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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

January 15, 2003

Document Control Office
Attn: TSCA Section 8(e)
East Tower Room G99
Ofc. of Pollution Prevention & Toxics
401 M St., S.W.
Washington, DC 20460-0001

Dear Document Control Office :

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 chronic Inhalation study on STODDARD SOLVENT (TYPE IIC) (64742-88-7) are enclosed for your review.

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.

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.

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Hard copies of documents such as NTP Technical Reports, short-term Toxicity Reports, and the Report on Carcinogens are available from the Environmental Health Information Service (EHIS). You can contact EHIS by phone at (919) 541-3841, by fax at (919)541-0273, or by e-mail at ehis@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
cc: Central Data Management

PATHOLOGY WORKING GROUP
CHAIRPERSON'S REPORT

TWO YEAR CHRONIC STUDY
OF STODDARD SOLVENT II-C (C96001/96001-05)
ADMINISTERED BY INHALATION IN F344 RATS

INTRODUCTION

A pathology working group (PWG) was convened on August 15, 2002 at NIEHS, Research Triangle Park, NC. The participants were Drs. James Hailey (NIEHS – NTP Study Pathologist), John Peckham (EPL), Abraham Nyska (NIEHS), Henry Wall (GSK), Martha Hanes (Duke University), Karen Cimon (EPL), Gabrielle Willson (EPL), and Andrew Suttie (ILS – PWG Chairperson).

This PWG was conducted to evaluate selected hematoxylin and eosin slides from this two-year chronic inhalation study in F344 rats exposed to Stoddard Solvent II-C. Because of concerns after the PWG Chairperson's initial review of clitoral and preputial glands, a second, supplementary, PWG was needed. The supplementary PWG was convened on October 8, 2002 at NIEHS, Research Triangle Park, NC. The participants were Drs. James Hailey (NIEHS – NTP Study Pathologist), John Peckham (EPL), Abraham Nyska (NIEHS), Georgette Hill (NIEHS), Ronald Herbert (NIEHS), Karen Cimon (EPL), Gabrielle Willson (EPL), and Andrew Suttie (ILS – PWG Chairperson)

The Study Pathologist (SP) was Dr. R.A. Renne. The Quality Assessment Pathologist (QAP) was Dr. Gabrielle Willson of Experimental Pathology Laboratories.

II. SUMMARY OF FINDINGS FROM THE PWG

Stoddard Solvent II-C administered by inhalation to F344 rats for two years was associated with histopathologic lesions as follows.

1. Increased incidence of pheochromocytomas in the adrenal medulla of males.

2. Increased incidence of clitoral gland hyperplasia and tumors in females.

3. Increased incidence of preputial gland hyperplasia and tumors in males.

4. Increased incidence of nephropathy, renal tubular hyperplasia, and transitional epithelial hyperplasia in males.

5. Increased incidence of mononuclear cell leukemia observed in males and females.

6. Increased incidence of mammary gland tumors in females.

7. Increased incidence atrial thrombosis in the hearts of males.

8. Increased incidence of splenic fibrosis in males.

9. Increased incidence in the nose of goblet cell hyperplasia in males, and hyaline degeneration in females.

III. STUDY DESIGN

In this inhalation study, Stoddard solvent II-C was administered to F344 rats for two years at dose levels of 0 mg/m^3, 138 mg/m^3, 550 mg/m^3, 1100 mg/m^3, in males, and 0 mg/m^3, 550 mg/m^3, 1100 mg/m^{3}or 2200 mg/m^3 in females.

The doses and numbers of animals examined microscopically per group are summarized below:

Dose Group	Male	Female
0	50	50
138 mg/m^3	50	
550 mg/m^3	50	50
1100 mg/m^3	50	50
2200 mg/m^3		50

The study was conducted at Battelle Northwest, Richland, Washington.

IV. STUDY RESULTS

Morbidity, Mortality, Clinical Signs, Organ Weights, Body Weight

Treatment of rats with Stoddard solvent II-C resulted in a significant reduction in the two-year survival rate compared to controls. The following table shows the numbers of animals in each dose group surviving to terminal sacrifice:

Dose	0 ppm	138 mg/m^3	550 mg/m^3	1100 mg/m^3	2200 mg/m^3
Males	29	19	21	16	
Females	36		30	32	25

The only effects of treatment on body weights were a slight decrease in weights of males at 138 and 1100 mg/m^3 in the last several months of the study.

The only treatment-related clinical observations were thinness in males at 138 and 1100 mg/m^3 which correlated to the reduction in body weights.

V. CONDUCT OF THE PWG

Before the PWG, the chairperson (Dr Andrew Suttie) reviewed the laboratory reports and the SP's pathology narratives, the summary and individual animal pathology tables, the quality assessment reports, and microslides from the studies. The potential target organs are kidney in males, adrenal medulla in males, preputial gland in males, clitoral gland in females, mammary gland in females, heart in males, spleen in males, nose in males and females, and liver in males. The PWG Chairperson selected a set of slides for review by the PWG which included examples of treatment-related lesions as well as slides for which there were differences of opinion in diagnosis among the SP, QAP or PWG Chairperson. The PWG consensus opinion for each slide, including any additional diagnoses made by the PWG, was recorded on the PWG Chairperson's worksheets attached to this report.

VI. HISTOPATHOLOGY FINDINGS

Adrenal medulla

The incidence of benign, complex and malignant pheochromocytomas in males exposed to 1100 Stoddard Solvent II-C mg/m^3 exceeded the historical control incidence of these combined tumors in NTP inhalation studies. The PWG reviewed 2 examples of malignant pheochromocytomas in this group and confirmed the SP's diagnosis in these animals.

Clitoral gland and Preputial gland

The SP reported a treatment-related increase in the incidence and severity of hyperplasia in all groups of females exposed to Stoddard Solvent II-C. No treatment-related increase in tumors of the clitoral gland was reported. The initial PWG reviewed 2 examples of from the 550 mg/m^3 group and 2 from the 2200 mg/m^3 group. The PWG considered that both examples from the 550 mg/m^3 group and one from the 2200 mg/m^3 group should be diagnosed as carcinomas.

Following review of the incidences of clitoral gland hyperplasias and carcinomas in females, and of preputial gland hyperplasias and carcinomas in males by the NTP pathologist (Dr. Hailey), it was felt appropriate that due to marginal increases in hyperplasias and carcinomas in groups treated with Stoddard solvent, all proliferative lesions in these organs should be reviewed by a supplementary PWG.

This supplementary PWG resulted in an increased incidence of hyperplasias and tumors in clitoral glands of females, and preputial glands of males treated with Stoddard solvent.

Liver

The SP reported a slightly higher incidence of mononuclear cell leukemia in all treated groups. This treatment-related increase in mononuclear cell leukemia was confirmed by the QAP and PWG Chairperson. The PWG Chairperson did note whilst reviewing the livers that occasional livers with this diagnosis did contain only very slightly more mononuclear cells within the sinusoids compared to animals in which this diagnosis was made. The PWG reviewed 2 such examples (one 550 mg/m^3 group male and one 2200 mg/m^3 group female) and considered that these livers were below the threshold at which this diagnosis would normally be made by members of the PWG. This difference in threshold for diagnosis of mononuclear cell leukemia was not considered by the PWG to be likely to affect the overall finding of a treatment-related increase in mononuclear cell leukemia in males. The PWG directed that the original diagnoses by the SP which were confirmed following review by the QAP and PWG Chairperson should remain.

It was also noted during review by the PWG Chairperson that basophilic hepatocyte foci had not been reported when present in the liver sections. The PWG reviewed a selection of livers and agreed that basophilic foci were present. However in the absence of an effect of treatment on liver tumors, it was not considered necessary to include a diagnosis of basophilic foci following the PWG review.

Kidney

The SP reported a treatment-related increase in severity of nephropathy for the kidneys of all males exposed to Stoddard Solvent II-C. The QAP concurred with the finding of nephropathy but considered that in general the severity was less than that reported by the SP. The PWG reviewed a selection of male kidneys for this lesion, including some in which there was agreement between the SP and QAP. In the majority of kidneys the PWG agreed with the QAP's findings for nephropathy. It was decided therefore to adopt the majority findings between the SP, QAP and PWG Chairperson for this finding.

The SP reported an increase in renal tubule hyperplasia in males at 550 mg/m^3 and 1100 mg/m^3. The QAP considered that while there was a treatment-related increase in hyperplasia in these groups, the majority of these lesions were actually nephropathy-associated renal tubular regeneration. The PWG reviewed a selection of male kidneys for this lesion, including some in which there was agreement between the SP and QAP. In the majority of kidneys the PWG considered that hyperplasia was either not present or

was present but at a lower severity that that recorded by the SP. It was decided therefore to adopt the majority findings between the SP, QAP and PWG Chairperson for renal tubular hyperplasia.

The PWG also reviewed the 5 renal tubule tumors reported by the SP in male kidneys. The PWG agreed with the SP's diagnosis in animals 41, 422 and 615. In animal 447 the PWG considered the tumor was a transitional cell carcinoma. In animal 646, where the SP had recorded both real tubular adenoma and hyperplasia, the PWG confirmed the hyperplasia but not the adenoma.

Because of agreement by the PWG Chairperson with the SP and QAP, kidneys with transitional epithelial hyperplasia were not examined during the PWG.

Mammary Gland, Heart, Spleen and Nose

Other lesions that had increased incidence but were not examined by the PWG because of general agreement with the PWG Chairperson included mammary gland tumors in females, atrial thrombosis in the heart of males, splenic fibrosis in males, and in the nose, goblet cell hyperplasia in males and hyaline degeneration in females.

Miscellaneous lesions

The PWG reviewed nine slides involving discrepancies of diagnoses between the SP, QAP and/or PWG Chairperson. A consensus diagnosis was reached for all.

The organs and findings are recorded in the PWG Chairperson's Report Work Sheets.

VII. HISTOTECHNIQUE QUALITY

The histotechnique quality assessment indicated that the overall histological processing and slide preparation was good, with no artifacts that would interfere with the interpretation of tissue sections.

