ブチルアルデヒドのラットを用いた吸入による
2 週間毒性試験（再試験）報告書

試験番号：0888

TABLES

TABLES

TABLES (CONTINUED)

TABLE A

CONCENTRATIONS OF BUTYRALDEHYDE IN THE INHALATION CHAMBER OF THE 2-WEEK INHALATION STUDY

CONCENTRATIONS OF BUTYRALDEHYDE IN THE INHALATION CHAMBER OF THE 2-WEEK INHALATION STUDY

Group Name	Concentration(ppm) Mean ± S.D.
Control	000.00 ± 0.00
100 ppm	100.89 ± 0.85
300 ppm	302.01 ± 5.08
1000 ppm	997.70 ± 6.32
3000 ppm	3002.06 ± 15.08

TABLE B1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0888 SURVIVAL ANIMAL NUMBERS
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 2
SEX : MALE

Group Name	Animals At start	Administration (Days) 0-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
Control	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
100 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
300 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1000 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3000 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Number of survival/ Number of effective animals
Survival rate(%)

Group Name	Animals At start	Administration (Days) 2-7
Control	5	5/ 5 100.0
100 ppm	5	5/ 5 100.0
300 ppm	5	5/ 5 100.0
1000 ppm	5	5/ 5 100.0
3000 ppm	5	5/ 5 100.0

Number of survival/ Number of effective animals
Survival rate(%)

TABLE B2

SURVIVAL ANIMAL NUMBERS : FEMALE

Group Name	Animals At start	Administration (Days) 0-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
Control	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
100 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
300 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1000 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3000 ppm	5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5	5/ 5
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Number of survival/ Number of effective animals
Survival rate(%)

Group Name	Animals At start	Administration (Days) 2-7
Control	5	5/ 5 100.0
100 ppm	5	5/ 5 100.0
300 ppm	5	5/ 5 100.0
1000 ppm	5	5/ 5 100.0
3000 ppm	5	5/ 5 100.0

Number of survival/ Number of effective animals
Survival rate(%)

TABLE C1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 1-1 1	1-1 2	1-2 1	1-2 2	1-3 1	1-3 2	1-4 1	1-4 2	1-5 1	1-6 1	1-7 1	1-7 2	2-1 1	2-1 2
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	300 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	1	0	1	1	0	0	0	0	0
	3000 ppm	0	3	0	4	0	5	1	5	0	0	0	5	1	2
NON REMARKABLE	Control	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	100 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	300 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	1000 ppm	5	5	5	5	5	4	5	4	4	5	5	5	5	5
	3000 ppm	5	2	5	1	5	0	4	0	5	5	5	0	4	3

Clinical sign	Group Name	Administration Week-day 2-2 1	2-2 2	2-3 1	2-3 2	2-4 1	2-4 2	2-5 1	2-6 1	2-7 1	2-7 2
NOISY	Control	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0
	300 ppm	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	1
	3000 ppm	0	2	0	2	0	3	4	1	0	2
NON REMARKABLE	Control	5	5	5	5	5	5	5	5	5	5
	100 ppm	5	5	5	5	5	5	5	5	5	5
	300 ppm	5	5	5	5	5	5	5	5	5	5
	1000 ppm	5	5	5	5	5	5	5	5	5	4
	3000 ppm	5	3	5	3	5	2	1	4	5	3

TABLE C2

CLINICAL OBSERVATION : FEMALE

Clinical sign	Group Name	Administration Week-day 1-1 1	1-1 2	1-2 1	1-2 2	1-3 1	1-3 2	1-4 1	1-4 2	1-5 1	1-6 1	1-7 1	1-7 2	2-1 1	2-1 2
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	300 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	2	0	2	1	0	0	1	0	0
	3000 ppm	0	5	0	5	0	5	0	5	4	0	0	5	0	2
NON REMARKABLE	Control	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	100 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	300 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	1000 ppm	5	5	5	5	5	3	5	3	4	5	5	4	5	5
	3000 ppm	5	0	5	0	5	0	5	0	1	5	5	0	5	3

