Tissue NOS	(6)	(4)	(6)	(5)
Inflammation, Chronic				1 [3.0]
Mediastinum, Cyst	1 [2.0]			
GENITAL SYSTEM				
Coagulating Gland				(1)
Inflammation, Chronic				1 [2.0]
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm	1 [3.0]			1 [3.0]
Hemorrhage				1 [3.0]
Inflammation, Chronic			1 [2.0]	
Spermatocele	1 [3.0]			
Preputial Gland	(50)	(50)	(50)	(49)
Degeneration, Cystic	5 [2.8]	3 [2.7]	2 [2.5]	3 [2.7]
Fibrosis	1 [3.0]			
Hyperplasia, Cystic	3 [2.3]	1 [2.0]		
Inflammation, Chronic	30 [1.6]	28 [1.6]	21 [1.9]	23 [1.7]
Prostate	(50)	(50)	(50)	(49)
Inflammation, Chronic	27 [1.7]	24 [2.0]	28 [1.6]	36 [2.0]
Epithelium, Hyperplasia, Focal	4 [1.3]	6 [1.3]	5 [1.2]	
Seminal Vesicle	(50)	(50)	(50)	(50)
Dilatation				1 [3.0]
Testes	(50)	(50)	(50)	(50)
Atrophy	15 [3.0]	10 [2.8]	8 [3.0]	10 [3.1]
Cyst	1 [3.0]			
Interstitial Cell, Hyperplasia, Focal	4 [1.8]		6 [1.8]	7 [1.6]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(47)	(50)	(48)	(50)
Angiectasis	1 [3.0]			
Atrophy	1 [3.0]			
Hyperplasia	2 [3.0]	3 [2.7]	2 [3.0]	4 [2.5]
Lymph Node	(19)	(18)	(26)	(27)
Hyperplasia, Plasma Cell		1 [3.0]		
Deep Cervical, Hyperplasia, Histiocytic			1 [3.0]	
Deep Cervical, Hyperplasia, Plasma Cell	1 [3.0]			
Mediastinal, Ectasia	2 [3.0]	2 [2.0]		3 [3.0]
Mediastinal, Hemorrhage	3 [3.0]	2 [3.0]	2 [3.0]	3 [3.0]
Mediastinal, Hyperplasia		1 [3.0]		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
HEMATOPOIETIC SYSTEM - CONT				
Mediastinal, Hyperplasia, Histiocytic	5 [3.0]		2 [3.0]	3 [3.0]
Mediastinal, Hyperplasia, Plasma Cell	2 [3.0]	2 [4.0]	2 [3.0]	1 [3.0]
Pancreatic, Ectasia	1 [2.0]			
Pancreatic, Fibrosis				1 [3.0]
Pancreatic, Hemorrhage		1 [3.0]	3 [2.3]	1 [3.0]
Pancreatic, Hyperplasia, Histiocytic	2 [2.5]		1 [3.0]	4 [3.0]
Lymph Node, Mesenteric	(50)	(48)	(48)	(49)
Ectasia	1 [3.0]	1 [3.0]		
Hemorrhage				1 [3.0]
Hyperplasia, Histiocytic	2 [3.0]	1 [3.0]		2 [3.0]
Hyperplasia, Lymphoid				1 [2.0]
Spleen	(50)	(48)	(48)	(49)
Accessory Spleen	3		1	3
Atrophy	3 [2.3]			
Fibrosis, Diffuse	1 [3.0]			
Fibrosis, Focal	2 [3.0]	2 [3.0]	2 [3.0]	
Hematopoietic Cell Proliferation	1 [3.0]	1 [3.0]	1 [2.0]	1 [2.0]
Hemorrhage	1 [4.0]		1 [3.0]	
Hyperplasia, Lymphoid	1 [2.0]			1 [3.0]
Infarct		1 [3.0]		2 [3.0]
Inflammation, Granulomatous		2 [3.0]	1 [1.0]	2 [2.0]
Thymus	(48)	(49)	(46)	(45)
Angiectasis			1 [3.0]	
Hemorrhage	2 [2.5]			
INTEGUMENTARY SYSTEM				
Mammary Gland	(47)	(46)	(41)	(45)
Dilatation	12 [2.3]	7 [2.6]	1 [2.0]	2 [3.0]
Fibrosis	1 [2.0]			1 [3.0]
Inflammation, Chronic, Focal		1 [2.0]		
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1 [3.0]	1 [2.0]	2 [2.5]	1 [3.0]
Hyperkeratosis, Focal	1 [2.0]		1 [2.0]	
Inflammation, Focal				1 [1.0]
Ulcer		1 [3.0]		
Epidermis, Hyperplasia, Focal		1 [2.0]	1 [1.0]	
Subcutaneous Tissue, Edema			1 [3.0]	
Subcutaneous Tissue, Fibrosis, Focal				1 [2.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Vertebra, Cyst	1 [4.0]			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression, Focal	4 [3.0]	6 [3.2]	1 [3.0]	1 [2.0]
Hemorrhage, Focal	1 [2.0]	4 [2.5]	3 [2.3]	3 [2.3]
Meninges, Congestion, Focal		1 [2.0]		
Meninges, Hemorrhage, Focal	1 [2.0]			
Spinal Cord	(2)	(3)	(2)	(3)
Hemorrhage, Focal		1 [1.0]		1 [2.0]
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	4 [2.8]	1 [2.0]		2 [3.0]
Hemorrhage, Focal	4 [2.3]	1 [3.0]	3 [2.3]	
Infiltration Cellular, Mixed Cell	3 [1.7]		1 [2.0]	2 [2.0]
Inflammation, Chronic, Focal	3 [1.3]	3 [2.0]	4 [1.3]	2 [1.0]
Inflammation, Focal				1 [1.0]
Alveolar Epithelium, Hyperplasia, Focal	2 [2.0]	4 [1.8]	3 [1.7]	
Alveolus, Proteinosis			1 [3.0]	
Nose	(49)	(50)	(50)	(50)
Foreign Body	1 [2.0]		1 [1.0]	1 [2.0]
Hemorrhage	1 [3.0]			
Inflammation, Suppurative	2 [2.5]	1 [1.0]	4 [1.8]	2 [2.0]
Nasolacrimal Duct, Inflammation				4 [2.0]
SPECIAL SENSES SYSTEM				
Eye	(48)	(47)	(48)	(45)
Cataract	2 [3.0]	1 [3.0]		2 [2.0]
Anterior Chamber, Exudate		1 [3.0]		2 [2.5]
Retina, Degeneration	2 [3.0]			
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia, Focal, Histiocytic	1 [3.0]			
Hyperplasia, Focal, Lymphoid			1 [2.0]	
Inflammation			2 [2.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
4-METHYLIMIDAZOLE

FISCHER 344 RATS MALE	0 PPM	625 PPM	1250 PPM	2500 PPM
SPECIAL SENSES SYSTEM - CONT				
Inflammation, Chronic				
Epithelium, Hyperplasia, Focal	1 [2.0]			1 [3.0]
URINARY SYSTEM				
Kidney	(48)	(49)	(48)	(50)
Congestion	1 [3.0]			
Cyst	2 [2.0]	1 [3.0]		
Infarct		2 [2.5]	1 [3.0]	4 [2.3]
Nephropathy	47 [1.6]	43 [1.6]	47 [1.4]	46 [1.7]
Pelvis, Dilatation			1 [2.0]	1 [3.0]
Renal Tubule, Accumulation, Hyaline Droplet	1 [2.0]	3 [2.0]	2 [3.0]	2 [2.0]
Renal Tubule, Hyperplasia, Focal		1 [1.0]		
Renal Tubule, Pigmentation	1 [2.0]	1 [3.0]	2 [3.0]	
Urethra				(1)
Muscularis, Inflammation, Chronic				1 [3.0]
Urinary Bladder	(49)	(50)	(50)	(50)
Hemorrhage	1 [3.0]	1 [3.0]		1 [4.0]
Inflammation	1 [1.0]			1 [3.0]
Ulcer	1 [3.0]			
Muscularis, Hyperplasia			1 [3.0]	
Transitional Epithelium, Hyperplasia			1 [2.0]	

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

END OF REPORT

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-538 Methyl Isobutyl Ketone

Pathology Tables - Rats

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P08 - Statistical Analysis of Primary Tumors - Step Section
- P18 - Incidence Rates of Non-Neoplastic Lesions
- P18 - Special Step Section Report

The National Toxicology Program

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NTP Experiment-Test: 97006-01 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)
Study Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY

METHYL ISOBUTYL KETONE

Report: PEIRPT05
Date: 05/11/04
Time: 08:46:56

FINAL#1/RATS

Facility: Battelle Northwest

Chemical CAS #: 108-10-1

Lock Date: 01/24/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	14	14	20	15
Natural Death	1	2	4	3
Survivors				
Moribund Sacrifice		1		
Terminal Sacrifice	35	33	26	32
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(50)	(49)	(49)	(50)
Adenoma				1 (2%)
Liver	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Adrenal Cortex		1 (2%)		
Hepatocellular Adenoma		1 (2%)	1 (2%)	
Histiocytic Sarcoma				1 (2%)
Mesentery	(18)	(17)	(15)	(15)
Histiocytic Sarcoma				1 (7%)
Schwannoma Malignant		1 (6%)		
Oral Mucosa		(1)		
Squamous Cell Carcinoma		1 (100%)		
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Carcinoma		1 (2%)		
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant		1 (2%)	1 (2%)	
Pheochromocytoma Benign	3 (6%)		2 (4%)	2 (4%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma				1 (2%)
Pituitary Gland	(49)	(50)	(50)	(50)

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
ENDOCRINE SYSTEM - cont				
Adenoma	24 (49%)	28 (56%)	26 (52%)	30 (60%)
Carcinoma			1 (2%)	
Thyroid Gland	(50)	(50)	(50)	(50)
Bilateral, C-Cell, Adenoma		1 (2%)		
C-Cell, Adenoma	3 (6%)	1 (2%)	2 (4%)	2 (4%)
C-Cell, Carcinoma	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Follicular Cell, Adenoma	1 (2%)		1 (2%)	
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(50)	(50)
Carcinoma	1 (2%)	3 (6%)	1 (2%)	3 (6%)
Ovary	(50)	(50)	(50)	(50)
Cystadenocarcinoma			1 (2%)	
Cystadenocarcinoma, Metastatic, Ovary			1 (2%)	
Granulosa Cell Tumor Benign				1 (2%)
Thecoma Malignant				1 (2%)
Uterus	(50)	(50)	(50)	(50)
Carcinoma				1 (2%)
Hemangioma				1 (2%)
Histiocytic Sarcoma	1 (2%)			
Leiomyosarcoma		1 (2%)		
Polyp Stromal	11 (22%)	4 (8%)	7 (14%)	13 (26%)
Polyp Stromal, Multiple				1 (2%)
Sarcoma Stromal	1 (2%)			1 (2%)
Bilateral, Polyp Stromal		1 (2%)	1 (2%)	
Cervix, Polyp Stromal	1 (2%)			
Serosa, Hemangioma		1 (2%)		
Vagina	(2)			(1)
Histiocytic Sarcoma	1 (50%)			
Sarcoma	1 (50%)			

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(1)	(2)	(2)	(3)
Deep Cervical, Carcinoma, Metastatic, Thyroid Gland			1 (50%)	1 (33%)
Lymph Node, Bronchial	(9)	(12)	(8)	(7)
Carcinoma, Metastatic, Thyroid Gland		1 (8%)		1 (14%)
Cystadenocarcinoma, Metastatic, Ovary			1 (13%)	
Sarcoma, Metastatic, Skin				1 (14%)
Lymph Node, Mandibular	(1)		(2)	(1)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Histiocytic Sarcoma				1 (2%)
Lymph Node, Mediastinal	(46)	(44)	(46)	(49)
Carcinoma, Metastatic, Zymbal's Gland				1 (2%)
Cystadenocarcinoma, Metastatic, Ovary			1 (2%)	
Spleen	(50)	(50)	(50)	(50)
Histiocytic Sarcoma				1 (2%)
Thymus	(47)	(49)	(49)	(49)
Cystadenocarcinoma, Metastatic, Ovary			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Carcinoma	5 (10%)	8 (16%)	6 (12%)	4 (8%)
Fibroadenoma	17 (34%)	11 (22%)	18 (36%)	10 (20%)
Fibroadenoma, Multiple	5 (10%)	8 (16%)	7 (14%)	8 (16%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma		1 (2%)		
Schwannoma Malignant				1 (2%)
Squamous Cell Papilloma			1 (2%)	
Subcutaneous Tissue, Fibroma			1 (2%)	
Subcutaneous Tissue, Fibrosarcoma		1 (2%)		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Cranium, Carcinoma, Metastatic, Pituitary Gland			1 (2%)	
Skeletal Muscle	(10)	(5)	(8)	(14)
Cystadenocarcinoma, Metastatic, Ovary			1 (13%)	
Sarcoma			1 (13%)	

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
MUSCULOSKELETAL SYSTEM - cont				
Schwannoma Malignant		1 (20%)		
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Histiocytic Sarcoma	1 (2%)			
Pineal Gland, Adenoma		1 (2%)		
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	1 (2%)	1 (2%)		
Carcinoma, Metastatic, Clitoral Gland			1 (2%)	1 (2%)
Carcinoma, Metastatic, Thyroid Gland			1 (2%)	1 (2%)
Carcinoma, Metastatic, Zymbal's Gland				1 (2%)
Carcinoma, Metastatic, Adrenal Cortex		1 (2%)		
Cystadenocarcinoma, Metastatic, Ovary			1 (2%)	
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (2%)	
Sarcoma, Metastatic, Skin				1 (2%)
Mediastinum, Schwannoma Malignant, Metastatic, Mesentery		1 (2%)		
SPECIAL SENSES SYSTEM				
Harderian Gland	(50)	(50)	(50)	(50)
Sarcoma			1 (2%)	
Zymbal's Gland			(3)	(1)
Carcinoma			2 (67%)	1 (100%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Cystadenocarcinoma, Metastatic, Ovary			1 (2%)	

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
URINARY SYSTEM - cont				
Mesenchymal Tumor Malignant				2 (4%)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	2 (4%)			1 (2%)
Leukemia Mononuclear	14 (28%)	21 (42%)	12 (24%)	16 (32%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	46	46	49	47
Total Primary Neoplasms	91	99	94	103
Total Animals with Benign Neoplasms	44	39	40	40
Total Benign Neoplasms	66	58	67	70
Total Animals with Malignant Neoplasms	22	27	22	25
Total Malignant Neoplasms	25	41	27	33
Total Animals with Metastatic Neoplasms		3	5	4
Total Metastatic Neoplasm		4	12	8
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	14	16	21	29
Natural Death	4	5	4	2
Accidently Killed		1		
Survivors				
Terminal Sacrifice	32	28	25	19
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Rectum	(49)	(48)	(50)	(50)
Adenoma			1 (2%)	
Liver	(50)	(50)	(50)	(50)
Hepatocellular Adenoma	1 (2%)			1 (2%)
Histiocytic Sarcoma		2 (4%)		
Oral Mucosa	(2)			
Squamous Cell Carcinoma	1 (50%)			
Pancreas	(50)	(48)	(50)	(50)
CARDIOVASCULAR SYSTEM				
Heart	(50)	(49)	(50)	(50)
Sarcoma, Metastatic, Lung		1 (2%)		
Schwannoma Malignant	1 (2%)			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(48)	(50)	(50)
Histiocytic Sarcoma		1 (2%)		
Adrenal Medulla	(50)	(48)	(50)	(50)
Pheochromocytoma Malignant		2 (4%)	1 (2%)	2 (4%)
Pheochromocytoma Benign	7 (14%)	4 (8%)	6 (12%)	11 (22%)
Bilateral, Pheochromocytoma Benign	1 (2%)	3 (6%)	4 (8%)	1 (2%)
Islets, Pancreatic	(50)	(48)	(50)	(50)
Adenoma	3 (6%)	4 (8%)	1 (2%)	1 (2%)
Carcinoma	4 (8%)	2 (4%)	2 (4%)	1 (2%)

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
ENDOCRINE SYSTEM - cont				
Pituitary Gland	(50)	(49)	(50)	(50)
Adenoma	35 (70%)	29 (59%)	30 (60%)	29 (58%)
Thyroid Gland	(50)	(48)	(50)	(50)
C-Cell, Adenoma	1 (2%)	4 (8%)		4 (8%)
C-Cell, Carcinoma	2 (4%)	3 (6%)		1 (2%)
Follicular Cell, Carcinoma	1 (2%)	2 (4%)	2 (4%)	
GENERAL BODY SYSTEM				
Peritoneum	(48)	(46)	(49)	(49)
GENITAL SYSTEM				
Epididymis	(50)	(49)	(50)	(50)
Preputial Gland	(50)	(49)	(50)	(50)
Carcinoma	1 (2%)		1 (2%)	
Testes	(50)	(50)	(50)	(50)
Bilateral, Interstitial Cell, Adenoma	28 (56%)	34 (68%)	37 (74%)	38 (76%)
Interstitial Cell, Adenoma	14 (28%)	8 (16%)	7 (14%)	10 (20%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(49)	(50)	(50)
Histiocytic Sarcoma		1 (2%)		
Lymph Node	(7)	(7)	(12)	(15)
Deep Cervical, Carcinoma, Metastatic, Thyroid Gland		1 (14%)		1 (7%)
Lymph Node, Bronchial	(11)	(13)	(12)	(7)
Carcinoma, Metastatic, Thyroid Gland			1 (8%)	
Sarcoma, Metastatic, Lung		1 (8%)		
Lymph Node, Mandibular	(1)	(1)	(3)	(2)
Lymph Node, Mesenteric	(50)	(48)	(50)	(50)
Lymph Node, Mediastinal	(41)	(44)	(46)	(44)
Carcinoma, Metastatic, Thyroid Gland		1 (2%)		
Sarcoma, Metastatic, Lung		1 (2%)		
Spleen	(50)	(50)	(50)	(50)
Hemangioma	1 (2%)			
Histiocytic Sarcoma		1 (2%)		
Schwannoma Malignant, Metastatic, Heart	1 (2%)			
Thymus	(49)	(47)	(50)	(49)

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
HEMATOPOIETIC SYSTEM - cont				
Carcinoma, Metastatic, Thyroid Gland		1 (2%)		
Schwannoma Malignant, Metastatic, Heart	1 (2%)			
INTEGUMENTARY SYSTEM				
Mammary Gland	(49)	(49)	(50)	(50)
Carcinoma	2 (4%)	1 (2%)		1 (2%)
Fibroadenoma	2 (4%)	2 (4%)	2 (4%)	1 (2%)
Skin	(50)	(49)	(50)	(50)
Basal Cell Adenoma				1 (2%)
Basal Cell Carcinoma		1 (2%)		
Fibrous Histiocytoma				1 (2%)
Keratoacanthoma			1 (2%)	
Sarcoma		1 (2%)		1 (2%)
Squamous Cell Papilloma			1 (2%)	
Sebaceous Gland, Adenoma	1 (2%)			1 (2%)
Subcutaneous Tissue, Fibroma	4 (8%)	1 (2%)	2 (4%)	2 (4%)
Subcutaneous Tissue, Fibrosarcoma	1 (2%)	2 (4%)		
MUSCULOSKELETAL SYSTEM				
Skeletal Muscle	(3)	(3)	(4)	(6)
Sarcoma, Metastatic, Lung		1 (33%)		
Schwannoma Malignant, Metastatic, Heart	1 (33%)			
NERVOUS SYSTEM				
Brain	(50)	(49)	(50)	(50)
Glioma Malignant		1 (2%)		
Granular Cell Tumor Malignant			1 (2%)	
RESPIRATORY SYSTEM				
Larynx	(50)	(48)	(50)	(50)
Carcinoma, Metastatic, Thyroid Gland		1 (2%)		
Lung	(50)	(49)	(50)	(50)
Alveolar/Bronchiolar Carcinoma				2 (4%)
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Carcinoma, Metastatic, Thyroid Gland			1 (2%)	

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
RESPIRATORY SYSTEM - cont				
Carcinoma, Metastatic, Zymbal's Gland				1 (2%)
Fibrosarcoma, Metastatic, Skin	1 (2%)			
Schwannoma Malignant, Metastatic, Heart	1 (2%)			
Mediastinum, Sarcoma		2 (4%)		
Mediastinum, Schwannoma Malignant, Metastatic, Heart	1 (2%)			
Pleura	(50)	(49)	(50)	(50)
Schwannoma Malignant, Metastatic, Heart	1 (2%)			
SPECIAL SENSES SYSTEM				
Eye	(49)	(45)	(46)	(48)
Carcinoma, Metastatic, Oral Mucosa	1 (2%)			
Zymbal's Gland	(1)			(2)
Carcinoma	1 (100%)			2 (100%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Renal Tubule, Adenoma			2 (4%)	3 (6%)
Renal Tubule, Carcinoma		1 (2%)		2 (4%)
Urinary Bladder	(50)	(48)	(50)	(50)
Leiomyoma				1 (2%)
Transitional Epithelium, Papilloma	1 (2%)			1 (2%)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma		2 (4%)		
Leukemia Mononuclear	25 (50%)	26 (52%)	32 (64%)	35 (70%)
Mesothelioma Malignant	1 (2%)	1 (2%)		1 (2%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	48	49	50
Total Primary Neoplasms	139	136	133	154
Total Animals with Benign Neoplasms	50	47	47	49
Total Benign Neoplasms	99	89	94	105
Total Animals with Malignant Neoplasms	31	35	34	41
Total Malignant Neoplasms	40	47	39	49
Total Animals with Metastatic Neoplasms	3	3	1	2
Total Metastatic Neoplasm	8	9	2	2
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

FINAL#1/RATS

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Battelle Northwest
EXPERIMENT: 97006 TEST: 01
TEST TYPE: CHRONIC
CONT: N01-ES-05452
PATHOLOGIST: RENNE, ROGER
Rats(FISCHER 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 05/11/04
TIME: 08:53:29

NTP C#: C97006
CAS: 108-10-1

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Brain
Clitoral/Preputial Gland
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Ovary
Pituitary Gland
Spleen
Testes
Thyroid Gland
Urinary Bladder

NTP
LAB: Battelle Northwest
EXPERIMENT: 97006 TEST: 01
TEST TYPE: CHRONIC
CONT: N01-ES-05452
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 05/11/04
TIME: 08:53:29

NTP C#: C97006
CAS: 108-10-1

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF METHYL ISOBUTYL KETONE

Male Rats

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Benign
	Pheochromocytoma: Benign, Complex, Malignant, NOS
Islets, Pancreatic	Carcinoma or Adenoma
Kidney: Renal Tubule	Adenoma
	Carcinoma or Adenoma
Lung	Alveolar/Bronchiolar Carcinoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Testes	Adenoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Female Rats

Organ	Morphology
Kidney: Renal Tubule	Mesenchymal Tumor Malignant
Mammary Gland	Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Uterus	Sarcoma Stromal or Polyp Stromal
All Organs	Malignant and Benign Tumors

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	8/50 (16%)	7/48 (15%)	10/50 (20%)	12/50 (24%)	3/50 (6%)	0/50 (0%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	8/44.85	7/40.55	10/42.79	12/43.38	3/45.28	0/44.54	2/42.01	2/43.18
POLY-3 PERCENT (g)	17.8%	17.3%	23.4%	27.7%	6.6%	0.0%	4.8%	4.6%
TERMINAL (d)	6/32 (19%)	6/28 (21%)	5/25 (20%)	4/19 (21%)	0/35 (0%)	0/34 (0%)	1/26 (4%)	2/32 (6%)
FIRST INCIDENCE	671	654	637	609	643	---	714	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.019 *	P=0.603	P=0.244	P=0.057	P=0.579	P=0.124N	P=0.613N	P=0.540N
POLY 3	P=0.120	P=0.585N	P=0.353	P=0.197	P=0.590N	P=0.122N	P=0.534N	P=0.522N
POLY 1.5	P=0.130	P=0.567N	P=0.362	P=0.213	P=0.585N	P=0.121N	P=0.517N	P=0.514N
POLY 6	P=0.099	P=0.605N	P=0.338	P=0.165	P=0.597N	P=0.123N	P=0.563N	P=0.530N
LOGISTIC REGRESSION	P=0.093	P=0.609N	P=0.328	P=0.193	P=0.595N	P=0.120N	P=0.523N	P=0.512N
COCH-ARM / FISHERS	P=0.135	P=0.535N	P=0.398	P=0.227	P=0.577N	P=0.121N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.187	(e)	(e)	(e)	P=0.312N	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Adrenal Medulla Pheochromocytoma Malignant								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/48 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	2/40.60	1/42.07	2/41.33	0/44.82	1/44.54	1/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	4.9%	2.4%	4.8%	0.0%	2.3%	2.4%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	1/25 (4%)	2/19 (11%)	0/35 (0%)	1/34 (3%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	---	664	726 (T)	726 (T)	---	727 (T)	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.139	P=0.210	P=0.451	P=0.132	P=0.616N	P=0.494	P=0.441	(e)
POLY 3	P=0.225	P=0.217	P=0.489	P=0.221	P=0.606N	P=0.499	P=0.487	(e)
POLY 1.5	P=0.238	P=0.221	P=0.492	P=0.229	P=0.602N	P=0.499	P=0.494	(e)
POLY 6	P=0.200	P=0.214	P=0.484	P=0.205	P=0.610N	P=0.499	P=0.475	(e)
LOGISTIC REGRESSION	P=0.204	P=0.226	P=0.451	P=0.132	(e)	P=0.494	P=0.441	(e)
COCH-ARM / FISHERS	P=0.250	P=0.237	P=0.500	P=0.247	P=0.595N	P=0.500	P=0.500	(e)
ORDER RESTRICTED	P=0.143	(e)	(e)	(e)	P=0.394	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Adrenal Medulla Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	8/50 (16%)	9/48 (19%)	11/50 (22%)	14/50 (28%)	3/50 (6%)	1/50 (2%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	8/44.85	9/40.87	11/42.79	14/43.38	3/45.28	1/44.54	3/42.01	2/43.18
POLY-3 PERCENT (g)	17.8%	22.0%	25.7%	32.3%	6.6%	2.3%	7.1%	4.6%
TERMINAL (d)	6/32 (19%)	6/28 (21%)	6/25 (24%)	6/19 (32%)	0/35 (0%)	1/34 (3%)	2/26 (8%)	2/32 (6%)
FIRST INCIDENCE	671	654	637	609	643	727 (T)	714	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.007 **	P=0.376	P=0.169	P=0.017 *	P=0.575N	P=0.311N	P=0.535	P=0.540N
POLY 3	P=0.062	P=0.415	P=0.262	P=0.090	P=0.543N	P=0.311N	P=0.627	P=0.522N
POLY 1.5	P=0.071	P=0.432	P=0.272	P=0.102	P=0.535N	P=0.309N	P=0.645	P=0.514N
POLY 6	P=0.047 *	P=0.400	P=0.248	P=0.069	P=0.552N	P=0.314N	P=0.597	P=0.530N
LOGISTIC REGRESSION	P=0.046 *	P=0.392	P=0.238	P=0.082	P=0.548N	P=0.305N	P=0.630	P=0.512N
COCH-ARM / FISHERS	P=0.077	P=0.463	P=0.306	P=0.114	P=0.523N	P=0.309N	P=0.661N	P=0.500N
ORDER RESTRICTED	P=0.080	(e)	(e)	(e)	P=0.527N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Clitoral/Preputial Gland Carcinoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/49 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	3/50 (6%)
POLY-3 RATE (b)	1/44.48	0/41.12	1/42.07	0/41.33	1/44.82	3/44.54	1/41.95	3/43.18
POLY-3 PERCENT (g)	2.3%	0.0%	2.4%	0.0%	2.2%	6.7%	2.4%	7.0%
TERMINAL (d)	1/32 (3%)	0/28 (0%)	1/25 (4%)	0/19 (0%)	1/35 (3%)	3/34 (9%)	1/26 (4%)	3/32 (9%)
FIRST INCIDENCE	726 (T)	---	726 (T)	---	727 (T)	727 (T)	727 (T)	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.508N	P=0.527N	P=0.706	P=0.604N	P=0.272	P=0.294	P=0.694	P=0.273
POLY 3	P=0.409N	P=0.516N	P=0.748	P=0.515N	P=0.295	P=0.303	P=0.746	P=0.292
POLY 1.5	P=0.405N	P=0.512N	P=0.751	P=0.507N	P=0.302	P=0.304	P=0.753	P=0.296
POLY 6	P=0.418N	P=0.520N	P=0.743	P=0.530N	P=0.288	P=0.303	P=0.733	P=0.288
LOGISTIC REGRESSION	P=0.508N	(e)	P=0.706	(e)	P=0.272	P=0.294	P=0.694	P=0.273
COCH-ARM / FISHERS	P=0.404N	P=0.505N	P=0.753N	P=0.500N	P=0.313	P=0.309	P=0.753N	P=0.309
ORDER RESTRICTED	P=0.266N	(e)	(e)	(e)	P=0.229	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - METHYL ISOBUTYL KETONE

