C Number:	C20302		
Lock Date:	12/07/2005		
Cage Range:	1 - 9999		
Date Range:	1-JAN-1940 to 17-SEP-2040		
Reasons For Removal:	ALL		
Removal Date Range:	JAN /1 /1940 - SEP /17 /2040		
Treatment Groups:	Include 1 CONTROL	Include 2 CONTROL	Include 3 25 ppm
	Include 4 25 ppm	Include 5 50 ppm	Include 6 50 ppm
	Include 7 100 ppm	Include 8 100 ppm	Include 9 200 ppm
	Include 10 200 ppm	Include 11 400 ppm	Include 12 400 ppm

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS IN THE ANALYSIS OF ALPHA-PINENE

MALE RATS

Organ	Morphology
Kidney	Accumulation, Hyaline Droplet
	Casts Granular

FEMALE RATS

Organ	Morphology
Lung	Inflammation Chronic

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Males					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Heart **Cardiomyopathy**						
LESION RATES						
OVERALL (a)	6/10 (60%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	8/10 (80%)
POLY-3 RATE (b)	6/10.00	0/0.00	0/0.00	0/0.00	0/0.00	8/10.00
POLY-3 PERCENT (g)	60%	0%	0%	0%	0%	80%
TERMINAL (d)	6/10 (60%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	8/10 (80%)
FIRST INCIDENCE	93 (T)	---	---	---	---	93 (T)
STATISTICAL TESTS						
LIFE TABLE	P=0.238	P=1.000N	P=1.000N	P=1.000N	P=1.000N	P=0.317
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.318
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.318
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.318
LOGISTIC REGRESSION	P=0.238	(e)	(e)	(e)	(e)	P=0.317
COCH-ARM / FISHERS	P=0.232	P=1.000	P=1.000	P=1.000	P=1.000	P=0.314
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Males					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Kidney **Accumulation, Hyaline Droplet**						
LESION RATES						
OVERALL (a)	1/10 (10%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)
POLY-3 RATE (b)	1/10.00	10/10.00	10/10.00	10/10.00	10/10.00	10/10.00
POLY-3 PERCENT (g)	10%	100%	100%	100%	100%	100%
TERMINAL (d)	1/10 (10%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)
FIRST INCIDENCE	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)
STATISTICAL TESTS						
LIFE TABLE	P=0.003**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 3	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 1.5	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 6	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
LOGISTIC REGRESSION	P=0.003**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
COCH-ARM / FISHERS	P=0.003**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
ORDER RESTRICTED	P<0.001**	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Males					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Kidney **Casts Granular**						
LESION RATES						
OVERALL (a)	0/10 (0%)	9/10 (90%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)
POLY-3 RATE (b)	0/10.00	9/10.00	10/10.00	10/10.00	10/10.00	10/10.00
POLY-3 PERCENT (g)	0%	90%	100%	100%	100%	100%
TERMINAL (d)	0/10 (0%)	9/10 (90%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)
FIRST INCIDENCE	---	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)
STATISTICAL TESTS						
LIFE TABLE	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 3	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 1.5	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 6	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
LOGISTIC REGRESSION	(e)	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
COCH-ARM / FISHERS	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**	P<0.001**
ORDER RESTRICTED	P<0.001**	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Males					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Kidney **Nephropathy**						
LESION RATES						
OVERALL (a)	9/10 (90%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)
POLY-3 RATE (b)	9/10.00	10/10.00	10/10.00	10/10.00	10/10.00	10/10.00
POLY-3 PERCENT (g)	90%	100%	100%	100%	100%	100%
TERMINAL (d)	9/10 (90%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)	10/10 (100%)
FIRST INCIDENCE	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)	93 (T)
STATISTICAL TESTS						
LIFE TABLE	P=0.416	P=0.500	P=0.500	P=0.500	P=0.500	P=0.500
POLY 3	P=0.416	P=0.500	P=0.500	P=0.500	P=0.500	P=0.500
POLY 1.5	P=0.416	P=0.500	P=0.500	P=0.500	P=0.500	P=0.500
POLY 6	P=0.416	P=0.500	P=0.500	P=0.500	P=0.500	P=0.500
LOGISTIC REGRESSION	P=0.416	P=0.500	P=0.500	P=0.500	P=0.500	P=0.500
COCH-ARM / FISHERS	P=0.415	P=0.500	P=0.500	P=0.500	P=0.500	P=0.500
ORDER RESTRICTED	P=0.064	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.076	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Males					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Lung **Inflammation Chronic**						
LESION RATES						
OVERALL (a)	2/10 (20%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	5/10 (50%)
POLY-3 RATE (b)	2/10.00	0/0.00	0/0.00	0/0.00	0/0.00	5/10.00
POLY-3 PERCENT (g)	20%	0%	0%	0%	0%	50%
TERMINAL (d)	2/10 (20%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	5/10 (50%)
FIRST INCIDENCE	93 (T)	---	---	---	---	93 (T)
STATISTICAL TESTS						
LIFE TABLE	P=0.127	P=1.000N	P=1.000N	P=1.000N	P=1.000N	P=0.180
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.174