Clinical sign	Group Name	Administration Week-day 2-2 1	2-2 2	2-3 1	2-3 2	2-4 1	2-4 2	2-5 1	2-6 1	2-7 1	2-7 2
NOISY	Control	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0
	300 ppm	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	2	0	2	2	3	3	0	0	2
NON REMARKABLE	Control	5	5	5	5	5	5	5	5	5	5
	100 ppm	5	5	5	5	5	5	5	5	5	5
	300 ppm	5	5	5	5	5	5	5	5	5	5
	1000 ppm	5	5	5	5	5	5	5	5	5	5
	3000 ppm	5	3	5	3	3	2	2	5	5	3

TABLE D1

BODY WEIGHT CHANGES AND

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <5>	100 ppm Av.Wt.	100 ppm % of cont. <5>	100 ppm No.of Surviv.	300 ppm Av.Wt.	300 ppm % of cont. <5>	300 ppm No.of Surviv.	1000 ppm Av.Wt.	1000 ppm % of cont. <5>	1000 ppm No.of Surviv.	3000 ppm Av.Wt.	3000 ppm % of cont. <5>	3000 ppm No.of Surviv.
0-0	110 (5)	5/ 5	109 (5)	99	5/ 5	110 (5)	100	5/ 5	109 (5)	99	5/ 5	110 (5)	100	5/ 5
1-1	113 (5)	5/ 5	115 (5)	102	5/ 5	114 (5)	101	5/ 5	114 (5)	101	5/ 5	113 (5)	100	5/ 5
1-2	116 (5)	5/ 5	116 (5)	100	5/ 5	117 (5)	101	5/ 5	116 (5)	100	5/ 5	112 (5)	97	5/ 5
1-5	125 (5)	5/ 5	125 (5)	100	5/ 5	123 (5)	98	5/ 5	124 (5)	99	5/ 5	115 (5)	92	5/ 5
1-7	133 (5)	5/ 5	131 (5)	98	5/ 5	131 (5)	98	5/ 5	132 (5)	99	5/ 5	125 (5)	94	5/ 5
2-3	146 (5)	5/ 5	143 (5)	98	5/ 5	143 (5)	98	5/ 5	144 (5)	99	5/ 5	133 (5)	91	5/ 5
2-5	152 (5)	5/ 5	152 (5)	100	5/ 5	151 (5)	99	5/ 5	154 (5)	101	5/ 5	139 (5)	91	5/ 5
2-7	162 (5)	5/ 5	158 (5)	98	5/ 5	160 (5)	99	5/ 5	163 (5)	101	5/ 5	150 (5)	93	5/ 5

< >:No.of effective animals,( ):No.of measured animals Av.Wt.:g

TABLE D2

BODY WEIGHT CHANGES AND

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0888 MEAN BODY WEIGHTS AND SURVIVAL
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. < 5>	100 ppm Av.Wt.	100 ppm % of cont. < 5>	100 ppm No.of Surviv.	300 ppm Av.Wt.	300 ppm % of cont. < 5>	300 ppm No.of Surviv.	1000 ppm Av.Wt.	1000 ppm % of cont. < 5>	1000 ppm No.of Surviv.	3000 ppm Av.Wt.	3000 ppm % of cont. < 5>	3000 ppm No.of Surviv.
0-0	89 (5)	5/ 5	89 (5)	100	5/ 5	89 (5)	100	5/ 5	89 (5)	100	5/ 5	89 (5)	100	5/ 5
1-1	91 (5)	5/ 5	92 (5)	101	5/ 5	93 (5)	102	5/ 5	91 (5)	100	5/ 5	91 (5)	100	5/ 5
1-2	94 (5)	5/ 5	94 (5)	100	5/ 5	93 (5)	99	5/ 5	92 (5)	98	5/ 5	89 (5)	95	5/ 5
1-5	97 (5)	5/ 5	95 (5)	98	5/ 5	95 (5)	98	5/ 5	93 (5)	96	5/ 5	90 (5)	93	5/ 5
1-7	102 (5)	5/ 5	98 (5)	96	5/ 5	99 (5)	97	5/ 5	96 (5)	94	5/ 5	97 (5)	95	5/ 5
2-3	106 (5)	5/ 5	104 (5)	98	5/ 5	103 (5)	97	5/ 5	99 (5)	93	5/ 5	99 (5)	93	5/ 5
2-5	110 (5)	5/ 5	106 (5)	96	5/ 5	107 (5)	97	5/ 5	103 (5)	94	5/ 5	102 (5)	93	5/ 5
2-7	113 (5)	5/ 5	110 (5)	97	5/ 5	110 (5)	97	5/ 5	108 (5)	96	5/ 5	108 (5)	96	5/ 5