Terminal Sacrifice at 104 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	4/48 (8%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	3/45.04	4/40.28	1/42.13	1/41.60	0/44.82	0/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	6.7%	9.9%	2.4%	2.4%	0.0%	0.0%	0.0%	2.3%
TERMINAL (d)	2/32 (6%)	4/28 (14%)	0/25 (0%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	554	726 (T)	713	652	---	---	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.253N	P=0.434	P=0.378N	P=0.420N	P=0.192	(e)	(e)	P=0.482
POLY 3	P=0.152N	P=0.439	P=0.329N	P=0.334N	P=0.194	(e)	(e)	P=0.493
POLY 1.5	P=0.143N	P=0.453	P=0.323N	P=0.319N	P=0.196	(e)	(e)	P=0.495
POLY 6	P=0.169N	P=0.423	P=0.340N	P=0.363N	P=0.193	(e)	(e)	P=0.491
LOGISTIC REGRESSION	P=0.147N	P=0.450	P=0.303N	P=0.286N	(e)	(e)	(e)	P=0.482
COCH-ARM / FISHERS	P=0.134N	P=0.477	P=0.309N	P=0.309N	P=0.198	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.172N	(e)	(e)	(e)	P=0.114	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Islets, Pancreatic Carcinoma								
TUMOR RATES								
OVERALL (a)	4/50 (8%)	2/48 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	4/44.58	2/40.28	2/42.56	1/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	9.0%	5.0%	4.7%	2.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/32 (9%)	2/28 (7%)	1/25 (4%)	1/19 (5%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	701	726 (T)	580	726 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.260N	P=0.404N	P=0.434N	P=0.358N	(e)	(e)	(e)	(e)
POLY 3	P=0.145N	P=0.385N	P=0.358N	P=0.202N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.139N	P=0.375N	P=0.354N	P=0.190N	(e)	(e)	(e)	(e)
POLY 6	P=0.160N	P=0.396N	P=0.367N	P=0.228N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.164N	P=0.407N	P=0.355N	P=0.307N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.134N	P=0.359N	P=0.339N	P=0.181N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.135N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	7/50 (14%)	6/48 (13%)	3/50 (6%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	7/45.14	6/40.28	3/42.62	2/41.60	0/44.82	0/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	15.5%	14.9%	7.0%	4.8%	0.0%	0.0%	0.0%	2.3%
TERMINAL (d)	5/32 (16%)	6/28 (21%)	1/25 (4%)	1/19 (5%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	554	726 (T)	580	652	---	---	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.131N	P=0.600N	P=0.255N	P=0.222N	P=0.192	(e)	(e)	P=0.482
POLY 3	P=0.045N*	P=0.588N	P=0.181N	P=0.099N	P=0.194	(e)	(e)	P=0.493
POLY 1.5	P=0.041N*	P=0.567N	P=0.176N	P=0.088N	P=0.196	(e)	(e)	P=0.495
POLY 6	P=0.056N	P=0.612N	P=0.190N	P=0.121N	P=0.193	(e)	(e)	P=0.491
LOGISTIC REGRESSION	P=0.049N*	P=0.591N	P=0.167N	P=0.092N	(e)	(e)	(e)	P=0.482
COCH-ARM / FISHERS	P=0.038N*	P=0.532N	P=0.159N	P=0.080N	P=0.198	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.075N	(e)	(e)	(e)	P=0.114	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	0/41.74	2/42.20	3/41.36	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	4.7%	7.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	1/25 (4%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	695	719	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.008 **	(e)	P=0.204	P=0.049 *	(e)	(e)	(e)	(e)
POLY 3	P=0.024 *	(e)	P=0.225	P=0.106	(e)	(e)	(e)	(e)
POLY 1.5	P=0.026 *	(e)	P=0.228	P=0.113	(e)	(e)	(e)	(e)
POLY 6	P=0.020 *	(e)	P=0.221	P=0.094	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.012 *	(e)	P=0.219	P=0.052	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.028 *	(e)	P=0.247	P=0.121	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.031 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney: Renal Tubule Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	1/41.74	0/42.07	2/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	2.4%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	1/28 (4%)	0/25 (0%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	726 (T)	---	726 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.069	P=0.473	(e)	P=0.132	(e)	(e)	(e)	(e)
POLY 3	P=0.129	P=0.487	(e)	P=0.221	(e)	(e)	(e)	(e)
POLY 1.5	P=0.134	P=0.492	(e)	P=0.229	(e)	(e)	(e)	(e)
POLY 6	P=0.119	P=0.482	(e)	P=0.205	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.473	(e)	P=0.132	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.140	P=0.500	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.064	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney: Renal Tubule Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	4/50 (8%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	1/41.74	2/42.20	4/41.36	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	2.4%	4.7%	9.7%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	1/28 (4%)	1/25 (4%)	3/19 (16%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	726 (T)	695	719	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.004 **	P=0.473	P=0.204	P=0.018 *	(e)	(e)	(e)	(e)
POLY 3	P=0.018 *	P=0.487	P=0.225	P=0.051	(e)	(e)	(e)	(e)
POLY 1.5	P=0.020 *	P=0.492	P=0.228	P=0.056	(e)	(e)	(e)	(e)
POLY 6	P=0.014 *	P=0.482	P=0.221	P=0.043 *	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.007 **	P=0.473	P=0.219	P=0.018 *	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.022 *	P=0.500	P=0.247	P=0.059	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.015 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule								
Mesenchymal Tumor Malignant								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/44.48	0/41.74	0/42.07	0/41.33	0/44.82	0/44.54	0/41.95	2/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	0/25 (0%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	2/32 (6%)
FIRST INCIDENCE	---	---	---	---	---	---	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.044 *	(e)	(e)	P=0.219
POLY 3	(e)	(e)	(e)	(e)	P=0.043 *	(e)	(e)	P=0.229
POLY 1.5	(e)	(e)	(e)	(e)	P=0.044 *	(e)	(e)	P=0.232
POLY 6	(e)	(e)	(e)	(e)	P=0.043 *	(e)	(e)	P=0.227
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P=0.219
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.027 *	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Lung								
Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	0/41.12	0/42.07	2/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	0/25 (0%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	726 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	(e)	(e)	P=0.132	(e)	(e)	(e)	(e)
POLY 3	P=0.044 *	(e)	(e)	P=0.221	(e)	(e)	(e)	(e)
POLY 1.5	P=0.045 *	(e)	(e)	P=0.229	(e)	(e)	(e)	(e)
POLY 6	P=0.041 *	(e)	(e)	P=0.205	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.132	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.047 *	(e)	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.024 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Lung Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	0/41.12	0/42.07	2/41.33	1/44.82	1/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.8%	2.2%	2.3%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	0/25 (0%)	2/19 (11%)	1/35 (3%)	1/34 (3%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	---	726 (T)	727 (T)	727 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	(e)	(e)	P=0.132	P=0.260N	P=0.755	P=0.559N	P=0.518N
POLY 3	P=0.044 *	(e)	(e)	P=0.221	P=0.242N	P=0.759	P=0.513N	P=0.507N
POLY 1.5	P=0.045 *	(e)	(e)	P=0.229	P=0.239N	P=0.759	P=0.506N	P=0.505N
POLY 6	P=0.041 *	(e)	(e)	P=0.205	P=0.246N	P=0.760	P=0.525N	P=0.509N
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.132	P=0.260N	P=0.755	(e)	(e)
COCH-ARM / FISHERS	P=0.047 *	(e)	(e)	P=0.247	P=0.236N	P=0.753N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.024 *	(e)	(e)	(e)	P=0.257N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Lung Sarcoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	2/42.58	0/42.07	0/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	0/25 (0%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	338	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.404N	P=0.237	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.422N	P=0.227	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.414N	P=0.229	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.438N	P=0.224	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.363N	P=0.525	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.404N	P=0.242	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.254N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	5/50 (10%)	8/50 (16%)	6/50 (12%)	4/50 (8%)
POLY-3 RATE (b)	2/44.48	1/41.74	0/42.07	1/41.33	5/45.24	8/46.32	6/42.43	4/43.18
POLY-3 PERCENT (g)	4.5%	2.4%	0.0%	2.4%	11.1%	17.3%	14.1%	9.3%
TERMINAL (d)	2/32 (6%)	1/28 (4%)	0/25 (0%)	1/19 (5%)	4/35 (11%)	3/34 (9%)	4/26 (15%)	4/32 (13%)
FIRST INCIDENCE	726 (T)	726 (T)	---	726 (T)	606	539	653	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.511N	P=0.547N	P=0.294N	P=0.679N	P=0.390N	P=0.270	P=0.329	P=0.553N
POLY 3	P=0.370N	P=0.522N	P=0.250N	P=0.526N	P=0.357N	P=0.291	P=0.455	P=0.529N
POLY 1.5	P=0.369N	P=0.514N	P=0.247N	P=0.512N	P=0.340N	P=0.284	P=0.478	P=0.519N
POLY 6	P=0.374N	P=0.532N	P=0.255N	P=0.552N	P=0.377N	P=0.302	P=0.418	P=0.539N
LOGISTIC REGRESSION	P=0.511N	P=0.547N	(e)	P=0.679N	P=0.323N	P=0.280	P=0.449	P=0.526N
COCH-ARM / FISHERS	P=0.366N	P=0.500N	P=0.247N	P=0.500N	P=0.313N	P=0.277	P=0.500	P=0.500N
ORDER RESTRICTED	P=0.249N	(e)	(e)	(e)	P=0.391N	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Mammary Gland Fibroadenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	2/50 (4%)	1/50 (2%)	22/50 (44%)	19/50 (38%)	25/50 (50%)	18/50 (36%)
POLY-3 RATE (b)	2/44.48	2/41.74	2/42.30	1/41.33	22/45.39	19/46.07	25/45.07	18/44.04
POLY-3 PERCENT (g)	4.5%	4.8%	4.7%	2.4%	48.5%	41.2%	55.5%	40.9%
TERMINAL (d)	2/32 (6%)	2/28 (7%)	1/25 (4%)	1/19 (5%)	18/35 (51%)	13/34 (38%)	16/26 (62%)	15/32 (47%)
FIRST INCIDENCE	726 (T)	726 (T)	667	726 (T)	650	539	546	499
STATISTICAL TESTS								
LIFE TABLE	P=0.557N	P=0.647	P=0.617	P=0.679N	P=0.494N	P=0.378N	P=0.064	P=0.392N
POLY 3	P=0.396N	P=0.671	P=0.676	P=0.526N	P=0.371N	P=0.312N	P=0.321	P=0.303N
POLY 1.5	P=0.384N	P=0.679	P=0.680	P=0.512N	P=0.348N	P=0.327N	P=0.337	P=0.291N
POLY 6	P=0.422N	P=0.661	P=0.669	P=0.552N	P=0.400N	P=0.291N	P=0.290	P=0.315N
LOGISTIC REGRESSION	P=0.479N	P=0.647	P=0.667	P=0.679N	P=0.380N	P=0.349N	P=0.224	P=0.327N
COCH-ARM / FISHERS	P=0.373N	P=0.691N	P=0.691N	P=0.500N	P=0.314N	P=0.342N	P=0.344	P=0.270N
ORDER RESTRICTED	P=0.474N	(e)	(e)	(e)	P=0.369N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Mammary Gland								
Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	3/50 (6%)	2/50 (4%)	2/50 (4%)	26/50 (52%)	24/50 (48%)	29/50 (58%)	21/50 (42%)
POLY-3 RATE (b)	4/44.48	3/41.74	2/42.30	2/41.33	26/45.81	24/47.04	29/45.34	21/44.04
POLY-3 PERCENT (g)	9.0%	7.2%	4.7%	4.8%	56.8%	51.0%	64.0%	47.7%
TERMINAL (d)	4/32 (13%)	3/28 (11%)	1/25 (4%)	2/19 (11%)	21/35 (60%)	16/34 (47%)	19/26 (73%)	18/32 (56%)
FIRST INCIDENCE	726 (T)	726 (T)	667	726 (T)	606	539	546	499
STATISTICAL TESTS								
LIFE TABLE	P=0.464N	P=0.574N	P=0.443N	P=0.593N	P=0.420N	P=0.467N	P=0.046 *	P=0.340N
POLY 3	P=0.267N	P=0.535N	P=0.360N	P=0.371N	P=0.300N	P=0.363N	P=0.308	P=0.254N
POLY 1.5	P=0.257N	P=0.522N	P=0.356N	P=0.353N	P=0.266N	P=0.390N	P=0.330	P=0.237N
POLY 6	P=0.289N	P=0.551N	P=0.369N	P=0.408N	P=0.348N	P=0.326N	P=0.269	P=0.276N
LOGISTIC REGRESSION	P=0.393N	P=0.574N	P=0.386N	P=0.593N	P=0.281N	P=0.431N	P=0.211	P=0.265N
COCH-ARM / FISHERS	P=0.248N	P=0.500N	P=0.339N	P=0.339N	P=0.222N	P=0.421N	P=0.344	P=0.212N
ORDER RESTRICTED	P=0.340N	(e)	(e)	(e)	P=0.285N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Pituitary Gland: Pars Distalis or Unspecified Site								
Adenoma								
TUMOR RATES								
OVERALL (a)	35/50 (70%)	29/49 (59%)	30/50 (60%)	29/50 (58%)	24/49 (49%)	28/50 (56%)	26/50 (52%)	30/50 (60%)
POLY-3 RATE (b)	35/48.31	29/43.65	30/44.72	29/45.88	24/45.40	28/48.76	26/47.26	30/45.79
POLY-3 PERCENT (g)	72.5%	66.4%	67.1%	63.2%	52.9%	57.4%	55.0%	65.5%
TERMINAL (d)	21/32 (66%)	20/28 (71%)	16/25 (64%)	12/19 (63%)	16/34 (47%)	17/34 (50%)	10/26 (39%)	20/32 (63%)
FIRST INCIDENCE	492	595	580	498	606	455	513	489
STATISTICAL TESTS								
LIFE TABLE	P=0.140	P=0.444N	P=0.494	P=0.218	P=0.128	P=0.307	P=0.160	P=0.133
POLY 3	P=0.207N	P=0.341N	P=0.365N	P=0.222N	P=0.141	P=0.406	P=0.500	P=0.150
POLY 1.5	P=0.179N	P=0.275N	P=0.317N	P=0.181N	P=0.157	P=0.366	P=0.491	P=0.158
POLY 6	P=0.281N	P=0.416N	P=0.428N	P=0.311N	P=0.130	P=0.450	P=0.499	P=0.149
LOGISTIC REGRESSION	P=0.218N	P=0.251N	P=0.276N	P=0.168N	P=0.181	P=0.309	P=0.453	P=0.139
COCH-ARM / FISHERS	P=0.169N	P=0.180N	P=0.201N	P=0.149N	P=0.192	P=0.309	P=0.460	P=0.184
ORDER RESTRICTED	P=0.250N	(e)	(e)	(e)	P=0.172	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	35/50 (70%)	29/49 (59%)	30/50 (60%)	29/50 (58%)	24/49 (49%)	28/50 (56%)	27/50 (54%)	30/50 (60%)
POLY-3 RATE (b)	35/48.31	29/43.65	30/44.72	29/45.88	24/45.40	28/48.76	27/47.26	30/45.79
POLY-3 PERCENT (g)	72.5%	66.4%	67.1%	63.2%	52.9%	57.4%	57.1%	65.5%
TERMINAL (d)	21/32 (66%)	20/28 (71%)	16/25 (64%)	12/19 (63%)	16/34 (47%)	17/34 (50%)	10/26 (39%)	20/32 (63%)
FIRST INCIDENCE	492	595	580	498	606	455	513	489
STATISTICAL TESTS								
LIFE TABLE	P=0.140	P=0.444N	P=0.494	P=0.218	P=0.125	P=0.307	P=0.123	P=0.133
POLY 3	P=0.207N	P=0.341N	P=0.365N	P=0.222N	P=0.135	P=0.406	P=0.419	P=0.150
POLY 1.5	P=0.179N	P=0.275N	P=0.317N	P=0.181N	P=0.150	P=0.366	P=0.410	P=0.158
POLY 6	P=0.281N	P=0.416N	P=0.428N	P=0.311N	P=0.124	P=0.450	P=0.416	P=0.149
LOGISTIC REGRESSION	P=0.218N	P=0.251N	P=0.276N	P=0.168N	P=0.173	P=0.309	P=0.371	P=0.139
COCH-ARM / FISHERS	P=0.169N	P=0.180N	P=0.201N	P=0.149N	P=0.185	P=0.309	P=0.383	P=0.184
ORDER RESTRICTED	P=0.250N	(e)	(e)	(e)	P=0.171	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Skin Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	1/42.00	2/42.07	1/41.33	0/44.82	1/44.62	1/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	2.4%	4.8%	2.4%	0.0%	2.2%	2.4%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	2/25 (8%)	1/19 (5%)	0/35 (0%)	0/34 (0%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	---	659	726 (T)	726 (T)	---	707	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.245	P=0.469	P=0.185	P=0.396	P=0.624N	P=0.505	P=0.441	(e)
POLY 3	P=0.335	P=0.489	P=0.225	P=0.485	P=0.606N	P=0.499	P=0.487	(e)
POLY 1.5	P=0.353	P=0.493	P=0.228	P=0.493	P=0.602N	P=0.499	P=0.494	(e)
POLY 6	P=0.301	P=0.484	P=0.219	P=0.470	P=0.610N	P=0.500	P=0.475	(e)
LOGISTIC REGRESSION	P=0.320	P=0.516	P=0.185	P=0.396	P=0.608N	P=0.499	P=0.441	(e)
COCH-ARM / FISHERS	P=0.366	P=0.500	P=0.247	P=0.500	P=0.595N	P=0.500	P=0.500	(e)
ORDER RESTRICTED	P=0.213	(e)	(e)	(e)	P=0.395	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Skin Fibroma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	1/50 (2%)	2/50 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	4/44.48	1/41.74	2/42.07	2/41.36	0/44.82	0/44.54	1/41.95	0/43.18
POLY-3 PERCENT (g)	9.0%	2.4%	4.8%	4.8%	0.0%	0.0%	2.4%	0.0%
TERMINAL (d)	4/32 (13%)	1/28 (4%)	2/25 (8%)	1/19 (5%)	0/35 (0%)	0/34 (0%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	726 (T)	726 (T)	726 (T)	719	---	---	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.565N	P=0.220N	P=0.455N	P=0.590N	P=0.675	(e)	P=0.441	(e)
POLY 3	P=0.354N	P=0.198N	P=0.363N	P=0.371N	P=0.683	(e)	P=0.487	(e)
POLY 1.5	P=0.347N	P=0.191N	P=0.357N	P=0.353N	P=0.686	(e)	P=0.494	(e)
POLY 6	P=0.372N	P=0.207N	P=0.374N	P=0.407N	P=0.683	(e)	P=0.475	(e)
LOGISTIC REGRESSION	P=0.552N	P=0.220N	P=0.455N	P=0.573N	(e)	(e)	P=0.441	(e)
COCH-ARM / FISHERS	P=0.343N	P=0.181N	P=0.339N	P=0.339N	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.238N	(e)	(e)	(e)	P=0.368	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	4/50 (8%)	2/50 (4%)	4/50 (8%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	5/44.48	4/42.63	2/42.07	4/41.44	0/44.82	1/44.54	1/41.95	0/43.18
POLY-3 PERCENT (g)	11.2%	9.4%	4.8%	9.7%	0.0%	2.3%	2.4%	0.0%
TERMINAL (d)	5/32 (16%)	2/28 (7%)	2/25 (8%)	2/19 (11%)	0/35 (0%)	1/34 (3%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	726 (T)	471	726 (T)	705	---	727 (T)	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.475	P=0.581N	P=0.323N	P=0.468	P=0.616N	P=0.494	P=0.441	(e)
POLY 3	P=0.439N	P=0.527N	P=0.239N	P=0.544N	P=0.606N	P=0.499	P=0.487	(e)
POLY 1.5	P=0.424N	P=0.517N	P=0.234N	P=0.521N	P=0.602N	P=0.499	P=0.494	(e)
POLY 6	P=0.469N	P=0.538N	P=0.248N	P=0.590N	P=0.610N	P=0.499	P=0.475	(e)
LOGISTIC REGRESSION	P=0.472N	P=0.520N	P=0.323N	P=0.516	(e)	P=0.494	P=0.441	(e)
COCH-ARM / FISHERS	P=0.410N	P=0.500N	P=0.218N	P=0.500N	P=0.595N	P=0.500	P=0.500	(e)
ORDER RESTRICTED	P=0.401N	(e)	(e)	(e)	P=0.394	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Skin Fibrosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44.48	2/41.90	0/42.07	0/41.33	0/44.82	1/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	2.3%	4.8%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	1/28 (4%)	0/25 (0%)	0/19 (0%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	726 (T)	685	---	---	---	727 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.264N	P=0.446	P=0.549N	P=0.604N	P=0.583N	P=0.494	(e)	(e)
POLY 3	P=0.200N	P=0.479	P=0.511N	P=0.515N	P=0.574N	P=0.499	(e)	(e)
POLY 1.5	P=0.195N	P=0.487	P=0.508N	P=0.507N	P=0.571N	P=0.499	(e)	(e)
POLY 6	P=0.210N	P=0.470	P=0.516N	P=0.530N	P=0.579N	P=0.499	(e)	(e)
LOGISTIC REGRESSION	P=0.217N	P=0.466	(e)	(e)	(e)	P=0.494	(e)	(e)
COCH-ARM / FISHERS	P=0.188N	P=0.500	P=0.500N	P=0.500N	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.170N	(e)	(e)	(e)	P=0.386N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Skin Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	3/50 (6%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44.48	3/42.63	0/42.07	2/41.41	0/44.82	1/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	2.3%	7.0%	0.0%	4.8%	0.0%	2.3%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	1/28 (4%)	0/25 (0%)	1/19 (5%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	726 (T)	471	---	705	---	727 (T)	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.424	P=0.264	P=0.549N	P=0.337	P=0.583N	P=0.494	(e)	(e)
POLY 3	P=0.527	P=0.290	P=0.511N	P=0.475	P=0.574N	P=0.499	(e)	(e)
POLY 1.5	P=0.541	P=0.295	P=0.508N	P=0.488	P=0.571N	P=0.499	(e)	(e)
POLY 6	P=0.500	P=0.283	P=0.516N	P=0.449	P=0.579N	P=0.499	(e)	(e)
LOGISTIC REGRESSION	P=0.558	P=0.339	(e)	P=0.378	(e)	P=0.494	(e)	(e)
COCH-ARM / FISHERS	P=0.556	P=0.309	P=0.500N	P=0.500	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.407	(e)	(e)	(e)	P=0.386N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Skin Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	0/41.74	2/42.07	0/41.33	0/44.82	0/44.54	1/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	2.4%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	2/25 (8%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	---	---	726 (T)	---	---	---	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.492	(e)	P=0.185	(e)	P=0.675	(e)	P=0.441	(e)
POLY 3	P=0.566	(e)	P=0.225	(e)	P=0.683	(e)	P=0.487	(e)
POLY 1.5	P=0.584	(e)	P=0.228	(e)	P=0.686	(e)	P=0.494	(e)
POLY 6	P=0.526	(e)	P=0.219	(e)	P=0.683	(e)	P=0.475	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.185	(e)	(e)	(e)	P=0.441	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.237	(e)	(e)	(e)	P=0.368	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Skin Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	0/41.74	2/42.07	0/41.33	0/44.82	0/44.54	1/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	2.4%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	2/25 (8%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	---	---	726 (T)	---	---	---	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.492	(e)	P=0.185	(e)	P=0.675	(e)	P=0.441	(e)
POLY 3	P=0.566	(e)	P=0.225	(e)	P=0.683	(e)	P=0.487	(e)
POLY 1.5	P=0.584	(e)	P=0.228	(e)	P=0.686	(e)	P=0.494	(e)
POLY 6	P=0.526	(e)	P=0.219	(e)	P=0.683	(e)	P=0.475	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.185	(e)	(e)	(e)	P=0.441	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.237	(e)	(e)	(e)	P=0.368	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Testes Adenoma								
TUMOR RATES								
OVERALL (a)	42/50 (84%)	42/50 (84%)	44/50 (88%)	48/50 (96%)				
POLY-3 RATE (b)	42/48.54	42/46.51	44/46.60	48/49.20				
POLY-3 PERCENT (g)	86.5%	90.3%	94.4%	97.6%				
TERMINAL (d)	29/32 (91%)	26/28 (93%)	25/25 (100%)	19/19 (100%)				
FIRST INCIDENCE	468	471	539	498				
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.227	P=0.060	P<0.001 **				
POLY 3	P=0.015 *	P=0.393	P=0.149	P=0.036 *				
POLY 1.5	P=0.017 *	P=0.463	P=0.183	P=0.040 *				
POLY 6	P=0.013 *	P=0.344	P=0.124	P=0.032 *				
LOGISTIC REGRESSION	P=0.018 *	P=0.435	P=0.212	P=0.036 *				
COCH-ARM / FISHERS	P=0.028 *	P=0.607N	P=0.387	P=0.046 *				
ORDER RESTRICTED	P=0.014 *	(e)	(e)	(e)				

