

NTP
LAB: Battelle Columbus
EXPERIMENT: 98004 TEST: 01
TEST TYPE: SUBCHRON 90-DAY
CONT: N01-ES-65406
PATHOLOGIST: MISSING

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
HEXACHLOROBENZENE

ROUTE: GAVAGE

REPORT: PEIRPT10
DATE: 10/23/02
TIME: 10:20:41
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NTP C#: C98004
CAS: 118-74-1

Final#1/Rats

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL

TREATMENT GROUPS: INCLUDE ALL

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

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Female Rats	

Organ	Morphology
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Liver	Infiltration Cellular Mixed Cell Vacuolization Cytoplasmic Focal Hypertrophy
Liver: Hepatocyte	Inflammation Chronic
Lung	Hyperplasia
Mammary Gland	Inflammation
Skin	Ulcer
Spleen	Hyperplasia Lymphoid
Thymus	Atrophy
Tooth: Incisor	Degeneration

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STATISTICAL TESTS								
LIFE TABLE	P=0.535N	P=0.500	P=1.000	P=1.000	P=1.000N	P=1.000N	P=1.000	P=0.672
POLY 3	(e)	P=0.463	(e)	(e)	(e)	(e)	(e)	P=0.667
POLY 1.5	(e)	P=0.463	(e)	(e)	(e)	(e)	(e)	P=0.667
POLY 6	(e)	P=0.463	(e)	(e)	(e)	(e)	(e)	P=0.667
LOGISTIC REGRESSION	P=0.535N	(e)	(e)	(e)	(e)	(e)	(e)	P=0.672
COCH-ARM / FISHERS	P=0.505N	P=0.455	P=1.000	P=1.000	P=1.000	P=1.000	P=1.000	P=0.675N
=====								
Dose								
	0 MG/KG	0.03	0.1	0.3	Females		10.0	25.0
		MG/KG	MG/KG	MG/KG	1.0	3.0	MG/KG	MG/KG
=====								
Liver								
Infiltration Cellular Mixed Cell								

LESION RATES								
OVERALL (a)	8/10 (80%)	6/10 (60%)	5/10 (50%)	9/10 (90%)	6/10 (60%)	9/10 (90%)	10/10 (100%)	10/10 (100%)
POLY-3 RATE (b)	8/10.00	6/10.00	5/10.00	9/10.00	6/10.00	9/10.00	10/10.00	10/10.00
POLY-3 PERCENT (g)	80.0%	60.0%	50.0%	90.0%	60.0%	90.0%	100.0%	100.0%
TERMINAL (d)	8/10 (80%)	5/9 (56%)	5/10 (50%)	9/10 (90%)	6/10 (60%)	9/10 (90%)	10/10 (100%)	10/10 (100%)
FIRST INCIDENCE	93 (T)	85	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)

STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	P=0.446N	P=0.180N	P=0.500	P=0.317N	P=0.500	P=0.234	P=0.234
POLY 3	P=0.008 **	P=0.318N	P=0.174N	P=0.500	P=0.318N	P=0.500	P=0.227	P=0.227
POLY 1.5	P=0.008 **	P=0.318N	P=0.174N	P=0.500	P=0.318N	P=0.500	P=0.227	P=0.227
POLY 6	P=0.008 **	P=0.318N	P=0.174N	P=0.500	P=0.318N	P=0.500	P=0.227	P=0.227
LOGISTIC REGRESSION	P=0.020 *	(e)	P=0.180N	P=0.500	P=0.317N	P=0.500	P=0.234	P=0.234
COCH-ARM / FISHERS	P=0.012 *	P=0.314N	P=0.175N	P=0.500	P=0.314N	P=0.500	P=0.237	P=0.237
=====								

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLORO BENZENE
 Terminal Sacrifice at 14 weeks

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Liver Vacuolization Cytoplasmic Focal								

LESION RATES								
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	2/10 (20%)
POLY-3 RATE (b)	0/10.00	0/9.76	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	2/10.00
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	2/10 (20%)
FIRST INCIDENCE	---	---	---	---	---	---	---	93 (T)

STATISTICAL TESTS								
LIFE TABLE	P=0.003 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.234
POLY 3	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.227
POLY 1.5	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.227
POLY 6	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.227
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P=0.234
COCH-ARM / FISHERS	P=0.002 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.237

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Liver: Hepatocyte Hypertrophy								