Andrew W. Suttie, BVSc, PhD, DipRCPath
PWG Chairperson

11/14/02
Date

NATIONAL TOXICOLOGY PROGRAM

TR-519 Stoddard Solvent II-C

Pathology Tables - Rats

P03 - Incidence Rates of Non-Neoplastic Lesions

P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged) - 2 year study

P08 - Statistical Analysis of Primary Tumors

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FINAL/RATS

Facility: Battelle Northwest

Chemical CAS #: 64742-88-7

Lock Date: 09/24/01

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	12	19	15	23
Natural Death	2	1	3	2
Survivors				
Terminal Sacrifice	36	30	32	25
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(49)	(50)	(50)	(50)
Periesophageal Tissue, Necrosis, Fatty	1 (2%)			
Intestine Small, Jejunum	(49)	(49)	(47)	(48)
Ulcer			1 (2%)	
Liver	(49)	(50)	(50)	(50)
Angiectasis	1 (2%)	2 (4%)	2 (4%)	2 (4%)
Basophilic Focus	2 (4%)	3 (6%)	1 (2%)	1 (2%)
Clear Cell Focus	7 (14%)	7 (14%)	6 (12%)	2 (4%)
Clear Cell Focus, Multiple	2 (4%)		1 (2%)	1 (2%)
Degeneration, Cystic			1 (2%)	
Hematopoietic Cell Proliferation			1 (2%)	
Hemorrhage	1 (2%)			
Hepatodiaphragmatic Nodule	5 (10%)	9 (18%)	5 (10%)	6 (12%)
Necrosis			2 (4%)	
Thrombosis	1 (2%)			
Vacuolization Cytoplasmic	2 (4%)	5 (10%)	6 (12%)	1 (2%)
Bile Duct, Cyst	1 (2%)			
Hepatocyte, Regeneration				3 (6%)
Serosa, Fibrosis	1 (2%)			1 (2%)
Mesentery	(11)	(15)	(23)	(14)
Necrosis	11 (100%)	15 (100%)	23 (100%)	13 (93%)
Pancreas	(49)	(50)	(50)	(50)
Acinus, Atrophy	2 (4%)	1 (2%)	1 (2%)	
Artery, Thrombosis				1 (2%)
Stomach, Forestomach	(49)	(50)	(50)	(50)
Hyperplasia, Squamous	1 (2%)			
Ulcer		2 (4%)		2 (4%)
Stomach, Glandular	(49)	(50)	(50)	(50)
Necrosis	1 (2%)			
Tongue	(1)	(3)		(1)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
ALIMENTARY SYSTEM - CONT				
Epithelium, Hyperkeratosis	1 (100%)			
Epithelium, Hyperplasia		3 (100%)		1 (100%)
CARDIOVASCULAR SYSTEM				
Heart	(49)	(50)	(50)	(50)
Cardiomyopathy	1 (2%)		1 (2%)	2 (4%)
Atrium, Thrombosis	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Myocardium, Degeneration				1 (2%)
Ventricle, Hypertrophy			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)			
Necrosis	1 (2%)	1 (2%)		2 (4%)
Vacuolization Cytoplasmic	9 (18%)	4 (8%)	15 (30%)	12 (24%)
Adrenal Medulla	(50)	(50)	(50)	(50)
Atrophy	1 (2%)			
Degeneration, Cystic				1 (2%)
Hyperplasia	4 (8%)	2 (4%)	7 (14%)	4 (8%)
Parathyroid Gland	(49)	(49)	(49)	(50)
Hyperplasia		1 (2%)		
Pituitary Gland	(49)	(50)	(50)	(50)
Mineralization			1 (2%)	
Pars Distalis, Angiectasis	2 (4%)		2 (4%)	2 (4%)
Pars Distalis, Cyst	5 (10%)	3 (6%)	3 (6%)	3 (6%)
Pars Distalis, Hemorrhage				1 (2%)
Pars Distalis, Hyperplasia	9 (18%)	9 (18%)	8 (16%)	8 (16%)
Thyroid Gland	(49)	(50)	(50)	(50)
C-Cell, Hyperplasia	11 (22%)	6 (12%)	4 (8%)	5 (10%)
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(49)	(50)	(50)	(50)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
GENITAL SYSTEM - CONT				
Cyst	1 (2%)			
Hyperplasia	2 (4%)	3 (6%)	3 (6%)	1 (2%)
Inflammation, Chronic		1 (2%)	1 (2%)	1 (2%)
Metaplasia, Squamous		1 (2%)		
Ovary	(50)	(50)	(50)	(50)
Cyst	8 (16%)	9 (18%)	8 (16%)	5 (10%)
Uterus	(49)	(50)	(50)	(50)
Atrophy		1 (2%)		
Decidual Reaction				1 (2%)
Degeneration				1 (2%)
Hemorrhage	1 (2%)	1 (2%)	1 (2%)	3 (6%)
Necrosis				2 (4%)
Prolapse				1 (2%)
Capillary, Myometrium, Hyperplasia				1 (2%)
Endometrium, Hyperplasia	1 (2%)		1 (2%)	1 (2%)
Endometrium, Hyperplasia, Cystic	1 (2%)	5 (10%)	2 (4%)	
Endometrium, Inflammation, Suppurative				1 (2%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia, Reticulum Cell		1 (2%)		
Lymph Node	(5)	(5)	(5)	(4)
Pancreatic, Infiltration Cellular, Histiocyte		1 (20%)		
Lymph Node, Bronchial	(12)	(7)	(8)	(11)
Infiltration Cellular, Histiocyte				1 (9%)
Pigmentation			2 (25%)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(49)
Necrosis				1 (2%)
Lymph Node, Mediastinal	(45)	(39)	(42)	(45)
Angiectasis		1 (3%)		
Hemorrhage				1 (2%)
Hyperplasia, Lymphoid			1 (2%)	
Spleen	(49)	(50)	(50)	(50)
Accessory Spleen	1 (2%)		2 (4%)	
Fibrosis		1 (2%)	1 (2%)	1 (2%)
Hematopoietic Cell Proliferation	2 (4%)	1 (2%)	2 (4%)	
Hemorrhage	1 (2%)	1 (2%)	2 (4%)	1 (2%)
Necrosis	2 (4%)	1 (2%)		3 (6%)
Thrombosis				1 (2%)
Thymus	(47)	(47)	(46)	(48)
Cyst		1 (2%)		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	1 (2%)		2 (4%)	2 (4%)
Inflammation, Chronic	1 (2%)			
Epithelium, Hyperplasia				1 (2%)
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion		1 (2%)	1 (2%)	1 (2%)
Hyperkeratosis	1 (2%)		1 (2%)	
Inflammation, Chronic				1 (2%)
Inflammation, Granulomatous			1 (2%)	
Ulcer			1 (2%)	1 (2%)
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(49)	(50)	(50)	(50)
Compression	9 (18%)	8 (16%)	3 (6%)	6 (12%)
Gliosis			1 (2%)	
Hemorrhage	4 (8%)	3 (6%)	6 (12%)	1 (2%)
Necrosis			1 (2%)	
Cerebellum, Developmental Malformation			1 (2%)	
Cerebellum, Gliosis			1 (2%)	
RESPIRATORY SYSTEM				
Larynx	(49)	(50)	(50)	(49)
Foreign Body	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Inflammation, Chronic	3 (6%)	1 (2%)		
Epiglottis, Metaplasia, Squamous	1 (2%)			1 (2%)
Respiratory Epithelium, Hyperplasia		1 (2%)		
Lung	(49)	(50)	(50)	(50)
Hemorrhage	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Necrosis				1 (2%)
Alveolar Epithelium, Hyperplasia	3 (6%)	1 (2%)	1 (2%)	3 (6%)
Alveolar Epithelium, Metaplasia, Squamous		1 (2%)		
Alveolus, Infiltration Cellular, Histiocyte	22 (45%)	14 (28%)	13 (26%)	15 (30%)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
RESPIRATORY SYSTEM - CONT				
Alveolus, Proteinosis				1 (2%)
Bronchiole, Hyperplasia, Focal				1 (2%)
Interstitium, Fibrosis	2 (4%)	2 (4%)	2 (4%)	2 (4%)
Vein, Fibrosis		1 (2%)		
Nose	(49)	(50)	(49)	(50)
Foreign Body	2 (4%)	2 (4%)		
Inflammation, Suppurative	1 (2%)	5 (10%)	3 (6%)	
Goblet Cell, Hyperplasia	1 (2%)	3 (6%)	3 (6%)	1 (2%)
Nasolacrimal Duct, Inflammation, Suppurative	2 (4%)		1 (2%)	1 (2%)
Olfactory Epithelium, Degeneration, Hyaline	12 (24%)	18 (36%)	15 (31%)	28 (56%)
Olfactory Epithelium, Hyperplasia		1 (2%)		
Respiratory Epithelium, Metaplasia, Squamous		2 (4%)		
Pleura	(48)	(50)	(50)	(50)
Fibrosis	18 (38%)	6 (12%)	9 (18%)	12 (24%)
Inflammation, Chronic	21 (44%)	20 (40%)	13 (26%)	5 (10%)
Mesothelium, Hyperplasia		1 (2%)		
SPECIAL SENSES SYSTEM				
Eye	(49)	(50)	(50)	(49)
Atrophy		1 (2%)		
Anterior Chamber, Inflammation, Suppurative		1 (2%)		
Cornea, Hyperplasia	1 (2%)			
Lens, Cataract	3 (6%)	2 (4%)	1 (2%)	4 (8%)
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Cyst		2 (4%)		1 (2%)
Fibrosis		1 (2%)		
Infarct		1 (2%)	1 (2%)	
Nephropathy, Chronic	42 (86%)	44 (88%)	46 (92%)	44 (88%)
Cortex, Infarct	1 (2%)			
Cortex, Inflammation, Suppurative				1 (2%)
Cortex, Renal Tubule, Accumulation, Hyaline Droplet				1 (2%)
Cortex, Renal Tubule, Hyperplasia			1 (2%)	
Cortex, Renal Tubule, Inflammation	1 (2%)			
Papilla, Mineralization	3 (6%)	1 (2%)	1 (2%)	
Pelvis, Transitional Epithelium, Hyperplasia	4 (8%)	3 (6%)	7 (14%)	3 (6%)
Pelvis, Transitional Epithelium,				

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
URINARY SYSTEM - CONT				
Mineralization	25 (51%)	23 (46%)	27 (54%)	27 (54%)
Urinary Bladder	(49)	(50)	(50)	(50)
Hemorrhage		1 (2%)		
Muscularis, Hyperplasia				1 (2%)
Muscularis, Infiltration Cellular, Histiocyte		1 (2%)		
Transitional Epithelium, Hyperplasia	1 (2%)		2 (4%)	
Transitional Epithelium, Ulcer	1 (2%)			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	18	27	21	27
Natural Death	3	4	8	7
Survivors				
Terminal Sacrifice	29	19	21	16
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(50)	(50)	(50)	(50)
Hemorrhage				1 (2%)
Intestine Large, Cecum	(49)	(49)	(48)	(48)
Atrophy				1 (2%)
Necrosis		1 (2%)		
Epithelium, Cyst		1 (2%)		
Liver	(50)	(50)	(50)	(50)
Angiectasis			1 (2%)	
Basophilic Focus	1 (2%)			
Clear Cell Focus	6 (12%)	4 (8%)	3 (6%)	3 (6%)
Eosinophilic Focus				1 (2%)
Hemorrhage	1 (2%)			
Hepatodiaphragmatic Nodule	7 (14%)	3 (6%)	5 (10%)	3 (6%)
Inflammation, Granulomatous	1 (2%)	1 (2%)		1 (2%)
Necrosis	1 (2%)			1 (2%)
Thrombosis				1 (2%)
Vacuolization Cytoplasmic	3 (6%)	3 (6%)	1 (2%)	2 (4%)
Bile Duct, Hyperplasia			3 (6%)	2 (4%)
Hepatocyte, Regeneration				1 (2%)
Periportal, Pigmentation	1 (2%)		2 (4%)	
Mesentery	(7)	(11)	(11)	(13)
Necrosis	7 (100%)	11 (100%)	11 (100%)	12 (92%)
Pancreas	(50)	(50)	(50)	(50)
Acinus, Atrophy	2 (4%)	2 (4%)	1 (2%)	2 (4%)
Stomach, Forestomach	(50)	(50)	(49)	(50)
Hyperplasia, Squamous	1 (2%)		1 (2%)	
Ulcer	2 (4%)	3 (6%)	2 (4%)	1 (2%)
Stomach, Glandular	(50)	(50)	(49)	(50)
Erosion		1 (2%)	3 (6%)	
Hyperplasia			1 (2%)	

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
ALIMENTARY SYSTEM - CONT				
Mineralization		1 (2%)		
Ulcer		1 (2%)	1 (2%)	2 (4%)
Tongue	(1)	(1)	(3)	
Epithelium, Hyperkeratosis			1 (33%)	
Epithelium, Hyperplasia	1 (100%)	1 (100%)	1 (33%)	
CARDIOVASCULAR SYSTEM				
Blood Vessel	(50)	(50)	(50)	(50)
Mineralization		1 (2%)		
Pulmonary Artery, Thrombosis				1 (2%)
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	13 (26%)	4 (8%)	5 (10%)	9 (18%)
Artery, Mineralization		1 (2%)		
Atrium, Thrombosis	1 (2%)		1 (2%)	5 (10%)
Myocardium, Thrombosis				1 (2%)
Ventricle, Thrombosis				1 (2%)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Mineralization			1 (2%)	
Necrosis	1 (2%)	1 (2%)	1 (2%)	
Vacuolization Cytoplasmic	15 (30%)	5 (10%)	14 (28%)	10 (20%)
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	12 (24%)	14 (28%)	23 (46%)	15 (30%)
Mineralization				1 (2%)
Necrosis				2 (4%)
Thrombosis			1 (2%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)	1 (2%)		1 (2%)
Pituitary Gland	(50)	(50)	(50)	(50)
Pars Distalis, Cyst	1 (2%)		1 (2%)	1 (2%)
Pars Distalis, Hemorrhage		1 (2%)	1 (2%)	3 (6%)
Pars Distalis, Hyperplasia	4 (8%)	5 (10%)	6 (12%)	5 (10%)
Thyroid Gland	(50)	(50)	(50)	(50)
C-Cell, Hyperplasia	8 (16%)	4 (8%)	6 (12%)	11 (22%)
Follicular Cell, Hyperplasia		1 (2%)		

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
GENERAL BODY SYSTEM				
Peritoneum	(14)	(41)	(41)	(32)
Inflammation, Granulomatous				1 (3%)
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm			1 (2%)	
Preputial Gland	(50)	(50)	(50)	(50)
Cyst	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Hyperplasia	1 (2%)	1 (2%)		2 (4%)
Inflammation, Suppurative			4 (8%)	
Prostate	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)	1 (2%)		3 (6%)
Inflammation, Suppurative	10 (20%)	10 (20%)	14 (28%)	12 (24%)
Seminal Vesicle	(50)	(50)	(50)	(50)
Dilatation			1 (2%)	1 (2%)
Hyperplasia				1 (2%)
Testes	(50)	(50)	(50)	(50)
Artery, Inflammation, Chronic Active	2 (4%)	2 (4%)	1 (2%)	2 (4%)
Germinal Epithelium, Atrophy	11 (22%)	9 (18%)	15 (30%)	11 (22%)
Interstitial Cell, Hyperplasia	5 (10%)	4 (8%)	2 (4%)	2 (4%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Thrombosis				1 (2%)
Myeloid Cell, Hyperplasia			1 (2%)	
Lymph Node	(7)	(16)	(11)	(17)
Hyperplasia, Lymphoid				1 (6%)
Deep Cervical, Angiectasis				1 (6%)
Deep Cervical, Ectasia		1 (6%)		
Pancreatic, Angiectasis	1 (14%)			
Pancreatic, Ectasia	1 (14%)		1 (9%)	
Pancreatic, Infiltration Cellular, Histiocyte		1 (6%)		
Pancreatic, Pigmentation		1 (6%)		1 (6%)
Thoracic, Ectasia				1 (6%)
Lymph Node, Bronchial	(15)	(12)	(16)	(13)
Fibrosis	1 (7%)			
Hematopoietic Cell Proliferation	1 (7%)			
Hyperplasia, Lymphoid	1 (7%)			