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Thyroid Gland: C-Cell Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	4/48 (8%)	0/50 (0%)	4/50 (8%)	3/50 (6%)	2/50 (4%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	1/44.48	4/40.28	0/42.07	4/41.53	3/44.82	2/44.54	2/42.23	2/43.46
POLY-3 PERCENT (g)	2.3%	9.9%	0.0%	9.6%	6.7%	4.5%	4.7%	4.6%
TERMINAL (d)	1/32 (3%)	4/28 (14%)	0/25 (0%)	3/19 (16%)	3/35 (9%)	2/34 (6%)	1/26 (4%)	1/32 (3%)
FIRST INCIDENCE	726 (T)	726 (T)	---	674	727 (T)	727 (T)	653	651
STATISTICAL TESTS								
LIFE TABLE	P=0.087	P=0.139	P=0.549N	P=0.067	P=0.475N	P=0.513N	P=0.621N	P=0.530N
POLY 3	P=0.206	P=0.149	P=0.511N	P=0.158	P=0.446N	P=0.503N	P=0.527N	P=0.514N
POLY 1.5	P=0.218	P=0.155	P=0.508N	P=0.169	P=0.441N	P=0.502N	P=0.513N	P=0.510N
POLY 6	P=0.185	P=0.143	P=0.516N	P=0.138	P=0.451N	P=0.502N	P=0.550N	P=0.516N
LOGISTIC REGRESSION	P=0.121	P=0.139	(e)	P=0.099	P=0.454N	P=0.513N	P=0.557N	P=0.518N
COCH-ARM / FISHERS	P=0.232	P=0.168	P=0.500N	P=0.181	P=0.431N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.092	(e)	(e)	(e)	P=0.517N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Thyroid Gland: C-Cell Carcinoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/48 (6%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	2/44.48	3/40.53	0/42.07	1/41.65	1/44.82	1/44.54	1/42.26	2/43.20
POLY-3 PERCENT (g)	4.5%	7.4%	0.0%	2.4%	2.2%	2.3%	2.4%	4.6%
TERMINAL (d)	2/32 (6%)	2/28 (7%)	0/25 (0%)	0/19 (0%)	1/35 (3%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	726 (T)	658	---	638	727 (T)	727 (T)	642	723
STATISTICAL TESTS								
LIFE TABLE	P=0.356N	P=0.440	P=0.294N	P=0.625N	P=0.329	P=0.755	P=0.713	P=0.476
POLY 3	P=0.254N	P=0.458	P=0.250N	P=0.523N	P=0.338	P=0.759	P=0.748	P=0.487
POLY 1.5	P=0.247N	P=0.466	P=0.247N	P=0.511N	P=0.343	P=0.759	P=0.754	P=0.491
POLY 6	P=0.267N	P=0.450	P=0.255N	P=0.547N	P=0.334	P=0.760	P=0.736	P=0.484
LOGISTIC REGRESSION	P=0.258N	P=0.444	(e)	P=0.524N	P=0.336	P=0.755	P=0.762N	P=0.476
COCH-ARM / FISHERS	P=0.239N	P=0.480	P=0.247N	P=0.500N	P=0.351	P=0.753N	P=0.753N	P=0.500
ORDER RESTRICTED	P=0.183N	(e)	(e)	(e)	P=0.397	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Thyroid Gland: C-Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	7/48 (15%)	0/50 (0%)	5/50 (10%)	4/50 (8%)	3/50 (6%)	3/50 (6%)	4/50 (8%)
POLY-3 RATE (b)	3/44.48	7/40.53	0/42.07	5/41.85	4/44.82	3/44.54	3/42.54	4/43.48
POLY-3 PERCENT (g)	6.7%	17.3%	0.0%	12.0%	8.9%	6.7%	7.1%	9.2%
TERMINAL (d)	3/32 (9%)	6/28 (21%)	0/25 (0%)	3/19 (16%)	4/35 (11%)	3/34 (9%)	1/26 (4%)	2/32 (6%)
FIRST INCIDENCE	726 (T)	658	---	638	727 (T)	727 (T)	642	651
STATISTICAL TESTS								
LIFE TABLE	P=0.266	P=0.108	P=0.167N	P=0.153	P=0.485	P=0.516N	P=0.634N	P=0.605
POLY 3	P=0.490	P=0.120	P=0.129N	P=0.322	P=0.518	P=0.503N	P=0.529N	P=0.627
POLY 1.5	P=0.507	P=0.128	P=0.126N	P=0.341	P=0.525	P=0.503N	P=0.514N	P=0.631
POLY 6	P=0.455	P=0.113	P=0.133N	P=0.288	P=0.513	P=0.503N	P=0.553N	P=0.625
LOGISTIC REGRESSION	P=0.410	P=0.103	(e)	P=0.257	P=0.509	P=0.516N	P=0.540N	P=0.619
COCH-ARM / FISHERS	P=0.526	P=0.142	P=0.121N	P=0.357	P=0.537	P=0.500N	P=0.500N	P=0.643N
ORDER RESTRICTED	P=0.262N	(e)	(e)	(e)	P=0.607	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Thyroid Gland: Follicular Cell Carcinoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/48 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44.48	2/40.47	2/42.17	0/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	2.3%	4.9%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	1/28 (4%)	1/25 (4%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	726 (T)	677	702	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.427N	P=0.444	P=0.426	P=0.604N	(e)	(e)	(e)	(e)
POLY 3	P=0.320N	P=0.467	P=0.481	P=0.515N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.306N	P=0.473	P=0.486	P=0.507N	(e)	(e)	(e)	(e)
POLY 6	P=0.349N	P=0.461	P=0.474	P=0.530N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.343N	P=0.460	P=0.457	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.293N	P=0.485	P=0.500	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.221N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Thyroid Gland: Follicular Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	2/48 (4%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/44.48	2/40.47	2/42.17	0/41.33	1/44.82	0/44.54	1/41.95	0/43.18
POLY-3 PERCENT (g)	2.3%	4.9%	4.7%	0.0%	2.2%	0.0%	2.4%	0.0%
TERMINAL (d)	1/32 (3%)	1/28 (4%)	1/25 (4%)	0/19 (0%)	1/35 (3%)	0/34 (0%)	1/26 (4%)	0/32 (0%)
FIRST INCIDENCE	726 (T)	677	702	---	727 (T)	---	727 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.427N	P=0.444	P=0.426	P=0.604N	P=0.431N	P=0.506N	P=0.694	P=0.518N
POLY 3	P=0.320N	P=0.467	P=0.481	P=0.515N	P=0.412N	P=0.501N	P=0.746	P=0.507N
POLY 1.5	P=0.306N	P=0.473	P=0.486	P=0.507N	P=0.409N	P=0.501N	P=0.753	P=0.505N
POLY 6	P=0.349N	P=0.461	P=0.474	P=0.530N	P=0.415N	P=0.501N	P=0.733	P=0.509N
LOGISTIC REGRESSION	P=0.343N	P=0.460	P=0.457	(e)	P=0.431N	(e)	P=0.694	(e)
COCH-ARM / FISHERS	P=0.293N	P=0.485	P=0.500	P=0.500N	P=0.405N	P=0.500N	P=0.753N	P=0.500N
ORDER RESTRICTED	P=0.221N	(e)	(e)	(e)	P=0.258N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Uterus								
Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	12/50 (24%)	5/50 (10%)	8/50 (16%)	14/50 (28%)				
POLY-3 RATE (b)	12/47.11	5/45.07	8/42.96	14/44.20				
POLY-3 PERCENT (g)	25.5%	11.1%	18.6%	31.7%				
TERMINAL (d)	8/35 (23%)	3/34 (9%)	5/26 (19%)	12/32 (38%)				
FIRST INCIDENCE	370	595	581	398				
STATISTICAL TESTS								
LIFE TABLE	P=0.126	P=0.070N	P=0.424N	P=0.328				
POLY 3	P=0.139	P=0.063N	P=0.299N	P=0.336				
POLY 1.5	P=0.152	P=0.060N	P=0.265N	P=0.362				
POLY 6	P=0.124	P=0.066N	P=0.351N	P=0.310				
LOGISTIC REGRESSION	P=0.175	P=0.051N	P=0.201N	P=0.421				
COCH-ARM / FISHERS	P=0.175	P=0.054N	P=0.227N	P=0.410				
ORDER RESTRICTED	P=0.089	(e)	(e)	(e)				

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Uterus								
Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	13/50 (26%)	5/50 (10%)	8/50 (16%)	15/50 (30%)				
POLY-3 RATE (b)	13/47.11	5/45.07	8/42.96	15/44.32				
POLY-3 PERCENT (g)	27.6%	11.1%	18.6%	33.8%				
TERMINAL (d)	9/35 (26%)	3/34 (9%)	5/26 (19%)	12/32 (38%)				
FIRST INCIDENCE	370	595	581	398				
STATISTICAL TESTS								
LIFE TABLE	P=0.116	P=0.046N*	P=0.348N	P=0.325				
POLY 3	P=0.130	P=0.039N*	P=0.224N	P=0.337				
POLY 1.5	P=0.142	P=0.037N*	P=0.195N	P=0.363				
POLY 6	P=0.117	P=0.041N*	P=0.271N	P=0.313				
LOGISTIC REGRESSION	P=0.163	P=0.032N*	P=0.145N	P=0.419				
COCH-ARM / FISHERS	P=0.164	P=0.033N*	P=0.163N	P=0.412				
ORDER RESTRICTED	P=0.065	(e)	(e)	(e)				

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Zymbal's Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/44.95	0/41.74	0/42.07	2/41.78	0/44.82	0/44.54	2/42.26	1/43.18
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	4.8%	0.0%	0.0%	4.7%	2.3%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	0/25 (0%)	1/19 (5%)	0/35 (0%)	0/34 (0%)	1/26 (4%)	1/32 (3%)
FIRST INCIDENCE	588	---	---	595	---	---	642	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.218	P=0.504N	P=0.513N	P=0.451	P=0.233	(e)	P=0.195	P=0.482
POLY 3	P=0.243	P=0.515N	P=0.513N	P=0.474	P=0.233	(e)	P=0.224	P=0.493
POLY 1.5	P=0.245	P=0.509N	P=0.510N	P=0.488	P=0.237	(e)	P=0.231	P=0.495
POLY 6	P=0.236	P=0.522N	P=0.519N	P=0.449	P=0.231	(e)	P=0.213	P=0.491
LOGISTIC REGRESSION	P=0.247	P=0.425N	P=0.443N	P=0.515	P=0.240	(e)	P=0.238	P=0.482
COCH-ARM / FISHERS	P=0.246	P=0.500N	P=0.500N	P=0.500	P=0.246	(e)	P=0.247	P=0.500
ORDER RESTRICTED	P=0.116	(e)	(e)	(e)	P=0.157	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/44.48	2/42.15	0/42.07	0/41.33	2/45.97	0/44.54	0/41.95	1/43.94
POLY-3 PERCENT (g)	0.0%	4.7%	0.0%	0.0%	4.4%	0.0%	0.0%	2.3%
TERMINAL (d)	0/32 (0%)	1/28 (4%)	0/25 (0%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	609	---	---	454	---	---	454
STATISTICAL TESTS								
LIFE TABLE	P=0.452N	P=0.223	(e)	(e)	P=0.465N	P=0.245N	P=0.243N	P=0.507N
POLY 3	P=0.427N	P=0.225	(e)	(e)	P=0.462N	P=0.244N	P=0.258N	P=0.516N
POLY 1.5	P=0.418N	P=0.229	(e)	(e)	P=0.461N	P=0.242N	P=0.248N	P=0.510N
POLY 6	P=0.444N	P=0.220	(e)	(e)	P=0.466N	P=0.246N	P=0.274N	P=0.521N
LOGISTIC REGRESSION	P=0.402N	P=0.246	(e)	(e)	P=0.357N	P=0.206N	P=0.276N	P=0.359N
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)	P=0.461N	P=0.247N	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.252N	(e)	(e)	(e)	P=0.144N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	25/50 (50%)	26/50 (52%)	32/50 (64%)	35/50 (70%)	14/50 (28%)	21/50 (42%)	12/50 (24%)	16/50 (32%)
POLY-3 RATE (b)	25/48.08	26/43.97	32/47.77	35/48.24	14/46.16	21/47.33	12/43.44	16/45.69
POLY-3 PERCENT (g)	52.0%	59.1%	67.0%	72.6%	30.3%	44.4%	27.6%	35.0%
TERMINAL (d)	13/32 (41%)	16/28 (57%)	13/25 (52%)	9/19 (47%)	9/35 (26%)	12/34 (35%)	6/26 (23%)	8/32 (25%)
FIRST INCIDENCE	468	595	205	544	583	356	637	499
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.288	P=0.056	P=0.004 **	P=0.454	P=0.119	P=0.486	P=0.336
POLY 3	P=0.016 *	P=0.314	P=0.096	P=0.027 *	P=0.526N	P=0.115	P=0.480N	P=0.399
POLY 1.5	P=0.015 *	P=0.381	P=0.094	P=0.029 *	P=0.513N	P=0.111	P=0.445N	P=0.402
POLY 6	P=0.017 *	P=0.247	P=0.095	P=0.024 *	P=0.537N	P=0.120	P=0.536N	P=0.400
LOGISTIC REGRESSION	P=0.014 *	P=0.436	P=0.129	P=0.054	P=0.492N	P=0.105	P=0.450N	P=0.412
COCH-ARM / FISHERS	P=0.014 *	P=0.500	P=0.113	P=0.033 *	P=0.490N	P=0.104	P=0.410N	P=0.414
ORDER RESTRICTED	P=0.020 *	(e)	(e)	(e)	P=0.426N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	47/50 (94%)	47/50 (94%)	49/50 (98%)	44/50 (88%)	39/50 (78%)	40/50 (80%)	40/50 (80%)
POLY-3 RATE (b)	50/50.00	47/47.47	47/47.44	49/49.48	44/48.74	39/49.07	40/47.96	40/47.30
POLY-3 PERCENT (g)	100.0%	99.0%	99.1%	99.0%	90.3%	79.5%	83.4%	84.6%
TERMINAL (d)	32/32 (100%)	28/28 (100%)	25/25 (100%)	19/19 (100%)	31/35 (89%)	26/34 (77%)	22/26 (85%)	28/32 (88%)
FIRST INCIDENCE	468	471	539	498	370	455	513	398
STATISTICAL TESTS								
LIFE TABLE	P=0.005 **	P=0.365	P=0.215	P=0.010 *	P=0.447	P=0.300N	P=0.212	P=0.519N
POLY 3	P=0.563N	P=0.968N	P=0.901N	P=0.862N	P=0.380N	P=0.109N	P=0.233N	P=0.288N
POLY 1.5	P=0.525N	P=0.387N	P=0.595N	P=0.672N	P=0.330N	P=0.124N	P=0.215N	P=0.255N
POLY 6	P=0.876N	P=1.000N	P=1.000N	P=1.000N	P=0.441N	P=0.094N	P=0.270N	P=0.327N
LOGISTIC REGRESSION	P=0.153N	(e)	P=0.343N	P=0.442N	P=0.303N	P=0.146N	P=0.238N	P=0.259N
COCH-ARM / FISHERS	P=0.526N	P=0.121N	P=0.121N	P=0.500N	P=0.259N	P=0.143N	P=0.207N	P=0.207N
ORDER RESTRICTED	P=0.265N	(e)	(e)	(e)	P=0.217N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	31/50 (62%)	35/50 (70%)	34/50 (68%)	41/50 (82%)	22/50 (44%)	27/50 (54%)	22/50 (44%)	25/50 (50%)
POLY-3 RATE (b)	31/48.63	35/47.02	34/48.26	41/48.61	22/47.31	27/48.61	22/45.28	25/47.45
POLY-3 PERCENT (g)	63.7%	74.4%	70.5%	84.4%	46.5%	55.5%	48.6%	52.7%
TERMINAL (d)	17/32 (53%)	19/28 (68%)	14/25 (56%)	14/19 (74%)	15/35 (43%)	15/34 (44%)	11/26 (42%)	14/32 (44%)
FIRST INCIDENCE	468	338	205	544	454	356	489	364
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.141	P=0.143	P=0.002 **	P=0.288	P=0.228	P=0.238	P=0.260
POLY 3	P=0.018 *	P=0.177	P=0.312	P=0.015 *	P=0.400	P=0.247	P=0.503	P=0.345
POLY 1.5	P=0.019 *	P=0.207	P=0.306	P=0.017 *	P=0.411	P=0.233	P=0.543	P=0.345
POLY 6	P=0.016 *	P=0.148	P=0.311	P=0.012 *	P=0.385	P=0.268	P=0.440	P=0.346
LOGISTIC REGRESSION	P=0.022 *	P=0.266	P=0.365	P=0.031 *	P=0.452	P=0.215	P=0.577	P=0.367
COCH-ARM / FISHERS	P=0.022 *	P=0.263	P=0.338	P=0.022 *	P=0.424	P=0.212	P=0.580N	P=0.344
ORDER RESTRICTED	P=0.011 *	(e)	(e)	(e)	P=0.429	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	48/50 (96%)	49/50 (98%)	50/50 (100%)	46/50 (92%)	46/50 (92%)	49/50 (98%)	47/50 (94%)
POLY-3 RATE (b)	50/50.00	48/48.37	49/49.00	50/50.00	46/49.50	46/50.00	49/50.00	47/50.00
POLY-3 PERCENT (g)	100.0%	99.2%	100.0%	100.0%	92.9%	92.0%	98.0%	94.0%
TERMINAL (d)	32/32 (100%)	28/28 (100%)	25/25 (100%)	19/19 (100%)	32/35 (91%)	30/34 (88%)	25/26 (96%)	29/32 (91%)
FIRST INCIDENCE	468	338	205	498	370	356	489	364
STATISTICAL TESTS								
LIFE TABLE	P=0.004 **	P=0.307	P=0.140	(e)	P=0.186	P=0.506	P=0.023 *	P=0.282
POLY 3	P=0.972	P=0.992N	P=1.000N	(e)	P=0.405	P=0.581N	P=0.226	P=0.576
POLY 1.5	P=0.663	P=0.587N	P=1.000N	(e)	P=0.379	P=0.608N	P=0.204	P=0.544
POLY 6	P=1.000	P=1.000N	P=1.000N	(e)	P=0.438	P=0.547N	P=0.259	P=0.615
LOGISTIC REGRESSION	P=0.432	P=0.653N	(e)	(e)	P=0.373	P=0.641N	P=0.188	P=0.517
COCH-ARM / FISHERS	P=0.461	P=0.247N	P=0.500N	(e)	P=0.344	P=0.643N	P=0.181	P=0.500
ORDER RESTRICTED	P=0.245	(e)	(e)	(e)	P=0.356	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative
method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

NTP
LAB: Battelle Northwest
EXPERIMENT: 97006 TEST: 01
TEST TYPE: CHRONIC
CONT: N01-ES-05452
PATHOLOGIST: RENNE, ROGER
Rats(F 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 11/11/04
TIME: 10:08:51

NTP C#: C97006
CAS: 108-10-1

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Kidney
Kidney, Renal Tubule (Step Section)
Kidney, Renal Tubule (Step and Original Sections)

NTP
LAB: Battelle Northwest
EXPERIMENT: 97006 TEST: 01
TEST TYPE: CHRONIC
CONT: N01-ES-05452
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 11/11/04
TIME: 10:08:51

NTP C#: C97006
CAS: 108-10-1

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF METHYL ISOBUTYL KETONE

Male Rats

Organ	Morphology
Kidney, Renal Tubule (Step Section)	Adenoma
	Carcinoma and Adenoma
	Hyperplasia
	Hyperplasia and Adenoma
	Hyperplasia, Carcinoma or Adenoma
Kidney, Renal Tubule (Step and Original Sections)	Adenoma
	Carcinoma and Adenoma
	Hyperplasia
	Hyperplasia and Adenoma
	Hyperplasia, Carcinoma or Adenoma
Kidney: Renal Tubule	Adenoma
	Carcinoma or Adenoma
	Hyperplasia
	Hyperplasia and Adenoma
	Hyperplasia, Carcinoma or Adenoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Female Rats

Organ	Morphology
Kidney: Renal Tubule	Mesenchymal Tumor Malignant

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney, Renal Tubule (Step Section) Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/50 (6%)	1/50 (2%)	7/50 (14%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	3/41.93	1/42.20	7/41.57	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	7.2%	2.4%	16.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	2/28 (7%)	0/25 (0%)	5/19 (26%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	677	695	677	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.006 **	P=0.433	P=0.564N	P=0.014 *	(e)	(e)	(e)	(e)
POLY 3	P=0.029 *	P=0.473	P=0.519N	P=0.062	(e)	(e)	(e)	(e)
POLY 1.5	P=0.032 *	P=0.483	P=0.514N	P=0.071	(e)	(e)	(e)	(e)
POLY 6	P=0.024 *	P=0.461	P=0.527N	P=0.048 *	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.015 *	P=0.454	P=0.529N	P=0.023 *	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.036 *	P=0.500	P=0.500N	P=0.080	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.019 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney, Renal Tubule (Step Section) Carcinoma and Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/50 (6%)	1/50 (2%)	7/50 (14%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	3/41.93	1/42.20	7/41.57	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	7.2%	2.4%	16.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	2/28 (7%)	0/25 (0%)	5/19 (26%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	677	695	677	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.006 **	P=0.433	P=0.564N	P=0.014 *	(e)	(e)	(e)	(e)
POLY 3	P=0.029 *	P=0.473	P=0.519N	P=0.062	(e)	(e)	(e)	(e)
POLY 1.5	P=0.032 *	P=0.483	P=0.514N	P=0.071	(e)	(e)	(e)	(e)
POLY 6	P=0.024 *	P=0.461	P=0.527N	P=0.048 *	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.015 *	P=0.454	P=0.529N	P=0.023 *	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.036 *	P=0.500	P=0.500N	P=0.080	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.019 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney, Renal Tubule (Step Section) Hyperplasia								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	3/50 (6%)	4/50 (8%)	6/50 (12%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	3/42.57	4/42.35	6/42.38	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	7.1%	9.5%	14.2%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	2/28 (7%)	2/25 (8%)	1/19 (5%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	405	667	645	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.004 **	P=0.106	P=0.042 *	P=0.007 **	(e)	(e)	(e)	(e)
POLY 3	P=0.011 *	P=0.111	P=0.054	P=0.013 *	(e)	(e)	(e)	(e)
POLY 1.5	P=0.013 *	P=0.114	P=0.055	P=0.014 *	(e)	(e)	(e)	(e)
POLY 6	P=0.009 **	P=0.106	P=0.051	P=0.010 *	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.015 *	P=0.153	P=0.054	P=0.018 *	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.015 *	P=0.121	P=0.059	P=0.013 *	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.007 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney, Renal Tubule (Step Section) Hyperplasia and Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	6/50 (12%)	5/50 (10%)	13/50 (26%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	6/42.76	5/42.47	13/42.63	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	14.0%	11.8%	30.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	4/28 (14%)	2/25 (8%)	6/19 (32%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	405	667	645	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.102	P=0.151	P<0.001 **	(e)	(e)	(e)	(e)
POLY 3	P<0.001 **	P=0.119	P=0.196	P<0.001 **	(e)	(e)	(e)	(e)
POLY 1.5	P<0.001 **	P=0.125	P=0.201	P<0.001 **	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.112	P=0.189	P<0.001 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.137	P=0.186	P<0.001 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.134	P=0.218	P=0.002 **	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney, Renal Tubule (Step Section) Hyperplasia, Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	6/50 (12%)	5/50 (10%)	13/50 (26%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	6/42.76	5/42.47	13/42.63	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	14.0%	11.8%	30.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	4/28 (14%)	2/25 (8%)	6/19 (32%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	405	667	645	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.102	P=0.151	P<0.001 **	(e)	(e)	(e)	(e)
POLY 3	P<0.001 **	P=0.119	P=0.196	P<0.001 **	(e)	(e)	(e)	(e)
POLY 1.5	P<0.001 **	P=0.125	P=0.201	P<0.001 **	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.112	P=0.189	P<0.001 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.137	P=0.186	P<0.001 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P<0.001 **	P=0.134	P=0.218	P=0.002 **	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney, Renal Tubule (Step and Original Sections) Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/50 (6%)	3/50 (6%)	10/50 (20%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	3/41.93	3/42.32	10/41.60	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	7.2%	7.1%	24.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	2/28 (7%)	1/25 (4%)	7/19 (37%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	677	695	677	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.433	P=0.420	P<0.001 **	(e)	(e)	(e)	(e)
POLY 3	P=0.002 **	P=0.473	P=0.477	P=0.009 **	(e)	(e)	(e)	(e)
POLY 1.5	P=0.002 **	P=0.483	P=0.482	P=0.011 *	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.461	P=0.468	P=0.005 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.454	P=0.463	P=0.002 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.003 **	P=0.500	P=0.500	P=0.014 *	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(F 344) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 104 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney, Renal Tubule (Step and Original Sections) Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	1/41.74	0/42.07	2/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	2.4%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	1/28 (4%)	0/25 (0%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	726 (T)	---	726 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.069	P=0.473	(e)	P=0.132	(e)	(e)	(e)	(e)
POLY 3	P=0.129	P=0.487	(e)	P=0.221	(e)	(e)	(e)	(e)
POLY 1.5	P=0.134	P=0.492	(e)	P=0.229	(e)	(e)	(e)	(e)
POLY 6	P=0.119	P=0.482	(e)	P=0.205	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.473	(e)	P=0.132	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.140	P=0.500	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.064	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney, Renal Tubule (Step and Original Sections) Carcinoma and Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	4/50 (8%)	3/50 (6%)	11/50 (22%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	4/41.93	3/42.32	11/41.60	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	9.5%	7.1%	26.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	3/28 (11%)	1/25 (4%)	8/19 (42%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	677	695	677	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.275	P=0.420	P<0.001 **	(e)	(e)	(e)	(e)
POLY 3	P<0.001 **	P=0.309	P=0.477	P=0.004 **	(e)	(e)	(e)	(e)
POLY 1.5	P<0.001 **	P=0.320	P=0.482	P=0.005 **	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.297	P=0.468	P=0.002 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.286	P=0.463	P<0.001 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.002 **	P=0.339	P=0.500	P=0.007 **	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(F 344) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 104 weeks

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney, Renal Tubule (Step and Original Sections) Hyperplasia								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	14/50 (28%)	7/50 (14%)	21/50 (42%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/44.48	14/43.08	7/42.45	21/43.68	1/44.90	1/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	2.3%	32.5%	16.5%	48.1%	2.2%	2.3%	0.0%	2.3%
TERMINAL (d)	1/32 (3%)	11/28 (39%)	4/25 (16%)	9/19 (47%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	726 (T)	405	667	609	707	727 (T)	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P<0.001 **	P=0.017 *	P<0.001 **	P=0.647N	P=0.760	P=0.559N	P=0.735
POLY 3	P<0.001 **	P<0.001 **	P=0.025 *	P<0.001 **	P=0.623N	P=0.759	P=0.514N	P=0.752
POLY 1.5	P<0.001 **	P<0.001 **	P=0.026 *	P<0.001 **	P=0.619N	P=0.759	P=0.507N	P=0.755
POLY 6	P<0.001 **	P<0.001 **	P=0.023 *	P<0.001 **	P=0.629N	P=0.759	P=0.525N	P=0.750
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P=0.022 *	P<0.001 **	P=0.633N	P=0.762	P=0.518N	P=0.753
COCH-ARM / FISHERS	P<0.001 **	P<0.001 **	P=0.030 *	P<0.001 **	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.550N	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney, Renal Tubule (Step and Original Sections) Hyperplasia and Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	17/50 (34%)	10/50 (20%)	25/50 (50%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	3/44.54	17/43.27	10/42.69	25/43.87	1/44.90	1/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	6.7%	39.3%	23.4%	57.0%	2.2%	2.3%	0.0%	2.3%
TERMINAL (d)	2/32 (6%)	13/28 (46%)	5/25 (20%)	12/19 (63%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	713	405	667	609	707	727 (T)	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P<0.001 **	P=0.018 *	P<0.001 **	P=0.647N	P=0.760	P=0.559N	P=0.735
POLY 3	P<0.001 **	P<0.001 **	P=0.027 *	P<0.001 **	P=0.623N	P=0.759	P=0.514N	P=0.752
POLY 1.5	P<0.001 **	P<0.001 **	P=0.029 *	P<0.001 **	P=0.619N	P=0.759	P=0.507N	P=0.755
POLY 6	P<0.001 **	P<0.001 **	P=0.025 *	P<0.001 **	P=0.629N	P=0.759	P=0.525N	P=0.750
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P=0.024 *	P<0.001 **	P=0.633N	P=0.762	P=0.518N	P=0.753
COCH-ARM / FISHERS	P<0.001 **	P<0.001 **	P=0.036 *	P<0.001 **	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.550N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney, Renal Tubule (Step and Original Sections) Hyperplasia, Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	17/50 (34%)	10/50 (20%)	26/50 (52%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	3/44.54	17/43.27	10/42.69	26/43.87	1/44.90	1/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	6.7%	39.3%	23.4%	59.3%	2.2%	2.3%	0.0%	2.3%
TERMINAL (d)	2/32 (6%)	13/28 (46%)	5/25 (20%)	13/19 (68%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	713	405	667	609	707	727 (T)	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P<0.001 **	P=0.018 *	P<0.001 **	P=0.647N	P=0.760	P=0.559N	P=0.735
POLY 3	P<0.001 **	P<0.001 **	P=0.027 *	P<0.001 **	P=0.623N	P=0.759	P=0.514N	P=0.752
POLY 1.5	P<0.001 **	P<0.001 **	P=0.029 *	P<0.001 **	P=0.619N	P=0.759	P=0.507N	P=0.755
POLY 6	P<0.001 **	P<0.001 **	P=0.025 *	P<0.001 **	P=0.629N	P=0.759	P=0.525N	P=0.750
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P=0.024 *	P<0.001 **	P=0.633N	P=0.762	P=0.518N	P=0.753
COCH-ARM / FISHERS	P<0.001 **	P<0.001 **	P=0.036 *	P<0.001 **	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.550N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	0/41.74	2/42.20	3/41.36	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	4.7%	7.3%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	1/25 (4%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	---	695	719	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.008 **	(e)	P=0.204	P=0.049 *	(e)	(e)	(e)	(e)
POLY 3	P=0.024 *	(e)	P=0.225	P=0.106	(e)	(e)	(e)	(e)
POLY 1.5	P=0.026 *	(e)	P=0.228	P=0.113	(e)	(e)	(e)	(e)
POLY 6	P=0.020 *	(e)	P=0.221	P=0.094	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.012 *	(e)	P=0.219	P=0.052	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.028 *	(e)	P=0.247	P=0.121	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.031 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(F 344) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 104 weeks