LESION RATES								
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	9/10 (90%)	10/10 (100%)
POLY-3 RATE (b)	0/10.00	0/9.76	0/10.00	0/10.00	0/10.00	0/10.00	9/10.00	10/10.00
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.0%	100.0%
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	9/10 (90%)	10/10 (100%)
FIRST INCIDENCE	---	---	---	---	---	---	93 (T)	93 (T)

STATISTICAL TESTS								

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLORO BENZENE
Terminal Sacrifice at 14 weeks

LIFE TABLE	P<0.001 **	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
POLY 3	P<0.001 **	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
POLY 1.5	P<0.001 **	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
POLY 6	P<0.001 **	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
COCH-ARM / FISHERS	P<0.001 **	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG

Lung
Inflammation Chronic

LESION RATES								
OVERALL (a)	3/10 (30%)	1/10 (10%)	1/10 (10%)	2/10 (20%)	7/10 (70%)	8/10 (80%)	10/10 (100%)	10/10 (100%)
POLY-3 RATE (b)	3/10.00	1/9.76	1/10.00	2/10.00	7/10.00	8/10.00	10/10.00	10/10.00
POLY-3 PERCENT (g)	30.0%	10.2%	10.0%	20.0%	70.0%	80.0%	100.0%	100.0%
TERMINAL (d)	3/10 (30%)	1/9 (11%)	1/10 (10%)	2/10 (20%)	7/10 (70%)	8/10 (80%)	10/10 (100%)	10/10 (100%)
FIRST INCIDENCE	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)

STATISTICAL TESTS								
LIFE TABLE	P<0.001 **	P=0.333N	P=0.293N	P=0.500N	P=0.095	P=0.040 *	P=0.003 **	P=0.003 **
POLY 3	P<0.001 **	P=0.301N	P=0.292N	P=0.500N	P=0.082	P=0.024 *	P<0.001 **	P<0.001 **
POLY 1.5	P<0.001 **	P=0.297N	P=0.292N	P=0.500N	P=0.082	P=0.024 *	P<0.001 **	P<0.001 **
POLY 6	P<0.001 **	P=0.308N	P=0.292N	P=0.500N	P=0.082	P=0.024 *	P<0.001 **	P<0.001 **
LOGISTIC REGRESSION	P<0.001 **	P=0.333N	P=0.293N	P=0.500N	P=0.095	P=0.040 *	P=0.003 **	P=0.003 **
COCH-ARM / FISHERS	P<0.001 **	P=0.291N	P=0.291N	P=0.500N	P=0.089	P=0.035 *	P=0.002 **	P=0.002 **

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG

Lung: Alveolar Epithelium
Hyperplasia

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLOROBENZENE
Terminal Sacrifice at 14 weeks

=====									
LESION RATES									

OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	2/10 (20%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	
POLY-3 RATE (b)	0/10.00	0/9.76	0/10.00	0/10.00	2/10.00	0/10.00	0/10.00	0/10.00	
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	2/10 (20%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	
FIRST INCIDENCE	---	---	---	---	93 (T)	---	---	---	

STATISTICAL TESTS									

LIFE TABLE	P=0.483N	(e)	(e)	(e)	P=0.234	(e)	(e)	(e)	
POLY 3	P=0.485N	(e)	(e)	(e)	P=0.227	(e)	(e)	(e)	
POLY 1.5	P=0.486N	(e)	(e)	(e)	P=0.227	(e)	(e)	(e)	
POLY 6	P=0.483N	(e)	(e)	(e)	P=0.227	(e)	(e)	(e)	
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.234	(e)	(e)	(e)	
COCH-ARM / FISHERS	P=0.488N	(e)	(e)	(e)	P=0.237	(e)	(e)	(e)	
=====									
Dose	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	Females 1.0 MG/KG		3.0 MG/KG	10.0 MG/KG	25.0 MG/KG

Lung: Bronchiole Hyperplasia									

LESION RATES									

OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	2/10 (20%)	0/10 (0%)	2/10 (20%)	0/10 (0%)	
POLY-3 RATE (b)	0/10.00	0/9.76	0/10.00	0/10.00	2/10.00	0/10.00	2/10.00	0/10.00	
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	20.0%	0.0%	
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	2/10 (20%)	0/10 (0%)	2/10 (20%)	0/10 (0%)	
FIRST INCIDENCE	---	---	---	---	93 (T)	---	93 (T)	---	