< >:No.of effective animals,( ):No.of measured animals Av.Wt.:g

TABLE D3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 0-0	1-1	1-2	1-5	1-7	2-3	2-5
Control	110± 5	113± 4	116± 4	125± 4	133± 6	146± 7	152± 8
100 ppm	109± 6	115± 5	116± 5	125± 7	131± 7	143± 8	152± 9
300 ppm	110± 5	114± 6	117± 7	123± 8	131± 9	143± 11	151± 10
1000 ppm	109± 5	114± 5	116± 5	124± 8	132± 9	144± 11	154± 10
3000 ppm	110± 6	113± 7	112± 6	115± 8	125± 9	133± 9	139± 10

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 2-7
Control	162± 8
100 ppm	158± 8
300 ppm	160± 11
1000 ppm	163± 12
3000 ppm	150± 11

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

TABLE D4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 0-0	1-1	1-2	1-5	1-7	2-3	2-5
Control	89± 3	91± 3	94± 3	97± 3	102± 3	106± 3	110± 4
100 ppm	89± 3	92± 2	94± 2	95± 3	98± 2	104± 2	106± 3
300 ppm	89± 3	93± 2	93± 3	95± 3	99± 3	103± 2	107± 4
1000 ppm	89± 3	91± 3	92± 3	93± 3	96± 4	99± 3**	103± 3*
3000 ppm	89± 3	91± 3	89± 3	90± 4**	97± 2	99± 3**	102± 4**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

Group Name	Administration week-day 2-7
Control	113± 4
100 ppm	110± 3
300 ppm	110± 3
1000 ppm	108± 2
3000 ppm	108± 4

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

TABLE E1

FOOD CONSUMPTION CHANGES AND

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <5>	100 ppm Av.FC.	100 ppm % of cont. <5>	100 ppm No.of Surviv.	300 ppm Av.FC.	300 ppm % of cont. <5>	300 ppm No.of Surviv.	1000 ppm Av.FC.	1000 ppm % of cont. <5>	1000 ppm No.of Surviv.	3000 ppm Av.FC.	3000 ppm % of cont. <5>	3000 ppm No.of Surviv.
1-7	15.7 (5)	5/ 5	16.5 (5)	105	5/ 5	16.5 (5)	105	5/ 5	16.4 (5)	104	5/ 5	13.0 (5)	83	5/ 5
2-7	16.4 (5)	5/ 5	17.7 (5)	108	5/ 5	16.7 (5)	102	5/ 5	17.4 (5)	106	5/ 5	14.0 (5)	85	5/ 5

< >:No.of effective animals,( ):No.of measured animals Av.FC.: g

TABLE E2

FOOD CONSUMPTION CHANGES AND

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <5>	100 ppm Av.FC.	100 ppm % of cont. <5>	100 ppm No.of Surviv.	300 ppm Av.FC.	300 ppm % of cont. <5>	300 ppm No.of Surviv.	1000 ppm Av.FC.	1000 ppm % of cont. <5>	1000 ppm No.of Surviv.	3000 ppm Av.FC.	3000 ppm % of cont. <5>	3000 ppm No.of Surviv.
1-7	12.6 (5)	5/ 5	13.2 (5)	105	5/ 5	13.1 (5)	104	5/ 5	12.1 (5)	96	5/ 5	11.0 (5)	87	5/ 5
2-7	12.3 (5)	5/ 5	11.9 (5)	97	5/ 5	12.1 (5)	98	5/ 5	11.5 (5)	93	5/ 5	11.3 (5)	92	5/ 5