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney: Renal Tubule Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	1/41.74	0/42.07	2/41.33	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	2.4%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	1/28 (4%)	0/25 (0%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	726 (T)	---	726 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.069	P=0.473	(e)	P=0.132	(e)	(e)	(e)	(e)
POLY 3	P=0.129	P=0.487	(e)	P=0.221	(e)	(e)	(e)	(e)
POLY 1.5	P=0.134	P=0.492	(e)	P=0.229	(e)	(e)	(e)	(e)
POLY 6	P=0.119	P=0.482	(e)	P=0.205	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.473	(e)	P=0.132	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.140	P=0.500	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.064	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Kidney: Renal Tubule Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	4/50 (8%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.48	1/41.74	2/42.20	4/41.36	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	0.0%	2.4%	4.7%	9.7%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/32 (0%)	1/28 (4%)	1/25 (4%)	3/19 (16%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	---	726 (T)	695	719	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.004 **	P=0.473	P=0.204	P=0.018 *	(e)	(e)	(e)	(e)
POLY 3	P=0.018 *	P=0.487	P=0.225	P=0.051	(e)	(e)	(e)	(e)
POLY 1.5	P=0.020 *	P=0.492	P=0.228	P=0.056	(e)	(e)	(e)	(e)
POLY 6	P=0.014 *	P=0.482	P=0.221	P=0.043 *	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.007 **	P=0.473	P=0.219	P=0.018 *	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.022 *	P=0.500	P=0.247	P=0.059	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.015 *	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(F 344) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 104 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule Hyperplasia								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	11/50 (22%)	3/50 (6%)	18/50 (36%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/44.48	11/42.25	3/42.17	18/42.93	1/44.90	1/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	2.3%	26.0%	7.1%	41.9%	2.2%	2.3%	0.0%	2.3%
TERMINAL (d)	1/32 (3%)	9/28 (32%)	2/25 (8%)	9/19 (47%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	726 (T)	658	702	609	707	727 (T)	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P<0.001 **	P=0.231	P<0.001 **	P=0.647N	P=0.760	P=0.559N	P=0.735
POLY 3	P<0.001 **	P<0.001 **	P=0.286	P<0.001 **	P=0.623N	P=0.759	P=0.514N	P=0.752
POLY 1.5	P<0.001 **	P<0.001 **	P=0.291	P<0.001 **	P=0.619N	P=0.759	P=0.507N	P=0.755
POLY 6	P<0.001 **	P<0.001 **	P=0.278	P<0.001 **	P=0.629N	P=0.759	P=0.525N	P=0.750
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P=0.255	P<0.001 **	P=0.633N	P=0.762	P=0.518N	P=0.753
COCH-ARM / FISHERS	P<0.001 **	P=0.002 **	P=0.309	P<0.001 **	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.550N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule Hyperplasia and Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	11/50 (22%)	5/50 (10%)	19/50 (38%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/44.48	11/42.25	5/42.29	19/42.93	1/44.90	1/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	2.3%	26.0%	11.8%	44.3%	2.2%	2.3%	0.0%	2.3%
TERMINAL (d)	1/32 (3%)	9/28 (32%)	3/25 (12%)	10/19 (53%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	726 (T)	658	695	609	707	727 (T)	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P<0.001 **	P=0.066	P<0.001 **	P=0.647N	P=0.760	P=0.559N	P=0.735
POLY 3	P<0.001 **	P<0.001 **	P=0.089	P<0.001 **	P=0.623N	P=0.759	P=0.514N	P=0.752
POLY 1.5	P<0.001 **	P<0.001 **	P=0.092	P<0.001 **	P=0.619N	P=0.759	P=0.507N	P=0.755
POLY 6	P<0.001 **	P<0.001 **	P=0.085	P<0.001 **	P=0.629N	P=0.759	P=0.525N	P=0.750
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P=0.078	P<0.001 **	P=0.633N	P=0.762	P=0.518N	P=0.753
COCH-ARM / FISHERS	P<0.001 **	P=0.002 **	P=0.102	P<0.001 **	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.550N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(F 344) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 104 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule Hyperplasia, Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	11/50 (22%)	5/50 (10%)	20/50 (40%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/44.48	11/42.25	5/42.29	20/42.93	1/44.90	1/44.54	0/41.95	1/43.18
POLY-3 PERCENT (g)	2.3%	26.0%	11.8%	46.6%	2.2%	2.3%	0.0%	2.3%
TERMINAL (d)	1/32 (3%)	9/28 (32%)	3/25 (12%)	11/19 (58%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	1/32 (3%)
FIRST INCIDENCE	726 (T)	658	695	609	707	727 (T)	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P<0.001 **	P=0.066	P<0.001 **	P=0.647N	P=0.760	P=0.559N	P=0.735
POLY 3	P<0.001 **	P<0.001 **	P=0.089	P<0.001 **	P=0.623N	P=0.759	P=0.514N	P=0.752
POLY 1.5	P<0.001 **	P<0.001 **	P=0.092	P<0.001 **	P=0.619N	P=0.759	P=0.507N	P=0.755
POLY 6	P<0.001 **	P<0.001 **	P=0.085	P<0.001 **	P=0.629N	P=0.759	P=0.525N	P=0.750
LOGISTIC REGRESSION	P<0.001 **	P<0.001 **	P=0.078	P<0.001 **	P=0.633N	P=0.762	P=0.518N	P=0.753
COCH-ARM / FISHERS	P<0.001 **	P=0.002 **	P=0.102	P<0.001 **	P=0.616N	P=0.753N	P=0.500N	P=0.753N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.550N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Kidney: Renal Tubule Mesenchymal Tumor Malignant								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/44.48	0/41.74	0/42.07	0/41.33	0/44.82	0/44.54	0/41.95	2/43.18
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%
TERMINAL (d)	0/32 (0%)	0/28 (0%)	0/25 (0%)	0/19 (0%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	2/32 (6%)
FIRST INCIDENCE	---	---	---	---	---	---	---	727 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.044 *	(e)	(e)	P=0.219
POLY 3	(e)	(e)	(e)	(e)	P=0.043 *	(e)	(e)	P=0.229
POLY 1.5	(e)	(e)	(e)	(e)	P=0.044 *	(e)	(e)	P=0.232
POLY 6	(e)	(e)	(e)	(e)	P=0.043 *	(e)	(e)	P=0.227
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P=0.219
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.027 *	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	5/50 (10%)	11/50 (22%)	15/50 (30%)	3/50 (6%)	4/50 (8%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	6/46.29	5/42.63	11/45.20	15/44.60	3/45.69	4/45.76	3/42.75	2/43.77
POLY-3 PERCENT (g)	13.0%	11.7%	24.3%	33.6%	6.6%	8.7%	7.0%	4.6%
TERMINAL (d)	1/32 (3%)	2/28 (7%)	1/25 (4%)	2/19 (11%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	468	602	539	567	583	537	637	548
STATISTICAL TESTS								
LIFE TABLE	P=0.002 **	P=0.577N	P=0.124	P=0.010 *	P=0.386N	P=0.497	P=0.576	P=0.529N
POLY 3	P=0.003 **	P=0.558N	P=0.128	P=0.016 *	P=0.370N	P=0.501	P=0.631	P=0.520N
POLY 1.5	P=0.004 **	P=0.536N	P=0.128	P=0.019 *	P=0.360N	P=0.500	P=0.647	P=0.513N
POLY 6	P=0.002 **	P=0.583N	P=0.127	P=0.012 *	P=0.383N	P=0.502	P=0.606	P=0.527N
LOGISTIC REGRESSION	P=0.005 **	P=0.432N	P=0.196	P=0.035 *	P=0.293N	P=0.515	P=0.642N	P=0.459N
COCH-ARM / FISHERS	P=0.004 **	P=0.500N	P=0.143	P=0.024 *	P=0.344N	P=0.500	P=0.661N	P=0.500N
ORDER RESTRICTED	P=0.006 **	(e)	(e)	(e)	P=0.445N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	3/50 (6%)	3/50 (6%)	10/50 (20%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.54	3/41.93	3/42.32	10/41.60	0/44.82	0/44.54	0/41.95	0/43.18
POLY-3 PERCENT (g)	4.5%	7.2%	7.1%	24.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/32 (3%)	2/28 (7%)	1/25 (4%)	7/19 (37%)	0/35 (0%)	0/34 (0%)	0/26 (0%)	0/32 (0%)
FIRST INCIDENCE	713	677	695	677	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.433	P=0.420	P<0.001 **	(e)	(e)	(e)	(e)
POLY 3	P=0.002 **	P=0.473	P=0.477	P=0.009 **	(e)	(e)	(e)	(e)
POLY 1.5	P=0.002 **	P=0.483	P=0.482	P=0.011 *	(e)	(e)	(e)	(e)
POLY 6	P<0.001 **	P=0.461	P=0.468	P=0.005 **	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P<0.001 **	P=0.454	P=0.463	P=0.002 **	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.003 **	P=0.500	P=0.500	P=0.014 *	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	9/50 (18%)	20/50 (40%)	19/50 (38%)	34/50 (68%)	3/50 (6%)	5/50 (10%)	4/50 (8%)	5/50 (10%)
POLY-3 RATE (b)	9/46.35	20/44.16	19/45.64	34/46.49	3/45.69	5/45.76	4/43.41	5/43.77
POLY-3 PERCENT (g)	19.4%	45.3%	41.6%	73.1%	6.6%	10.9%	9.2%	11.4%
TERMINAL (d)	3/32 (9%)	13/28 (46%)	6/25 (24%)	13/19 (68%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	3/32 (9%)
FIRST INCIDENCE	468	405	539	567	583	537	509	548
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.009 **	P=0.017 *	P<0.001 **	P=0.308	P=0.357	P=0.421	P=0.322
POLY 3	P<0.001 **	P=0.006 **	P=0.016 *	P<0.001 **	P=0.319	P=0.357	P=0.472	P=0.333
POLY 1.5	P<0.001 **	P=0.008 **	P=0.016 *	P<0.001 **	P=0.331	P=0.357	P=0.487	P=0.341
POLY 6	P<0.001 **	P=0.005 **	P=0.016 *	P<0.001 **	P=0.305	P=0.358	P=0.447	P=0.324
LOGISTIC REGRESSION	P<0.001 **	P=0.014 *	P=0.026 *	P<0.001 **	P=0.393	P=0.366	P=0.529	P=0.370
COCH-ARM / FISHERS	P<0.001 **	P=0.013 *	P=0.022 *	P<0.001 **	P=0.350	P=0.357	P=0.500	P=0.357
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.346	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	9/50 (18%)	20/50 (40%)	19/50 (38%)	34/50 (68%)	3/50 (6%)	5/50 (10%)	4/50 (8%)	5/50 (10%)
POLY-3 RATE (b)	9/46.35	20/44.16	19/45.64	34/46.49	3/45.69	5/45.76	4/43.41	5/43.77
POLY-3 PERCENT (g)	19.4%	45.3%	41.6%	73.1%	6.6%	10.9%	9.2%	11.4%
TERMINAL (d)	3/32 (9%)	13/28 (46%)	6/25 (24%)	13/19 (68%)	0/35 (0%)	1/34 (3%)	0/26 (0%)	3/32 (9%)
FIRST INCIDENCE	468	405	539	567	583	537	509	548
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.009 **	P=0.017 *	P<0.001 **	P=0.308	P=0.357	P=0.421	P=0.322
POLY 3	P<0.001 **	P=0.006 **	P=0.016 *	P<0.001 **	P=0.319	P=0.357	P=0.472	P=0.333
POLY 1.5	P<0.001 **	P=0.008 **	P=0.016 *	P<0.001 **	P=0.331	P=0.357	P=0.487	P=0.341
POLY 6	P<0.001 **	P=0.005 **	P=0.016 *	P<0.001 **	P=0.305	P=0.358	P=0.447	P=0.324
LOGISTIC REGRESSION	P<0.001 **	P=0.014 *	P=0.026 *	P<0.001 **	P=0.393	P=0.366	P=0.529	P=0.370
COCH-ARM / FISHERS	P<0.001 **	P=0.013 *	P=0.022 *	P<0.001 **	P=0.350	P=0.357	P=0.500	P=0.357
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.346	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FINAL#1/RATS

Facility: Battelle Northwest

Chemical CAS #: 108-10-1

Lock Date: 01/24/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	14	14	20	15
Natural Death	1	2	4	3
Survivors				
Moribund Sacrifice		1		
Terminal Sacrifice	35	33	26	32
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(50)	(49)	(49)	(50)
Foreign Body	1 [4.0]			
Intestine Small, Duodenum	(50)	(50)	(49)	(50)
Foreign Body	1			
Intestine Small, Jejunum	(50)	(49)	(49)	(49)
Necrosis	1 [4.0]			
Liver	(50)	(50)	(50)	(50)
Angiectasis		1 [3.0]		
Basophilic Focus	36	24	26	20
Clear Cell Focus	11	10	11	7
Eosinophilic Focus	3		1	2
Hepatodiaphragmatic Nodule	8 [4.0]	12 [4.0]	9 [4.0]	5 [4.0]
Inflammation, Granulomatous		1 [2.0]		
Mixed Cell Focus	1	3		
Necrosis			2 [3.0]	3 [2.0]
Vacuolization Cytoplasmic	3 [2.7]	3 [2.3]	5 [2.8]	4 [2.0]
Hepatocyte, Regeneration	1 [4.0]	1 [4.0]	2 [3.0]	2 [4.0]
Serosa, Fibrosis		1 [2.0]		
Mesentery	(18)	(17)	(15)	(15)
Fibrosis	1 [3.0]			
Hemorrhage		1 [3.0]		
Inflammation, Granulomatous			1 [2.0]	
Necrosis	18 [3.0]	15 [3.0]	15 [3.0]	14 [2.9]
Pancreas	(50)	(50)	(50)	(50)
Cyst				1 [3.0]
Acinus, Atrophy	1 [3.0]	1 [2.0]	1 [2.0]	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperkeratosis	1 [2.0]			
Hyperplasia, Squamous		2 [2.0]	2 [2.5]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
ALIMENTARY SYSTEM - CONT				
Necrosis		1 [3.0]		
Ulcer	2 [4.0]		1 [4.0]	1 [4.0]
Tongue	(1)	(1)	(3)	(2)
Epithelium, Hyperplasia	1 [4.0]	1 [1.0]	3 [2.0]	2 [2.5]
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	1 [2.0]	1 [3.0]	3 [2.0]	2 [2.0]
Atrium, Thrombosis		1 [4.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hyperplasia		1 [2.0]	1 [2.0]	
Vacuolization Cytoplasmic	9 [2.3]	4 [2.5]	13 [2.6]	9 [2.0]
Adrenal Medulla	(50)	(50)	(50)	(50)
Atrophy		1 [4.0]		
Hyperplasia		2 [4.0]		
Necrosis				1 [4.0]
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 [3.0]	1 [4.0]		1 [4.0]
Pituitary Gland	(49)	(50)	(50)	(50)
Cyst	3 [2.7]	6 [3.3]	4 [3.3]	3 [3.0]
Hemorrhage		2 [3.5]	2 [3.5]	3 [3.3]
Hyperplasia	11 [3.2]	11 [3.5]	8 [3.3]	10 [3.2]
Thyroid Gland	(50)	(50)	(50)	(50)
Cyst				1 [2.0]
C-Cell, Hyperplasia	4 [2.8]	2 [3.0]	2 [3.0]	5 [2.6]
Follicular Cell, Hyperplasia				1 [3.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	2 [2.5]	3 [2.7]	1 [3.0]	1 [2.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
GENITAL SYSTEM - CONT				
Hyperplasia	1 [3.0]	3 [4.0]	1 [2.0]	1 [4.0]
Inflammation, Chronic	1 [3.0]	1 [3.0]		
Ovary	(50)	(50)	(50)	(50)
Cyst	6 [3.3]	10 [2.8]	7 [3.4]	4 [3.8]
Cyst, Multiple	1 [3.0]			
Uterus	(50)	(50)	(50)	(50)
Cyst	1 [4.0]			
Decidual Reaction	1 [3.0]			
Hemorrhage	1 [4.0]		1 [4.0]	2 [4.0]
Necrosis	2 [4.0]			1 [4.0]
Thrombosis				1 [4.0]
Endometrium, Hyperplasia	1 [1.0]	2 [2.0]	3 [2.7]	3 [2.3]
Endometrium, Inflammation, Suppurative	1 [3.0]			
Myometrium, Hyperplasia				1 [3.0]
Vagina	(2)			(1)
Muscularis, Hyperplasia				1 [4.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Myelofibrosis				1 [3.0]
Lymph Node	(1)	(2)	(2)	(3)
Pancreatic, Hemorrhage		1 [3.0]		
Lymph Node, Bronchial	(9)	(12)	(8)	(7)
Ectasia	2 [2.5]			
Hemorrhage		1 [2.0]		
Hyperplasia, Lymphoid		2 [3.0]		
Pigmentation	1 [3.0]	2 [2.5]		
Lymph Node, Mediastinal	(46)	(44)	(46)	(49)
Angiectasis		1 [4.0]		
Spleen	(50)	(50)	(50)	(50)
Accessory Spleen			1	1
Fibrosis		1 [2.0]		
Hemorrhage	1 [4.0]		1 [4.0]	
Inflammation, Granulomatous		1 [3.0]		
Necrosis	1 [4.0]			1 [4.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	1	1		1

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
INTEGUMENTARY SYSTEM - CONT				
Epithelium, Hyperplasia		1 [3.0]		
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1 [4.0]	1 [4.0]		1 [4.0]
Hyperkeratosis	1 [3.0]			
Hyperplasia, Focal, Squamous		1 [2.0]		
Inflammation, Acute		2 [2.0]		
Ulcer	1 [3.0]	1 [4.0]		2 [2.0]
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	8 [3.4]	11 [3.7]	10 [3.9]	7 [3.7]
Gliosis			1 [3.0]	
Hemorrhage	5 [3.2]	4 [3.3]	10 [3.3]	5 [2.8]
Necrosis			1 [4.0]	2 [4.0]
Thrombosis	1 [4.0]			
Cerebrum, Pigmentation	1 [2.0]			
Spinal Cord	(10)	(4)	(6)	(14)
Cyst Epithelial Inclusion				1 [3.0]
Hemorrhage				1 [2.0]
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(50)	(50)
Foreign Body	1 [4.0]	2 [4.0]	3 [4.0]	2 [4.0]
Inflammation, Chronic	1 [1.0]	1 [3.0]		
Inflammation, Suppurative			1 [2.0]	2 [2.0]
Epiglottis, Hyperplasia			1 [2.0]	
Epiglottis, Metaplasia, Squamous		1 [2.0]	2 [1.5]	2 [1.5]
Lung	(50)	(50)	(50)	(50)
Foreign Body			1 [3.0]	
Hemorrhage				1 [2.0]
Inflammation, Chronic	2 [1.0]	10 [1.8]	7 [1.9]	4 [1.3]
Inflammation, Granulomatous			1 [3.0]	
Alveolar Epithelium, Hyperplasia	3 [1.3]	5 [2.0]	2 [2.0]	6 [1.3]
Alveolar Epithelium, Metaplasia, Squamous		1 [1.0]		1 [2.0]

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
RESPIRATORY SYSTEM - CONT				
Alveolus, Emphysema	1 [3.0]			
Alveolus, Infiltration Cellular, Histiocyte	13 [1.2]	2 [1.0]	5 [1.4]	11 [1.1]
Alveolus, Pigmentation			1 [2.0]	
Bronchiole, Hyperplasia	1 [3.0]	2 [2.0]	2 [2.5]	3 [2.3]
Interstitium, Fibrosis	2 [1.0]	2 [2.0]	2 [2.5]	1 [1.0]
Nose	(50)	(50)	(50)	(50)
Foreign Body		2 [3.0]	2 [3.0]	1 [3.0]
Inflammation, Suppurative		1 [2.0]	6 [1.2]	
Goblet Cell, Hyperplasia			2 [2.0]	1 [2.0]
Nasolacrimal Duct, Inflammation, Suppurative	5 [1.8]	2 [2.0]	2 [1.0]	
Olfactory Epithelium, Degeneration, Hyaline	1 [2.0]		1 [2.0]	2 [1.5]
Respiratory Epithelium, Degeneration, Hyaline	9 [1.4]	3 [1.7]	8 [2.0]	9 [2.1]
Respiratory Epithelium, Hyperplasia		2 [2.0]	2 [2.5]	
Pleura	(50)	(50)	(50)	(50)
Fibrosis	12 [1.2]	7 [1.7]	4 [1.3]	5 [1.0]
Inflammation, Chronic	7 [1.6]	7 [1.7]	1 [1.0]	1 [1.0]
Mesothelium, Hyperplasia	1 [1.0]			
SPECIAL SENSES SYSTEM				
Eye	(49)	(50)	(48)	(49)
Inflammation, Suppurative		1 [4.0]	2 [2.5]	
Cornea, Inflammation, Suppurative			1 [3.0]	
Lens, Cataract	2 [3.5]	3 [3.0]	4 [3.0]	4 [3.0]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Infarct				1
Nephropathy	19 [1.4]	35 [1.5]	38 [1.5]	44 [1.9]
Papilla, Mineralization	3 [1.0]	5 [1.0]	3 [1.0]	3 [1.0]
Pelvis, Transitional Epithelium, Hyperplasia	1 [1.0]	1 [1.0]		1 [1.0]
Pelvis, Transitional Epithelium, Mineralization	9 [1.1]	6 [1.2]	7 [1.1]	2 [1.0]
Renal Tubule, Cyst		1		1
Renal Tubule, Hyperplasia	1 [2.0]	1 [2.0]		1 [3.0]
Urinary Bladder	(50)	(50)	(50)	(50)
Hemorrhage	1 [4.0]			

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	14	16	21	29
Natural Death	4	5	4	2
Accidently Killed		1		
Survivors				
Terminal Sacrifice	32	28	25	19
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(48)	(48)	(50)	(50)
Ulcer		1 [4.0]		2 [4.0]
Intestine Small, Ileum	(48)	(47)	(48)	(49)
Diverticulum			1 [4.0]	
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]			1 [3.0]
Basophilic Focus	11	5	13	4
Clear Cell Focus	14	13	17	9
Degeneration, Cystic	1 [2.0]		1 [4.0]	3 [3.0]
Eosinophilic Focus	2	6	10	9
Hemorrhage			1 [4.0]	
Hepatodiaphragmatic Nodule	3 [4.0]	6 [4.0]	7 [4.0]	7 [4.0]
Inflammation, Granulomatous		1 [3.0]		
Mixed Cell Focus	1		2	1
Necrosis	1 [4.0]	6 [3.3]	1 [3.0]	
Vacuolization Cytoplasmic	4 [2.5]	2 [2.5]	2 [3.5]	
Bile Duct, Cyst	1 [3.0]			
Bile Duct, Hyperplasia		3 [3.0]	4 [3.0]	4 [3.0]
Bile Duct, Inflammation, Suppurative		1 [4.0]		
Centrilobular, Necrosis	1 [2.0]	1 [3.0]	1 [2.0]	4 [1.8]
Hepatocyte, Regeneration		2 [4.0]	1 [3.0]	4 [3.8]
Periportal, Inflammation, Chronic		1 [3.0]		
Mesentery	(10)	(12)	(9)	(7)
Necrosis	10 [2.8]	12 [3.0]	9 [3.0]	7 [3.0]
Oral Mucosa	(2)			
Pharyngeal, Hyperplasia, Squamous	1 [4.0]			
Pancreas	(50)	(48)	(50)	(50)
Hemorrhage			1 [4.0]	
Necrosis		1 [4.0]		

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
ALIMENTARY SYSTEM - CONT				
Acinus, Atrophy	4 [2.0]	7 [2.4]	5 [2.2]	2 [2.5]
Artery, Thrombosis		1 [4.0]		
Salivary Glands	(50)	(48)	(50)	(50)
Hyperplasia		1 [4.0]		
Stomach, Forestomach	(50)	(48)	(50)	(50)
Hyperplasia, Squamous			1 [2.0]	1 [4.0]
Ulcer	3 [3.7]	1 [3.0]	6 [3.2]	6 [3.8]
Stomach, Glandular	(50)	(48)	(50)	(50)
Erosion	1 [2.0]	1 [3.0]	2 [2.0]	3 [2.0]
Ulcer				1 [4.0]
Serosa, Fibrosis			1 [2.0]	
Tongue	(1)	(1)		
Epithelium, Hyperplasia	1 [2.0]	1 [3.0]		
Tooth	(1)			
Peridontal Tissue, Inflammation	1 [4.0]			
CARDIOVASCULAR SYSTEM				
Heart	(50)	(49)	(50)	(50)
Cardiomyopathy	14 [2.0]	9 [2.3]	12 [2.2]	8 [2.0]
Atrium, Thrombosis	2 [4.0]	4 [4.0]	3 [2.7]	1 [4.0]
Myocardium, Mineralization	1 [2.0]			
Pericardium, Fibrosis			1 [3.0]	
Pericardium, Inflammation, Chronic			1 [4.0]	
Valve, Inflammation, Suppurative		1 [4.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(48)	(50)	(50)
Atrophy	1 [4.0]		1 [3.0]	
Hyperplasia			1 [3.0]	
Necrosis				1 [2.0]
Vacuolization Cytoplasmic	7 [1.9]	3 [2.7]	6 [1.7]	3 [2.0]
Adrenal Medulla	(50)	(48)	(50)	(50)
Atrophy	1 [4.0]			
Hemorrhage	1 [4.0]			
Hyperplasia	13 [2.2]	18 [2.8]	18 [2.3]	24 [2.8]
Thrombosis			1 [4.0]	
Islets, Pancreatic	(50)	(48)	(50)	(50)
Hyperplasia		1 [4.0]		1 [4.0]
Parathyroid Gland	(49)	(48)	(49)	(50)