STATISTICAL TESTS									

LIFE TABLE	P=0.632	(e)	(e)	(e)	P=0.234	(e)	P=0.234	(e)	
POLY 3	P=0.635	(e)	(e)	(e)	P=0.227	(e)	P=0.227	(e)	
POLY 1.5	P=0.633	(e)	(e)	(e)	P=0.227	(e)	P=0.227	(e)	
POLY 6	P=0.637	(e)	(e)	(e)	P=0.227	(e)	P=0.227	(e)	
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.234	(e)	P=0.234	(e)	
COCH-ARM / FISHERS	P=0.628	(e)	(e)	(e)	P=0.237	(e)	P=0.237	(e)	
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Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLOROBENZENE
Terminal Sacrifice at 14 weeks

POLY 3	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Ovary: Corpus Luteum Cyst								

LESION RATES								
OVERALL (a)	2/10 (20%)	0/1 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	2/10.00	0/0.75	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%
TERMINAL (d)	2/10 (20%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	93 (T)	---	---	---	---	---	---	93 (T)

STATISTICAL TESTS								
LIFE TABLE	P=0.404N	P=1.000N	P=1.000	P=1.000	P=1.000N	P=1.000N	P=1.000N	P=0.500N
POLY 3	(e)	P=0.813N	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 1.5	(e)	P=0.800N	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 6	(e)	P=0.832N	(e)	(e)	(e)	(e)	(e)	P=0.500N
LOGISTIC REGRESSION	P=0.404N	(e)	(e)	(e)	(e)	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.436N	P=0.818N	P=1.000	P=1.000	P=1.000	P=1.000	P=1.000	P=0.500N

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Skin Inflammation								

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLOROBENZENE
Terminal Sacrifice at 14 weeks

LESION RATES									
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/9 (0%)	0/10 (0%)	9/10 (90%)	
POLY-3 RATE (b)	0/10.00	0/9.76	0/9.00	0/10.00	0/10.00	0/9.00	0/10.00	9/10.00	
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.0%	
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/9 (0%)	0/10 (0%)	9/10 (90%)	
FIRST INCIDENCE	---	---	---	---	---	---	---	93 (T)	
STATISTICAL TESTS									
LIFE TABLE	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
POLY 3	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
POLY 1.5	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
POLY 6	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
COCH-ARM / FISHERS	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
=====									
=====									
Dose	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	Females 1.0 MG/KG		3.0 MG/KG	10.0 MG/KG	25.0 MG/KG

Skin									
Ulcer									

LESION RATES									
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/9 (0%)	0/10 (0%)	7/10 (70%)	
POLY-3 RATE (b)	0/10.00	0/9.76	0/9.00	0/10.00	0/10.00	0/9.00	0/10.00	7/10.00	
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/9 (0%)	0/10 (0%)	7/10 (70%)	
FIRST INCIDENCE	---	---	---	---	---	---	---	93 (T)	
STATISTICAL TESTS									
LIFE TABLE	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.003 **	
POLY 3	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
POLY 1.5	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
POLY 6	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P=0.003 **	
COCH-ARM / FISHERS	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.002 **	
=====									

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLOROBENZENE
Terminal Sacrifice at 14 weeks

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Spleen Hematopoietic Cell Proliferation								

LESION RATES								

OVERALL (a)	3/10 (30%)	4/10 (40%)	4/10 (40%)	3/10 (30%)	4/10 (40%)	6/10 (60%)	5/10 (50%)	6/10 (60%)
POLY-3 RATE (b)	3/10.00	4/10.00	4/10.00	3/10.00	4/10.00	6/10.00	5/10.00	6/10.00
POLY-3 PERCENT (g)	30.0%	40.0%	40.0%	30.0%	40.0%	60.0%	50.0%	60.0%
TERMINAL (d)	3/10 (30%)	3/9 (33%)	4/10 (40%)	3/10 (30%)	4/10 (40%)	6/10 (60%)	5/10 (50%)	6/10 (60%)
FIRST INCIDENCE	93 (T)	85	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)