< >:No.of effective animals,( ):No.of measured animals Av.FC.: g

TABLE E3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration 1-7(6)	week-day(effective) 2-7(7)
Control	15.7± 0.7	16.4± 1.6
100 ppm	16.5± 1.2	17.7± 1.3
300 ppm	16.5± 1.3	16.7± 0.9
1000 ppm	16.4± 1.8	17.4± 1.3
3000 ppm	13.0± 1.1*	14.0± 1.1*

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

TABLE E4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration 1-7(6)	week-day(effective) 2-7(7)
Control	12.6± 0.9	12.3± 0.5
100 ppm	13.2± 1.1	11.9± 0.4
300 ppm	13.1± 1.4	12.1± 0.4
1000 ppm	12.1± 0.9	11.5± 0.6
3000 ppm	11.0± 1.3	11.3± 1.2

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

TABLE F1

HEMATOLOGY : MALE

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (3W)

Group Name	NO. of Animals	RED BLOOD CELL 10^6／μℓ	HEMOGLOBIN g／dℓ	HEMATOCRIT %	MCV fℓ	MCH pg	MCHC g／dℓ	PLATELET 10^3／μℓ
Control	5	8.41± 0.37	15.2± 0.6	46.7± 1.9	55.5± 0.5	18.1± 0.2	32.6± 0.5	958± 27
100 ppm	5	8.46± 0.19	15.3± 0.3	46.9± 1.2	55.4± 0.4	18.1± 0.2	32.6± 0.5	916± 60
300 ppm	5	8.47± 0.34	15.2± 0.5	46.4± 1.6	54.9± 0.5	17.9± 0.3	32.7± 0.3	928± 52
1000 ppm	5	8.43± 0.25	15.3± 0.4	46.7± 1.0	55.4± 0.6	18.1± 0.2	32.7± 0.4	972± 91
3000 ppm	5	8.46± 0.27	15.0± 0.3	46.1± 1.2	54.5± 0.6*	17.7± 0.3	32.5± 0.3	794± 51**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

Group Name	NO. of Animals	RETICULOCYTE %
Control	5	3.6± 0.5
100 ppm	5	3.5± 0.2
300 ppm	5	3.4± 0.3
1000 ppm	5	3.6± 0.5
3000 ppm	5	3.2± 0.3

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

Group Name	NO. of Animals	WBC $10^3/\mu\ell$	Differential WBC (%) NEUTRO	LYMPHO	MONO	EOSINO	BASO	OTHER
Control	5	3.64± 0.81	22± 4	75± 4	2± 1	1± 0	0± 0	0± 1
100 ppm	5	3.27± 1.08	28± 3	68± 3	2± 0	1± 0	0± 0	1± 1
300 ppm	5	3.48± 1.14	25± 5	72± 5	2± 0	1± 0	0± 0	1± 1
1000 ppm	5	3.24± 0.63	23± 6	73± 7	3± 1	1± 0	0± 0	1± 1
3000 ppm	5	3.61± 0.89	23± 2	73± 2	2± 1	1± 0	0± 0	1± 0

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

TABLE F2

HEMATOLOGY : FEMALE

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (3W)