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
HEMATOPOIETIC SYSTEM - CONT				
Infiltration Cellular, Histiocyte	1 (7%)	1 (8%)		
Pigmentation	1 (7%)	1 (8%)		
Lymph Node, Mandibular	(2)			
Hematopoietic Cell Proliferation	1 (50%)			
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid		1 (2%)		
Necrosis			2 (4%)	
Lymph Node, Mediastinal	(42)	(44)	(43)	(40)
Angiectasis			2 (5%)	
Hyperplasia, Lymphoid	1 (2%)	1 (2%)	1 (2%)	
Infiltration Cellular			1 (2%)	
Infiltration Cellular, Histiocyte				1 (3%)
Pigmentation			1 (2%)	
Spleen	(50)	(50)	(50)	(50)
Accessory Spleen	1 (2%)		3 (6%)	1 (2%)
Fibrosis	2 (4%)	3 (6%)	4 (8%)	6 (12%)
Hematopoietic Cell Proliferation	1 (2%)		2 (4%)	
Hemorrhage	2 (4%)	2 (4%)	4 (8%)	1 (2%)
Necrosis	3 (6%)		3 (6%)	
Thrombosis			1 (2%)	
Thymus	(49)	(49)	(47)	(50)
Cyst				1 (2%)
Thrombosis			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	3 (6%)	2 (4%)	3 (6%)	2 (4%)
Hyperplasia		1 (2%)		
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	5 (10%)	2 (4%)	2 (4%)	3 (6%)
Hyperkeratosis	1 (2%)		1 (2%)	2 (4%)
Hyperplasia				1 (2%)
Inflammation, Chronic			2 (4%)	
Inflammation, Granulomatous			1 (2%)	
Ulcer				1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hyperostosis	1 (2%)	1 (2%)	1 (2%)	1 (2%)

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

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
MUSCULOSKELETAL SYSTEM - CONT				
Rib, Cartilage, Degeneration	1 (2%)			
Turbinate, Cartilage, Hyperplasia				1 (2%)
Skeletal Muscle	(1)	(1)	(1)	(1)
Hemorrhage	1 (100%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	13 (26%)	15 (30%)	10 (20%)	9 (18%)
Hemorrhage	4 (8%)	4 (8%)	5 (10%)	3 (6%)
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(50)	(50)
Foreign Body	1 (2%)	2 (4%)	2 (4%)	3 (6%)
Inflammation, Chronic			2 (4%)	
Inflammation, Suppurative		2 (4%)		2 (4%)
Epiglottis, Metaplasia, Squamous		1 (2%)		
Lung	(50)	(50)	(50)	(49)
Foreign Body				1 (2%)
Hemorrhage	5 (10%)	5 (10%)	6 (12%)	4 (8%)
Inflammation, Suppurative				2 (4%)
Alveolar Epithelium, Hyperplasia	10 (20%)	3 (6%)	6 (12%)	7 (14%)
Alveolar Epithelium, Metaplasia, Squamous			2 (4%)	
Alveolus, Foreign Body				1 (2%)
Alveolus, Infiltration Cellular, Histiocyte	13 (26%)	11 (22%)	7 (14%)	5 (10%)
Alveolus, Mineralization		1 (2%)		
Alveolus, Proteinosis		1 (2%)		
Interstitium, Fibrosis	1 (2%)	5 (10%)	2 (4%)	1 (2%)
Nose	(50)	(50)	(50)	(50)
Foreign Body	2 (4%)	3 (6%)	1 (2%)	2 (4%)
Inflammation, Suppurative	4 (8%)	4 (8%)	2 (4%)	5 (10%)
Glands, Hyperplasia	1 (2%)			
Goblet Cell, Hyperplasia	1 (2%)	1 (2%)	1 (2%)	4 (8%)
Nasolacrimal Duct, Inflammation, Suppurative	1 (2%)			
Olfactory Epithelium, Degeneration, Hyaline	2 (4%)	8 (16%)	2 (4%)	3 (6%)
Respiratory Epithelium, Hyperplasia	4 (8%)	1 (2%)	1 (2%)	1 (2%)
Turbinate, Hyperplasia, Atypical				1 (2%)
Turbinate, Necrosis	1 (2%)			
Pleura	(50)	(50)	(50)	(50)
Fibrosis	2 (4%)	12 (24%)	5 (10%)	1 (2%)

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

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
STODDARD SOLVENT (TYPE IIC)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
RESPIRATORY SYSTEM - CONT				
Inflammation, Chronic	11 (22%)	2 (4%)	1 (2%)	5 (10%)
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(49)	(50)
Atrophy	1 (2%)			
Inflammation, Suppurative		1 (2%)		
Lens, Cataract	6 (12%)	1 (2%)	3 (6%)	2 (4%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Cyst				2 (4%)
Hemorrhage				1 (2%)
Nephropathy, Chronic	50 (100%)	49 (98%)	50 (100%)	50 (100%)
Cortex, Infarct	2 (4%)	1 (2%)	1 (2%)	2 (4%)
Cortex, Renal Tubule, Accumulation, Hyaline Droplet	2 (4%)	5 (10%)	3 (6%)	2 (4%)
Cortex, Renal Tubule, Casts Granular		1 (2%)	1 (2%)	3 (6%)
Cortex, Renal Tubule, Hyperplasia		1 (2%)	8 (16%)	23 (46%)
Cortex, Renal Tubule, Mineralization				1 (2%)
Medulla, Casts Granular		3 (6%)	1 (2%)	3 (6%)
Papilla, Mineralization	1 (2%)	8 (16%)	30 (60%)	39 (78%)
Papilla, Necrosis		1 (2%)		
Pelvis, Dilatation		1 (2%)	1 (2%)	1 (2%)
Pelvis, Transitional Epithelium, Hyperplasia		2 (4%)	8 (16%)	5 (10%)
Renal Tubule, Mineralization		1 (2%)		
Urinary Bladder	(50)	(50)	(50)	(50)
Hemorrhage		1 (2%)	1 (2%)	1 (2%)
Inflammation, Chronic		1 (2%)		
Muscularis, Transitional Epithelium, Mineralization		1 (2%)		
Transitional Epithelium, Hyperplasia				1 (2%)

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

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---------- END OF REPORT ----------

FINAL/RATS

Facility: Battelle Northwest

Chemical CAS #: 64742-88-7

Lock Date: 09/24/01

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	550 MG/M3	1100 MG/M3	2200 MG/M3
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	12	19	15	23
Natural Death	2	1	3	2
Survivors				
Terminal Sacrifice	36	30	32	25
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Small, Jejunum	(49)	(49)	(47)	(48)
Leiomyoma			1 (2%)	
Liver	(49)	(50)	(50)	(50)
Salivary Glands	(49)	(50)	(50)	(50)
Carcinoma			1 (2%)	
CARDIOVASCULAR SYSTEM				
Heart	(49)	(50)	(50)	(50)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Adenoma			1 (2%)	
Carcinoma	1 (2%)			
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant	1 (2%)			
Pheochromocytoma Complex		1 (2%)		
Pheochromocytoma Benign	2 (4%)	4 (8%)	2 (4%)	2 (4%)
Islets, Pancreatic	(49)	(50)	(50)	(50)
Adenoma	1 (2%)		1 (2%)	
Carcinoma			1 (2%)	
Pituitary Gland	(49)	(50)	(50)	(50)
Pars Distalis, Adenoma	27 (55%)	34 (68%)	33 (66%)	28 (56%)
Pars Distalis, Carcinoma		1 (2%)		1 (2%)
Thyroid Gland	(49)	(50)	(50)	(50)
C-Cell, Adenoma	3 (6%)	5 (10%)	2 (4%)	4 (8%)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
ENDOCRINE SYSTEM - cont				
C-Cell, Carcinoma	1 (2%)	2 (4%)		1 (2%)
Follicular Cell, Adenoma			1 (2%)	
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(49)	(50)	(50)	(50)
Adenoma		3 (6%)	5 (10%)	6 (12%)
Carcinoma	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Ovary	(50)	(50)	(50)	(50)
Granulosa Cell Tumor Malignant			1 (2%)	
Uterus	(49)	(50)	(50)	(50)
Leiomyosarcoma			1 (2%)	
Polyp Stromal	10 (20%)	9 (18%)	10 (20%)	9 (18%)
Sarcoma Stromal		1 (2%)		1 (2%)
Cervix, Sarcoma Stromal	1 (2%)			
Vagina			(1)	
Sarcoma			1 (100%)	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Histiocytic Sarcoma				1 (2%)
Lymph Node	(5)	(5)	(5)	(4)
Lymph Node, Bronchial	(12)	(7)	(8)	(11)
Lymph Node, Mandibular	(3)		(2)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(49)
Lymph Node, Mediastinal	(45)	(39)	(42)	(45)
Carcinoma, Metastatic, Thyroid Gland				1 (2%)
Spleen	(49)	(50)	(50)	(50)
Sarcoma, Metastatic, Skin			1 (2%)	
Thymus	(47)	(47)	(46)	(48)
Thymoma Malignant				1 (2%)

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Carcinoma	3 (6%)	2 (4%)	9 (18%)	7 (14%)
Carcinoma, Multiple	1 (2%)		1 (2%)	1 (2%)
Fibroadenoma	14 (28%)	13 (26%)	10 (20%)	16 (32%)
Fibroadenoma, Multiple	5 (10%)	13 (26%)	12 (24%)	8 (16%)
Fibroma			1 (2%)	
Skin	(50)	(50)	(50)	(50)
Basal Cell Adenoma				1 (2%)
Basal Cell Carcinoma			1 (2%)	
Keratoacanthoma	1 (2%)			
Sarcoma			1 (2%)	
Subcutaneous Tissue, Fibroma				2 (4%)
Subcutaneous Tissue, Fibrosarcoma			2 (4%)	
Subcutaneous Tissue, Sarcoma			1 (2%)	
Subcutaneous Tissue, Schwannoma Benign	1 (2%)			1 (2%)
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Pituitary Gland		1 (2%)		
Glioma Malignant				1 (2%)
Cerebellum, Glioma Malignant				1 (2%)
RESPIRATORY SYSTEM				
Lung	(49)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma				1 (2%)
Alveolar/Bronchiolar Carcinoma			1 (2%)	
Carcinoma, Metastatic, Mammary Gland	1 (2%)		2 (4%)	1 (2%)
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla	1 (2%)			
Pleura	(48)	(50)	(50)	(50)
Mesothelium, Carcinoma, Metastatic, Lung			1 (2%)	

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
SPECIAL SENSES SYSTEM				
Zymbal's Gland	(1)			
Carcinoma	1 (100%)			
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Urinary Bladder	(49)	(50)	(50)	(50)
Leiomyosarcoma	1 (2%)			
Transitional Epithelium, Papilloma	1 (2%)			
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma				1 (2%)
Leukemia Mononuclear	26 (52%)	28 (56%)	26 (52%)	29 (58%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS FEMALE	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	44	50	50	48
Total Primary Neoplasms	102	118	127	123
Total Animals with Benign Neoplasms	37	47	42	43
Total Benign Neoplasms	65	81	79	78
Total Animals with Malignant Neoplasms	30	30	36	37
Total Malignant Neoplasms	37	37	48	45
Total Animals with Metastatic Neoplasms	2	1	4	2
Total Metastatic Neoplasm	2	1	4	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

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	18	27	21	27
Natural Death	3	4	8	7
Survivors				
Terminal Sacrifice	29	19	21	16
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(49)	(49)	(48)	(48)
Intestine Small, Ileum	(49)	(48)	(46)	(46)
Liver	(50)	(50)	(50)	(50)
Cholangiocarcinoma			1 (2%)	
Hepatocellular Adenoma		1 (2%)		1 (2%)
Mesentery	(7)	(11)	(11)	(13)
Oral Mucosa				(1)
Squamous Cell Carcinoma				1 (100%)
Stomach, Glandular	(50)	(50)	(49)	(50)
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Atrium, Carcinoma, Metastatic, Kidney			1 (2%)	
ENDOCRINE SYSTEM				
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant	1 (2%)			2 (4%)
Pheochromocytoma Benign	5 (10%)	8 (16%)	12 (24%)	13 (26%)
Bilateral, Pheochromocytoma Benign		1 (2%)	1 (2%)	4 (8%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma	3 (6%)	2 (4%)	1 (2%)	3 (6%)
Carcinoma	1 (2%)		3 (6%)	
Pituitary Gland	(50)	(50)	(50)	(50)
Pars Distalis, Adenoma	38 (76%)	36 (72%)	35 (70%)	31 (62%)
Pars Distalis, Carcinoma	1 (2%)			

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
ENDOCRINE SYSTEM - cont				
Thyroid Gland	(50)	(50)	(50)	(50)
Bilateral, C-Cell, Adenoma		1 (2%)	1 (2%)	
C-Cell, Adenoma	7 (14%)	5 (10%)	5 (10%)	4 (8%)
C-Cell, Carcinoma	2 (4%)	3 (6%)	2 (4%)	
Follicular Cell, Adenoma			1 (2%)	
Follicular Cell, Carcinoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
GENERAL BODY SYSTEM				
Peritoneum	(14)	(41)	(41)	(32)
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Preputial Gland	(50)	(50)	(50)	(50)
Adenoma		1 (2%)	2 (4%)	1 (2%)
Carcinoma		1 (2%)	3 (6%)	
Prostate	(50)	(50)	(50)	(50)
Carcinoma				1 (2%)
Testes	(50)	(50)	(50)	(50)
Bilateral, Interstitial Cell, Adenoma	26 (52%)	22 (44%)	28 (56%)	30 (60%)
Interstitial Cell, Adenoma	15 (30%)	17 (34%)	10 (20%)	12 (24%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(7)	(16)	(11)	(17)
Lymph Node, Bronchial	(15)	(12)	(16)	(13)
Carcinoma, Metastatic, Kidney			1 (6%)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Thyroid Gland			1 (2%)	
Lymph Node, Mediastinal	(42)	(44)	(43)	(40)
Carcinoma, Metastatic, Thyroid Gland				1 (3%)
Spleen	(50)	(50)	(50)	(50)
Thymus	(49)	(49)	(47)	(50)
Thymoma Malignant	1 (2%)			1 (2%)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Carcinoma		1 (2%)	2 (4%)	
Fibroadenoma	3 (6%)	1 (2%)	2 (4%)	4 (8%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma		1 (2%)	1 (2%)	3 (6%)
Squamous Cell Papilloma	1 (2%)	2 (4%)		2 (4%)
Sebaceous Gland, Adenoma	3 (6%)	1 (2%)	1 (2%)	
Subcutaneous Tissue, Fibroma	2 (4%)	4 (8%)	2 (4%)	2 (4%)
Subcutaneous Tissue, Fibrosarcoma	1 (2%)	1 (2%)		
Subcutaneous Tissue, Hemangioma				1 (2%)
Subcutaneous Tissue, Lipoma	2 (4%)			1 (2%)
Subcutaneous Tissue, Schwannoma Benign		1 (2%)		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Cranium, Osteosarcoma	1 (2%)			
Femur, Osteosarcoma	1 (2%)			
Skeletal Muscle	(1)	(1)	(1)	(1)
Carcinoma, Metastatic, Thyroid Gland				1 (100%)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Astrocytoma Malignant	1 (2%)			
Carcinoma, Metastatic, Pituitary Gland	1 (2%)			
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(49)
Alveolar/Bronchiolar Adenoma	1 (2%)		2 (4%)	
Alveolar/Bronchiolar Carcinoma	1 (2%)		1 (2%)	
Carcinoma, Metastatic, Kidney			1 (2%)	
Osteosarcoma, Metastatic, Bone	1 (2%)			
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla				1 (2%)
Thymoma Malignant, Metastatic, Thymus				1 (2%)
Nose	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Oral Mucosa				1 (2%)