STATISTICAL TESTS								

LIFE TABLE	P=0.135	P=0.446	P=0.500	P=0.683	P=0.500	P=0.190	P=0.328	P=0.190
POLY 3	P=0.123	P=0.500	P=0.500	P=0.678	P=0.500	P=0.186	P=0.329	P=0.186
POLY 1.5	P=0.123	P=0.500	P=0.500	P=0.678	P=0.500	P=0.186	P=0.329	P=0.186
POLY 6	P=0.123	P=0.500	P=0.500	P=0.678	P=0.500	P=0.186	P=0.329	P=0.186
LOGISTIC REGRESSION	P=0.135	(e)	P=0.500	P=0.683	P=0.500	P=0.190	P=0.328	P=0.190
COCH-ARM / FISHERS	P=0.117	P=0.500	P=0.500	P=0.686N	P=0.500	P=0.185	P=0.325	P=0.185

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Spleen Hyperplasia Lymphoid								

LESION RATES								

OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	6/10 (60%)	8/10 (80%)
POLY-3 RATE (b)	0/10.00	0/9.76	0/10.00	0/10.00	0/10.00	0/10.00	6/10.00	8/10.00
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	80.0%
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	6/10 (60%)	8/10 (80%)
FIRST INCIDENCE	---	---	---	---	---	---	93 (T)	93 (T)

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLOROBENZENE
Terminal Sacrifice at 14 weeks

STATISTICAL TESTS									
LIFE TABLE	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.009 **	P<0.001 **
POLY 3	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
POLY 1.5	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
POLY 6	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P<0.001 **	P<0.001 **
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P=0.009 **	P<0.001 **
COCH-ARM / FISHERS	P<0.001 **	(e)	(e)	(e)	(e)	(e)	(e)	P=0.005 **	P<0.001 **
=====									
Dose	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	Females 1.0 MG/KG		3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
=====									
Spleen Pigmentation Hemosiderin									

LESION RATES									
OVERALL (a)	10/10 (100%)	8/10 (80%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	8/10 (80%)	9/10 (90%)
POLY-3 RATE (b)	10/10.00	8/9.76	10/10.00	10/10.00	10/10.00	10/10.00	10/10.00	8/10.00	9/10.00
POLY-3 PERCENT (g)	100.0%	81.9%	100.0%	100.0%	100.0%	100.0%	100.0%	80.0%	90.0%
TERMINAL (d)	10/10 (100%)	8/9 (89%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	8/10 (80%)	9/10 (90%)
FIRST INCIDENCE	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)

STATISTICAL TESTS									
LIFE TABLE	P=0.139N	P=0.479N	(e)	(e)	(e)	(e)	(e)	P=0.234N	P=0.500N
POLY 3	P=0.201N	P=0.257N	(e)	(e)	(e)	(e)	(e)	P=0.227N	P=0.500N
POLY 1.5	P=0.214N	P=0.241N	(e)	(e)	(e)	(e)	(e)	P=0.227N	P=0.500N
POLY 6	P=0.180N	P=0.290N	(e)	(e)	(e)	(e)	(e)	P=0.227N	P=0.500N
LOGISTIC REGRESSION	P=0.139N	P=0.479N	(e)	(e)	(e)	(e)	(e)	P=0.234N	P=0.500N
COCH-ARM / FISHERS	P=0.234N	P=0.237N	(e)	(e)	(e)	(e)	(e)	P=0.237N	P=0.500N
=====									

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) - HEXACHLOROBENZENE
Terminal Sacrifice at 14 weeks

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Thymus Atrophy								

LESION RATES								
OVERALL (a)	0/10 (0%)	1/10 (10%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	3/10 (30%)
POLY-3 RATE (b)	0/10.00	1/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	3/10.00
POLY-3 PERCENT (g)	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	3/10 (30%)
FIRST INCIDENCE	---	85	---	---	---	---	---	93 (T)

STATISTICAL TESTS								
LIFE TABLE	P=0.002 **	P=0.500	(e)	(e)	(e)	(e)	(e)	P=0.111
POLY 3	P<0.001 **	P=0.500	(e)	(e)	(e)	(e)	(e)	P=0.095
POLY 1.5	P<0.001 **	P=0.500	(e)	(e)	(e)	(e)	(e)	P=0.095
POLY 6	P<0.001 **	P=0.500	(e)	(e)	(e)	(e)	(e)	P=0.095
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)	(e)	P=0.111
COCH-ARM / FISHERS	P<0.001 **	P=0.500	(e)	(e)	(e)	(e)	(e)	P=0.105

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
Thyroid Gland Ultimobranchial Cyst								