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
ENDOCRINE SYSTEM - CONT				
Hyperplasia		1 [3.0]		
Pituitary Gland	(50)	(49)	(50)	(50)
Angiectasis			1 [4.0]	
Atrophy	1 [4.0]			
Cyst	1 [4.0]	1 [4.0]		1 [2.0]
Hemorrhage	4 [3.5]	1 [4.0]		1 [3.0]
Hyperplasia	8 [3.8]	8 [3.1]	9 [3.3]	9 [3.8]
Thyroid Gland	(50)	(48)	(50)	(50)
C-Cell, Hyperplasia	4 [1.8]	3 [1.7]	5 [1.8]	1 [2.0]
Follicle, Cyst	1 [2.0]	1 [2.0]		1 [4.0]
Follicular Cell, Hyperplasia	1 [1.0]			
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Preputial Gland	(50)	(49)	(50)	(50)
Cyst	1 [2.0]	2 [4.0]		
Hyperplasia	1 [4.0]	2 [3.5]		3 [3.7]
Inflammation, Granulomatous				1 [2.0]
Inflammation, Suppurative			1 [3.0]	
Prostate	(50)	(49)	(50)	(50)
Inflammation, Suppurative	3 [3.0]	1 [2.0]		2 [2.5]
Seminal Vesicle	(50)	(49)	(50)	(50)
Hyperplasia		1 [3.0]		
Testes	(50)	(50)	(50)	(50)
Germinal Epithelium, Atrophy	10 [3.7]	8 [3.8]	8 [3.5]	15 [3.7]
Interstitial Cell, Hyperplasia	4 [3.0]	3 [3.0]	1 [3.0]	3 [3.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(49)	(50)	(50)
Hyperplasia, Reticulum Cell		1 [4.0]		
Myelofibrosis		1 [3.0]		
Lymph Node	(7)	(7)	(12)	(15)
Infiltration Cellular, Histiocyte			1 [3.0]	
Deep Cervical, Hemorrhage		1 [3.0]		
Deep Cervical, Infiltration Cellular,				

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
HEMATOPOIETIC SYSTEM - CONT				
Histiocyte	1 [2.0]			
Deep Cervical, Pigmentation				1 [2.0]
Pancreatic, Ectasia	2 [3.5]			
Pancreatic, Pigmentation			1 [3.0]	
Renal, Ectasia			1 [3.0]	
Lymph Node, Bronchial	(11)	(13)	(12)	(7)
Angiectasis	1 [4.0]			
Ectasia	3 [3.7]	2 [4.0]	1 [3.0]	
Hemorrhage		1 [3.0]		
Infiltration Cellular, Histiocyte	1 [2.0]	1 [2.0]		
Pigmentation	1 [3.0]	1 [1.0]		
Lymph Node, Mesenteric	(50)	(48)	(50)	(50)
Hyperplasia, Lymphoid	1 [4.0]		1 [3.0]	
Lymph Node, Mediastinal	(41)	(44)	(46)	(44)
Angiectasis		1 [3.0]		
Hemorrhage	1 [4.0]			
Hyperplasia, Lymphoid			1 [3.0]	1 [4.0]
Infiltration Cellular, Histiocyte			1 [4.0]	
Pigmentation		1 [1.0]		1 [4.0]
Spleen	(50)	(50)	(50)	(50)
Accessory Spleen	2	1		1
Fibrosis	2 [3.0]	5 [2.8]	3 [3.0]	8 [3.6]
Hemorrhage	2 [4.0]	2 [4.0]	2 [4.0]	1 [4.0]
Necrosis	4 [4.0]	4 [4.0]	6 [4.0]	4 [4.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(49)	(49)	(50)	(50)
Galactocele	5 [3.0]		1 [3.0]	3 [4.0]
Skin	(50)	(49)	(50)	(50)
Cyst Epithelial Inclusion	3 [4.0]	3 [4.0]		4 [4.0]
Hyperkeratosis	1 [4.0]	1 [4.0]	1 [4.0]	3 [2.3]
Hyperplasia, Focal, Squamous			1 [2.0]	
Inflammation, Acute		1 [2.0]		
Inflammation, Granulomatous			1 [3.0]	2 [2.5]
Sebaceous Gland, Hyperplasia	1 [3.0]			
Subcutaneous Tissue, Fibrosis		1 [3.0]		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
MUSCULOSKELETAL SYSTEM - CONT				
Hyperostosis	1 [2.0]			
Cranium, Maxilla, Fracture		1 [4.0]		
Tibia, Fracture				1
Skeletal Muscle	(3)	(3)	(4)	(6)
Hemorrhage				1 [2.0]
NERVOUS SYSTEM				
Brain	(50)	(49)	(50)	(50)
Compression	8 [3.4]	8 [3.0]	3 [2.3]	6 [2.8]
Hemorrhage	5 [3.8]	3 [3.7]	6 [3.2]	4 [3.5]
Spinal Cord	(2)	(3)	(5)	(5)
Gliosis			1 [2.0]	
Inflammation			1 [3.0]	
Neuron, Degeneration			1 [2.0]	
RESPIRATORY SYSTEM				
Larynx	(50)	(48)	(50)	(50)
Foreign Body	2 [4.0]	3 [4.0]	6 [3.7]	4 [4.0]
Inflammation, Suppurative		2 [2.5]	2 [1.5]	2 [1.5]
Epiglottis, Hyperplasia			1 [2.0]	
Epiglottis, Metaplasia, Squamous		1 [2.0]		
Lung	(50)	(49)	(50)	(50)
Hemorrhage	2 [2.5]	5 [3.2]	5 [2.6]	
Inflammation, Chronic	4 [2.0]		2 [1.5]	
Inflammation, Suppurative		2 [2.5]	1 [2.0]	
Thrombosis		1 [3.0]		
Alveolar Epithelium, Hyperplasia	4 [1.8]	7 [2.0]	4 [1.8]	4 [2.0]
Alveolar Epithelium, Metaplasia, Squamous	1 [1.0]			
Alveolus, Emphysema	2 [2.5]			
Alveolus, Infiltration Cellular, Histiocyte	10 [1.9]	5 [2.0]	6 [1.8]	6 [2.0]
Alveolus, Pigmentation		1 [3.0]		
Bronchiole, Hyperplasia				1 [3.0]
Bronchiole, Alveolus, Foreign Body		1 [3.0]		
Interstitium, Fibrosis	2 [2.5]		3 [1.7]	1 [1.0]
Nose	(50)	(49)	(50)	(50)
Foreign Body	1 [3.0]	3 [3.0]	4 [3.0]	7 [3.0]
Inflammation, Suppurative	4 [2.0]	8 [1.9]	4 [1.8]	10 [1.3]
Goblet Cell, Hyperplasia	1 [2.0]	1 [1.0]		5 [2.4]
Nasolacrimal Duct, Inflammation, Suppurative		1 [2.0]	1 [2.0]	1 [2.0]

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b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FISCHER 344 RATS MALE	CONTROL	450 PPM	900 PPM	1800 PPM
RESPIRATORY SYSTEM - CONT				
Respiratory Epithelium, Hyperplasia	4 [2.3]	1 [1.0]	3 [2.0]	3 [2.0]
Pleura	(50)	(49)	(50)	(50)
Fibrosis	3 [1.7]			
Inflammation, Chronic	6 [1.8]		6 [1.5]	4 [1.5]
Mesothelium, Hyperplasia			1 [2.0]	1 [4.0]
Trachea	(50)	(48)	(50)	(50)
Inflammation, Suppurative		2 [2.5]		
Epithelium, Hyperplasia		1 [4.0]		
SPECIAL SENSES SYSTEM				
Eye	(49)	(45)	(46)	(48)
Anterior Chamber, Hemorrhage		1 [3.0]		
Anterior Chamber, Inflammation, Suppurative		1 [2.0]		
Cornea, Hyperplasia				1 [2.0]
Lens, Cataract	7 [2.7]	6 [2.7]	3 [2.7]	2 [3.0]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Infarct			4	3
Nephropathy	42 [2.0]	45 [2.6]	47 [2.4]	50 [3.1]
Papilla, Mineralization	1 [1.0]	6 [1.2]	22 [1.6]	29 [1.5]
Pelvis, Dilatation		1 [1.0]		
Pelvis, Transitional Epithelium, Hyperplasia	1 [1.0]	5 [1.8]	6 [1.2]	19 [1.4]
Renal Tubule, Accumulation, Hyaline Droplet			2 [1.5]	2 [1.0]
Renal Tubule, Cyst	1	1	1	
Renal Tubule, Hyperplasia	1 [2.0]	11 [3.2]	3 [2.0]	18 [2.7]
Renal Tubule, Pigmentation				1 [3.0]
Transitional Epithelium, Hyperplasia				1 [3.0]
Urinary Bladder	(50)	(48)	(50)	(50)
Calculus Micro Observation Only	1 [2.0]	2 [3.0]	2 [2.0]	
Transitional Epithelium, Hyperplasia		1 [3.0]		

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

END OF REPORT

Lesion counts and average serverity grades for Male Rats in METHYL ISOBUTYL KETONE

Dose		CONTROL	450 PPM	900 PPM	1800 PPM
Kidney Renal Tubule Hyperplasia (Step Sections)	counts	0/50	3/50	4/50	6/50
	average severity	NA	2.0	2.0	2.3
Kidney Renal Tubule Hyperplasia (Step Sections and Original Sections)	counts	1/50	14/50	7/50	21/50
	average severity	2.0	2.9	2.0	2.5

The National Toxicology Program

Pathology Tables from NTP Long-Term Studies

TR-538 Methyl Isobutyl Ketone

Pathology Tables - Mice

- P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 - Statistical Analysis of Primary Tumors
- P18 - Incidence Rates of Non-Neoplastic Lesions

NTP Experiment-Test: 97006-02 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)
Study Type: CHRONIC METHYL ISOBUTYL KETONE
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05
Date: 04/29/04
Time: 07:47:59

FINAL#1 MICE

Facility: Battelle Northwest

Chemical CAS #: 108-10-1

Lock Date: 01/24/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	9	6	9
Natural Death	5	3	5	3
Accidently Killed		1		
Survivors				
Terminal Sacrifice	35	37	39	38
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Gallbladder	(42)	(44)	(34)	(40)
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Intestine Large, Colon	(48)	(48)	(49)	(49)
Intestine Large, Rectum	(47)	(48)	(48)	(49)
Sarcoma, Metastatic, Skin	1 (2%)			
Intestine Large, Cecum	(46)	(48)	(47)	(49)
Adenoma		1 (2%)		
Histiocytic Sarcoma			1 (2%)	
Intestine Small, Duodenum	(47)	(48)	(47)	(48)
Adenoma	1 (2%)			
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Intestine Small, Jejunum	(48)	(47)	(47)	(48)
Carcinoma			1 (2%)	
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Intestine Small, Ileum	(48)	(47)	(47)	(47)
Histiocytic Sarcoma			1 (2%)	
Liver	(50)	(50)	(50)	(50)
Hemangiosarcoma	1 (2%)	2 (4%)	1 (2%)	
Hepatoblastoma	1 (2%)			
Hepatocellular Carcinoma	3 (6%)	4 (8%)	4 (8%)	11 (22%)
Hepatocellular Carcinoma, Multiple	3 (6%)	1 (2%)	2 (4%)	
Hepatocellular Adenoma	11 (22%)	10 (20%)	12 (24%)	9 (18%)
Hepatocellular Adenoma, Multiple	2 (4%)	5 (10%)	8 (16%)	14 (28%)
Hepatocholangiocarcinoma	1 (2%)	1 (2%)		
Histiocytic Sarcoma	2 (4%)		1 (2%)	5 (10%)
Mesentery	(11)	(11)	(13)	(8)
Hemangiosarcoma, Metastatic, Spleen			1 (8%)	
Hemangiosarcoma, Metastatic, Uterus			1 (8%)	

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
ALIMENTARY SYSTEM - cont				
Hepatocholangiocarcinoma, Metastatic, Liver		1 (9%)		
Histiocytic Sarcoma				1 (13%)
Sarcoma, Metastatic, Skin	1 (9%)			
Pancreas	(50)	(50)	(49)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)	1 (2%)		
Histiocytic Sarcoma	2 (4%)		1 (2%)	1 (2%)
Salivary Glands	(50)	(50)	(50)	(50)
Carcinoma	1 (2%)			
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma	1 (2%)			
Squamous Cell Carcinoma				1 (2%)
Squamous Cell Papilloma	1 (2%)		3 (6%)	
Stomach, Glandular	(49)	(50)	(48)	(49)
Tooth	(1)			(1)
Histiocytic Sarcoma				1 (100%)
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Hemangioma			1 (2%)	
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)			
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)			
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma, Metastatic, Liver				1 (2%)
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma	1 (2%)		1 (2%)	2 (4%)
Adrenal Medulla	(50)	(50)	(49)	(49)
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma				1 (2%)
Pheochromocytoma Benign	2 (4%)			1 (2%)
Islets, Pancreatic	(50)	(50)	(49)	(50)
Carcinoma				1 (2%)
Parathyroid Gland	(28)	(33)	(30)	(36)
Adenoma			1 (3%)	
Pituitary Gland	(50)	(49)	(48)	(49)
Histiocytic Sarcoma			1 (2%)	1 (2%)

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
ENDOCRINE SYSTEM - cont				
Pars Distalis, Adenoma	7 (14%)	9 (18%)	4 (8%)	6 (12%)
Pars Intermedia, Adenoma			2 (4%)	
Thyroid Gland	(50)	(50)	(49)	(48)
C-Cell, Adenoma				1 (2%)
C-Cell, Carcinoma	1 (2%)			
Follicular Cell, Carcinoma	1 (2%)			
GENERAL BODY SYSTEM				
Peritoneum		(2)	(1)	
Hemangiosarcoma, Metastatic, Spleen		1 (50%)		
Hepatocholangiocarcinoma, Metastatic, Liver		1 (50%)		
GENITAL SYSTEM				
Clitoral Gland	(45)	(42)	(41)	(42)
Hemangiosarcoma, Metastatic, Spleen		1 (2%)		
Ovary	(49)	(50)	(48)	(50)
Cystadenoma		2 (4%)	1 (2%)	3 (6%)
Histiocytic Sarcoma	2 (4%)		1 (2%)	
Uterus	(50)	(50)	(49)	(50)
Carcinoma	1 (2%)			1 (2%)
Hemangioma			1 (2%)	
Hemangiosarcoma	1 (2%)		2 (4%)	
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma	1 (2%)		1 (2%)	3 (6%)
Leiomyoma		1 (2%)	1 (2%)	1 (2%)
Polyp Stromal	3 (6%)	2 (4%)	2 (4%)	
Polyp Stromal, Multiple		1 (2%)		
Sarcoma Stromal	1 (2%)			
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(49)	(50)
Hemangiosarcoma, Metastatic, Spleen	1 (2%)	1 (2%)		
Histiocytic Sarcoma	3 (6%)		1 (2%)	1 (2%)
Lymph Node	(7)	(3)	(9)	(5)
Iliac, Histiocytic Sarcoma			1 (11%)	
Lumbar, Hemangiosarcoma			1 (11%)	
Lumbar, Histiocytic Sarcoma				1 (20%)

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
HEMATOPOIETIC SYSTEM - cont				
Pancreatic, Hepatocholangiocarcinoma, Metastatic, Liver	1 (14%)			
Renal, Histiocytic Sarcoma	1 (14%)			
Lymph Node, Bronchial	(44)	(41)	(39)	(37)
Hepatocholangiocarcinoma, Metastatic, Liver	2 (5%)	1 (2%)		
Histiocytic Sarcoma	1 (2%)			1 (3%)
Lymph Node, Mandibular	(40)	(42)	(39)	(38)
Histiocytic Sarcoma			1 (3%)	1 (3%)
Lymph Node, Mesenteric	(50)	(49)	(49)	(47)
Hemangiosarcoma, Metastatic, Uterus			1 (2%)	
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Histiocytic Sarcoma	2 (4%)		1 (2%)	1 (2%)
Lymph Node, Mediastinal	(46)	(40)	(38)	(41)
Carcinoma, Metastatic, Skin			1 (3%)	
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)	1 (3%)		
Histiocytic Sarcoma	2 (4%)			1 (2%)
Spleen	(50)	(50)	(49)	(50)
Hemangiosarcoma	1 (2%)	2 (4%)	2 (4%)	1 (2%)
Hemangiosarcoma, Metastatic, Uterus			1 (2%)	
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Histiocytic Sarcoma	1 (2%)		1 (2%)	2 (4%)
Thymus	(49)	(47)	(46)	(46)
Histiocytic Sarcoma	1 (2%)			
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(50)	(49)
Carcinoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma			1 (2%)	
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Sarcoma	1 (2%)			
Subcutaneous Tissue, Fibrosarcoma			1 (2%)	
Subcutaneous Tissue, Fibrous Histiocytoma	2 (4%)	1 (2%)		1 (2%)
Subcutaneous Tissue, Hemangioma				1 (2%)
Subcutaneous Tissue, Hemangiosarcoma			1 (2%)	
Subcutaneous Tissue, Hemangiosarcoma, Metastatic, Spleen	1 (2%)			
Subcutaneous Tissue, Histiocytic Sarcoma	1 (2%)			
Subcutaneous Tissue, Liposarcoma			1 (2%)	
Subcutaneous Tissue, Sarcoma	1 (2%)	1 (2%)		3 (6%)
Subcutaneous Tissue, Sarcoma, Multiple				1 (2%)

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Histiocytic Sarcoma	1 (2%)			
Skeletal Muscle	(1)	(2)	(3)	(2)
Carcinoma, Metastatic, Skin			1 (33%)	
Hemangiosarcoma, Metastatic, Spleen			1 (33%)	
Hepatocholangiocarcinoma, Metastatic, Liver	1 (100%)	1 (50%)		
Histiocytic Sarcoma				1 (50%)
Sarcoma			1 (33%)	
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(49)	(50)
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	3 (6%)	2 (4%)	1 (2%)	1 (2%)
Alveolar/Bronchiolar Adenoma, Multiple	1 (2%)			
Alveolar/Bronchiolar Carcinoma		2 (4%)	1 (2%)	1 (2%)
Carcinoma, Metastatic, Skin			1 (2%)	
Carcinoma, Metastatic, Thyroid Gland	1 (2%)			
Hemangiosarcoma, Metastatic, Uterus			1 (2%)	
Hepatocellular Carcinoma, Metastatic, Liver	4 (8%)	1 (2%)	1 (2%)	1 (2%)
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)	1 (2%)		
Histiocytic Sarcoma	3 (6%)		1 (2%)	2 (4%)
Nose	(50)	(50)	(50)	(49)
Histiocytic Sarcoma	1 (2%)		1 (2%)	
Pleura			(1)	
Carcinoma, Metastatic, Skin			1 (100%)	
Trachea	(50)	(50)	(49)	(50)

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
SPECIAL SENSES SYSTEM				
Eye	(49)	(48)	(49)	(50)
Histiocytic Sarcoma			1 (2%)	
Harderian Gland	(49)	(49)	(49)	(50)
Adenoma	6 (12%)	4 (8%)	2 (4%)	3 (6%)
Carcinoma	1 (2%)	3 (6%)	2 (4%)	3 (6%)
Histiocytic Sarcoma			1 (2%)	
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)			
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)			
Histiocytic Sarcoma	2 (4%)		1 (2%)	3 (6%)
Urinary Bladder	(50)	(50)	(49)	(50)
Histiocytic Sarcoma			1 (2%)	
Sarcoma, Metastatic, Skin	1 (2%)			
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	3 (6%)		1 (2%)	6 (12%)
Lymphoma Malignant	13 (26%)	5 (10%)	11 (22%)	13 (26%)

* Number of animals with any tissue examined microscopically

NTP Experiment-Test: 97006-02 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Report: PEIRPT05
Study Type: CHRONIC METHYL ISOBUTYL KETONE Date: 04/29/04
Route: RESPIRATORY EXPOSURE WHOLE BODY Time: 07:47:59

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	42	40	40	42
Total Primary Neoplasms	75	60	73	84
Total Animals with Benign Neoplasms	29	29	30	33
Total Benign Neoplasms	37	37	39	40
Total Animals with Malignant Neoplasms	30	22	28	31
Total Malignant Neoplasms	38	23	34	44
Total Animals with Metastatic Neoplasms	9	3	4	1
Total Metastatic Neoplasm	27	19	11	2
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	9	6	12	9
Natural Death	1	2	3	4
Survivors				
Terminal Sacrifice	40	42	34	37
Natural Death			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(49)	(48)	(47)	(47)
Intestine Small, Duodenum	(49)	(48)	(45)	(47)
Adenoma	1 (2%)		1 (2%)	1 (2%)
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
Intestine Small, Jejunum	(49)	(48)	(47)	(47)
Adenoma		1 (2%)		
Intestine Small, Ileum	(49)	(48)	(48)	(47)
Carcinoma		1 (2%)		1 (2%)
Liver	(50)	(50)	(50)	(50)
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
Hemangioma	1 (2%)			
Hemangiosarcoma	2 (4%)	1 (2%)	2 (4%)	
Hepatoblastoma		1 (2%)		
Hepatocellular Carcinoma	10 (20%)	11 (22%)	8 (16%)	7 (14%)
Hepatocellular Carcinoma, Multiple	2 (4%)	1 (2%)	2 (4%)	2 (4%)
Hepatocellular Adenoma	11 (22%)	14 (28%)	11 (22%)	19 (38%)
Hepatocellular Adenoma, Multiple	6 (12%)	11 (22%)	12 (24%)	15 (30%)
Hepatocholangiocarcinoma	5 (10%)	2 (4%)		
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
Sarcoma, Metastatic, Bone	1 (2%)			
Mesentery	(9)	(3)	(3)	(4)
Sarcoma, Metastatic, Salivary Glands				1 (25%)
Pancreas	(49)	(50)	(49)	(50)
Hepatocellular Carcinoma, Metastatic, Liver			1 (2%)	
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)			
Histiocytic Sarcoma			1 (2%)	
Salivary Glands	(50)	(50)	(48)	(50)
Sarcoma				1 (2%)

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
ALIMENTARY SYSTEM - cont				
Stomach, Forestomach	(50)	(49)	(49)	(50)
Squamous Cell Carcinoma				1 (2%)
Squamous Cell Papilloma				1 (2%)
Stomach, Glandular	(49)	(49)	(49)	(49)
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)		
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)	2 (4%)		
Sarcoma, Metastatic, Bone	1 (2%)			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(49)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	2 (4%)			
Sarcoma, Metastatic, Bone	1 (2%)			
Capsule, Adenoma	2 (4%)		1 (2%)	1 (2%)
Adrenal Medulla	(50)	(50)	(49)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)			
Ganglioneuroma			1 (2%)	
Pheochromocytoma Malignant	1 (2%)			
Islets, Pancreatic	(49)	(50)	(49)	(50)
Adenoma	1 (2%)	1 (2%)		3 (6%)
Pituitary Gland	(50)	(47)	(48)	(49)
Astrocytoma Malignant, Metastatic, Brain			1 (2%)	
Histiocytic Sarcoma			1 (2%)	
Pars Distalis, Adenoma				1 (2%)
Thyroid Gland	(50)	(49)	(50)	(50)
Follicular Cell, Adenoma		1 (2%)		
Follicular Cell, Carcinoma		1 (2%)		
GENERAL BODY SYSTEM				
None				

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	27/50 (54%)	35/50 (70%)	28/50 (56%)	37/50 (74%)	17/50 (34%)	17/50 (34%)	22/50 (44%)	27/50 (54%)
POLY-3 RATE (b)	27/48.17	35/49.78	28/45.47	37/47.88	17/45.79	17/46.73	22/46.93	27/46.86
POLY-3 PERCENT (g)	56.1%	70.3%	61.6%	77.3%	37.1%	36.4%	46.9%	57.6%
TERMINAL (d)	22/40 (55%)	28/42 (67%)	20/35 (57%)	28/37 (76%)	12/35 (34%)	12/37 (32%)	18/39 (46%)	22/38 (58%)
FIRST INCIDENCE	482	493	471	551	586	598	567	687
STATISTICAL TESTS								
LIFE TABLE	P=0.028 *	P=0.163	P=0.265	P=0.023 *	P=0.041 *	P=0.514N	P=0.331	P=0.089
POLY 3	P=0.033 *	P=0.102	P=0.368	P=0.019 *	P=0.013 *	P=0.556N	P=0.228	P=0.035 *
POLY 1.5	P=0.039 *	P=0.088	P=0.395	P=0.022 *	P=0.013 *	P=0.567N	P=0.218	P=0.035 *
POLY 6	P=0.031 *	P=0.125	P=0.361	P=0.019 *	P=0.014 *	P=0.548N	P=0.238	P=0.038 *
LOGISTIC REGRESSION	P=0.044 *	P=0.071	P=0.392	P=0.023 *	P=0.017 *	P=0.559N	P=0.223	P=0.047 *
COCH-ARM / FISHERS	P=0.059	P=0.074	P=0.500	P=0.030 *	P=0.014 *	P=0.583N	P=0.206	P=0.035 *
ORDER RESTRICTED	P=0.016 *	(e)	(e)	(e)	P=0.028 *	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver Hepatocholangiocarcinoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	5/47.70	2/48.21	0/42.28	0/45.34	1/45.50	1/46.52	0/45.87	0/46.46
POLY-3 PERCENT (g)	10.5%	4.2%	0.0%	0.0%	2.2%	2.2%	0.0%	0.0%
TERMINAL (d)	2/40 (5%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	0/35 (0%)	0/37 (0%)	0/39 (0%)	0/38 (0%)
FIRST INCIDENCE	612	582	---	---	578	515	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.012N*	P=0.214N	P=0.051N	P=0.043N*	P=0.237N	P=0.756N	P=0.504N	P=0.500N
POLY 3	P=0.008N**	P=0.212N	P=0.042N*	P=0.035N*	P=0.236N	P=0.756N	P=0.498N	P=0.496N
POLY 1.5	P=0.008N**	P=0.215N	P=0.038N*	P=0.033N*	P=0.236N	P=0.757N	P=0.499N	P=0.497N
POLY 6	P=0.009N**	P=0.209N	P=0.046N*	P=0.037N*	P=0.235N	P=0.755N	P=0.498N	P=0.494N
LOGISTIC REGRESSION	P=0.005N**	P=0.234N	P=0.021N*	P=0.021N*	P=0.255N	P=0.754N	P=0.495N	P=0.548N
COCH-ARM / FISHERS	P=0.008N**	P=0.218N	P=0.028N*	P=0.028N*	P=0.236N	P=0.753N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.004N**	(e)	(e)	(e)	P=0.247N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - METHYL ISOBUTYL KETONE