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
RESPIRATORY SYSTEM - cont				
Respiratory Epithelium, Adenoma	1 (2%)			
SPECIAL SENSES SYSTEM				
Zymbal's Gland				(1)
Carcinoma				1 (100%)
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Lipoma		1 (2%)		
Liposarcoma				1 (2%)
Cortex, Renal Tubule, Adenoma			1 (2%)	
Pelvis, Transitional Epithelium, Carcinoma			1 (2%)	
Renal Tubule, Carcinoma	1 (2%)			1 (2%)
Urinary Bladder	(50)	(50)	(50)	(50)
SYSTEMIC LESIONS				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Leukemia Mononuclear	25 (50%)	29 (58%)	30 (60%)	30 (60%)
Lymphoma Malignant		1 (2%)		
Mesothelioma Malignant		1 (2%)		2 (4%)

* Number of animals with any tissue examined microscopically

FISCHER 344 RATS MALE	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	50	50	50
Total Primary Neoplasms	145	143	149	153
Total Animals with Benign Neoplasms	50	50	49	48
Total Benign Neoplasms	107	104	104	109
Total Animals with Malignant Neoplasms	33	33	35	35
Total Malignant Neoplasms	38	39	45	44
Total Animals with Metastatic Neoplasms	2		2	4
Total Metastatic Neoplasm	2		4	5
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/RATS

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

NTP
LAB: Battelle Northwest
EXPERIMENT: 96001 TEST: 05
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: RENNE, ROGER
Rats(FISCHER 344)

STATISTICAL ANALYSIS OF PRIMARY TUMORS
STODDARD SOLVENT (TYPE IIC)

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

REPORT: PEIRPT08
DATE: 01/08/03
TIME: 12:11:39

NTP C#: C96001
CAS: 64742-88-7

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
Pituitary Gland
Prostate
Salivary Glands
Testes
Thymus
Thyroid Gland
Urinary Bladder

NTP
LAB: Battelle Northwest
EXPERIMENT: 96001 TEST: 05
TEST TYPE: CHRONIC
CONT: NO1-ES-75410
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS
STODDARD SOLVENT (TYPE IIC)

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

REPORT: PEIRPT08
DATE: 01/08/03
TIME: 12:11:39

NTP C#: C96001
CAS: 64742-88-7

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS
IN THE ANALYSIS OF STODDARD SOLVENT (TYPE IIC)

==========

Male Rats

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Benign
	Pheochromocytoma: Benign, Complex, Malignant, NOS
Bone	Osteosarcoma
Clitoral/Preputial Gland	Carcinoma or Adenoma
Skin	Basal Cell Carcinoma
	Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma
	Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepitheliom
Testes	Adenoma
All Organs	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
	Osteosarcoma
	Osteosarcoma or Osteoma
	Benign Tumors
	Malignant Tumors

==========

Female Rats

Organ	Morphology
Brain	Glioma Malignant
	Oligodendroglioma, Glioma, or Astrocytoma
Clitoral/Preputial Gland	Adenoma
	Carcinoma or Adenoma
Mammary Gland	Carcinoma
	Fibroadenoma
	Fibroma, Fibroadenoma or Adenoma
	Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
	Carcinoma or Adenoma
Skin	Fibroma
All Organs	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

==========

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Adrenal Medulla Pheochromocytoma Benign								
TUMOR RATES								
OVERALL (a)	5/50 (10%)	9/50 (18%)	13/50 (26%)	17/50 (34%)	2/50 (4%)	4/50 (8%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	5/45.63	9/39.38	13/43.53	17/40.82	2/44.62	4/43.89	2/44.80	2/41.23
POLY-3 PERCENT (g)	11.0%	22.9%	29.9%	41.6%	4.5%	9.1%	4.5%	4.9%
TERMINAL (d)	3/29 (10%)	5/19 (26%)	5/21 (24%)	7/16 (44%)	2/36 (6%)	2/30 (7%)	2/32 (6%)	0/25 (0%)
FIRST INCIDENCE	626	605	541	652	730 (T)	726	730 (T)	606
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.050	P=0.015 *	P<0.001 **	P=0.585	P=0.269	P=0.652	P=0.599
POLY 3	P<0.001 **	P=0.117	P=0.022 *	P<0.001 **	P=0.490N	P=0.329	P=0.693N	P=0.665
POLY 1.5	P<0.001 **	P=0.148	P=0.026 *	P<0.001 **	P=0.478N	P=0.334	P=0.693N	P=0.677
POLY 6	P<0.001 **	P=0.081	P=0.019 *	P<0.001 **	P=0.507N	P=0.321	P=0.693N	P=0.650
LOGISTIC REGRESSION	P<0.001 **	P=0.099	P=0.035 *	P<0.001 **	P=0.511N	P=0.286	P=0.652	P=0.688
COCH-ARM / FISHERS	P=0.002 **	P=0.194	P=0.033 *	P=0.004 **	P=0.456N	P=0.339	P=0.691N	P=0.691N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.531N	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Adrenal Medulla Pheochromocytoma Malignant								
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%)	0/50 (0%)
POLY-3 RATE (b)	1/45.22	0/38.44	0/41.34	2/40.07	1/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	5.0%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	0/29 (0%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	1/36 (3%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	684	---	---	565	730 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.192	P=0.628N	P=0.528N	P=0.409	P=0.343N	P=0.536N	P=0.523N	P=0.573N
POLY 3	P=0.216	P=0.532N	P=0.518N	P=0.458	P=0.293N	P=0.503N	P=0.499N	P=0.519N
POLY 1.5	P=0.215	P=0.518N	P=0.510N	P=0.476	P=0.299N	P=0.502N	P=0.500N	P=0.511N
POLY 6	P=0.216	P=0.553N	P=0.527N	P=0.431	P=0.284N	P=0.507N	P=0.499N	P=0.529N
LOGISTIC REGRESSION	P=0.230	P=0.508N	P=0.495N	P=0.594	P=0.343N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.214	P=0.500N	P=0.500N	P=0.500	P=0.306N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.108	(e)	(e)	(e)	P=0.137N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Adrenal Medulla								
Pheochromocytoma: Benign, Complex, Malignant, NOS								
TUMOR RATES								
OVERALL (a)	6/50 (12%)	9/50 (18%)	13/50 (26%)	19/50 (38%)	3/50 (6%)	4/50 (8%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	6/45.81	9/39.38	13/43.53	19/41.48	3/44.62	4/43.89	2/44.80	2/41.23
POLY-3 PERCENT (g)	13.1%	22.9%	29.9%	45.8%	6.7%	9.1%	4.5%	4.9%
TERMINAL (d)	3/29 (10%)	5/19 (26%)	5/21 (24%)	7/16 (44%)	3/36 (8%)	2/30 (7%)	2/32 (6%)	0/25 (0%)
FIRST INCIDENCE	626	605	541	565	730 (T)	726	730 (T)	606
STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.081	P=0.029 *	P<0.001 **	P=0.454N	P=0.412	P=0.554N	P=0.623N
POLY 3	P<0.001 **	P=0.185	P=0.044 *	P<0.001 **	P=0.348N	P=0.491	P=0.498N	P=0.536N
POLY 1.5	P<0.001 **	P=0.228	P=0.050	P<0.001 **	P=0.337N	P=0.496	P=0.499N	P=0.522N
POLY 6	P<0.001 **	P=0.133	P=0.038 *	P<0.001 **	P=0.362N	P=0.482	P=0.498N	P=0.555N
LOGISTIC REGRESSION	P<0.001 **	P=0.168	P=0.066	P<0.001 **	P=0.372N	P=0.439	P=0.554N	P=0.527N
COCH-ARM / FISHERS	P<0.001 **	P=0.288	P=0.062	P=0.002 **	P=0.319N	P=0.500	P=0.500N	P=0.500N
ORDER RESTRICTED	P<0.001 **	(e)	(e)	(e)	P=0.427N	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Bone								
Osteosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.04	0/38.44	0/41.34	0/39.41	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/29 (7%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.205N	P=0.335N	P=0.311N	P=0.376N	(e)	(e)	(e)	(e)
POLY 3	P=0.133N	P=0.274N	P=0.257N	P=0.268N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.140N	P=0.257N	P=0.249N	P=0.254N	(e)	(e)	(e)	(e)
POLY 6	P=0.123N	P=0.300N	P=0.267N	P=0.289N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.205N	(e)	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.152N	P=0.247N	P=0.247N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.041N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Brain Glioma Malignant								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/45.04	0/38.44	0/41.34	0/39.41	0/44.22	0/43.87	0/44.80	2/40.80
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%
TERMINAL (d)	0/29 (0%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	---	---	---	---	---	---	---	693
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.031 *	(e)	(e)	P=0.178
POLY 3	(e)	(e)	(e)	(e)	P=0.043 *	(e)	(e)	P=0.220
POLY 1.5	(e)	(e)	(e)	(e)	P=0.044 *	(e)	(e)	P=0.228
POLY 6	(e)	(e)	(e)	(e)	P=0.041 *	(e)	(e)	P=0.208
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.038 *	(e)	(e)	P=0.210
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.047 *	(e)	(e)	P=0.253
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.024 *	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Brain Oligodendroglioma, Glioma, or Astrocytoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/45.04	0/38.44	0/41.34	0/39.41	0/44.22	0/43.87	0/44.80	2/40.80
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%
TERMINAL (d)	1/29 (3%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	---	693
STATISTICAL TESTS								
LIFE TABLE	P=0.405N	P=0.584N	P=0.564N	P=0.619N	P=0.031 *	(e)	(e)	P=0.178
POLY 3	P=0.318N	P=0.531N	P=0.517N	P=0.527N	P=0.043 *	(e)	(e)	P=0.220
POLY 1.5	P=0.329N	P=0.518N	P=0.510N	P=0.515N	P=0.044 *	(e)	(e)	P=0.228
POLY 6	P=0.302N	P=0.552N	P=0.526N	P=0.543N	P=0.041 *	(e)	(e)	P=0.208
LOGISTIC REGRESSION	P=0.405N	(e)	(e)	(e)	P=0.038 *	(e)	(e)	P=0.210
COCH-ARM / FISHERS	P=0.343N	P=0.500N	P=0.500N	P=0.500N	P=0.047 *	(e)	(e)	P=0.253
ORDER RESTRICTED	P=0.145N	(e)	(e)	(e)	P=0.024 *	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Clitoral/Preputial Gland Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/49 (0%)	3/50 (6%)	5/50 (10%)	6/50 (12%)
POLY-3 RATE (b)	0/45.04	1/38.94	2/41.34	1/39.41	0/43.62	3/43.87	5/44.98	6/41.15
POLY-3 PERCENT (g)	0.0%	2.6%	4.8%	2.5%	0.0%	6.8%	11.1%	14.6%
TERMINAL (d)	0/29 (0%)	0/19 (0%)	2/21 (10%)	1/16 (6%)	0/35 (0%)	3/30 (10%)	4/32 (13%)	4/25 (16%)
FIRST INCIDENCE	---	579	729 (T)	729 (T)	---	730 (T)	682	606
STATISTICAL TESTS								
LIFE TABLE	P=0.265	P=0.487	P=0.170	P=0.381	P=0.005 **	P=0.095	P=0.029 *	P=0.007 **
POLY 3	P=0.323	P=0.471	P=0.218	P=0.473	P=0.011 *	P=0.119	P=0.033 *	P=0.012 *
POLY 1.5	P=0.346	P=0.484	P=0.226	P=0.485	P=0.012 *	P=0.121	P=0.033 *	P=0.014 *
POLY 6	P=0.290	P=0.452	P=0.209	P=0.456	P=0.009 **	P=0.116	P=0.033 *	P=0.010 *
LOGISTIC REGRESSION	P=0.353	P=0.660	P=0.170	P=0.381	P=0.008 **	P=0.095	P=0.035 *	P=0.013 *
COCH-ARM / FISHERS	P=0.373	P=0.500	P=0.247	P=0.500	P=0.016 *	P=0.125	P=0.030 *	P=0.014 *
ORDER RESTRICTED	P=0.209	(e)	(e)	(e)	P=0.009 **	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Clitoral/Preputial Gland Carcinoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	1/49 (2%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/45.04	1/38.82	3/42.30	0/39.41	1/43.62	2/43.87	1/44.80	1/41.03
POLY-3 PERCENT (g)	0.0%	2.6%	7.1%	0.0%	2.3%	4.6%	2.2%	2.4%
TERMINAL (d)	0/29 (0%)	0/19 (0%)	1/21 (5%)	0/16 (0%)	1/35 (3%)	2/30 (7%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	621	396	---	730 (T)	730 (T)	730 (T)	625
STATISTICAL TESTS								
LIFE TABLE	P=0.568	P=0.477	P=0.099	(e)	P=0.618N	P=0.446	P=0.742	P=0.709
POLY 3	P=0.562	P=0.470	P=0.108	(e)	P=0.546N	P=0.502	P=0.755N	P=0.747
POLY 1.5	P=0.593	P=0.483	P=0.112	(e)	P=0.538N	P=0.505	P=0.755N	P=0.754
POLY 6	P=0.514	P=0.452	P=0.101	(e)	P=0.557N	P=0.497	P=0.755N	P=0.737
LOGISTIC REGRESSION	P=0.574N	P=0.596	P=0.197	(e)	P=0.556N	P=0.446	P=0.742	P=0.757N
COCH-ARM / FISHERS	P=0.627N	P=0.500	P=0.121	(e)	P=0.525N	P=0.508	P=0.747N	P=0.747N
ORDER RESTRICTED	P=0.209	(e)	(e)	(e)	P=0.598N	(e)	(e)	(e)