Group Name	NO. of Animals	RED BLOOD CELL 10^6／μℓ	HEMOGLOBIN g／dℓ	HEMATOCRIT %	MCV f ℓ	MCH p g	MCHC g／dℓ	PLATELET 10^3／μℓ
Control	5	8.76± 0.13	16.0± 0.3	48.0± 0.6	54.8± 0.2	18.3± 0.2	33.4± 0.3	824± 78
100 ppm	4	8.60± 0.21	15.8± 0.5	47.1± 1.0	54.8± 0.4	18.4± 0.1	33.6± 0.4	867± 64
300 ppm	5	8.78± 0.50	16.0± 0.9	47.8± 2.5	54.5± 0.4	18.3± 0.2	33.5± 0.3	805± 64
1000 ppm	5	8.80± 0.15	16.0± 0.3	47.8± 1.2	54.3± 0.5	18.2± 0.2	33.5± 0.5	814± 30
3000 ppm	5	8.86± 0.25	16.0± 0.4	47.9± 1.1	54.1± 0.3*	18.1± 0.2	33.5± 0.4	770± 58

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

Group Name	NO. of Animals	RETICULOCYTE %
Control	5	1.7± 0.2
100 ppm	4	1.6± 0.2
300 ppm	5	1.5± 0.2
1000 ppm	5	1.6± 0.1
3000 ppm	5	1.7± 0.2

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

Group Name	NO. of Animals	WBC $10^3/\mu\ell$		Differential WBC (%) NEUTRO		LYMPHO		MONO		EOSINO		BASO		OTHER	
Control	5	2.97±	0.96	17±	3	79±	3	2±	1	1±	0	0±	0	1±	1
100 ppm	4	2.63±	0.96	21±	5	75±	5	3±	1	1±	0	0±	0	1±	1
300 ppm	5	3.02±	0.42	20±	2	76±	3	2±	0	1±	0	0±	0	1±	0
1000 ppm	5	2.79±	0.63	19±	3	76±	3	3±	1	1±	0	0±	0	1±	0
3000 ppm	5	2.96±	0.75	18±	5	77±	5	3±	1	1±	0	0±	0	1±	0

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

TABLE G1

BIOCHEMISTRY : MALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (3W)

Group Name	NO. of Animals	TOTAL PROTEIN g／dℓ	ALBUMIN g／dℓ	A/G RATIO	T-BILIRUBIN mg／dℓ	GLUCOSE mg／dℓ	T-CHOLESTEROL mg／dℓ	TRIGLYCERIDE mg／dℓ
Control	5	5.7± 0.1	3.4± 0.0	1.5± 0.0	0.03± 0.01	150± 10	69± 4	62± 19
100 ppm	5	5.8± 0.1	3.5± 0.1	1.5± 0.0	0.04± 0.01	151± 8	66± 4	61± 9
300 ppm	5	5.8± 0.1	3.5± 0.0	1.5± 0.0	0.04± 0.01	142± 17	72± 3	57± 16
1000 ppm	5	5.7± 0.2	3.4± 0.1	1.5± 0.0	0.04± 0.01	143± 16	73± 4	63± 11
3000 ppm	5	5.6± 0.2	3.4± 0.1	1.5± 0.0	0.04± 0.01	139± 9	70± 4	50± 7

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (3W)

Group Name	NO. of Animals	PHOSPHOLIPID mg／dℓ		AST U／L		ALT U／L		LDH U／L		ALP U／L		G-GTP U／L		CK U／L	
Control	5	118±	6	67±	3	36±	3	111±	28	1151±	51	0.7±	0.5	229±	29
100 ppm	5	116±	6	64±	3	32±	2	100±	32	1115±	58	0.2±	0.1	221±	23
300 ppm	5	121±	4	64±	4	34±	3	82±	34	1171±	64	0.5±	0.4	212±	30
1000 ppm	5	125±	3*	64±	2	35±	1	78±	26	1165±	54	1.1±	0.5	214±	21
3000 ppm	5	124±	4	66±	1	32±	3	79±	37	1099±	48	0.5±	0.3	201±	26