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Lung Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	9/50 (18%)	5/50 (10%)	1/50 (2%)	5/50 (10%)	4/50 (8%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	9/46.76	5/47.75	1/42.28	5/45.74	4/45.41	2/45.87	1/46.41	1/46.46
POLY-3 PERCENT (g)	19.3%	10.5%	2.4%	10.9%	8.8%	4.4%	2.2%	2.2%
TERMINAL (d)	8/40 (20%)	4/42 (10%)	1/35 (3%)	4/37 (11%)	2/35 (6%)	2/37 (5%)	0/39 (0%)	1/38 (3%)
FIRST INCIDENCE	666	661	729 (T)	617	653	731 (T)	567	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.179N	P=0.171N	P=0.017N*	P=0.240N	P=0.102N	P=0.321N	P=0.172N	P=0.162N
POLY 3	P=0.146N	P=0.181N	P=0.013N*	P=0.205N	P=0.108N	P=0.333N	P=0.172N	P=0.172N
POLY 1.5	P=0.140N	P=0.187N	P=0.011N*	P=0.201N	P=0.109N	P=0.334N	P=0.175N	P=0.174N
POLY 6	P=0.152N	P=0.172N	P=0.014N*	P=0.208N	P=0.106N	P=0.334N	P=0.170N	P=0.169N
LOGISTIC REGRESSION	P=0.151N	P=0.179N	P=0.015N*	P=0.208N	P=0.112N	P=0.331N	P=0.181N	P=0.175N
COCH-ARM / FISHERS	P=0.132N	P=0.194N	P=0.008N**	P=0.194N	P=0.111N	P=0.339N	P=0.181N	P=0.181N
ORDER RESTRICTED	P=0.035N*	(e)	(e)	(e)	P=0.090N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Lung Alveolar/Bronchiolar Carcinoma								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	1/50 (2%)	3/50 (6%)	5/50 (10%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	5/46.53	1/47.50	3/42.54	5/45.77	0/44.99	2/46.13	1/45.87	1/46.63
POLY-3 PERCENT (g)	10.8%	2.1%	7.1%	10.9%	0.0%	4.3%	2.2%	2.1%
TERMINAL (d)	5/40 (13%)	1/42 (2%)	2/35 (6%)	4/37 (11%)	0/35 (0%)	1/37 (3%)	1/39 (3%)	0/38 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	659	607	---	662	731 (T)	687
STATISTICAL TESTS								
LIFE TABLE	P=0.331	P=0.092N	P=0.431N	P=0.581	P=0.521	P=0.248	P=0.522	P=0.519
POLY 3	P=0.369	P=0.097N	P=0.407N	P=0.620	P=0.517	P=0.243	P=0.504	P=0.507
POLY 1.5	P=0.376	P=0.099N	P=0.393N	P=0.623	P=0.511	P=0.240	P=0.502	P=0.505
POLY 6	P=0.362	P=0.093N	P=0.415N	P=0.618	P=0.526	P=0.245	P=0.505	P=0.511
LOGISTIC REGRESSION	P=0.365	P=0.092N	P=0.419N	P=0.613	P=0.501	P=0.237	P=0.522	P=0.496
COCH-ARM / FISHERS	P=0.389	P=0.102N	P=0.357N	P=0.630N	P=0.500	P=0.247	P=0.500	P=0.500
ORDER RESTRICTED	P=0.324	(e)	(e)	(e)	P=0.275	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Lung Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	14/50 (28%)	5/50 (10%)	3/50 (6%)	10/50 (20%)	4/50 (8%)	4/50 (8%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	14/46.76	5/47.75	3/42.54	10/46.16	4/45.41	4/46.13	2/46.41	2/46.63
POLY-3 PERCENT (g)	29.9%	10.5%	7.1%	21.7%	8.8%	8.7%	4.3%	4.3%
TERMINAL (d)	13/40 (33%)	4/42 (10%)	2/35 (6%)	8/37 (22%)	2/35 (6%)	3/37 (8%)	1/39 (3%)	1/38 (3%)
FIRST INCIDENCE	666	661	659	607	653	662	567	687
STATISTICAL TESTS								
LIFE TABLE	P=0.394N	P=0.016N*	P=0.009N**	P=0.313N	P=0.191N	P=0.618N	P=0.316N	P=0.307N
POLY 3	P=0.326N	P=0.016N*	P=0.005N**	P=0.250N	P=0.203N	P=0.635N	P=0.327N	P=0.325N
POLY 1.5	P=0.316N	P=0.017N*	P=0.004N**	P=0.248N	P=0.205N	P=0.638N	P=0.331N	P=0.329N
POLY 6	P=0.335N	P=0.014N*	P=0.006N**	P=0.249N	P=0.198N	P=0.634N	P=0.325N	P=0.319N
LOGISTIC REGRESSION	P=0.337N	P=0.016N*	P=0.007N**	P=0.265N	P=0.211N	P=0.640N	P=0.339N	P=0.333N
COCH-ARM / FISHERS	P=0.301N	P=0.020N*	P=0.003N**	P=0.241N	P=0.210N	P=0.643N	P=0.339N	P=0.339N
ORDER RESTRICTED	P=0.019N*	(e)	(e)	(e)	P=0.302N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Ovary Cystadenoma								
TUMOR RATES								
OVERALL (a)					0/49 (0%)	2/50 (4%)	1/48 (2%)	3/50 (6%)
POLY-3 RATE (b)					0/44.98	2/45.98	1/44.09	3/46.46
POLY-3 PERCENT (g)					0.0%	4.4%	2.3%	6.5%
TERMINAL (d)					0/35 (0%)	1/37 (3%)	1/38 (3%)	3/38 (8%)
FIRST INCIDENCE					---	702	731 (T)	731 (T)
STATISTICAL TESTS								
LIFE TABLE					P=0.119	P=0.251	P=0.516	P=0.136
POLY 3					P=0.109	P=0.242	P=0.496	P=0.125
POLY 1.5					P=0.107	P=0.241	P=0.495	P=0.123
POLY 6					P=0.112	P=0.243	P=0.498	P=0.127
LOGISTIC REGRESSION					P=0.115	P=0.241	P=0.516	P=0.136
COCH-ARM / FISHERS					P=0.106	P=0.253	P=0.495	P=0.125
ORDER RESTRICTED					P=0.061	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/47 (0%)	0/48 (0%)	1/49 (2%)	7/50 (14%)	9/49 (18%)	4/48 (8%)	6/49 (12%)
POLY-3 RATE (b)	0/46.53	0/45.01	0/40.84	1/44.34	7/44.99	9/45.05	4/44.41	6/45.49
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	2.3%	15.6%	20.0%	9.0%	13.2%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/34 (0%)	1/36 (3%)	7/35 (20%)	8/36 (22%)	3/39 (8%)	6/38 (16%)
FIRST INCIDENCE	---	---	---	729 (T)	731 (T)	683	696	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.183	(e)	(e)	P=0.479	P=0.249N	P=0.415	P=0.207N	P=0.435N
POLY 3	P=0.195	(e)	(e)	P=0.490	P=0.302N	P=0.393	P=0.268N	P=0.491N
POLY 1.5	P=0.197	(e)	(e)	P=0.493	P=0.309N	P=0.386	P=0.276N	P=0.499N
POLY 6	P=0.192	(e)	(e)	P=0.488	P=0.290N	P=0.398	P=0.258N	P=0.478N
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.479	P=0.267N	P=0.392	P=0.246N	P=0.435N
COCH-ARM / FISHERS	P=0.200	(e)	(e)	P=0.495	P=0.323N	P=0.376	P=0.286N	P=0.516N
ORDER RESTRICTED	P=0.112	(e)	(e)	(e)	P=0.292N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Pituitary Gland: Pars Intermedia Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/47 (0%)	0/48 (0%)	0/49 (0%)	0/50 (0%)	0/49 (0%)	2/48 (4%)	0/49 (0%)
POLY-3 RATE (b)	0/46.53	0/45.01	0/40.84	0/44.34	0/44.99	0/44.87	2/44.28	0/45.49
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/34 (0%)	0/36 (0%)	0/35 (0%)	0/36 (0%)	2/39 (5%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.613	(e)	P=0.262	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.605	(e)	P=0.234	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.601	(e)	P=0.231	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.614	(e)	P=0.236	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	P=0.262	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.591	(e)	P=0.237	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.244	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	4/50 (8%)	2/50 (4%)	1/50 (2%)	5/50 (10%)
POLY-3 RATE (b)	1/46.73	0/47.50	0/42.28	2/46.39	4/45.61	2/45.87	1/46.45	5/46.61
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	4.3%	8.8%	4.4%	2.2%	10.7%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	2/35 (6%)	2/37 (5%)	0/39 (0%)	3/38 (8%)
FIRST INCIDENCE	676	---	---	513	586	731 (T)	551	705
STATISTICAL TESTS								
LIFE TABLE	P=0.238	P=0.491N	P=0.525N	P=0.489	P=0.382	P=0.318N	P=0.171N	P=0.552
POLY 3	P=0.240	P=0.497N	P=0.520N	P=0.497	P=0.351	P=0.335N	P=0.173N	P=0.514
POLY 1.5	P=0.242	P=0.498N	P=0.514N	P=0.498	P=0.349	P=0.336N	P=0.176N	P=0.510
POLY 6	P=0.237	P=0.494N	P=0.525N	P=0.497	P=0.356	P=0.337N	P=0.172N	P=0.520
LOGISTIC REGRESSION	P=0.261	P=0.511N	P=0.489N	P=0.627	P=0.342	P=0.336N	P=0.181N	P=0.506
COCH-ARM / FISHERS	P=0.246	P=0.500N	P=0.500N	P=0.500	P=0.344	P=0.339N	P=0.181N	P=0.500
ORDER RESTRICTED	P=0.131	(e)	(e)	(e)	P=0.212	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Skin Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	4/50 (8%)	2/50 (4%)	1/50 (2%)	5/50 (10%)
POLY-3 RATE (b)	1/46.73	0/47.50	0/42.28	2/46.39	4/45.61	2/45.87	1/46.45	5/46.61
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	4.3%	8.8%	4.4%	2.2%	10.7%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	2/35 (6%)	2/37 (5%)	0/39 (0%)	3/38 (8%)
FIRST INCIDENCE	676	---	---	513	586	731 (T)	551	705
STATISTICAL TESTS								
LIFE TABLE	P=0.238	P=0.491N	P=0.525N	P=0.489	P=0.382	P=0.318N	P=0.171N	P=0.552
POLY 3	P=0.240	P=0.497N	P=0.520N	P=0.497	P=0.351	P=0.335N	P=0.173N	P=0.514
POLY 1.5	P=0.242	P=0.498N	P=0.514N	P=0.498	P=0.349	P=0.336N	P=0.176N	P=0.510
POLY 6	P=0.237	P=0.494N	P=0.525N	P=0.497	P=0.356	P=0.337N	P=0.172N	P=0.520
LOGISTIC REGRESSION	P=0.261	P=0.511N	P=0.489N	P=0.627	P=0.342	P=0.336N	P=0.181N	P=0.506
COCH-ARM / FISHERS	P=0.246	P=0.500N	P=0.500N	P=0.500	P=0.344	P=0.339N	P=0.181N	P=0.500
ORDER RESTRICTED	P=0.131	(e)	(e)	(e)	P=0.212	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Skin								
Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/46.73	0/47.50	0/42.28	1/45.99	2/45.48	1/45.87	0/45.87	1/46.46
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	2.2%	4.4%	2.2%	0.0%	2.2%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	1/35 (3%)	1/37 (3%)	0/39 (0%)	1/38 (3%)
FIRST INCIDENCE	676	---	---	513	586	731 (T)	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.585	P=0.491N	P=0.525N	P=0.755	P=0.350N	P=0.482N	P=0.228N	P=0.478N
POLY 3	P=0.588	P=0.497N	P=0.520N	P=0.757	P=0.366N	P=0.497N	P=0.235N	P=0.493N
POLY 1.5	P=0.590	P=0.498N	P=0.514N	P=0.758	P=0.366N	P=0.498N	P=0.236N	P=0.495N
POLY 6	P=0.584	P=0.494N	P=0.525N	P=0.756	P=0.364N	P=0.498N	P=0.235N	P=0.489N
LOGISTIC REGRESSION	P=0.634	P=0.511N	P=0.489N	P=0.688N	P=0.368N	P=0.501N	P=0.238N	P=0.510N
COCH-ARM / FISHERS	P=0.595	P=0.500N	P=0.500N	P=0.753N	P=0.366N	P=0.500N	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.399	(e)	(e)	(e)	P=0.218N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Skin								
Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	4/50 (8%)
POLY-3 RATE (b)	0/46.53	0/47.50	0/42.28	0/45.34	2/45.12	1/45.87	0/45.87	4/46.61
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.4%	2.2%	0.0%	8.6%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	1/35 (3%)	1/37 (3%)	0/39 (0%)	2/38 (5%)
FIRST INCIDENCE	---	---	---	---	697	731 (T)	---	705
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.192	P=0.484N	P=0.228N	P=0.386
POLY 3	(e)	(e)	(e)	(e)	P=0.167	P=0.494N	P=0.233N	P=0.352
POLY 1.5	(e)	(e)	(e)	(e)	P=0.166	P=0.497N	P=0.235N	P=0.348
POLY 6	(e)	(e)	(e)	(e)	P=0.169	P=0.494N	P=0.232N	P=0.360
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.173	P=0.493N	P=0.234N	P=0.352
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.165	P=0.500N	P=0.247N	P=0.339
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.082	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Spleen								
Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/49 (0%)	1/50 (2%)	2/50 (4%)	2/49 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/46.53	0/47.50	0/41.84	0/44.91	1/44.99	2/45.98	2/45.09	1/46.56
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	0.0%	2.2%	4.4%	4.4%	2.2%
TERMINAL (d)	1/40 (3%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	1/35 (3%)	1/37 (3%)	2/39 (5%)	0/38 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	731 (T)	702	731 (T)	705
STATISTICAL TESTS								
LIFE TABLE	P=0.320N	P=0.490N	P=0.527N	P=0.516N	P=0.523N	P=0.519	P=0.538	P=0.738N
POLY 3	P=0.315N	P=0.496N	P=0.521N	P=0.507N	P=0.543N	P=0.508	P=0.501	P=0.753N
POLY 1.5	P=0.313N	P=0.498N	P=0.517N	P=0.506N	P=0.547N	P=0.504	P=0.497	P=0.755N
POLY 6	P=0.317N	P=0.493N	P=0.524N	P=0.508N	P=0.535N	P=0.510	P=0.504	P=0.749N
LOGISTIC REGRESSION	P=0.320N	(e)	(e)	(e)	P=0.542N	P=0.508	P=0.538	P=0.756N
COCH-ARM / FISHERS	P=0.308N	P=0.500N	P=0.505N	P=0.505N	P=0.556N	P=0.500	P=0.492	P=0.753N
ORDER RESTRICTED	P=0.127N	(e)	(e)	(e)	P=0.536N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Stomach, Forestomach								
Squamous Cell Carcinoma or Papilloma Squamous								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	0/46.53	0/47.50	0/42.28	2/45.34	1/44.99	0/45.87	3/45.87	1/46.46
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.4%	2.2%	0.0%	6.5%	2.2%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	2/37 (5%)	1/35 (3%)	0/37 (0%)	3/39 (8%)	1/38 (3%)
FIRST INCIDENCE	---	---	---	729 (T)	731 (T)	---	731 (T)	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.041 *	(e)	(e)	P=0.221	P=0.495	P=0.489N	P=0.344	P=0.743N
POLY 3	P=0.043 *	(e)	(e)	P=0.231	P=0.483	P=0.496N	P=0.312	P=0.753N
POLY 1.5	P=0.044 *	(e)	(e)	P=0.234	P=0.479	P=0.498N	P=0.310	P=0.756N
POLY 6	P=0.042 *	(e)	(e)	P=0.229	P=0.491	P=0.495N	P=0.315	P=0.750N
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.221	P=0.495	(e)	P=0.344	P=0.743N
COCH-ARM / FISHERS	P=0.046 *	(e)	(e)	P=0.247	P=0.469	P=0.500N	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.027 *	(e)	(e)	(e)	P=0.273	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - METHYL ISOBUTYL KETONE
Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Stomach, Forestomach								
Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	0/46.53	0/47.50	0/42.28	1/45.34	1/44.99	0/45.87	3/45.87	0/46.46
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	2.2%	2.2%	0.0%	6.5%	0.0%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	1/37 (3%)	1/35 (3%)	0/37 (0%)	3/39 (8%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	729 (T)	731 (T)	---	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.187	(e)	(e)	P=0.484	P=0.477N	P=0.489N	P=0.344	P=0.484N
POLY 3	P=0.194	(e)	(e)	P=0.495	P=0.490N	P=0.496N	P=0.312	P=0.494N
POLY 1.5	P=0.196	(e)	(e)	P=0.497	P=0.493N	P=0.498N	P=0.310	P=0.496N
POLY 6	P=0.192	(e)	(e)	P=0.493	P=0.483N	P=0.495N	P=0.315	P=0.490N
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.484	P=0.477N	(e)	P=0.344	(e)
COCH-ARM / FISHERS	P=0.198	(e)	(e)	P=0.500	P=0.500N	P=0.500N	P=0.309	P=0.500N
ORDER RESTRICTED	P=0.115	(e)	(e)	(e)	P=0.267N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Testes								
Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)				
POLY-3 RATE (b)	0/46.53	2/47.50	0/42.28	0/45.34				
POLY-3 PERCENT (g)	0.0%	4.2%	0.0%	0.0%				
TERMINAL (d)	0/40 (0%)	2/42 (5%)	0/35 (0%)	0/37 (0%)				
FIRST INCIDENCE	---	729 (T)	---	---				
STATISTICAL TESTS								
LIFE TABLE	P=0.428N	P=0.249	(e)	(e)				
POLY 3	P=0.413N	P=0.242	(e)	(e)				
POLY 1.5	P=0.411N	P=0.240	(e)	(e)				
POLY 6	P=0.415N	P=0.245	(e)	(e)				
LOGISTIC REGRESSION	(e)	P=0.249	(e)	(e)				
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)				
ORDER RESTRICTED	P=0.256N	(e)	(e)	(e)				

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Thyroid Gland: Follicular Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/48 (0%)
POLY-3 RATE (b)	0/46.53	2/46.69	0/42.28	0/45.34	1/44.99	0/45.87	0/44.87	0/44.56
POLY-3 PERCENT (g)	0.0%	4.3%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	0/40 (0%)	2/42 (5%)	0/35 (0%)	0/37 (0%)	1/35 (3%)	0/37 (0%)	0/38 (0%)	0/37 (0%)
FIRST INCIDENCE	---	729 (T)	---	---	731 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.428N	P=0.249	(e)	(e)	P=0.299N	P=0.489N	P=0.484N	P=0.489N
POLY 3	P=0.412N	P=0.238	(e)	(e)	P=0.315N	P=0.496N	P=0.501N	P=0.502N
POLY 1.5	P=0.409N	P=0.236	(e)	(e)	P=0.314N	P=0.498N	P=0.502N	P=0.504N
POLY 6	P=0.413N	P=0.242	(e)	(e)	P=0.317N	P=0.495N	P=0.499N	P=0.498N
LOGISTIC REGRESSION	(e)	P=0.249	(e)	(e)	P=0.299N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.404N	P=0.242	(e)	(e)	P=0.311N	P=0.500N	P=0.505N	P=0.510N
ORDER RESTRICTED	P=0.253N	(e)	(e)	(e)	P=0.122N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Uterus Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)					1/44.99	0/45.87	2/46.17	0/46.46
POLY-3 PERCENT (g)					2.2%	0.0%	4.3%	0.0%
TERMINAL (d)					1/35 (3%)	0/37 (0%)	0/39 (0%)	0/38 (0%)
FIRST INCIDENCE					731 (T)	---	684	---
STATISTICAL TESTS								
LIFE TABLE					P=0.439N	P=0.489N	P=0.518	P=0.484N
POLY 3					P=0.454N	P=0.496N	P=0.509	P=0.494N
POLY 1.5					P=0.456N	P=0.498N	P=0.505	P=0.496N
POLY 6					P=0.449N	P=0.495N	P=0.514	P=0.490N
LOGISTIC REGRESSION					P=0.459N	(e)	P=0.502	(e)
COCH-ARM / FISHERS					P=0.461N	P=0.500N	P=0.500	P=0.500N
ORDER RESTRICTED					P=0.319N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	3/50 (6%)	2/50 (4%)	0/50 (0%)				
POLY-3 RATE (b)	3/45.48	3/46.23	2/45.87	0/46.46				
POLY-3 PERCENT (g)	6.6%	6.5%	4.4%	0.0%				
TERMINAL (d)	2/35 (6%)	2/37 (5%)	2/39 (5%)	0/38 (0%)				
FIRST INCIDENCE	586	628	731 (T)	---				
STATISTICAL TESTS								
LIFE TABLE	P=0.064N	P=0.639N	P=0.461N	P=0.112N				
POLY 3	P=0.069N	P=0.655N	P=0.496N	P=0.115N				
POLY 1.5	P=0.070N	P=0.658N	P=0.497N	P=0.116N				
POLY 6	P=0.067N	P=0.653N	P=0.496N	P=0.113N				
LOGISTIC REGRESSION	P=0.071N	P=0.662	P=0.499N	P=0.124N				
COCH-ARM / FISHERS	P=0.072N	P=0.661N	P=0.500N	P=0.121N				
ORDER RESTRICTED	P=0.092N	(e)	(e)	(e)				

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Uterus Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	3/50 (6%)	2/50 (4%)	0/50 (0%)				
POLY-3 RATE (b)	4/45.48	3/46.23	2/45.87	0/46.46				
POLY-3 PERCENT (g)	8.8%	6.5%	4.4%	0.0%				
TERMINAL (d)	3/35 (9%)	2/37 (5%)	2/39 (5%)	0/38 (0%)				
FIRST INCIDENCE	586	628	731 (T)	---				
STATISTICAL TESTS								
LIFE TABLE	P=0.032N*	P=0.474N	P=0.298N	P=0.057N				
POLY 3	P=0.035N*	P=0.491N	P=0.333N	P=0.058N				
POLY 1.5	P=0.036N*	P=0.495N	P=0.335N	P=0.058N				
POLY 6	P=0.034N*	P=0.489N	P=0.332N	P=0.056N				
LOGISTIC REGRESSION	P=0.036N*	P=0.500N	P=0.334N	P=0.063N				
COCH-ARM / FISHERS	P=0.037N*	P=0.500N	P=0.339N	P=0.059N				
ORDER RESTRICTED	P=0.035N*	(e)	(e)	(e)				