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Clitoral/Preputial Gland Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	5/50 (10%)	1/50 (2%)	1/49 (2%)	5/50 (10%)	6/50 (12%)	7/50 (14%)
POLY-3 RATE (b)	0/45.04	2/39.32	5/42.30	1/39.41	1/43.62	5/43.87	6/44.98	7/41.52
POLY-3 PERCENT (g)	0.0%	5.1%	11.8%	2.5%	2.3%	11.4%	13.3%	16.9%
TERMINAL (d)	0/29 (0%)	0/19 (0%)	3/21 (14%)	1/16 (6%)	1/35 (3%)	5/30 (17%)	5/32 (16%)	4/25 (16%)
FIRST INCIDENCE	---	579	396	729 (T)	730 (T)	730 (T)	682	606
STATISTICAL TESTS								
LIFE TABLE	P=0.290	P=0.220	P=0.019 *	P=0.381	P=0.012 *	P=0.070	P=0.049 *	P=0.013 *
POLY 3	P=0.327	P=0.208	P=0.025 *	P=0.473	P=0.029 *	P=0.102	P=0.060	P=0.024 *
POLY 1.5	P=0.363	P=0.220	P=0.028 *	P=0.485	P=0.034 *	P=0.104	P=0.060	P=0.027 *
POLY 6	P=0.275	P=0.191	P=0.022 *	P=0.456	P=0.025 *	P=0.098	P=0.061	P=0.021 *
LOGISTIC REGRESSION	P=0.443	P=0.365	P=0.045 *	P=0.381	P=0.024 *	P=0.070	P=0.061	P=0.027 *
COCH-ARM / FISHERS	P=0.408	P=0.247	P=0.028 *	P=0.500	P=0.042 *	P=0.107	P=0.059	P=0.032 *
ORDER RESTRICTED	P=0.082	(e)	(e)	(e)	P=0.021 *	(e)	(e)	(e)

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Islets, Pancreatic Adenoma								
TUMOR RATES								
OVERALL (a)	3/50 (6%)	2/50 (4%)	1/50 (2%)	3/50 (6%)	1/49 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/45.30	2/38.66	1/41.43	3/40.22	1/44.22	0/43.87	1/44.85	0/40.65
POLY-3 PERCENT (g)	6.6%	5.2%	2.4%	7.5%	2.3%	0.0%	2.2%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	0/21 (0%)	1/16 (6%)	1/36 (3%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	674	670	708	578	730 (T)	---	718	---
STATISTICAL TESTS								
LIFE TABLE	P=0.431	P=0.643	P=0.391N	P=0.477	P=0.466N	P=0.536N	P=0.741	P=0.573N
POLY 3	P=0.535	P=0.572N	P=0.338N	P=0.606	P=0.413N	P=0.502N	P=0.758N	P=0.517N
POLY 1.5	P=0.544	P=0.540N	P=0.324N	P=0.631	P=0.409N	P=0.499N	P=0.757N	P=0.508N
POLY 6	P=0.520	P=0.617N	P=0.355N	P=0.570	P=0.418N	P=0.506N	P=0.759N	P=0.528N
LOGISTIC REGRESSION	P=0.534	P=0.611N	P=0.342N	P=0.654N	P=0.443N	(e)	P=0.762	(e)
COCH-ARM / FISHERS	P=0.555	P=0.500N	P=0.309N	P=0.661N	P=0.402N	P=0.495N	P=0.747N	P=0.495N
ORDER RESTRICTED	P=0.460	(e)	(e)	(e)	P=0.268N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Islets, Pancreatic Carcinoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	0/38.44	3/41.79	0/39.41	0/44.22	0/43.87	1/44.80	0/40.65
POLY-3 PERCENT (g)	2.2%	0.0%	7.2%	0.0%	0.0%	0.0%	2.2%	0.0%
TERMINAL (d)	1/29 (3%)	0/19 (0%)	1/21 (5%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	621	---	---	---	730 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.589	P=0.584N	P=0.223	P=0.619N	P=0.657	(e)	P=0.477	(e)
POLY 3	P=0.589N	P=0.531N	P=0.279	P=0.527N	P=0.652	(e)	P=0.503	(e)
POLY 1.5	P=0.577N	P=0.518N	P=0.289	P=0.515N	P=0.671	(e)	P=0.503	(e)
POLY 6	P=0.608N	P=0.552N	P=0.266	P=0.543N	P=0.626	(e)	P=0.501	(e)
LOGISTIC REGRESSION	P=0.593N	(e)	P=0.284	(e)	(e)	(e)	P=0.477	(e)
COCH-ARM / FISHERS	P=0.564N	P=0.500N	P=0.309	P=0.500N	P=0.697	(e)	P=0.505	(e)
ORDER RESTRICTED	P=0.266N	(e)	(e)	(e)	P=0.384	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Islets, Pancreatic Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	4/50 (8%)	2/50 (4%)	4/50 (8%)	3/50 (6%)	1/49 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	4/45.30	2/38.66	4/41.88	3/40.22	1/44.22	0/43.87	2/44.85	0/40.65
POLY-3 PERCENT (g)	8.8%	5.2%	9.6%	7.5%	2.3%	0.0%	4.5%	0.0%
TERMINAL (d)	2/29 (7%)	1/19 (5%)	1/21 (5%)	1/16 (6%)	1/36 (3%)	0/30 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	674	670	621	578	730 (T)	---	718	---
STATISTICAL TESTS								
LIFE TABLE	P=0.419	P=0.570N	P=0.506	P=0.589	P=0.541N	P=0.536N	P=0.466	P=0.573N
POLY 3	P=0.555	P=0.412N	P=0.600	P=0.565N	P=0.485N	P=0.502N	P=0.505	P=0.517N
POLY 1.5	P=0.568	P=0.379N	P=0.617	P=0.536N	P=0.474N	P=0.499N	P=0.506	P=0.508N
POLY 6	P=0.533	P=0.464N	P=0.578	P=0.605N	P=0.500N	P=0.506N	P=0.503	P=0.528N
LOGISTIC REGRESSION	P=0.550	P=0.473N	P=0.601	P=0.514N	P=0.518N	(e)	P=0.495	(e)
COCH-ARM / FISHERS	P=0.564N	P=0.339N	P=0.643N	P=0.500N	P=0.457N	P=0.495N	P=0.508	P=0.495N
ORDER RESTRICTED	P=0.630	(e)	(e)	(e)	P=0.342N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Lung Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/49 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/45.04	0/38.44	2/41.34	0/38.70	0/44.22	0/43.87	0/44.80	1/40.84
POLY-3 PERCENT (g)	2.2%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	2.5%
TERMINAL (d)	1/29 (3%)	0/19 (0%)	2/21 (10%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	---	682
STATISTICAL TESTS								
LIFE TABLE	P=0.642N	P=0.584N	P=0.387	P=0.619N	P=0.179	(e)	(e)	P=0.468
POLY 3	P=0.536N	P=0.531N	P=0.470	P=0.530N	P=0.189	(e)	(e)	P=0.484
POLY 1.5	P=0.530N	P=0.518N	P=0.482	P=0.519N	P=0.193	(e)	(e)	P=0.492
POLY 6	P=0.547N	P=0.552N	P=0.455	P=0.546N	P=0.183	(e)	(e)	P=0.473
LOGISTIC REGRESSION	P=0.642N	(e)	P=0.387	(e)	P=0.202	(e)	(e)	P=0.506
COCH-ARM / FISHERS	P=0.524N	P=0.500N	P=0.500	P=0.505N	P=0.200	(e)	(e)	P=0.505
ORDER RESTRICTED	P=0.326N	(e)	(e)	(e)	P=0.107	(e)	(e)	(e)

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Lung Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	0/50 (0%)	3/50 (6%)	0/49 (0%)	0/49 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/45.04	0/38.44	3/41.34	0/38.70	0/44.22	0/43.87	1/44.98	1/40.84
POLY-3 PERCENT (g)	4.4%	0.0%	7.3%	0.0%	0.0%	0.0%	2.2%	2.5%
TERMINAL (d)	2/29 (7%)	0/19 (0%)	3/21 (14%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	682	682
STATISTICAL TESTS								
LIFE TABLE	P=0.525N	P=0.335N	P=0.353	P=0.376N	P=0.209	(e)	P=0.514	P=0.468
POLY 3	P=0.389N	P=0.274N	P=0.461	P=0.272N	P=0.213	(e)	P=0.503	P=0.484
POLY 1.5	P=0.383N	P=0.257N	P=0.477	P=0.259N	P=0.223	(e)	P=0.504	P=0.492
POLY 6	P=0.401N	P=0.300N	P=0.441	P=0.293N	P=0.200	(e)	P=0.503	P=0.473
LOGISTIC REGRESSION	P=0.525N	(e)	P=0.353	(e)	P=0.242	(e)	P=0.506	P=0.506
COCH-ARM / FISHERS	P=0.378N	P=0.247N	P=0.500	P=0.253N	P=0.238	(e)	P=0.505	P=0.505
ORDER RESTRICTED	P=0.182N	(e)	(e)	(e)	P=0.237	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Mammary Gland Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	4/50 (8%)	2/50 (4%)	10/50 (20%)	8/50 (16%)
POLY-3 RATE (b)	0/45.04	1/38.44	2/41.34	0/39.41	4/44.62	2/44.08	10/46.61	8/42.08
POLY-3 PERCENT (g)	0.0%	2.6%	4.8%	0.0%	9.0%	4.5%	21.5%	19.0%
TERMINAL (d)	0/29 (0%)	1/19 (5%)	2/21 (10%)	0/16 (0%)	4/36 (11%)	1/30 (3%)	6/32 (19%)	3/25 (12%)
FIRST INCIDENCE	---	729 (T)	729 (T)	---	730 (T)	675	401	537
STATISTICAL TESTS								
LIFE TABLE	P=0.590	P=0.416	P=0.170	(e)	P=0.019 *	P=0.413N	P=0.058	P=0.080
POLY 3	P=0.636N	P=0.469	P=0.218	(e)	P=0.037 *	P=0.343N	P=0.085	P=0.148
POLY 1.5	P=0.617N	P=0.482	P=0.226	(e)	P=0.042 *	P=0.340N	P=0.080	P=0.159
POLY 6	P=0.603	P=0.448	P=0.209	(e)	P=0.033 *	P=0.348N	P=0.089	P=0.134
LOGISTIC REGRESSION	(e)	P=0.416	P=0.170	(e)	P=0.056	P=0.356N	P=0.074	P=0.154
COCH-ARM / FISHERS	P=0.592N	P=0.500	P=0.247	(e)	P=0.053	P=0.339N	P=0.074	P=0.178
ORDER RESTRICTED	P=0.304	(e)	(e)	(e)	P=0.046 *	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Mammary Gland Fibroadenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	2/50 (4%)	4/50 (8%)	19/50 (38%)	26/50 (52%)	22/50 (44%)	24/50 (48%)
POLY-3 RATE (b)	3/45.04	1/38.44	2/41.34	4/39.68	19/47.60	26/45.52	22/45.47	24/42.64
POLY-3 PERCENT (g)	6.7%	2.6%	4.8%	10.1%	39.9%	57.1%	48.4%	56.3%
TERMINAL (d)	3/29 (10%)	1/19 (5%)	2/21 (10%)	2/16 (13%)	12/36 (33%)	18/30 (60%)	16/32 (50%)	16/25 (64%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	691	481	481	689	522
STATISTICAL TESTS								
LIFE TABLE	P=0.111	P=0.465N	P=0.647N	P=0.230	P=0.040 *	P=0.054	P=0.248	P=0.030 *
POLY 3	P=0.236	P=0.364N	P=0.539N	P=0.431	P=0.126	P=0.069	P=0.269	P=0.085
POLY 1.5	P=0.243	P=0.338N	P=0.523N	P=0.461	P=0.182	P=0.087	P=0.297	P=0.126
POLY 6	P=0.225	P=0.405N	P=0.559N	P=0.389	P=0.075	P=0.049 *	P=0.236	P=0.049 *
LOGISTIC REGRESSION	P=0.153	P=0.465N	P=0.647N	P=0.304	P=0.174	P=0.111	P=0.344	P=0.151
COCH-ARM / FISHERS	P=0.249	P=0.309N	P=0.500N	P=0.500	P=0.290	P=0.114	P=0.342	P=0.210
ORDER RESTRICTED	P=0.241	(e)	(e)	(e)	P=0.086	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Mammary Gland Fibroma, Fibroadenoma or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	2/50 (4%)	4/50 (8%)	19/50 (38%)	26/50 (52%)	23/50 (46%)	24/50 (48%)
POLY-3 RATE (b)	3/45.04	1/38.44	2/41.34	4/39.68	19/47.60	26/45.52	23/45.49	24/42.64
POLY-3 PERCENT (g)	6.7%	2.6%	4.8%	10.1%	39.9%	57.1%	50.6%	56.3%
TERMINAL (d)	3/29 (10%)	1/19 (5%)	2/21 (10%)	2/16 (13%)	12/36 (33%)	18/30 (60%)	16/32 (50%)	16/25 (64%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	691	481	481	689	522
STATISTICAL TESTS								
LIFE TABLE	P=0.111	P=0.465N	P=0.647N	P=0.230	P=0.038 *	P=0.054	P=0.196	P=0.030 *
POLY 3	P=0.236	P=0.364N	P=0.539N	P=0.431	P=0.118	P=0.069	P=0.203	P=0.085
POLY 1.5	P=0.243	P=0.338N	P=0.523N	P=0.461	P=0.173	P=0.087	P=0.229	P=0.126
POLY 6	P=0.225	P=0.405N	P=0.559N	P=0.389	P=0.069	P=0.049 *	P=0.174	P=0.049 *
LOGISTIC REGRESSION	P=0.153	P=0.465N	P=0.647N	P=0.304	P=0.165	P=0.111	P=0.273	P=0.151
COCH-ARM / FISHERS	P=0.249	P=0.309N	P=0.500N	P=0.500	P=0.282	P=0.114	P=0.272	P=0.210
ORDER RESTRICTED	P=0.241	(e)	(e)	(e)	P=0.086	(e)	(e)	(e)