LESION RATES								
OVERALL (a)	1/10 (10%)	3/10 (30%)	3/10 (30%)	2/10 (20%)	0/10 (0%)	0/9 (0%)	2/10 (20%)	3/10 (30%)
POLY-3 RATE (b)	1/10.00	3/9.76	3/10.00	2/10.00	0/10.00	0/9.00	2/10.00	3/10.00
POLY-3 PERCENT (g)	10.0%	30.7%	30.0%	20.0%	0.0%	0.0%	20.0%	30.0%
TERMINAL (d)	1/10 (10%)	3/9 (33%)	3/10 (30%)	2/10 (20%)	0/10 (0%)	0/9 (0%)	2/10 (20%)	3/10 (30%)
FIRST INCIDENCE	93 (T)	93 (T)	93 (T)	93 (T)	---	---	93 (T)	93 (T)

STATISTICAL TESTS									
LIFE TABLE	P=0.260	P=0.253	P=0.293	P=0.500	P=0.500N	P=0.521N	P=0.500	P=0.293	
POLY 3	P=0.248	P=0.282	P=0.292	P=0.500	P=0.500N	P=0.521N	P=0.500	P=0.292	
POLY 1.5	P=0.248	P=0.287	P=0.292	P=0.500	P=0.500N	P=0.521N	P=0.500	P=0.292	
POLY 6	P=0.248	P=0.275	P=0.292	P=0.500	P=0.500N	P=0.521N	P=0.500	P=0.292	
LOGISTIC REGRESSION	P=0.260	P=0.253	P=0.293	P=0.500	(e)	(e)	P=0.500	P=0.293	
COCH-ARM / FISHERS	P=0.248	P=0.291	P=0.291	P=0.500	P=0.500N	P=0.526N	P=0.500	P=0.291	
=====									
Dose	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	Females 1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG	
=====									
Tooth: Incisor Degeneration									

LESION RATES									
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	5/10 (50%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	
POLY-3 RATE (b)	0/10.00	0/9.76	0/10.00	0/10.00	5/10.00	10/10.00	10/10.00	10/10.00	
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	50.0%	100.0%	100.0%	100.0%	
TERMINAL (d)	0/10 (0%)	0/9 (0%)	0/10 (0%)	0/10 (0%)	5/10 (50%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	
FIRST INCIDENCE	---	---	---	---	93 (T)	93 (T)	93 (T)	93 (T)	

STATISTICAL TESTS									
LIFE TABLE	P<0.001 **	(e)	(e)	(e)	P=0.022 *	P<0.001 **	P<0.001 **	P<0.001 **	
POLY 3	P<0.001 **	(e)	(e)	(e)	P=0.008 **	P<0.001N**	P<0.001 **	P<0.001 **	
POLY 1.5	P<0.001 **	(e)	(e)	(e)	P=0.008 **	P<0.001N**	P<0.001 **	P<0.001 **	
POLY 6	P<0.001 **	(e)	(e)	(e)	P=0.008 **	P<0.001N**	P<0.001 **	P<0.001 **	
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.022 *	P<0.001 **	P<0.001 **	P<0.001 **	
COCH-ARM / FISHERS	P<0.001 **	(e)	(e)	(e)	P=0.016 *	P<0.001 **	P<0.001 **	P<0.001 **	
=====									

Statistical Analysis of Non-neoplastic Lesions in Rats (SPRAGUE-DAWLEY) -
Terminal Sacrifice at 14 weeks

HEXACHLOROBENZENE

Dose	Females							
	0 MG/KG	0.03 MG/KG	0.1 MG/KG	0.3 MG/KG	1.0 MG/KG	3.0 MG/KG	10.0 MG/KG	25.0 MG/KG
=====								
Uterus: Endometrium Hyperplasia Cystic								

LESION RATES								
OVERALL (a)	1/10 (10%)	0/1 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
POLY-3 RATE (b)	1/10.00	0/0.76	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00	2/10.00
POLY-3 PERCENT (g)	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
FIRST INCIDENCE	93 (T)	---	---	---	---	---	---	93 (T)

STATISTICAL TESTS								
LIFE TABLE	P=0.404	P=1.000N	P=1.000	P=1.000	P=1.000N	P=1.000N	P=1.000N	P=0.500
POLY 3	(e)	P=0.922N	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	P=0.918N	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	P=0.928N	(e)	(e)	(e)	(e)	(e)	P=0.500
LOGISTIC REGRESSION	P=0.404	(e)	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.367	P=0.909N	P=1.000	P=1.000	P=1.000	P=1.000	P=1.000	P=0.500
=====								

- (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).