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.174
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.174
LOGISTIC REGRESSION	P=0.127	(e)	(e)	(e)	(e)	P=0.180
COCH-ARM / FISHERS	P=0.121	P=1.000	P=1.000	P=1.000	P=1.000	P=0.175
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Males					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Mesentery: Fat Necrosis						
LESION RATES						
OVERALL (a)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	1/1.00	0/0.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	100%	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	93 (T)	---	---	---	---
STATISTICAL TESTS						
LIFE TABLE	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Females					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Heart **Cardiomyopathy**						
LESION RATES						
OVERALL (a)	3/10 (30%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)	1/10 (10%)
POLY-3 RATE (b)	3/10.00	0/0.00	0/0.00	0/0.00	2/10.00	1/6.17
POLY-3 PERCENT (g)	30%	0%	0%	0%	20%	16.2%
TERMINAL (d)	3/10 (30%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)	0/4 (0%)
FIRST INCIDENCE	93 (T)	---	---	---	93 (T)	50
STATISTICAL TESTS						
LIFE TABLE	P=0.550N	P=1.000	P=1.000	P=1.000	P=0.500N	P=0.621N
POLY 3	(e)	(e)	(e)	(e)	P=0.500N	P=0.489N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.500N	P=0.440N
POLY 6	(e)	(e)	(e)	(e)	P=0.500N	P=0.507N
LOGISTIC REGRESSION	P=0.206N	(e)	(e)	(e)	P=0.500N	P=0.316N
COCH-ARM / FISHERS	P=0.201N	P=1.000	P=1.000	P=1.000	P=0.500N	P=0.291N
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Females					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Kidney **Accumulation, Hyaline Droplet**						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/5.32
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/4 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
LIFE TABLE	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Females					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Kidney **Casts Granular**						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/5.32
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/4 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
LIFE TABLE	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Females					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Kidney **Nephropathy**						
LESION RATES						
OVERALL (a)	1/10 (10%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)	0/10 (0%)
POLY-3 RATE (b)	1/10.00	0/10.00	0/10.00	0/10.00	1/10.00	0/5.32
POLY-3 PERCENT (g)	10%	0%	0%	0%	10%	0%
TERMINAL (d)	1/10 (10%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)	0/4 (0%)
FIRST INCIDENCE	93 (T)	---	---	---	93 (T)	---
STATISTICAL TESTS						
LIFE TABLE	P=0.740	P=0.500N	P=0.500N	P=0.500N	P=0.766	P=0.682N
POLY 3	P=0.603	P=0.500N	P=0.500N	P=0.500N	P=0.760	P=0.614N
POLY 1.5	P=0.629	P=0.500N	P=0.500N	P=0.500N	P=0.760	P=0.587N
POLY 6	P=0.592	P=0.500N	P=0.500N	P=0.500N	P=0.760	P=0.626N
LOGISTIC REGRESSION	P=0.740	(e)	(e)	(e)	P=0.766	(e)
COCH-ARM / FISHERS	P=0.586N	P=0.500N	P=0.500N	P=0.500N	P=0.763N	P=0.500N
ORDER RESTRICTED	P=0.377N	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.470N	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Females					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Lung **Inflammation Chronic**						
LESION RATES						
OVERALL (a)	4/10 (40%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)	5/9 (56%)
POLY-3 RATE (b)	4/10.00	0/0.00	0/0.00	0/0.00	2/10.00	5/6.27
POLY-3 PERCENT (g)	40%	0%	0%	0%	20%	79.7%
TERMINAL (d)	4/10 (40%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)	3/4 (75%)
FIRST INCIDENCE	93 (T)	---	---	---	93 (T)	36
STATISTICAL TESTS						
LIFE TABLE	P=0.042*	P=1.000	P=1.000	P=1.000	P=0.317N	P=0.089
POLY 3	(e)	(e)	(e)	(e)	P=0.318N	P=0.150
POLY 1.5	(e)	(e)	(e)	(e)	P=0.318N	P=0.207
POLY 6	(e)	(e)	(e)	(e)	P=0.318N	P=0.130
LOGISTIC REGRESSION	P=0.358	(e)	(e)	(e)	P=0.317N	P=0.309
COCH-ARM / FISHERS	P=0.339	P=1.000	P=1.000	P=1.000	P=0.314N	P=0.414
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)
TERMINAL SACRIFICE AT 14 WEEKS

	Females					
DOSE	**CONTROL**	**25 ppm**	**50 ppm**	**100 ppm**	**200 ppm**	**400 ppm**
Mesentery: Fat Necrosis						
LESION RATES						
OVERALL (a)	1/1 (100%)	1/1 (100%)	3/3 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	1/1.00	1/1.00	3/3.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	100%	100%	100%	0%	0%	0%
TERMINAL (d)	1/1 (100%)	1/1 (100%)	3/3 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	93 (T)	93 (T)	93 (T)	---	---	---
STATISTICAL TESTS						
LIFE TABLE	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

LEGEND

(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 theP-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.
(e)	Value of Statistic cannot be computed.
(g)	Poly-3 adjusted lifetime tumor incidence.
(I)	Interim sacrifice
(T)	Terminal sacrifice
#	Tumor rates based on numbers 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).
N	Indicates a negative trend for all tests
	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.

*** END OF REPORT ***