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Mammary Gland Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	2/50 (4%)	4/50 (8%)	4/50 (8%)	23/50 (46%)	27/50 (54%)	28/50 (56%)	29/50 (58%)
POLY-3 RATE (b)	3/45.04	2/38.44	4/41.34	4/39.68	23/47.60	27/45.73	28/47.28	29/43.52
POLY-3 PERCENT (g)	6.7%	5.2%	9.7%	10.1%	48.3%	59.1%	59.2%	66.6%
TERMINAL (d)	3/29 (10%)	2/19 (11%)	4/21 (19%)	2/16 (13%)	16/36 (44%)	18/30 (60%)	18/32 (56%)	18/25 (72%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	691	481	481	401	522
STATISTICAL TESTS								
LIFE TABLE	P=0.120	P=0.677	P=0.324	P=0.230	P=0.013 *	P=0.132	P=0.151	P=0.014 *
POLY 3	P=0.265	P=0.572N	P=0.453	P=0.431	P=0.054	P=0.200	P=0.193	P=0.054
POLY 1.5	P=0.281	P=0.540N	P=0.473	P=0.461	P=0.083	P=0.231	P=0.201	P=0.086
POLY 6	P=0.241	P=0.618N	P=0.429	P=0.389	P=0.031 *	P=0.160	P=0.181	P=0.029 *
LOGISTIC REGRESSION	P=0.169	P=0.677	P=0.324	P=0.304	P=0.088	P=0.265	P=0.212	P=0.098
COCH-ARM / FISHERS	P=0.298	P=0.500N	P=0.500	P=0.500	P=0.151	P=0.274	P=0.212	P=0.158
ORDER RESTRICTED	P=0.383	(e)	(e)	(e)	P=0.051	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma								
TUMOR RATES								
OVERALL (a)	38/50 (76%)	36/50 (72%)	35/50 (70%)	31/50 (62%)	27/49 (55%)	34/50 (68%)	33/50 (66%)	28/50 (56%)
POLY-3 RATE (b)	38/48.92	36/46.13	35/46.55	31/44.67	27/45.49	34/47.79	33/47.01	28/44.86
POLY-3 PERCENT (g)	77.7%	78.1%	75.2%	69.4%	59.4%	71.2%	70.2%	62.4%
TERMINAL (d)	21/29 (72%)	14/19 (74%)	15/21 (71%)	12/16 (75%)	22/36 (61%)	19/30 (63%)	23/32 (72%)	16/25 (64%)
FIRST INCIDENCE	476	403	529	522	509	481	565	506
STATISTICAL TESTS								
LIFE TABLE	P=0.307	P=0.056	P=0.248	P=0.136	P=0.103	P=0.042 *	P=0.079	P=0.069
POLY 3	P=0.162N	P=0.584	P=0.481N	P=0.239N	P=0.525	P=0.157	P=0.185	P=0.466
POLY 1.5	P=0.116N	P=0.531N	P=0.420N	P=0.166N	P=0.516N	P=0.146	P=0.179	P=0.494
POLY 6	P=0.249N	P=0.484	P=0.546N	P=0.370N	P=0.471	P=0.172	P=0.199	P=0.427
LOGISTIC REGRESSION	P=0.108N	P=0.495N	P=0.400N	P=0.183N	P=0.495	P=0.114	P=0.167	P=0.397
COCH-ARM / FISHERS	P=0.075N	P=0.410N	P=0.326N	P=0.097N	P=0.438N	P=0.133	P=0.183	P=0.545
ORDER RESTRICTED	P=0.252N	(e)	(e)	(e)	P=0.298	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	39/50 (78%)	36/50 (72%)	35/50 (70%)	31/50 (62%)	27/49 (55%)	35/50 (70%)	33/50 (66%)	29/50 (58%)
POLY-3 RATE (b)	39/49.14	36/46.13	35/46.55	31/44.67	27/45.49	35/47.79	33/47.01	29/44.91
POLY-3 PERCENT (g)	79.4%	78.1%	75.2%	69.4%	59.4%	73.2%	70.2%	64.6%
TERMINAL (d)	21/29 (72%)	14/19 (74%)	15/21 (71%)	12/16 (75%)	22/36 (61%)	20/30 (67%)	23/32 (72%)	16/25 (64%)
FIRST INCIDENCE	476	403	529	522	509	481	565	506
STATISTICAL TESTS								
LIFE TABLE	P=0.346	P=0.072	P=0.294	P=0.169	P=0.079	P=0.028 *	P=0.079	P=0.048 *
POLY 3	P=0.125N	P=0.539N	P=0.401N	P=0.180N	P=0.463	P=0.108	P=0.185	P=0.381
POLY 1.5	P=0.086N	P=0.443N	P=0.337N	P=0.116N	P=0.505	P=0.100	P=0.179	P=0.410
POLY 6	P=0.206N	P=0.556	P=0.477N	P=0.306N	P=0.410	P=0.118	P=0.199	P=0.343
LOGISTIC REGRESSION	P=0.079N	P=0.395N	P=0.307N	P=0.124N	P=0.428	P=0.077	P=0.167	P=0.314
COCH-ARM / FISHERS	P=0.054N	P=0.322N	P=0.247N	P=0.063N	P=0.496N	P=0.093	P=0.183	P=0.465
ORDER RESTRICTED	P=0.183N	(e)	(e)	(e)	P=0.237	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Basal Cell Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/45.04	1/38.44	1/41.34	3/39.65	0/44.62	0/43.87	1/44.90	0/40.65
POLY-3 PERCENT (g)	0.0%	2.6%	2.4%	7.6%	0.0%	0.0%	2.2%	0.0%
TERMINAL (d)	0/29 (0%)	1/19 (5%)	1/21 (5%)	1/16 (6%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	684	---	---	703	---
STATISTICAL TESTS								
LIFE TABLE	P=0.028 *	P=0.416	P=0.436	P=0.055	P=0.665	(e)	P=0.495	(e)
POLY 3	P=0.048 *	P=0.469	P=0.483	P=0.097	P=0.653	(e)	P=0.501	(e)
POLY 1.5	P=0.053	P=0.482	P=0.490	P=0.106	P=0.670	(e)	P=0.501	(e)
POLY 6	P=0.043 *	P=0.448	P=0.474	P=0.085	P=0.628	(e)	P=0.502	(e)
LOGISTIC REGRESSION	P=0.038 *	P=0.416	P=0.436	P=0.079	P=0.689	(e)	P=0.500	(e)
COCH-ARM / FISHERS	P=0.059	P=0.500	P=0.500	P=0.121	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.027 *	(e)	(e)	(e)	P=0.383	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/45.04	1/38.44	1/41.34	3/39.65	0/44.62	0/43.87	1/44.90	1/41.29
POLY-3 PERCENT (g)	0.0%	2.6%	2.4%	7.6%	0.0%	0.0%	2.2%	2.4%
TERMINAL (d)	0/29 (0%)	1/19 (5%)	1/21 (5%)	1/16 (6%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	684	---	---	703	522
STATISTICAL TESTS								
LIFE TABLE	P=0.028 *	P=0.416	P=0.436	P=0.055	P=0.209	(e)	P=0.495	P=0.496
POLY 3	P=0.048 *	P=0.469	P=0.483	P=0.097	P=0.216	(e)	P=0.501	P=0.485
POLY 1.5	P=0.053	P=0.482	P=0.490	P=0.106	P=0.224	(e)	P=0.501	P=0.491
POLY 6	P=0.043 *	P=0.448	P=0.474	P=0.085	P=0.205	(e)	P=0.502	P=0.476
LOGISTIC REGRESSION	P=0.038 *	P=0.416	P=0.436	P=0.079	P=0.301	(e)	P=0.500	P=0.646
COCH-ARM / FISHERS	P=0.059	P=0.500	P=0.500	P=0.121	P=0.236	(e)	P=0.500	P=0.500
ORDER RESTRICTED	P=0.027 *	(e)	(e)	(e)	P=0.237	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
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)	1/50 (2%)	3/50 (6%)	1/50 (2%)	5/50 (10%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/45.04	3/38.78	1/41.34	5/39.65	1/44.62	0/43.87	1/44.90	1/41.29
POLY-3 PERCENT (g)	2.2%	7.7%	2.4%	12.6%	2.2%	0.0%	2.2%	2.4%
TERMINAL (d)	1/29 (3%)	2/19 (11%)	1/21 (5%)	3/16 (19%)	1/36 (3%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	636	729 (T)	684	730 (T)	---	703	522
STATISTICAL TESTS								
LIFE TABLE	P=0.035 *	P=0.188	P=0.689	P=0.024 *	P=0.488	P=0.536N	P=0.744	P=0.718
POLY 3	P=0.075	P=0.253	P=0.741	P=0.074	P=0.517	P=0.503N	P=0.759N	P=0.743
POLY 1.5	P=0.084	P=0.276	P=0.749	P=0.086	P=0.525	P=0.502N	P=0.760N	P=0.750
POLY 6	P=0.064	P=0.223	P=0.731	P=0.060	P=0.505	P=0.507N	P=0.759N	P=0.733
LOGISTIC REGRESSION	P=0.060	P=0.210	P=0.689	P=0.038 *	P=0.582	(e)	P=0.762N	P=0.721N
COCH-ARM / FISHERS	P=0.096	P=0.309	P=0.753N	P=0.102	P=0.539	P=0.500N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.029 *	(e)	(e)	(e)	P=0.511	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Fibroma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	4/50 (8%)	2/50 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	2/45.04	4/39.26	2/41.34	2/39.46	0/44.62	0/43.87	0/44.80	2/41.04
POLY-3 PERCENT (g)	4.4%	10.2%	4.8%	5.1%	0.0%	0.0%	0.0%	4.9%
TERMINAL (d)	2/29 (7%)	2/19 (11%)	2/21 (10%)	1/16 (6%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	729 (T)	579	729 (T)	717	---	---	---	621
STATISTICAL TESTS								
LIFE TABLE	P=0.583N	P=0.201	P=0.575	P=0.472	P=0.034 *	(e)	(e)	P=0.190
POLY 3	P=0.451N	P=0.276	P=0.663	P=0.646	P=0.043 *	(e)	(e)	P=0.219
POLY 1.5	P=0.427N	P=0.302	P=0.676	P=0.667	P=0.044 *	(e)	(e)	P=0.226
POLY 6	P=0.487N	P=0.239	P=0.647	P=0.613	P=0.041 *	(e)	(e)	P=0.209
LOGISTIC REGRESSION	P=0.455N	P=0.289	P=0.575	P=0.506	P=0.049 *	(e)	(e)	P=0.240
COCH-ARM / FISHERS	P=0.397N	P=0.339	P=0.691N	P=0.691N	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.525	(e)	(e)	(e)	P=0.024 *	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	5/50 (10%)	2/50 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	4/50 (8%)	2/50 (4%)
POLY-3 RATE (b)	3/45.04	5/39.26	2/41.34	2/39.46	0/44.62	0/43.87	4/45.47	2/41.04
POLY-3 PERCENT (g)	6.7%	12.7%	4.8%	5.1%	0.0%	0.0%	8.8%	4.9%
TERMINAL (d)	3/29 (10%)	3/19 (16%)	2/21 (10%)	1/16 (6%)	0/36 (0%)	0/30 (0%)	1/32 (3%)	1/25 (4%)
FIRST INCIDENCE	729 (T)	579	729 (T)	717	---	---	610	621
STATISTICAL TESTS								
LIFE TABLE	P=0.402N	P=0.185	P=0.647N	P=0.609	P=0.071	(e)	P=0.064	P=0.190
POLY 3	P=0.266N	P=0.283	P=0.539N	P=0.560N	P=0.079	(e)	P=0.063	P=0.219
POLY 1.5	P=0.246N	P=0.314	P=0.523N	P=0.534N	P=0.087	(e)	P=0.062	P=0.226
POLY 6	P=0.297N	P=0.240	P=0.559N	P=0.598N	P=0.069	(e)	P=0.064	P=0.209
LOGISTIC REGRESSION	P=0.280N	P=0.251	P=0.647N	P=0.643	P=0.109	(e)	P=0.063	P=0.240
COCH-ARM / FISHERS	P=0.222N	P=0.357	P=0.500N	P=0.500N	P=0.104	(e)	P=0.059	P=0.247
ORDER RESTRICTED	P=0.331N	(e)	(e)	(e)	P=0.057	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Fibrosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	1/38.44	0/41.34	0/39.41	0/44.62	0/43.87	2/45.37	0/40.65
POLY-3 PERCENT (g)	2.2%	2.6%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---	---	---	610	---
STATISTICAL TESTS								
LIFE TABLE	P=0.280N	P=0.665	P=0.564N	P=0.619N	P=0.570	(e)	P=0.247	(e)
POLY 3	P=0.219N	P=0.724	P=0.517N	P=0.527N	P=0.541	(e)	P=0.241	(e)
POLY 1.5	P=0.216N	P=0.741	P=0.510N	P=0.515N	P=0.563	(e)	P=0.239	(e)
POLY 6	P=0.223N	P=0.699	P=0.526N	P=0.543N	P=0.508	(e)	P=0.243	(e)
LOGISTIC REGRESSION	P=0.280N	P=0.665	(e)	(e)	P=0.631	(e)	P=0.240	(e)
COCH-ARM / FISHERS	P=0.212N	P=0.753N	P=0.500N	P=0.500N	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	P=0.249N	(e)	(e)	(e)	P=0.252	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin								
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	4/50 (8%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	1/38.44	0/41.34	0/39.41	0/44.62	0/43.87	4/45.47	0/40.65
POLY-3 PERCENT (g)	2.2%	2.6%	0.0%	0.0%	0.0%	0.0%	8.8%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---	---	---	610	---
STATISTICAL TESTS								
LIFE TABLE	P=0.280N	P=0.665	P=0.564N	P=0.619N	P=0.438	(e)	P=0.064	(e)
POLY 3	P=0.219N	P=0.724	P=0.517N	P=0.527N	P=0.427	(e)	P=0.063	(e)
POLY 1.5	P=0.216N	P=0.741	P=0.510N	P=0.515N	P=0.457	(e)	P=0.062	(e)
POLY 6	P=0.223N	P=0.699	P=0.526N	P=0.543N	P=0.387	(e)	P=0.064	(e)
LOGISTIC REGRESSION	P=0.280N	P=0.665	(e)	(e)	P=0.507	(e)	P=0.063	(e)
COCH-ARM / FISHERS	P=0.212N	P=0.753N	P=0.500N	P=0.500N	P=0.500	(e)	P=0.059	(e)
ORDER RESTRICTED	P=0.249N	(e)	(e)	(e)	P=0.113	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin								
Lipoma								
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%)	0/50 (0%)
POLY-3 RATE (b)	2/45.04	0/38.44	0/41.34	1/39.48	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/29 (7%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	712	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.630N	P=0.335N	P=0.311N	P=0.694N	(e)	(e)	(e)	(e)
POLY 3	P=0.493N	P=0.274N	P=0.257N	P=0.546N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.504N	P=0.257N	P=0.249N	P=0.526N	(e)	(e)	(e)	(e)
POLY 6	P=0.478N	P=0.300N	P=0.267N	P=0.575N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.591N	(e)	(e)	P=0.653N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.518N	P=0.247N	P=0.247N	P=0.500N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.165N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Sarcoma								
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)	0/45.04	0/38.44	0/41.34	0/39.41	0/44.62	0/43.87	2/44.90	0/40.65
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%
TERMINAL (d)	0/29 (0%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	1/32 (3%)	0/25 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	705	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.537	(e)	P=0.221	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.542	(e)	P=0.238	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.564	(e)	P=0.238	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.510	(e)	P=0.239	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.568	(e)	P=0.238	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.595	(e)	P=0.247	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.250	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Squamous Cell Papilloma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	2/38.78	0/41.34	2/39.41	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	2.2%	5.2%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	0/21 (0%)	2/16 (13%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	636	---	729 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.382	P=0.383	P=0.564N	P=0.296	(e)	(e)	(e)	(e)
POLY 3	P=0.479	P=0.448	P=0.517N	P=0.454	(e)	(e)	(e)	(e)
POLY 1.5	P=0.495	P=0.471	P=0.510N	P=0.474	(e)	(e)	(e)	(e)
POLY 6	P=0.455	P=0.415	P=0.526N	P=0.424	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.461	P=0.437	(e)	P=0.296	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.514	P=0.500	P=0.500N	P=0.500	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.353	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	2/38.78	0/41.34	2/39.41	1/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	2.2%	5.2%	0.0%	5.1%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	0/21 (0%)	2/16 (13%)	1/36 (3%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	636	---	729 (T)	730 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.382	P=0.383	P=0.564N	P=0.296	P=0.343N	P=0.536N	P=0.523N	P=0.573N
POLY 3	P=0.479	P=0.448	P=0.517N	P=0.454	P=0.293N	P=0.503N	P=0.499N	P=0.519N
POLY 1.5	P=0.495	P=0.471	P=0.510N	P=0.474	P=0.299N	P=0.502N	P=0.500N	P=0.511N
POLY 6	P=0.455	P=0.415	P=0.526N	P=0.424	P=0.284N	P=0.507N	P=0.499N	P=0.529N
LOGISTIC REGRESSION	P=0.461	P=0.437	(e)	P=0.296	P=0.343N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.514	P=0.500	P=0.500N	P=0.500	P=0.306N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.353	(e)	(e)	(e)	P=0.137N	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Skin Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	2/38.78	0/41.34	2/39.41	1/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	2.2%	5.2%	0.0%	5.1%	2.2%	0.0%	0.0%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	0/21 (0%)	2/16 (13%)	1/36 (3%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	636	---	729 (T)	730 (T)	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.382	P=0.383	P=0.564N	P=0.296	P=0.343N	P=0.536N	P=0.523N	P=0.573N
POLY 3	P=0.479	P=0.448	P=0.517N	P=0.454	P=0.293N	P=0.503N	P=0.499N	P=0.519N
POLY 1.5	P=0.495	P=0.471	P=0.510N	P=0.474	P=0.299N	P=0.502N	P=0.500N	P=0.511N
POLY 6	P=0.455	P=0.415	P=0.526N	P=0.424	P=0.284N	P=0.507N	P=0.499N	P=0.529N
LOGISTIC REGRESSION	P=0.461	P=0.437	(e)	P=0.296	P=0.343N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.514	P=0.500	P=0.500N	P=0.500	P=0.306N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.353	(e)	(e)	(e)	P=0.137N	(e)	(e)	(e)