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

Group Name	NO. of Animals	UREA NITROGEN mg／dℓ	CREATININE mg／dℓ	SODIUM mEq／ℓ	POTASSIUM mEq／ℓ	CHLORIDE mEq／ℓ	CALCIUM mg／dℓ	INORGANIC PHOSPHORUS mg／dℓ
Control	5	19.7± 1.6	0.25± 0.01	144± 2	3.7± 0.3	103± 1	10.2± 0.2	8.0± 0.9
100 ppm	5	18.8± 1.1	0.26± 0.01	145± 1	3.8± 0.4	102± 2	10.5± 0.0	7.8± 0.7
300 ppm	5	18.3± 1.8	0.26± 0.02	145± 1	3.7± 0.2	103± 1	10.3± 0.2	7.9± 0.6
1000 ppm	5	19.1± 2.1	0.25± 0.01	144± 1	3.8± 0.4	102± 1	10.4± 0.2	8.4± 0.8
3000 ppm	5	17.7± 0.8	0.26± 0.01	144± 1	3.8± 0.4	102± 1	10.3± 0.2	8.1± 0.6

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

TABLE G2

BIOCHEMISTRY : FEMALE

Group Name	NO. of Animals	TOTAL PROTEIN g／dℓ	ALBUMIN g／dℓ	A/G RATIO	T-BILIRUBIN mg／dℓ	GLUCOSE mg／dℓ	T-CHOLESTEROL mg／dℓ	TRIGLYCERIDE mg／dℓ
Control	5	5.6± 0.2	3.4± 0.1	1.6± 0.1	0.03± 0.01	123± 9	85± 7	24± 8
100 ppm	5	5.7± 0.2	3.4± 0.1	1.5± 0.1	0.03± 0.01	120± 9	77± 4	27± 9
300 ppm	5	5.7± 0.1	3.4± 0.1	1.5± 0.1	0.03± 0.01	133± 13	81± 5	30± 14
1000 ppm	5	5.8± 0.1	3.5± 0.1	1.6± 0.1	0.04± 0.00	122± 15	76± 3	22± 3
3000 ppm	5	5.6± 0.1	3.4± 0.1	1.5± 0.1	0.04± 0.01	127± 8	77± 6	20± 12

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (3W)

Group Name	NO. of Animals	PHOSPHOLIPID mg／dℓ	AST U／L	ALT U／L	LDH U／L	ALP U／L	G-GTP U／L	CK U／L
Control	5	148± 9	71± 4	33± 2	108± 28	936± 48	0.7± 0.3	214± 32
100 ppm	5	138± 4	68± 3	30± 1	106± 38	938± 36	0.6± 0.5	190± 31
300 ppm	5	141± 6	69± 4	30± 3	107± 46	926± 37	0.8± 0.2	182± 36
1000 ppm	5	136± 4	69± 1	30± 2	95± 21	965± 55	0.6± 0.3	182± 27
3000 ppm	5	140± 12	70± 6	28± 3**	112± 37	926± 63	0.8± 0.5	206± 25

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

Group Name	NO. of Animals	UREA NITROGEN mg／dℓ	CREATININE mg／dℓ	SODIUM mEq／ℓ	POTASSIUM mEq／ℓ	CHLORIDE mEq／ℓ	CALCIUM mg／dℓ	INORGANIC PHOSPHORUS mg／dℓ
Control	5	19.0± 1.2	0.26± 0.01	145± 1	3.6± 0.3	104± 1	9.9± 0.4	7.4± 0.9
100 ppm	5	20.1± 1.9	0.26± 0.04	145± 1	3.5± 0.3	105± 0	10.0± 0.3	7.8± 0.3
300 ppm	5	20.0± 1.3	0.28± 0.02	145± 2	3.4± 0.2	104± 1	10.1± 0.2	7.4± 0.8
1000 ppm	5	20.3± 1.7	0.27± 0.01	145± 1	3.4± 0.2	104± 1	10.0± 0.1	7.5± 0.8
3000 ppm	5	19.5± 1.6	0.26± 0.01	144± 1	3.7± 0.4	105± 1	9.9± 0.2	7.6± 0.9

Significant difference : ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

TABLE H

GROSS FINDINGS

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (O- 3W)