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/46.90	0/47.50	0/42.28	0/45.34	0/44.99	0/45.87	2/45.87	1/46.86
POLY-3 PERCENT (g)	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	2.1%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	0/35 (0%)	0/37 (0%)	2/39 (5%)	0/38 (0%)
FIRST INCIDENCE	622	---	---	---	---	---	731 (T)	617
STATISTICAL TESTS								
LIFE TABLE	P=0.316N	P=0.491N	P=0.523N	P=0.509N	P=0.259	(e)	P=0.262	P=0.509
POLY 3	P=0.310N	P=0.497N	P=0.521N	P=0.507N	P=0.259	(e)	P=0.242	P=0.508
POLY 1.5	P=0.309N	P=0.499N	P=0.515N	P=0.504N	P=0.255	(e)	P=0.240	P=0.505
POLY 6	P=0.312N	P=0.496N	P=0.526N	P=0.510N	P=0.268	(e)	P=0.243	P=0.513
LOGISTIC REGRESSION	P=0.280N	P=0.518N	P=0.447N	P=0.443N	P=0.243	(e)	P=0.262	P=0.470
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N	P=0.246	(e)	P=0.247	P=0.500
ORDER RESTRICTED	P=0.127N	(e)	(e)	(e)	P=0.171	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Hemangiosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	3/50 (6%)	4/50 (8%)	7/50 (14%)	1/50 (2%)
POLY-3 RATE (b)	3/47.24	1/48.03	3/42.72	1/45.34	3/45.17	4/45.98	7/46.17	1/46.56
POLY-3 PERCENT (g)	6.4%	2.1%	7.0%	2.2%	6.6%	8.7%	15.2%	2.2%
TERMINAL (d)	2/40 (5%)	0/42 (0%)	1/35 (3%)	1/37 (3%)	2/35 (6%)	3/37 (8%)	5/39 (13%)	0/38 (0%)
FIRST INCIDENCE	482	565	639	729 (T)	684	702	684	705
STATISTICAL TESTS								
LIFE TABLE	P=0.348N	P=0.299N	P=0.607	P=0.330N	P=0.242N	P=0.525	P=0.199	P=0.277N
POLY 3	P=0.336N	P=0.300N	P=0.615	P=0.320N	P=0.257N	P=0.510	P=0.166	P=0.295N
POLY 1.5	P=0.327N	P=0.303N	P=0.628	P=0.315N	P=0.263N	P=0.506	P=0.163	P=0.298N
POLY 6	P=0.345N	P=0.294N	P=0.607	P=0.325N	P=0.247N	P=0.511	P=0.170	P=0.289N
LOGISTIC REGRESSION	P=0.284N	P=0.321N	P=0.628N	P=0.262N	P=0.263N	P=0.511	P=0.166	P=0.298N
COCH-ARM / FISHERS	P=0.313N	P=0.309N	P=0.661N	P=0.309N	P=0.278N	P=0.500	P=0.159	P=0.309N
ORDER RESTRICTED	P=0.260N	(e)	(e)	(e)	P=0.121N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Hemangiosarcoma or Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	4/50 (8%)	1/50 (2%)	3/50 (6%)	1/50 (2%)	3/50 (6%)	4/50 (8%)	9/50 (18%)	2/50 (4%)
POLY-3 RATE (b)	4/47.62	1/48.03	3/42.72	1/45.34	3/45.17	4/45.98	9/46.17	2/46.96
POLY-3 PERCENT (g)	8.4%	2.1%	7.0%	2.2%	6.6%	8.7%	19.5%	4.3%
TERMINAL (d)	2/40 (5%)	0/42 (0%)	1/35 (3%)	1/37 (3%)	2/35 (6%)	3/37 (8%)	7/39 (18%)	0/38 (0%)
FIRST INCIDENCE	482	565	639	729 (T)	684	702	684	617
STATISTICAL TESTS								
LIFE TABLE	P=0.226N	P=0.177N	P=0.560N	P=0.202N	P=0.417N	P=0.525	P=0.088	P=0.464N
POLY 3	P=0.213N	P=0.176N	P=0.559N	P=0.194N	P=0.433N	P=0.510	P=0.064	P=0.482N
POLY 1.5	P=0.206N	P=0.178N	P=0.542N	P=0.188N	P=0.444N	P=0.506	P=0.062	P=0.488N
POLY 6	P=0.221N	P=0.173N	P=0.571N	P=0.200N	P=0.414N	P=0.511	P=0.066	P=0.473N
LOGISTIC REGRESSION	P=0.165N	P=0.179N	P=0.438N	P=0.133N	P=0.453N	P=0.511	P=0.066	P=0.505N
COCH-ARM / FISHERS	P=0.194N	P=0.181N	P=0.500N	P=0.181N	P=0.467N	P=0.500	P=0.061	P=0.500N
ORDER RESTRICTED	P=0.127N	(e)	(e)	(e)	P=0.176N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	6/50 (12%)
POLY-3 RATE (b)	1/46.97	0/47.50	1/42.92	1/45.77	3/45.24	0/45.87	1/46.02	6/47.30
POLY-3 PERCENT (g)	2.1%	0.0%	2.3%	2.2%	6.6%	0.0%	2.2%	12.7%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	1/35 (3%)	0/37 (0%)	0/39 (0%)	2/38 (5%)
FIRST INCIDENCE	598	---	520	607	691	---	695	535
STATISTICAL TESTS								
LIFE TABLE	P=0.523	P=0.508N	P=0.728	P=0.746	P=0.065	P=0.119N	P=0.293N	P=0.290
POLY 3	P=0.529	P=0.498N	P=0.740	P=0.755	P=0.050	P=0.116N	P=0.299N	P=0.265
POLY 1.5	P=0.533	P=0.499N	P=0.746	P=0.757	P=0.049 *	P=0.117N	P=0.302N	P=0.257
POLY 6	P=0.524	P=0.496N	P=0.736	P=0.753	P=0.052	P=0.116N	P=0.297N	P=0.275
LOGISTIC REGRESSION	P=0.591	P=0.520N	P=0.667N	P=0.694N	P=0.049 *	P=0.119N	P=0.303N	P=0.238
COCH-ARM / FISHERS	P=0.539	P=0.500N	P=0.753N	P=0.753N	P=0.050	P=0.121N	P=0.309N	P=0.243
ORDER RESTRICTED	P=0.511	(e)	(e)	(e)	P=0.024 *	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
All Organs Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	13/50 (26%)	5/50 (10%)	11/50 (22%)	13/50 (26%)
POLY-3 RATE (b)	1/46.53	3/47.50	1/42.28	2/45.42	13/45.34	5/46.26	11/47.67	13/48.27
POLY-3 PERCENT (g)	2.2%	6.3%	2.4%	4.4%	28.7%	10.8%	23.1%	26.9%
TERMINAL (d)	1/40 (3%)	3/42 (7%)	1/35 (3%)	1/37 (3%)	11/35 (31%)	4/37 (11%)	8/39 (21%)	9/38 (24%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	710	653	620	75	329
STATISTICAL TESTS								
LIFE TABLE	P=0.485	P=0.323	P=0.732	P=0.482	P=0.371	P=0.027N*	P=0.319N	P=0.498N
POLY 3	P=0.509	P=0.313	P=0.739	P=0.492	P=0.349	P=0.027N*	P=0.352N	P=0.517N
POLY 1.5	P=0.515	P=0.310	P=0.745	P=0.495	P=0.335	P=0.029N*	P=0.367N	P=0.538N
POLY 6	P=0.504	P=0.318	P=0.734	P=0.489	P=0.366	P=0.026N*	P=0.340N	P=0.495N
LOGISTIC REGRESSION	P=0.497	P=0.323	P=0.732	P=0.487	P=0.284	P=0.030N*	P=0.411N	P=0.588
COCH-ARM / FISHERS	P=0.526	P=0.309	P=0.753N	P=0.500	P=0.299	P=0.033N*	P=0.408N	P=0.590N
ORDER RESTRICTED	P=0.449	(e)	(e)	(e)	P=0.265N	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	27/50 (54%)	32/50 (64%)	29/50 (58%)	37/50 (74%)	29/50 (58%)	29/50 (58%)	30/50 (60%)	33/50 (66%)
POLY-3 RATE (b)	27/47.79	32/48.36	29/45.16	37/47.75	29/46.02	29/46.92	30/47.20	33/47.96
POLY-3 PERCENT (g)	56.5%	66.2%	64.2%	77.5%	63.0%	61.8%	63.6%	68.8%
TERMINAL (d)	23/40 (58%)	28/42 (67%)	21/35 (60%)	30/37 (81%)	24/35 (69%)	22/37 (60%)	24/39 (62%)	28/38 (74%)
FIRST INCIDENCE	598	582	471	551	586	628	567	329
STATISTICAL TESTS								
LIFE TABLE	P=0.012 *	P=0.310	P=0.203	P=0.016 *	P=0.387	P=0.467N	P=0.448N	P=0.460
POLY 3	P=0.021 *	P=0.220	P=0.289	P=0.021 *	P=0.276	P=0.538N	P=0.564	P=0.352
POLY 1.5	P=0.025 *	P=0.214	P=0.317	P=0.023 *	P=0.260	P=0.557N	P=0.537	P=0.329
POLY 6	P=0.020 *	P=0.232	P=0.277	P=0.020 *	P=0.297	P=0.523N	P=0.581N	P=0.379
LOGISTIC REGRESSION	P=0.019 *	P=0.239	P=0.270	P=0.020 *	P=0.249	P=0.530N	P=0.551	P=0.316
COCH-ARM / FISHERS	P=0.036 *	P=0.208	P=0.420	P=0.030 *	P=0.210	P=0.580N	P=0.500	P=0.268
ORDER RESTRICTED	P=0.016 *	(e)	(e)	(e)	P=0.405	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	29/50 (58%)	21/50 (42%)	16/50 (32%)	20/50 (40%)	30/50 (60%)	22/50 (44%)	28/50 (56%)	31/50 (62%)
POLY-3 RATE (b)	29/49.80	21/49.88	16/45.59	20/48.30	30/47.18	22/47.80	28/49.34	31/49.28
POLY-3 PERCENT (g)	58.2%	42.1%	35.1%	41.4%	63.6%	46.0%	56.8%	62.9%
TERMINAL (d)	20/40 (50%)	15/42 (36%)	9/35 (26%)	12/37 (32%)	19/35 (54%)	16/37 (43%)	20/39 (51%)	21/38 (55%)
FIRST INCIDENCE	482	493	412	513	578	515	75	329
STATISTICAL TESTS								
LIFE TABLE	P=0.159N	P=0.088N	P=0.059N	P=0.143N	P=0.423	P=0.084N	P=0.296N	P=0.475N
POLY 3	P=0.075N	P=0.078N	P=0.018N*	P=0.070N	P=0.340	P=0.062N	P=0.317N	P=0.557N
POLY 1.5	P=0.067N	P=0.079N	P=0.013N*	P=0.063N	P=0.324	P=0.067N	P=0.338N	P=0.578N
POLY 6	P=0.086N	P=0.077N	P=0.024N*	P=0.078N	P=0.352	P=0.065N	P=0.310N	P=0.548N
LOGISTIC REGRESSION	P=0.041N*	P=0.121N	P=0.005N**	P=0.035N*	P=0.255	P=0.074N	P=0.420N	P=0.514
COCH-ARM / FISHERS	P=0.056N	P=0.081N	P=0.008N**	P=0.055N	P=0.258	P=0.080N	P=0.420N	P=0.500
ORDER RESTRICTED	P=0.030N*	(e)	(e)	(e)	P=0.324N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	45/50 (90%)	41/50 (82%)	36/50 (72%)	45/50 (90%)	42/50 (84%)	40/50 (80%)	40/50 (80%)	42/50 (84%)
POLY-3 RATE (b)	45/50.00	41/50.00	36/47.05	45/48.95	42/47.18	40/48.67	40/49.70	42/49.68
POLY-3 PERCENT (g)	90.0%	82.0%	76.5%	91.9%	89.0%	82.2%	80.5%	84.5%
TERMINAL (d)	35/40 (88%)	33/42 (79%)	25/35 (71%)	34/37 (92%)	31/35 (89%)	29/37 (78%)	30/39 (77%)	31/38 (82%)
FIRST INCIDENCE	482	493	412	513	578	515	75	329
STATISTICAL TESTS								
LIFE TABLE	P=0.222	P=0.181N	P=0.313N	P=0.345	P=0.354N	P=0.301N	P=0.213N	P=0.339N
POLY 3	P=0.372	P=0.194N	P=0.061N	P=0.506	P=0.387N	P=0.251N	P=0.184N	P=0.361N
POLY 1.5	P=0.419	P=0.194N	P=0.045N*	P=0.553	P=0.431N	P=0.305N	P=0.232N	P=0.424N
POLY 6	P=0.327	P=0.194N	P=0.082N	P=0.458	P=0.357N	P=0.215N	P=0.154N	P=0.318N
LOGISTIC REGRESSION	P=0.470	(e)	P=0.035N*	P=0.611	P=0.534	P=0.331N	P=0.381N	P=0.549N
COCH-ARM / FISHERS	P=0.513	P=0.194N	P=0.020N*	P=0.630N	P=0.500	P=0.398N	P=0.398N	P=0.607N
ORDER RESTRICTED	P=0.152	(e)	(e)	(e)	P=0.295N	(e)	(e)	(e)

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Prostate	(50)	(49)	(49)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Sarcoma, Metastatic, Bone	1 (2%)			
Seminal Vesicle	(50)	(50)	(49)	(50)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Testes	(50)	(50)	(50)	(50)
Interstitial Cell, Adenoma		2 (4%)		
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(49)	(50)	(49)
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
Hemangiosarcoma				1 (2%)
Lymph Node			(1)	(2)
Lymph Node, Bronchial	(39)	(35)	(37)	(39)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (3%)	2 (6%)		
Sarcoma, Metastatic, Bone	1 (3%)			
Lymph Node, Mandibular	(37)	(36)	(32)	(34)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (3%)			
Histiocytic Sarcoma			1 (3%)	
Sarcoma, Metastatic, Salivary Glands				1 (3%)
Lymph Node, Mesenteric	(49)	(48)	(48)	(48)
Sarcoma, Metastatic, Bone	1 (2%)			
Lymph Node, Mediastinal	(42)	(38)	(36)	(38)
Hepatocholangiocarcinoma, Metastatic, Liver	3 (7%)	2 (5%)		
Sarcoma, Metastatic, Bone	1 (2%)			
Spleen	(50)	(50)	(49)	(49)
Hemangiosarcoma	1 (2%)			
Histiocytic Sarcoma			1 (2%)	
Thymus	(42)	(44)	(44)	(47)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)	1 (2%)		
Sarcoma, Metastatic, Bone	1 (2%)			
Thymoma Malignant	1 (2%)			

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(49)	(50)
Subcutaneous Tissue, Fibrosarcoma				1 (2%)
Subcutaneous Tissue, Fibrous Histiocytoma	1 (2%)			1 (2%)
Subcutaneous Tissue, Hemangiosarcoma			1 (2%)	
Subcutaneous Tissue, Histiocytic Sarcoma			1 (2%)	
Subcutaneous Tissue, Sarcoma, Metastatic, Bone	1 (2%)			
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Sarcoma	1 (2%)			
Sarcoma, Metastatic, Bone	1 (2%)			
Skeletal Muscle	(3)	(2)		
Hepatocholangiocarcinoma, Metastatic, Liver	2 (67%)	2 (100%)		
Sarcoma, Metastatic, Bone	1 (33%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant			1 (2%)	
Histiocytic Sarcoma			1 (2%)	
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	8 (16%)	5 (10%)	1 (2%)	5 (10%)
Alveolar/Bronchiolar Adenoma, Multiple	1 (2%)			
Alveolar/Bronchiolar Carcinoma	5 (10%)	1 (2%)	3 (6%)	4 (8%)
Alveolar/Bronchiolar Carcinoma, Multiple				1 (2%)
Carcinoma, Metastatic, Harderian Gland		1 (2%)		
Hepatocellular Carcinoma, Metastatic, Liver	7 (14%)	5 (10%)	3 (6%)	5 (10%)
Hepatocholangiocarcinoma, Metastatic, Liver	3 (6%)	2 (4%)		
Histiocytic Sarcoma	1 (2%)			
Sarcoma, Metastatic, Bone	1 (2%)			
Sarcoma, Metastatic, Salivary Glands				1 (2%)
Nose	(50)	(50)	(50)	(50)
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
Histiocytic Sarcoma			1 (2%)	

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
RESPIRATORY SYSTEM - cont				
Sarcoma, Metastatic, Bone	1 (2%)			
Pleura	(1)			
Hepatocholangiocarcinoma, Metastatic, Liver	1 (100%)			
SPECIAL SENSES SYSTEM				
Eye	(49)	(48)	(49)	(49)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Harderian Gland	(50)	(49)	(50)	(50)
Adenoma	5 (10%)	4 (8%)	5 (10%)	7 (14%)
Carcinoma	2 (4%)	1 (2%)	1 (2%)	2 (4%)
Histiocytic Sarcoma			1 (2%)	
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	1 (2%)			
Fibrous Histiocytoma, Metastatic, Skin				1 (2%)
Hepatocholangiocarcinoma, Metastatic, Liver	1 (2%)			
Histiocytic Sarcoma	1 (2%)			
Sarcoma, Metastatic, Bone	1 (2%)			
Renal Tubule, Carcinoma		1 (2%)		
Ureter				(1)
Transitional Epithelium, Carcinoma				1 (100%)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)		1 (2%)	1 (2%)
Lymphoma Malignant	1 (2%)	3 (6%)	1 (2%)	2 (4%)

* Number of animals with any tissue examined microscopically

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	45	41	36	45
Total Primary Neoplasms	69	63	52	79
Total Animals with Benign Neoplasms	27	32	29	37
Total Benign Neoplasms	36	39	32	53
Total Animals with Malignant Neoplasms	29	21	16	20
Total Malignant Neoplasms	33	24	20	26
Total Animals with Metastatic Neoplasms	12	8	4	7
Total Metastatic Neoplasm	46	19	5	12
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

FINAL#1 MICE

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Battelle Northwest
EXPERIMENT: 97006 TEST: 02
TEST TYPE: CHRONIC
CONT: N01-ES-05452
PATHOLOGIST: GRUMBEIN, SONDRA
Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 04/29/04
TIME: 07:49:21

NTP C#: C97006
CAS: 108-10-1

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Bone Marrow
Brain
Heart
Islets, Pancreatic
Kidney
Liver
Lung
Ovary
Parathyroid Gland
Pituitary Gland
Salivary Glands
Spleen
Testes
Thymus
Thyroid Gland

NTP
LAB: Battelle Northwest
EXPERIMENT: 97006 TEST: 02
TEST TYPE: CHRONIC
CONT: N01-ES-05452
PATHOLOGIST: GRUMBEIN, SONDRA

STATISTICAL ANALYSIS OF PRIMARY TUMORS
METHYL ISOBUTYL KETONE

CAGES FROM 0000 TO LAST CAGE
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08
DATE: 04/29/04
TIME: 07:49:21

NTP C#: C97006
CAS: 108-10-1

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF METHYL ISOBUTYL KETONE

Male Mice

Organ	Morphology
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
	Hepatocholangiocarcinoma
Lung	Alveolar/Bronchiolar Adenoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Stomach, Forestomach	Squamous Cell Carcinoma or Papilloma Squamous
All Organs	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Female Mice

Organ	Morphology
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Uterus	Sarcoma Stromal or Polyp Stromal
All Organs	Histiocytic Sarcoma
	Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Adrenal Cortex Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/49 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/46.53	0/47.50	1/41.96	1/45.34	0/44.99	0/45.87	0/45.87	0/46.46
POLY-3 PERCENT (g)	4.3%	0.0%	2.4%	2.2%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/40 (5%)	0/42 (0%)	0/35 (0%)	1/37 (3%)	0/35 (0%)	0/37 (0%)	0/39 (0%)	0/38 (0%)
FIRST INCIDENCE	729 (T)	---	698	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.529N	P=0.228N	P=0.540N	P=0.527N	(e)	(e)	(e)	(e)
POLY 3	P=0.513N	P=0.233N	P=0.536N	P=0.509N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.509N	P=0.235N	P=0.529N	P=0.506N	(e)	(e)	(e)	(e)
POLY 6	P=0.518N	P=0.229N	P=0.540N	P=0.512N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.518N	(e)	P=0.540N	P=0.527N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.501N	P=0.247N	P=0.508N	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.283N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 450 PPM	Males 900 PPM	Males 1800 PPM	Females CONTROL	Females 450 PPM	Females 900 PPM	Females 1800 PPM
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	1/49 (2%)
POLY-3 RATE (b)	0/46.53	0/47.50	0/41.84	0/45.34	2/44.99	0/45.87	0/44.87	1/45.46
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	2.2%
TERMINAL (d)	0/40 (0%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	2/35 (6%)	0/37 (0%)	0/38 (0%)	1/37 (3%)
FIRST INCIDENCE	---	---	---	---	731 (T)	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.449N	P=0.226N	P=0.220N	P=0.481N
POLY 3	(e)	(e)	(e)	(e)	P=0.469N	P=0.233N	P=0.238N	P=0.496N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.468N	P=0.235N	P=0.239N	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	P=0.470N	P=0.232N	P=0.236N	P=0.491N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.449N	(e)	(e)	P=0.481N
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.467N	P=0.247N	P=0.253N	P=0.508N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.129N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Adrenal Medulla								
Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	1/49 (2%)
POLY-3 RATE (b)	1/46.53	0/47.50	0/41.84	0/45.34	2/44.99	0/45.87	0/44.87	1/45.46
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	2.2%
TERMINAL (d)	1/40 (3%)	0/42 (0%)	0/35 (0%)	0/37 (0%)	2/35 (6%)	0/37 (0%)	0/38 (0%)	1/37 (3%)
FIRST INCIDENCE	729 (T)	---	---	---	731 (T)	---	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.320N	P=0.490N	P=0.527N	P=0.516N	P=0.449N	P=0.226N	P=0.220N	P=0.481N
POLY 3	P=0.312N	P=0.496N	P=0.521N	P=0.505N	P=0.469N	P=0.233N	P=0.238N	P=0.496N
POLY 1.5	P=0.310N	P=0.498N	P=0.517N	P=0.503N	P=0.468N	P=0.235N	P=0.239N	P=0.500N
POLY 6	P=0.313N	P=0.493N	P=0.524N	P=0.507N	P=0.470N	P=0.232N	P=0.236N	P=0.491N
LOGISTIC REGRESSION	P=0.320N	(e)	(e)	(e)	P=0.449N	(e)	(e)	P=0.481N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.505N	P=0.500N	P=0.467N	P=0.247N	P=0.253N	P=0.508N
ORDER RESTRICTED	P=0.125N	(e)	(e)	(e)	P=0.129N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Harderian Gland								
Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	4/50 (8%)	5/50 (10%)	7/50 (14%)	6/50 (12%)	4/50 (8%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	5/46.97	4/47.50	5/42.99	7/46.37	6/45.54	4/45.87	2/46.02	3/47.37
POLY-3 PERCENT (g)	10.6%	8.4%	11.6%	15.1%	13.2%	8.7%	4.4%	6.3%
TERMINAL (d)	4/40 (10%)	4/42 (10%)	4/35 (11%)	5/37 (14%)	4/35 (11%)	4/37 (11%)	1/39 (3%)	2/38 (5%)
FIRST INCIDENCE	598	729 (T)	480	551	586	731 (T)	695	329
STATISTICAL TESTS								
LIFE TABLE	P=0.203	P=0.476N	P=0.546	P=0.335	P=0.148N	P=0.339N	P=0.117N	P=0.214N
POLY 3	P=0.238	P=0.493N	P=0.574	P=0.370	P=0.160N	P=0.365N	P=0.129N	P=0.223N
POLY 1.5	P=0.244	P=0.496N	P=0.589	P=0.373	P=0.163N	P=0.367N	P=0.131N	P=0.228N
POLY 6	P=0.233	P=0.487N	P=0.561	P=0.368	P=0.155N	P=0.367N	P=0.128N	P=0.217N
LOGISTIC REGRESSION	P=0.256	P=0.495N	P=0.629	P=0.403	P=0.174N	P=0.360N	P=0.132N	P=0.265N
COCH-ARM / FISHERS	P=0.254	P=0.500N	P=0.630N	P=0.380	P=0.170N	P=0.370N	P=0.134N	P=0.243N
ORDER RESTRICTED	P=0.314	(e)	(e)	(e)	P=0.130N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Harderian Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	3/50 (6%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	2/46.53	1/47.50	1/42.28	2/45.34	1/45.05	3/45.87	2/46.18	3/46.46
POLY-3 PERCENT (g)	4.3%	2.1%	2.4%	4.4%	2.2%	6.5%	4.3%	6.5%
TERMINAL (d)	2/40 (5%)	1/42 (2%)	1/35 (3%)	2/37 (5%)	0/35 (0%)	3/37 (8%)	1/39 (3%)	3/38 (8%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	729 (T)	715	731 (T)	648	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.515	P=0.483N	P=0.547N	P=0.667	P=0.332	P=0.324	P=0.521	P=0.338
POLY 3	P=0.539	P=0.493N	P=0.533N	P=0.685	P=0.317	P=0.312	P=0.509	P=0.316
POLY 1.5	P=0.545	P=0.496N	P=0.524N	P=0.688	P=0.312	P=0.309	P=0.505	P=0.313
POLY 6	P=0.533	P=0.487N	P=0.540N	P=0.682	P=0.324	P=0.312	P=0.512	P=0.322
LOGISTIC REGRESSION	P=0.515	P=0.483N	P=0.547N	P=0.667	P=0.315	P=0.314	P=0.500	P=0.329
COCH-ARM / FISHERS	P=0.556	P=0.500N	P=0.500N	P=0.691N	P=0.302	P=0.309	P=0.500	P=0.309
ORDER RESTRICTED	P=0.543	(e)	(e)	(e)	P=0.279	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Harderian Gland Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	7/50 (14%)	5/50 (10%)	6/50 (12%)	8/50 (16%)	7/50 (14%)	7/50 (14%)	4/50 (8%)	6/50 (12%)
POLY-3 RATE (b)	7/46.97	5/47.50	6/42.99	8/46.37	7/45.60	7/45.87	4/46.32	6/47.37
POLY-3 PERCENT (g)	14.9%	10.5%	14.0%	17.3%	15.4%	15.3%	8.6%	12.7%
TERMINAL (d)	6/40 (15%)	5/42 (12%)	5/35 (14%)	6/37 (16%)	4/35 (11%)	7/37 (19%)	2/39 (5%)	5/38 (13%)
FIRST INCIDENCE	598	729 (T)	480	551	586	731 (T)	648	329
STATISTICAL TESTS								
LIFE TABLE	P=0.288	P=0.351N	P=0.599N	P=0.442	P=0.335N	P=0.573N	P=0.230N	P=0.444N
POLY 3	P=0.341	P=0.372N	P=0.568N	P=0.489	P=0.360N	P=0.609N	P=0.252N	P=0.471N
POLY 1.5	P=0.348	P=0.376N	P=0.549N	P=0.493	P=0.366N	P=0.610N	P=0.256N	P=0.478N
POLY 6	P=0.334	P=0.365N	P=0.583N	P=0.487	P=0.351N	P=0.614N	P=0.248N	P=0.463N
LOGISTIC REGRESSION	P=0.354	P=0.365N	P=0.532N	P=0.511	P=0.382N	P=0.599N	P=0.259N	P=0.517N
COCH-ARM / FISHERS	P=0.361	P=0.380N	P=0.500N	P=0.500	P=0.384N	P=0.613N	P=0.262N	P=0.500N
ORDER RESTRICTED	P=0.417	(e)	(e)	(e)	P=0.399N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Intestine Small: Site Unspecified Carcinoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/46.53	2/47.50	1/42.28	2/45.36	1/44.99	0/45.87	1/45.87	0/46.46
POLY-3 PERCENT (g)	2.2%	4.2%	2.4%	4.4%	2.2%	0.0%	2.2%	0.0%
TERMINAL (d)	1/40 (3%)	2/42 (5%)	1/35 (3%)	1/37 (3%)	1/35 (3%)	0/37 (0%)	1/39 (3%)	0/38 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	725	731 (T)	---	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.405	P=0.517	P=0.732	P=0.476	P=0.389N	P=0.489N	P=0.738N	P=0.484N
POLY 3	P=0.429	P=0.507	P=0.739	P=0.491	P=0.403N	P=0.496N	P=0.756N	P=0.494N
POLY 1.5	P=0.434	P=0.504	P=0.745	P=0.494	P=0.404N	P=0.498N	P=0.758N	P=0.496N
POLY 6	P=0.423	P=0.513	P=0.734	P=0.488	P=0.401N	P=0.495N	P=0.755N	P=0.490N
LOGISTIC REGRESSION	P=0.416	P=0.517	P=0.732	P=0.486	P=0.389N	(e)	P=0.738N	(e)
COCH-ARM / FISHERS	P=0.444	P=0.500	P=0.753N	P=0.500	P=0.405N	P=0.500N	P=0.753N	P=0.500N
ORDER RESTRICTED	P=0.431	(e)	(e)	(e)	P=0.245N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	1/49 (2%)	1/50 (2%)	0/49 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/46.24	1/47.50	0/41.84	3/45.54	0/44.99	0/45.87	0/45.09	0/46.46
POLY-3 PERCENT (g)	2.2%	2.1%	0.0%	6.6%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/40 (3%)	1/42 (2%)	0/35 (0%)	2/37 (5%)	0/35 (0%)	0/37 (0%)	0/39 (0%)	0/38 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	678	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.141	P=0.751N	P=0.527N	P=0.284	(e)	(e)	(e)	(e)
POLY 3	P=0.153	P=0.755N	P=0.520N	P=0.300	(e)	(e)	(e)	(e)
POLY 1.5	P=0.157	P=0.755N	P=0.514N	P=0.304	(e)	(e)	(e)	(e)
POLY 6	P=0.150	P=0.752N	P=0.524N	P=0.296	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.151	P=0.751N	(e)	P=0.298	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.163	P=0.747N	P=0.500N	P=0.316	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.100	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/49 (2%)	1/50 (2%)	0/49 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/46.24	1/47.50	0/41.84	3/45.54	0/44.99	0/45.87	0/45.09	1/46.51
POLY-3 PERCENT (g)	2.2%	2.1%	0.0%	6.6%	0.0%	0.0%	0.0%	2.2%
TERMINAL (d)	1/40 (3%)	1/42 (2%)	0/35 (0%)	2/37 (5%)	0/35 (0%)	0/37 (0%)	0/39 (0%)	0/38 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	678	---	---	---	719
STATISTICAL TESTS								
LIFE TABLE	P=0.141	P=0.751N	P=0.527N	P=0.284	P=0.215	(e)	(e)	P=0.526
POLY 3	P=0.153	P=0.755N	P=0.520N	P=0.300	P=0.203	(e)	(e)	P=0.507
POLY 1.5	P=0.157	P=0.755N	P=0.514N	P=0.304	P=0.202	(e)	(e)	P=0.504
POLY 6	P=0.150	P=0.752N	P=0.524N	P=0.296	P=0.205	(e)	(e)	P=0.510
LOGISTIC REGRESSION	P=0.151	P=0.751N	(e)	P=0.298	P=0.202	(e)	(e)	P=0.507
COCH-ARM / FISHERS	P=0.163	P=0.747N	P=0.500N	P=0.316	P=0.199	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.100	(e)	(e)	(e)	P=0.127	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver Hemangiosarcoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	2/47.24	1/48.03	2/42.61	0/45.34	1/45.17	2/45.87	1/45.87	0/46.46
POLY-3 PERCENT (g)	4.2%	2.1%	4.7%	0.0%	2.2%	4.4%	2.2%	0.0%
TERMINAL (d)	1/40 (3%)	0/42 (0%)	1/35 (3%)	0/37 (0%)	0/35 (0%)	2/37 (5%)	1/39 (3%)	0/38 (0%)
FIRST INCIDENCE	482	565	639	---	684	731 (T)	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.222N	P=0.494N	P=0.652	P=0.251N	P=0.230N	P=0.513	P=0.746N	P=0.486N
POLY 3	P=0.215N	P=0.494N	P=0.656	P=0.246N	P=0.241N	P=0.505	P=0.757N	P=0.494N
POLY 1.5	P=0.209N	P=0.497N	P=0.667	P=0.243N	P=0.243N	P=0.503	P=0.758N	P=0.496N
POLY 6	P=0.221N	P=0.489N	P=0.649	P=0.250N	P=0.238N	P=0.505	P=0.757N	P=0.492N
LOGISTIC REGRESSION	P=0.163N	P=0.530N	P=0.638N	P=0.154N	P=0.240N	P=0.505	P=0.761N	P=0.505N
COCH-ARM / FISHERS	P=0.200N	P=0.500N	P=0.691N	P=0.247N	P=0.247N	P=0.500	P=0.753N	P=0.500N
ORDER RESTRICTED	P=0.163N	(e)	(e)	(e)	P=0.223N	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver								
Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	17/50 (34%)	25/50 (50%)	23/50 (46%)	34/50 (68%)	13/50 (26%)	15/50 (30%)	20/50 (40%)	23/50 (46%)
POLY-3 RATE (b)	17/46.72	25/48.11	23/44.32	34/47.29	13/45.12	15/46.28	20/46.39	23/46.66
POLY-3 PERCENT (g)	36.4%	52.0%	51.9%	71.9%	28.8%	32.4%	43.1%	49.3%
TERMINAL (d)	16/40 (40%)	22/42 (52%)	17/35 (49%)	28/37 (76%)	11/35 (31%)	11/37 (30%)	17/39 (44%)	20/38 (53%)
FIRST INCIDENCE	678	582	471	551	715	687	673	705
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.114	P=0.068	P<0.001 **	P=0.034 *	P=0.474	P=0.176	P=0.060
POLY 3	P<0.001 **	P=0.090	P=0.097	P<0.001 **	P=0.016 *	P=0.442	P=0.111	P=0.033 *
POLY 1.5	P<0.001 **	P=0.084	P=0.107	P<0.001 **	P=0.016 *	P=0.429	P=0.106	P=0.032 *
POLY 6	P<0.001 **	P=0.103	P=0.096	P<0.001 **	P=0.018 *	P=0.454	P=0.119	P=0.037 *
LOGISTIC REGRESSION	P<0.001 **	P=0.100	P=0.076	P<0.001 **	P=0.023 *	P=0.440	P=0.114	P=0.051
COCH-ARM / FISHERS	P<0.001 **	P=0.078	P=0.154	P<0.001 **	P=0.015 *	P=0.412	P=0.101	P=0.030 *
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.028 *	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver								
Hepatocellular Carcinoma								
TUMOR RATES								
OVERALL (a)	12/50 (24%)	12/50 (24%)	10/50 (20%)	9/50 (18%)	6/50 (12%)	5/50 (10%)	6/50 (12%)	11/50 (22%)
POLY-3 RATE (b)	12/47.98	12/49.17	10/43.87	9/46.83	6/45.72	5/46.39	6/46.41	11/46.76
POLY-3 PERCENT (g)	25.0%	24.4%	22.8%	19.2%	13.1%	10.8%	12.9%	23.5%
TERMINAL (d)	8/40 (20%)	8/42 (19%)	6/35 (17%)	4/37 (11%)	2/35 (6%)	3/37 (8%)	5/39 (13%)	7/38 (18%)
FIRST INCIDENCE	482	493	480	551	586	598	567	687
STATISTICAL TESTS								
LIFE TABLE	P=0.329N	P=0.540N	P=0.536N	P=0.376N	P=0.096	P=0.472N	P=0.565N	P=0.205
POLY 3	P=0.271N	P=0.566N	P=0.498N	P=0.333N	P=0.068	P=0.490N	P=0.610N	P=0.153
POLY 1.5	P=0.258N	P=0.577N	P=0.473N	P=0.327N	P=0.067	P=0.494N	P=0.614N	P=0.150
POLY 6	P=0.282N	P=0.548N	P=0.516N	P=0.338N	P=0.070	P=0.490N	P=0.609N	P=0.158
LOGISTIC REGRESSION	P=0.207N	P=0.538	P=0.388N	P=0.266N	P=0.068	P=0.499N	P=0.620N	P=0.154
COCH-ARM / FISHERS	P=0.234N	P=0.592N	P=0.405N	P=0.312N	P=0.065	P=0.500N	P=0.620N	P=0.143
ORDER RESTRICTED	P=0.398N	(e)	(e)	(e)	P=0.091	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver								
Hepatocellular Carcinoma or Hepatoblastoma								
TUMOR RATES								
OVERALL (a)	12/50 (24%)	13/50 (26%)	10/50 (20%)	9/50 (18%)	6/50 (12%)	5/50 (10%)	6/50 (12%)	11/50 (22%)
POLY-3 RATE (b)	12/47.98	13/49.17	10/43.87	9/46.83	6/45.72	5/46.39	6/46.41	11/46.76
POLY-3 PERCENT (g)	25.0%	26.4%	22.8%	19.2%	13.1%	10.8%	12.9%	23.5%
TERMINAL (d)	8/40 (20%)	9/42 (21%)	6/35 (17%)	4/37 (11%)	2/35 (6%)	3/37 (8%)	5/39 (13%)	7/38 (18%)
FIRST INCIDENCE	482	493	480	551	586	598	567	687
STATISTICAL TESTS								
LIFE TABLE	P=0.304N	P=0.548	P=0.536N	P=0.376N	P=0.096	P=0.472N	P=0.565N	P=0.205
POLY 3	P=0.245N	P=0.528	P=0.498N	P=0.333N	P=0.068	P=0.490N	P=0.610N	P=0.153
POLY 1.5	P=0.233N	P=0.515	P=0.473N	P=0.327N	P=0.067	P=0.494N	P=0.614N	P=0.150
POLY 6	P=0.256N	P=0.547	P=0.516N	P=0.338N	P=0.070	P=0.490N	P=0.609N	P=0.158
LOGISTIC REGRESSION	P=0.186N	P=0.443	P=0.388N	P=0.266N	P=0.068	P=0.499N	P=0.620N	P=0.154
COCH-ARM / FISHERS	P=0.210N	P=0.500	P=0.405N	P=0.312N	P=0.065	P=0.500N	P=0.620N	P=0.143
ORDER RESTRICTED	P=0.360N	(e)	(e)	(e)	P=0.091	(e)	(e)	(e)