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Skin: Sebaceous Gland Adenoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/45.47	1/38.44	1/41.34	0/39.41	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	6.6%	2.6%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/29 (3%)	1/19 (5%)	1/21 (5%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	670	729 (T)	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.133N	P=0.499N	P=0.395N	P=0.198N	(e)	(e)	(e)	(e)
POLY 3	P=0.090N	P=0.368N	P=0.340N	P=0.146N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.089N	P=0.339N	P=0.325N	P=0.134N	(e)	(e)	(e)	(e)
POLY 6	P=0.092N	P=0.412N	P=0.360N	P=0.167N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.106N	P=0.374N	P=0.328N	P=0.125N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.089N	P=0.309N	P=0.309N	P=0.121N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.053N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	Females CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
Testes Adenoma								
TUMOR RATES								
OVERALL (a)	41/50 (82%)	39/50 (78%)	38/50 (76%)	42/50 (84%)				
POLY-3 RATE (b)	41/47.99	39/45.35	38/47.00	42/46.31				
POLY-3 PERCENT (g)	85.4%	86.0%	80.9%	90.7%				
TERMINAL (d)	27/29 (93%)	18/19 (95%)	16/21 (76%)	15/16 (94%)				
FIRST INCIDENCE	476	537	509	522				
STATISTICAL TESTS								
LIFE TABLE	P=0.018 *	P=0.020 *	P=0.185	P=0.002 **				
POLY 3	P=0.293	P=0.596	P=0.365N	P=0.300				
POLY 1.5	P=0.327	P=0.556N	P=0.352N	P=0.375				
POLY 6	P=0.282	P=0.508	P=0.351N	P=0.243				
LOGISTIC REGRESSION	P=0.193	P=0.327	P=0.499N	P=0.124				
COCH-ARM / FISHERS	P=0.388	P=0.402N	P=0.312N	P=0.500				
ORDER RESTRICTED	P=0.243	(e)	(e)	(e)				