Organ	Findings	Group Name / NO. of Animals	Control 5	(%)	100 ppm 5	(%)	300 ppm 5	(%)	1000 ppm 5	(%)
liver	herniation		1	(20)	1	(20)	0	(0)	1	(20)

Organ	Findings	Group Name	3000 ppm
		NO. of Animals	5 (%)
liver	herniation		0 (0)

TABLE I1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	143± 7	0.254± 0.014	0.043± 0.004	2.287± 0.054	0.608± 0.030	0.655± 0.036
100 ppm	5	141± 7	0.246± 0.024	0.046± 0.004	2.272± 0.120	0.609± 0.017	0.670± 0.059
300 ppm	5	142± 10	0.267± 0.015	0.043± 0.003	2.285± 0.134	0.605± 0.046	0.667± 0.046
1000 ppm	5	143± 10	0.247± 0.027	0.043± 0.002	2.294± 0.187	0.600± 0.077	0.655± 0.050
3000 ppm	5	131± 9	0.229± 0.045	0.045± 0.007	2.175± 0.241	0.573± 0.031	0.641± 0.028

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	1.151± 0.046	0.364± 0.025	4.340± 0.303	1.716± 0.040
100 ppm	5	1.118± 0.068	0.356± 0.025	4.326± 0.159	1.722± 0.038
300 ppm	5	1.121± 0.059	0.363± 0.030	4.273± 0.330	1.718± 0.046
1000 ppm	5	1.134± 0.069	0.366± 0.033	4.340± 0.378	1.702± 0.053
3000 ppm	5	1.045± 0.054	0.316± 0.032	3.868± 0.322	1.660± 0.035

Significant difference ; ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

TABLE I2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	101± 4	0.222± 0.008	0.044± 0.007	0.075± 0.014	0.451± 0.014	0.530± 0.018
100 ppm	5	97± 3	0.222± 0.011	0.046± 0.002	0.072± 0.006	0.448± 0.030	0.501± 0.016
300 ppm	5	98± 4	0.216± 0.016	0.048± 0.004	0.078± 0.021	0.456± 0.031	0.508± 0.020
1000 ppm	5	96± 2	0.221± 0.009	0.047± 0.005	0.073± 0.006	0.479± 0.048	0.507± 0.021
3000 ppm	5	95± 2*	0.205± 0.014	0.048± 0.005	0.072± 0.008	0.458± 0.019	0.511± 0.020

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	0.908± 0.044	0.269± 0.020	3.088± 0.114	1.592± 0.020
100 ppm	5	0.900± 0.034	0.252± 0.016	3.001± 0.100	1.590± 0.042
300 ppm	5	0.870± 0.039	0.256± 0.019	3.033± 0.217	1.607± 0.016
1000 ppm	5	0.888± 0.031	0.250± 0.010	2.905± 0.040	1.574± 0.004
3000 ppm	5	0.917± 0.022	0.227± 0.024**	2.880± 0.149	1.591± 0.042

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

TABLE J1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	143± 7	0.177± 0.007	0.030± 0.003	1.602± 0.076	0.426± 0.020	0.459± 0.014
100 ppm	5	141± 7	0.174± 0.015	0.033± 0.003	1.610± 0.074	0.432± 0.016	0.476± 0.046
300 ppm	5	142± 10	0.189± 0.009	0.030± 0.003	1.615± 0.107	0.426± 0.006	0.471± 0.013
1000 ppm	5	143± 10	0.172± 0.011	0.030± 0.004	1.602± 0.062	0.417± 0.027	0.457± 0.014
3000 ppm	5	131± 9	0.174± 0.025	0.034± 0.003	1.658± 0.118	0.438± 0.019	0.490± 0.016