Dose	Males CONTROL	450 PPM	900 PPM	1800 PPM	Females CONTROL	450 PPM	900 PPM	1800 PPM
Liver								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
TUMOR RATES								
OVERALL (a)	27/50 (54%)	34/50 (68%)	28/50 (56%)	37/50 (74%)	17/50 (34%)	17/50 (34%)	22/50 (44%)	27/50 (54%)
POLY-3 RATE (b)	27/48.17	34/49.78	28/45.47	37/47.88	17/45.79	17/46.73	22/46.93	27/46.86
POLY-3 PERCENT (g)	56.1%	68.3%	61.6%	77.3%	37.1%	36.4%	46.9%	57.6%
TERMINAL (d)	22/40 (55%)	27/42 (64%)	20/35 (57%)	28/37 (76%)	12/35 (34%)	12/37 (32%)	18/39 (46%)	22/38 (58%)
FIRST INCIDENCE	482	493	471	551	586	598	567	687
STATISTICAL TESTS								
LIFE TABLE	P=0.025 *	P=0.210	P=0.265	P=0.023 *	P=0.041 *	P=0.514N	P=0.331	P=0.089
POLY 3	P=0.028 *	P=0.146	P=0.368	P=0.019 *	P=0.013 *	P=0.556N	P=0.228	P=0.035 *
POLY 1.5	P=0.033 *	P=0.129	P=0.395	P=0.022 *	P=0.013 *	P=0.567N	P=0.218	P=0.035 *
POLY 6	P=0.026 *	P=0.175	P=0.361	P=0.019 *	P=0.014 *	P=0.548N	P=0.238	P=0.038 *
LOGISTIC REGRESSION	P=0.039 *	P=0.103	P=0.392	P=0.023 *	P=0.017 *	P=0.559N	P=0.223	P=0.047 *
COCH-ARM / FISHERS	P=0.051	P=0.109	P=0.500	P=0.030 *	P=0.014 *	P=0.583N	P=0.206	P=0.035 *
ORDER RESTRICTED	P=0.016 *	(e)	(e)	(e)	P=0.028 *	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.
(b) Number of tumor-bearing animals / Poly-3 number
(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates
For all tests a negative trend is indicated by N
(e) Value of Statistic cannot be computed.
(g) Poly-3 adjusted lifetime tumor incidence.
(I) Interim sacrifice
(T) Terminal sacrifice
Tumor rates based on number of animals necropsied.
* To the right of any statistical result, indicates significance at (P<=0.05).
** To the right of any statistical result, indicates significance at (P<=0.01).

NTP Experiment-Test: 97006-02
Study Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

FINAL#1 MICE

Report: PEIRPT18
Date: 04/29/04
Time: 07:55:48

Facility: Battelle Northwest

Chemical CAS #: 108-10-1

Lock Date: 01/24/03

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	9	6	9
Natural Death	5	3	5	3
Accidently Killed		1		
Survivors				
Terminal Sacrifice	35	37	39	38
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(48)	(48)	(49)	(49)
Artery, Inflammation, Chronic Active	1 [2.0]			
Intestine Large, Rectum	(47)	(48)	(48)	(49)
Artery, Inflammation, Chronic Active	1 [3.0]			
Intestine Large, Cecum	(46)	(48)	(47)	(49)
Artery, Inflammation, Chronic Active	1 [2.0]	1 [4.0]		
Intestine Small, Duodenum	(47)	(48)	(47)	(48)
Ulcer		1 [4.0]		
Peyer's Patch, Hyperplasia				1 [2.0]
Liver	(50)	(50)	(50)	(50)
Angiectasis			1 [2.0]	
Basophilic Focus	3	2	1	3
Clear Cell Focus	3	4	5	2
Cyst		1 [4.0]		
Eosinophilic Focus	4	11	10	14
Fatty Change			1 [2.0]	
Hematopoietic Cell Proliferation			2 [2.0]	
Infarct		1		
Infiltration Cellular, Mast Cell	1 [2.0]			
Inflammation, Chronic		1 [1.0]		2 [1.5]
Mixed Cell Focus	1	1	1	1
Necrosis	3 [2.7]	1 [2.0]	5 [2.6]	1 [1.0]
Tension Lipidosis	1 [1.0]	2 [1.5]	3 [1.7]	
Thrombosis	1 [2.0]			
Bile Duct, Hyperplasia	1 [2.0]			
Mesentery	(11)	(11)	(13)	(8)
Artery, Inflammation, Chronic Active		1 [4.0]		
Fat, Hemorrhage	1 [2.0]			
Fat, Necrosis	9 [2.0]	9 [2.0]	11 [2.1]	7 [2.0]

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
ALIMENTARY SYSTEM - CONT				
Pancreas	(50)	(50)	(49)	(50)
Atrophy	3 [2.7]		1 [4.0]	
Basophilic Focus			1 [2.0]	
Inflammation, Chronic Active	1 [2.0]		1 [2.0]	
Necrosis, Fatty			1 [3.0]	
Artery, Inflammation, Chronic Active		1 [3.0]		
Duct, Cyst	1 [3.0]		1 [4.0]	
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy				1 [2.0]
Artery, Inflammation, Chronic Active		1 [3.0]		
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperplasia, Squamous	1 [1.0]	2 [1.0]	1 [1.0]	2 [2.0]
Inflammation		1 [1.0]		2 [1.5]
Artery, Inflammation, Chronic Active	2 [2.5]			
Stomach, Glandular	(49)	(50)	(48)	(49)
Metaplasia, Hepatocyte			1 [4.0]	
Necrosis				1 [1.0]
Artery, Inflammation, Chronic Active	2 [3.0]			
Tooth	(1)			(1)
Malformation	1 [4.0]			
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	3 [1.7]	6 [1.3]	5 [1.0]	3 [1.0]
Inflammation, Suppurative				1 [3.0]
Artery, Inflammation, Chronic Active	1 [3.0]	2 [2.5]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation			1 [3.0]	
Hyperplasia	4 [2.0]	3 [2.0]	1 [2.0]	2 [1.5]
Hypertrophy	3 [2.3]		3 [2.7]	3 [1.0]
Infiltration Cellular, Mononuclear Cell				1 [3.0]
Necrosis		1 [2.0]		
Adrenal Medulla	(50)	(50)	(49)	(49)
Hyperplasia	2 [3.0]	2 [3.0]	1 [2.0]	
Islets, Pancreatic	(50)	(50)	(49)	(50)
Hyperplasia			2 [2.0]	1 [2.0]
Pituitary Gland	(50)	(49)	(48)	(49)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
ENDOCRINE SYSTEM - CONT				
Pars Distalis, Angiectasis	1 [1.0]	3 [2.3]	3 [2.3]	2 [1.5]
Pars Distalis, Hyperplasia	10 [2.4]	8 [2.6]	13 [2.5]	11 [2.6]
Pars Intermedia, Hyperplasia	1 [2.0]			
Thyroid Gland	(50)	(50)	(49)	(48)
Cyst		1 [3.0]		
Follicular Cell, Hyperplasia	7 [2.1]	5 [1.4]	11 [1.5]	8 [1.6]
GENERAL BODY SYSTEM				
Peritoneum				
Inflammation, Suppurative		(2)	(1)	
			1 [3.0]	
GENITAL SYSTEM				
Ovary	(49)	(50)	(48)	(50)
Angiectasis		1 [2.0]		
Cyst	14 [2.4]	13 [2.2]	13 [2.6]	9 [2.2]
Inflammation, Suppurative				1 [1.0]
Thrombosis	1 [3.0]			
Artery, Inflammation, Chronic Active	1 [3.0]			
Uterus	(50)	(50)	(49)	1 [3.0]
Amyloid Deposition	1 [2.0]			(50)
Angiectasis	1 [4.0]	2 [3.0]	1 [4.0]	2 [3.0]
Hyperplasia, Cystic		1 [3.0]		
Infiltration Cellular, Mixed Cell				1 [2.0]
Inflammation, Suppurative		1 [2.0]	1 [3.0]	1 [4.0]
Metaplasia, Squamous				1 [2.0]
Necrosis		1 [3.0]		
Thrombosis			1 [2.0]	
Endometrium, Hyperplasia, Cystic	49 [3.2]	48 [3.3]	46 [3.1]	49 [3.4]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(49)	(50)
Infiltration Cellular, Mast Cell	1 [2.0]			
Lymph Node	(7)	(3)	(9)	(5)
Iliac, Ectasia		1 [2.0]		
Iliac, Infiltration Cellular, Plasma Cell	1 [3.0]			
Lumbar, Angiectasis		1 [3.0]		
Lumbar, Ectasia			1 [3.0]	

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

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
HEMATOPOIETIC SYSTEM - CONT				
Lumbar, Infiltration Cellular, Plasma Cell				1 [4.0]
Renal, Angiectasis		1 [3.0]	1 [3.0]	
Renal, Ectasia	1 [3.0]			
Renal, Infiltration Cellular, Plasma Cell				1 [3.0]
Renal, Artery, Inflammation, Chronic Active		1 [3.0]		
Lymph Node, Mandibular	(40)	(42)	(39)	(38)
Hyperplasia, Lymphoid		2 [2.5]		
Infiltration Cellular, Plasma Cell				1 [3.0]
Lymph Node, Mesenteric	(50)	(49)	(49)	(47)
Angiectasis				1 [2.0]
Hyperplasia, Lymphoid		1 [3.0]		
Lymph Node, Mediastinal	(46)	(40)	(38)	(41)
Hyperplasia, Lymphoid		1 [3.0]		
Infiltration Cellular, Mast Cell	1 [2.0]			
Spleen	(50)	(50)	(49)	(50)
Hematopoietic Cell Proliferation	5 [2.4]	1 [2.0]	7 [2.9]	5 [3.0]
Infiltration Cellular, Mast Cell	1 [2.0]			
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(49)	(50)	(49)
Hyperplasia		1 [3.0]		
Skin	(50)	(50)	(50)	(50)
Foreign Body		1 [3.0]		
Hemorrhage	1 [4.0]			
Inflammation, Chronic Active	2 [1.5]	2 [1.5]	5 [2.0]	2 [2.5]
Inflammation, Suppurative		1 [4.0]		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Fracture		1		
Hyperostosis			1 [2.0]	
Infiltration Cellular, Mast Cell	1 [2.0]			
Skeletal Muscle	(1)	(2)	(3)	(2)
Inflammation, Suppurative		1 [3.0]		
Artery, Inflammation, Chronic Active				1 [3.0]
NERVOUS SYSTEM				

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
NERVOUS SYSTEM - CONT				
Brain	(50)	(50)	(50)	(50)
Meninges, Infiltration Cellular, Mononuclear Cell		1 [2.0]	2 [1.5]	2 [2.0]
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(49)	(50)
Artery, Inflammation, Chronic Active	1 [3.0]		1 [3.0]	
Respiratory Epithelium, Degeneration, Hyaline			1 [3.0]	
Lung	(50)	(50)	(50)	(50)
Infiltration Cellular, Mononuclear Cell			1 [4.0]	
Alveolar Epithelium, Hyperplasia	1 [2.0]	5 [2.2]	3 [1.7]	5 [1.0]
Alveolus, Infiltration Cellular, Histiocyte	1 [1.0]		2 [2.0]	
Artery, Mineralization		1 [3.0]		
Bronchiole, Hyperplasia		4 [1.0]	2 [2.0]	
Nose	(50)	(50)	(50)	(49)
Infiltration Cellular, Mast Cell	1 [4.0]			
Inflammation, Suppurative	4 [1.3]	3 [1.7]	2 [2.0]	
Artery, Inflammation, Chronic Active	1 [2.0]			
Glands, Hyperplasia	23 [1.0]	30 [1.0]	23 [1.0]	20 [1.0]
Olfactory Epithelium, Atrophy		1 [1.0]	1 [1.0]	
Olfactory Epithelium, Degeneration, Hyaline	8 [1.5]	5 [1.0]	4 [1.5]	1 [1.0]
Respiratory Epithelium, Degeneration, Hyaline	24 [1.8]	19 [1.9]	20 [1.8]	13 [1.3]
Respiratory Epithelium, Metaplasia	3 [1.0]	3 [1.0]	6 [1.0]	1 [1.0]
Respiratory Epithelium, Metaplasia, Squamous			1 [1.0]	
Turbinate, Necrosis			2 [1.5]	
Trachea	(50)	(50)	(49)	(50)
Degeneration, Hyaline			1 [3.0]	
SPECIAL SENSES SYSTEM				
Eye	(49)	(48)	(49)	(50)
Cataract			1 [3.0]	
Degeneration				1 [4.0]
Cornea, Inflammation, Chronic Active	1 [1.0]	1 [2.0]	3 [2.3]	2 [3.0]
Cornea, Mineralization	1 [1.0]			
Retina, Atrophy	1 [3.0]			
Harderian Gland	(49)	(49)	(49)	(50)
Hyperplasia	1 [2.0]	1 [1.0]	2 [3.0]	1 [1.0]

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

B6C3F1 MICE FEMALE	CONTROL	450 PPM	900 PPM	1800 PPM
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Amyloid Deposition	1 [4.0]			
Cyst			1 [3.0]	
Metaplasia, Osseous	2 [1.0]	2 [1.0]	3 [1.0]	2 [1.0]
Nephropathy	22 [1.1]	28 [1.3]	26 [1.2]	27 [1.4]
Artery, Inflammation, Chronic Active			1 [3.0]	
Papilla, Necrosis	1 [2.0]			1 [2.0]
Pelvis, Dilatation			1 [2.0]	
Renal Tubule, Hyperplasia				1 [2.0]
Urinary Bladder	(50)	(50)	(49)	(50)
Artery, Inflammation, Chronic Active	1 [3.0]			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	9	6	12	9
Natural Death	1	2	3	4
Survivors				
Terminal Sacrifice	40	42	34	37
Natural Death			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Gallbladder	(43)	(44)	(39)	(45)
Infiltration Cellular, Polymorphonuclear		1 [2.0]		
Intestine Large, Rectum	(50)	(48)	(49)	(49)
Hemorrhage			1 [2.0]	
Inflammation, Acute	1 [2.0]			
Intestine Large, Cecum	(49)	(48)	(47)	(47)
Hemorrhage			1 [3.0]	
Intestine Small, Duodenum	(49)	(48)	(45)	(47)
Ulcer	1 [3.0]			
Intestine Small, Jejunum	(49)	(48)	(47)	(47)
Cyst				1 [2.0]
Peyer's Patch, Hyperplasia	1 [3.0]	1 [3.0]	2 [2.5]	
Intestine Small, Ileum	(49)	(48)	(48)	(47)
Inflammation, Acute				1 [3.0]
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]			1 [2.0]
Basophilic Focus	8	5	4	8
Clear Cell Focus	22	13	13	20
Eosinophilic Focus	3	4	5	8
Hepatodiaphragmatic Nodule			1	
Infarct		1 [4.0]		
Inflammation, Chronic				1 [1.0]
Inflammation, Granulomatous	1 [2.0]		1 [2.0]	
Mixed Cell Focus	1		1	1
Necrosis	5 [1.4]	1 [1.0]	2 [3.5]	7 [2.0]
Tension Lipidosis	4 [1.5]	3 [2.0]	3 [1.3]	1 [2.0]
Thrombosis			1 [3.0]	
Bile Duct, Cyst		1		
Bile Duct, Hyperplasia	1 [1.0]			

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
ALIMENTARY SYSTEM - CONT				
Hepatocyte, Erythrophagocytosis				1 [1.0]
Hepatocyte, Vacuolization Cytoplasmic	1 [2.0]		2 [1.5]	1 [3.0]
Mesentery	(9)	(3)	(3)	(4)
Fat, Necrosis	9 [2.1]	3 [2.0]	3 [2.0]	3 [2.0]
Salivary Glands	(50)	(50)	(48)	(50)
Inflammation, Acute	1 [3.0]			
Stomach, Forestomach	(50)	(49)	(49)	(50)
Hyperplasia, Squamous	3 [2.7]	3 [2.7]	2 [1.5]	1 [2.0]
Inflammation	1 [1.0]	2 [2.0]	3 [1.3]	
Ulcer	2 [2.0]	1 [3.0]		2 [2.0]
Stomach, Glandular	(49)	(49)	(49)	(49)
Hyperplasia	1 [2.0]			
Necrosis	1 [2.0]		1 [2.0]	
Tooth			(1)	
Malformation			1 [4.0]	
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	10 [1.2]	8 [1.0]	2 [2.0]	10 [1.1]
Inflammation, Suppurative				1 [3.0]
Thrombosis	2 [4.0]		3 [3.0]	1 [3.0]
Artery, Inflammation, Chronic Active	2 [2.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(49)	(50)
Hyperplasia	13 [2.0]	18 [1.9]	13 [2.1]	9 [2.1]
Hypertrophy	26 [2.0]	30 [1.9]	26 [1.8]	14 [1.9]
Adrenal Medulla	(50)	(50)	(49)	(50)
Hyperplasia	1 [2.0]	1 [3.0]	3 [1.7]	
Islets, Pancreatic	(49)	(50)	(49)	(50)
Hyperplasia	1 [2.0]	2 [2.0]		1 [2.0]
Pituitary Gland	(50)	(47)	(48)	(49)
Pars Distalis, Hyperplasia	1 [4.0]		2 [2.0]	
Thyroid Gland	(50)	(49)	(50)	(50)
Follicular Cell, Hyperplasia	4 [1.5]	4 [2.0]	6 [1.5]	8 [1.8]
GENERAL BODY SYSTEM				

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
None				
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm	2 [3.0]		2 [1.5]	1 [3.0]
Infiltration Cellular, Polymorphonuclear		1 [2.0]		
Inflammation, Granulomatous		1 [3.0]		
Penis	(1)	(1)		(1)
Inflammation, Acute		1 [3.0]		1 [4.0]
Preputial Gland	(50)	(50)	(50)	(50)
Ectasia	2 [2.0]	3 [3.0]		1 [3.0]
Inflammation, Chronic Active		1 [3.0]		2 [2.5]
Prostate	(50)	(49)	(49)	(50)
Inflammation, Suppurative	1 [3.0]	1 [4.0]		
Seminal Vesicle	(50)	(50)	(49)	(50)
Dilatation	1 [3.0]			
Inflammation, Chronic Active	1 [1.0]	1 [4.0]		1 [2.0]
Testes	(50)	(50)	(50)	(50)
Atrophy	2 [2.5]	2 [2.0]	3 [1.3]	1 [2.0]
Thrombosis			1 [2.0]	
Interstitial Cell, Hyperplasia	1 [2.0]		1 [1.0]	2 [2.0]
HEMATOPOIETIC SYSTEM				
Lymph Node, Bronchial	(39)	(35)	(37)	(39)
Hyperplasia, Lymphoid			1 [3.0]	
Lymph Node, Mandibular	(37)	(36)	(32)	(34)
Hyperplasia, Lymphoid			1 [3.0]	
Lymph Node, Mesenteric	(49)	(48)	(48)	(48)
Infiltration Cellular, Histiocyte				1 [2.0]
Lymph Node, Mediastinal	(42)	(38)	(36)	(38)
Hyperplasia, Lymphoid			1 [3.0]	
Spleen	(50)	(50)	(49)	(49)
Hematopoietic Cell Proliferation	2 [2.0]	1 [3.0]	1 [3.0]	3 [2.7]
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(49)	(50)
Inflammation, Acute	1 [4.0]			
Inflammation, Chronic Active		2 [4.0]	1 [4.0]	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Atrophy			1 [3.0]	
Hyperostosis	1 [2.0]			
Joint, Cartilage, Hyperplasia	1 [3.0]			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Hemorrhage				1 [3.0]
Hydrocephalus			1 [3.0]	
Necrosis	2 [1.5]			
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion, Chronic	1 [4.0]			
Hemorrhage		1 [2.0]		
Hyperplasia		1 [2.0]		
Inflammation, Chronic Active			1 [3.0]	
Pigmentation			1 [3.0]	
Thrombosis			1 [4.0]	
Alveolar Epithelium, Hyperplasia	7 [2.3]	5 [2.2]	5 [2.2]	2 [1.5]
Alveolus, Infiltration Cellular, Histiocyte	1 [3.0]	1 [3.0]	3 [3.3]	
Bronchiole, Hyperplasia	1 [3.0]	2 [2.5]	3 [1.0]	2 [1.0]
Nose	(50)	(50)	(50)	(50)
Hyperplasia	1 [1.0]			
Inflammation, Suppurative	4 [1.0]	1 [1.0]	3 [2.0]	2 [2.5]
Glands, Hyperplasia	33 [1.0]	32 [1.0]	24 [1.0]	26 [1.0]
Olfactory Epithelium, Atrophy			1 [1.0]	
Olfactory Epithelium, Degeneration, Hyaline	1 [1.0]	1 [1.0]	2 [2.0]	
Olfactory Epithelium, Necrosis			1 [2.0]	
Respiratory Epithelium, Degeneration, Hyaline		1 [1.0]	3 [1.3]	
Respiratory Epithelium, Hyperplasia			1 [2.0]	
Respiratory Epithelium, Metaplasia	9 [1.0]	11 [1.0]	13 [1.1]	6 [1.0]
SPECIAL SENSES SYSTEM				
Eye	(49)	(48)	(49)	(49)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]
METHYL ISOBUTYL KETONE

B6C3F1 MICE MALE	CONTROL	450 PPM	900 PPM	1800 PPM
SPECIAL SENSES SYSTEM - CONT				
Cataract				1 [2.0]
Degeneration			1 [2.0]	1 [3.0]
Cornea, Inflammation, Acute		1 [2.0]		
Cornea, Inflammation, Chronic Active		2 [3.0]		
Cornea, Mineralization				1 [1.0]
Retina, Atrophy	1 [3.0]			
Harderian Gland	(50)	(49)	(50)	(50)
Hyperplasia	3 [2.3]	4 [2.5]	1 [3.0]	2 [2.0]
Hypertrophy	1 [2.0]			
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Cyst			1 [3.0]	
Inflammation, Suppurative	1 [3.0]	1 [1.0]	1 [2.0]	3 [2.7]
Metaplasia, Osseous	2 [1.0]	2 [1.0]	3 [1.0]	1 [1.0]
Nephropathy	41 [1.4]	45 [1.4]	40 [1.5]	43 [1.3]
Renal Tubule, Hyperplasia	2 [1.0]	2 [1.5]	1 [2.0]	
Urinary Bladder	(50)	(49)	(49)	(50)
Hemorrhage				1 [3.0]
Inflammation, Chronic Active	1 [2.0]			
Inflammation, Suppurative		1 [4.0]		

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

END OF REPORT