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Thyroid Gland: C-Cell Adenoma								
TUMOR RATES								
OVERALL (a)	7/50 (14%)	6/50 (12%)	6/50 (12%)	4/50 (8%)	3/49 (6%)	5/50 (10%)	2/50 (4%)	4/50 (8%)
POLY-3 RATE (b)	7/45.57	6/39.56	6/41.86	4/39.93	3/44.34	5/43.87	2/44.92	4/41.79
POLY-3 PERCENT (g)	15.4%	15.2%	14.3%	10.0%	6.8%	11.4%	4.5%	9.6%
TERMINAL (d)	4/29 (14%)	4/19 (21%)	3/21 (14%)	2/16 (13%)	2/36 (6%)	5/30 (17%)	1/32 (3%)	2/25 (8%)
FIRST INCIDENCE	670	421	589	652	698	730 (T)	698	509
STATISTICAL TESTS								
LIFE TABLE	P=0.449N	P=0.424	P=0.533	P=0.563N	P=0.382	P=0.266	P=0.536N	P=0.361
POLY 3	P=0.269N	P=0.609N	P=0.566N	P=0.341N	P=0.506	P=0.350	P=0.494N	P=0.468
POLY 1.5	P=0.248N	P=0.559N	P=0.538N	P=0.305N	P=0.522	P=0.359	P=0.493N	P=0.485
POLY 6	P=0.304N	P=0.553	P=0.601N	P=0.396N	P=0.484	P=0.336	P=0.497N	P=0.443
LOGISTIC REGRESSION	P=0.263N	P=0.559N	P=0.580N	P=0.370N	P=0.519	P=0.317	P=0.496N	P=0.537
COCH-ARM / FISHERS	P=0.222N	P=0.500N	P=0.500N	P=0.262N	P=0.547	P=0.369	P=0.490N	P=0.511
ORDER RESTRICTED	P=0.374N	(e)	(e)	(e)	P=0.500	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Thyroid Gland: C-Cell Carcinoma								
TUMOR RATES								
OVERALL (a)	2/50 (4%)	3/50 (6%)	2/50 (4%)	0/50 (0%)	1/49 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	2/45.45	3/38.44	2/41.45	0/39.41	1/44.22	2/44.13	0/44.80	1/40.65
POLY-3 PERCENT (g)	4.4%	7.8%	4.8%	0.0%	2.3%	4.5%	0.0%	2.5%
TERMINAL (d)	1/29 (3%)	3/19 (16%)	1/21 (5%)	0/16 (0%)	1/36 (3%)	0/30 (0%)	0/32 (0%)	1/25 (4%)
FIRST INCIDENCE	611	729 (T)	702	---	730 (T)	691	---	730 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.200N	P=0.335	P=0.605	P=0.333N	P=0.583N	P=0.461	P=0.523N	P=0.678
POLY 3	P=0.140N	P=0.424	P=0.661	P=0.270N	P=0.510N	P=0.499	P=0.497N	P=0.742
POLY 1.5	P=0.128N	P=0.458	P=0.674	P=0.255N	P=0.504N	P=0.503	P=0.497N	P=0.751
POLY 6	P=0.161N	P=0.375	P=0.643	P=0.293N	P=0.516N	P=0.494	P=0.499N	P=0.728
LOGISTIC REGRESSION	P=0.141N	P=0.381	P=0.689	P=0.205N	P=0.533N	P=0.500	(e)	P=0.678
COCH-ARM / FISHERS	P=0.114N	P=0.500	P=0.691N	P=0.247N	P=0.495N	P=0.508	P=0.495N	P=0.747N
ORDER RESTRICTED	P=0.131N	(e)	(e)	(e)	P=0.398N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Thyroid Gland: C-Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	9/50 (18%)	9/50 (18%)	8/50 (16%)	4/50 (8%)	4/49 (8%)	7/50 (14%)	2/50 (4%)	4/50 (8%)
POLY-3 RATE (b)	9/45.98	9/39.56	8/41.97	4/39.93	4/44.34	7/44.13	2/44.92	4/41.79
POLY-3 PERCENT (g)	19.6%	22.8%	19.1%	10.0%	9.0%	15.9%	4.5%	9.6%
TERMINAL (d)	5/29 (17%)	7/19 (37%)	4/21 (19%)	2/16 (13%)	3/36 (8%)	5/30 (17%)	1/32 (3%)	2/25 (8%)
FIRST INCIDENCE	611	421	589	652	698	691	698	509
STATISTICAL TESTS								
LIFE TABLE	P=0.252N	P=0.252	P=0.481	P=0.372N	P=0.551N	P=0.184	P=0.379N	P=0.486
POLY 3	P=0.108N	P=0.463	P=0.583N	P=0.176N	P=0.410N	P=0.257	P=0.331N	P=0.611
POLY 1.5	P=0.093N	P=0.527	P=0.548N	P=0.147N	P=0.395N	P=0.265	P=0.330N	P=0.628
POLY 6	P=0.137N	P=0.364	P=0.587	P=0.223N	P=0.431N	P=0.245	P=0.333N	P=0.585
LOGISTIC REGRESSION	P=0.105N	P=0.492	P=0.577N	P=0.167N	P=0.405N	P=0.237	P=0.333N	P=0.626N
COCH-ARM / FISHERS	P=0.076N	P=0.602N	P=0.500N	P=0.117N	P=0.372N	P=0.274	P=0.329N	P=0.631N
ORDER RESTRICTED	P=0.137N	(e)	(e)	(e)	P=0.309N	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Thyroid Gland: Follicular Cell Carcinoma or Adenoma								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/49 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/45.04	1/38.45	2/41.92	1/39.72	0/44.22	0/43.87	1/44.81	0/40.65
POLY-3 PERCENT (g)	2.2%	2.6%	4.8%	2.5%	0.0%	0.0%	2.2%	0.0%
TERMINAL (d)	1/29 (3%)	0/19 (0%)	1/21 (5%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	726	546	645	---	---	726	---
STATISTICAL TESTS								
LIFE TABLE	P=0.470	P=0.665	P=0.418	P=0.671	P=0.656	(e)	P=0.483	(e)
POLY 3	P=0.537	P=0.724	P=0.475	P=0.732	P=0.652	(e)	P=0.503	(e)
POLY 1.5	P=0.553	P=0.741	P=0.485	P=0.745	P=0.671	(e)	P=0.503	(e)
POLY 6	P=0.512	P=0.699	P=0.462	P=0.713	P=0.626	(e)	P=0.502	(e)
LOGISTIC REGRESSION	P=0.573	P=0.655	P=0.542	P=0.763	P=0.671	(e)	P=0.497	(e)
COCH-ARM / FISHERS	P=0.572	P=0.753N	P=0.500	P=0.753N	P=0.697	(e)	P=0.505	(e)
ORDER RESTRICTED	P=0.546	(e)	(e)	(e)	P=0.384	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Uterus Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					10/50 (20%)	9/50 (18%)	10/50 (20%)	9/50 (18%)
POLY-3 RATE (b)					10/45.46	9/44.98	10/45.00	9/41.73
POLY-3 PERCENT (g)					22.0%	20.0%	22.2%	21.6%
TERMINAL (d)					8/36 (22%)	6/30 (20%)	8/32 (25%)	4/25 (16%)
FIRST INCIDENCE					582	593	689	522
STATISTICAL TESTS								
LIFE TABLE					P=0.356	P=0.570	P=0.504	P=0.421
POLY 3					P=0.535	P=0.510N	P=0.590	P=0.583N
POLY 1.5					P=0.526N	P=0.505N	P=0.593	P=0.550N
POLY 6					P=0.491	P=0.522N	P=0.582	P=0.578
LOGISTIC REGRESSION					P=0.549	P=0.505N	P=0.595N	P=0.567N
COCH-ARM / FISHERS					P=0.476N	P=0.500N	P=0.598N	P=0.500N
ORDER RESTRICTED					P=0.699	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
Uterus Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)					11/50 (22%)	10/50 (20%)	10/50 (20%)	10/50 (20%)
POLY-3 RATE (b)					11/45.53	10/44.99	10/45.00	10/42.00
POLY-3 PERCENT (g)					24.2%	22.2%	22.2%	23.8%
TERMINAL (d)					8/36 (22%)	6/30 (20%)	8/32 (25%)	4/25 (16%)
FIRST INCIDENCE					582	593	689	522
STATISTICAL TESTS								
LIFE TABLE					P=0.355	P=0.556	P=0.594	P=0.405
POLY 3					P=0.544N	P=0.512N	P=0.512N	P=0.584N
POLY 1.5					P=0.513N	P=0.506N	P=0.507N	P=0.550N
POLY 6					P=0.507	P=0.526N	P=0.522N	P=0.571
LOGISTIC REGRESSION					P=0.540N	P=0.507N	P=0.496N	P=0.564N
COCH-ARM / FISHERS					P=0.465N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED					P=0.671N	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
All Organs Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	25/50 (50%)	29/50 (58%)	30/50 (60%)	30/50 (60%)	26/50 (52%)	28/50 (56%)	26/50 (52%)	29/50 (58%)
POLY-3 RATE (b)	25/47.99	29/44.73	30/47.32	30/45.98	26/47.29	28/48.20	26/48.19	29/47.32
POLY-3 PERCENT (g)	52.1%	64.8%	63.4%	65.3%	55.0%	58.1%	54.0%	61.3%
TERMINAL (d)	12/29 (41%)	10/19 (53%)	8/21 (38%)	8/16 (50%)	18/36 (50%)	14/30 (47%)	14/32 (44%)	10/25 (40%)
FIRST INCIDENCE	476	421	509	432	495	506	433	451
STATISTICAL TESTS								
LIFE TABLE	P=0.048 *	P=0.022 *	P=0.072	P=0.013 *	P=0.084	P=0.243	P=0.433	P=0.080
POLY 3	P=0.175	P=0.144	P=0.178	P=0.133	P=0.329	P=0.460	P=0.542N	P=0.339
POLY 1.5	P=0.196	P=0.192	P=0.187	P=0.163	P=0.328	P=0.442	P=0.558N	P=0.334
POLY 6	P=0.155	P=0.097	P=0.179	P=0.103	P=0.334	P=0.483	P=0.523N	P=0.348
LOGISTIC REGRESSION	P=0.244	P=0.283	P=0.277	P=0.282	P=0.401	P=0.426	P=0.579	P=0.383
COCH-ARM / FISHERS	P=0.224	P=0.274	P=0.211	P=0.211	P=0.342	P=0.421	P=0.579N	P=0.344
ORDER RESTRICTED	P=0.136	(e)	(e)	(e)	P=0.424	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
All Organs Mesothelioma: Benign, Malignant, NOS								
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)	0/45.04	1/38.44	0/41.34	2/40.13	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	0.0%	2.6%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/29 (0%)	1/19 (5%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	729 (T)	---	563	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.133	P=0.416	(e)	P=0.201	(e)	(e)	(e)	(e)
POLY 3	P=0.146	P=0.469	(e)	P=0.212	(e)	(e)	(e)	(e)
POLY 1.5	P=0.153	P=0.482	(e)	P=0.223	(e)	(e)	(e)	(e)
POLY 6	P=0.135	P=0.448	(e)	P=0.198	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.172	P=0.416	(e)	P=0.327	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.163	P=0.500	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.059	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
All Organs Mesothelioma: Malignant								
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)	0/45.04	1/38.44	0/41.34	2/40.13	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	0.0%	2.6%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/29 (0%)	1/19 (5%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	---	729 (T)	---	563	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.133	P=0.416	(e)	P=0.201	(e)	(e)	(e)	(e)
POLY 3	P=0.146	P=0.469	(e)	P=0.212	(e)	(e)	(e)	(e)
POLY 1.5	P=0.153	P=0.482	(e)	P=0.223	(e)	(e)	(e)	(e)
POLY 6	P=0.135	P=0.448	(e)	P=0.198	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.172	P=0.416	(e)	P=0.327	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.163	P=0.500	(e)	P=0.247	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.059	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
All Organs Osteosarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.04	0/38.44	0/41.34	0/39.41	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/29 (7%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.205N	P=0.335N	P=0.311N	P=0.376N	(e)	(e)	(e)	(e)
POLY 3	P=0.133N	P=0.274N	P=0.257N	P=0.268N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.140N	P=0.257N	P=0.249N	P=0.254N	(e)	(e)	(e)	(e)
POLY 6	P=0.123N	P=0.300N	P=0.267N	P=0.289N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.205N	(e)	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.152N	P=0.247N	P=0.247N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.041N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
All Organs Osteosarcoma or Osteoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.04	0/38.44	0/41.34	0/39.41	0/44.62	0/43.87	0/44.80	0/40.65
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/29 (7%)	0/19 (0%)	0/21 (0%)	0/16 (0%)	0/36 (0%)	0/30 (0%)	0/32 (0%)	0/25 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.205N	P=0.335N	P=0.311N	P=0.376N	(e)	(e)	(e)	(e)
POLY 3	P=0.133N	P=0.274N	P=0.257N	P=0.268N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.140N	P=0.257N	P=0.249N	P=0.254N	(e)	(e)	(e)	(e)
POLY 6	P=0.123N	P=0.300N	P=0.267N	P=0.289N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.205N	(e)	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.152N	P=0.247N	P=0.247N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.041N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Males CONTROL	Males 138 MG/M3	Males 550 MG/M3	Males 1100 MG/M3	Females CONTROL	Females 550 MG/M3	Females 1100 MG/M3	Females 2200 MG/M3
All Organs Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	50/50 (100%)	49/50 (98%)	48/50 (96%)	37/50 (74%)	47/50 (94%)	42/50 (84%)	43/50 (86%)
POLY-3 RATE (b)	50/50.00	50/50.00	49/49.16	48/48.47	37/48.40	47/49.21	42/47.34	43/47.07
POLY-3 PERCENT (g)	100.0%	100.0%	99.7%	99.0%	76.4%	95.5%	88.7%	91.4%
TERMINAL (d)	29/29 (100%)	19/19 (100%)	21/21 (100%)	16/16 (100%)	27/36 (75%)	29/30 (97%)	29/32 (91%)	24/25 (96%)
FIRST INCIDENCE	476	403	509	522	481	481	565	506
STATISTICAL TESTS								
LIFE TABLE	P=0.053	(e)	P=0.080	P=0.007 **	P=0.007 **	P=0.008 **	P=0.098	P=0.004 **
POLY 3	P=0.366N	(e)	P=1.000N	P=0.942N	P=0.058	P=0.005 **	P=0.085	P=0.036 *
POLY 1.5	P=0.117N	(e)	P=0.931N	P=0.514N	P=0.092	P=0.005 **	P=0.107	P=0.052
POLY 6	P=1.000N	(e)	P=1.000N	P=1.000N	P=0.037 *	P=0.004 **	P=0.071	P=0.026 *
LOGISTIC REGRESSION	P=0.020N*	(e)	(e)	(e)	P=0.095	P=0.007 **	P=0.159	P=0.054
COCH-ARM / FISHERS	P=0.062N	(e)	P=0.500N	P=0.247N	P=0.205	P=0.006 **	P=0.163	P=0.105
ORDER RESTRICTED	P=0.050N	(e)	(e)	(e)	P=0.008 **	(e)	(e)	(e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - STODDARD SOLVENT (TYPE IIC)

Terminal Sacrifice at 105 weeks

	Males				Females			
Dose	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	33/50 (66%)	33/50 (66%)	35/50 (70%)	35/50 (70%)	30/50 (60%)	30/50 (60%)	36/50 (72%)	37/50 (74%)
POLY-3 RATE (b)	33/48.45	33/44.73	35/48.27	35/47.54	30/48.15	30/48.40	36/49.24	37/48.01
POLY-3 PERCENT (g)	68.1%	73.8%	72.5%	73.6%	62.3%	62.0%	73.1%	77.1%
TERMINAL (d)	17/29 (59%)	14/19 (74%)	11/21 (52%)	8/16 (50%)	20/36 (56%)	15/30 (50%)	21/32 (66%)	15/25 (60%)
FIRST INCIDENCE	476	421	396	432	495	506	401	451
STATISTICAL TESTS								
LIFE TABLE	P=0.053	P=0.037 *	P=0.117	P=0.022 *	P=0.008 **	P=0.341	P=0.121	P=0.015 *
POLY 3	P=0.364	P=0.348	P=0.399	P=0.352	P=0.041 *	P=0.570N	P=0.175	P=0.084
POLY 1.5	P=0.351	P=0.448	P=0.404	P=0.378	P=0.041 *	P=0.576N	P=0.164	P=0.085
POLY 6	P=0.384	P=0.229	P=0.400	P=0.323	P=0.042 *	P=0.560N	P=0.184	P=0.088
LOGISTIC REGRESSION	P=0.339	P=0.434	P=0.499	P=0.524	P=0.065	P=0.572N	P=0.143	P=0.111
COCH-ARM / FISHERS	P=0.331	P=0.583N	P=0.415	P=0.415	P=0.050	P=0.581N	P=0.146	P=0.101
ORDER RESTRICTED	P=0.420	(e)	(e)	(e)	P=0.083	(e)	(e)	(e)

	Males				Females			
Dose	CONTROL	138 MG/M3	550 MG/M3	1100 MG/M3	CONTROL	550 MG/M3	1100 MG/M3	2200 MG/M3
All Organs Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	50/50 (100%)	50/50 (100%)	50/50 (100%)	44/50 (88%)	50/50 (100%)	50/50 (100%)	48/50 (96%)
POLY-3 RATE (b)	50/50.00	50/50.00	50/50.00	50/50.00	44/50.00	50/50.00	50/50.00	48/49.06
POLY-3 PERCENT (g)	100.0%	100.0%	100.0%	100.0%	88.0%	100.0%	100.0%	97.8%
TERMINAL (d)	29/29 (100%)	19/19 (100%)	21/21 (100%)	16/16 (100%)	30/36 (83%)	30/30 (100%)	32/32 (100%)	24/25 (96%)
FIRST INCIDENCE	476	403	396	432	481	481	401	451
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.009 **	P=0.038 *	P=0.075	P=0.010 *
POLY 3	(e)	(e)	(e)	(e)	P=0.029 *	P=0.016 *	P=0.016 *	P=0.063
POLY 1.5	(e)	(e)	(e)	(e)	P=0.037 *	P=0.016 *	P=0.016 *	P=0.073
POLY 6	(e)	(e)	(e)	(e)	P=0.026 *	P=0.016 *	P=0.016 *	P=0.060
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.098	(e)	(e)	P=0.121
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.111	P=0.013 *	P=0.013 *	P=0.134
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P<0.001 **	(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).