Significant difference ; ＊ : P ≦ 0.05 ＊＊ : P ≦ 0.01 Test of Dunnett

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	0.805± 0.029	0.255± 0.010	3.033± 0.062	1.202± 0.066
100 ppm	5	0.792± 0.025	0.252± 0.011	3.066± 0.075	1.222± 0.072
300 ppm	5	0.792± 0.019	0.256± 0.005	3.013± 0.072	1.216± 0.082
1000 ppm	5	0.792± 0.013	0.255± 0.007	3.028± 0.078	1.191± 0.054
3000 ppm	5	0.799± 0.016	0.241± 0.014	2.951± 0.066	1.270± 0.064

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

TABLE J2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	101± 4	0.219± 0.005	0.044± 0.005	0.074± 0.013	0.445± 0.016	0.523± 0.019
100 ppm	5	97± 3	0.229± 0.007	0.048± 0.001	0.074± 0.005	0.461± 0.020	0.517± 0.013
300 ppm	5	98± 4	0.220± 0.017	0.049± 0.004	0.080± 0.020	0.465± 0.032	0.517± 0.006
1000 ppm	5	96± 2	0.230± 0.013	0.049± 0.006	0.076± 0.007	0.499± 0.044	0.528± 0.015
3000 ppm	5	95± 2*	0.217± 0.016	0.050± 0.006	0.076± 0.009	0.484± 0.011	0.541± 0.026

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : O888
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	0.895± 0.027	0.265± 0.014	3.047± 0.095	1.572± 0.061
100 ppm	5	0.929± 0.049	0.260± 0.013	3.095± 0.074	1.640± 0.064
300 ppm	5	0.886± 0.035	0.261± 0.016	3.087± 0.136	1.638± 0.058
1000 ppm	5	0.925± 0.020	0.260± 0.012	3.027± 0.060	1.640± 0.040
3000 ppm	5	0.970± 0.036**	0.241± 0.029	3.044± 0.150	1.683± 0.068

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

TABLE K1

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : MALE

Organ	Findings	Group Name / Grade	Control 1+ (%)	Control 2+ (%)	Control 3+ (%)	Control 4+ (%)	100 ppm 1+ (%)	100 ppm 2+ (%)	100 ppm 3+ (%)	100 ppm 4+ (%)	300 ppm 1+ (%)	300 ppm 2+ (%)	300 ppm 3+ (%)	300 ppm 4+ (%)	1000 ppm 1+ (%)	1000 ppm 2+ (%)	1000 ppm 3+ (%)	1000 ppm 4+ (%)
{Respiratory system}																		
nasal cavit		No. of Animals on Study	5				5				5				5			
	inflammatory infiltration	< 5>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	goblet cell hyperplasia	< 5>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	< 5>	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	
	atrophy:olfactory epithelium	< 5>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	exudate:neutrophil leukocyte,respiratory region	< 5>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung		< 5>																
	accumulation of foamy cells	< 5>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney		< 5>																
	eosinophilic droplet:proximal tubule	< 5>	5	0	0	0	5	0	0	0	5	0	0	0	5	0	0	0
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square

Organ	Findings	Group Name	3000 ppm			
		No. of Animals on Study	5			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)
{Respiratory system}						
nasal cavit			< 5>			
	inflammatory infiltration		5 (100)	0 (0)	0 (0)	0 * (0)
	goblet cell hyperplasia		2 (40)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium		0 (0)	5 (100)	0 (0)	0 * (0)
	atrophy:olfactory epithelium		5 (100)	0 (0)	0 (0)	0 * (0)
	exudate:neutrophil leukocyte,respiratory region		5 (100)	0 (0)	0 (0)	0 * (0)
lung			< 5>			
	accumulation of foamy cells		1 (20)	0 (0)	0 (0)	0 (0)
{Urinary system}						
kidney			< 5>			
	eosinophilic droplet:proximal tubule		5 (100)	0 (0)	0 (0)	0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square

TABLE K2

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : FEMALE

Organ	Findings	Group Name	Control				100 ppm				300 ppm				1000 ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
{Respiratory system}																		
nasal cavit			< 5>				< 5>				< 5>				< 5>			
	inflammatory infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	goblet cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	atrophy:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	exudate:neutrophil leukocyte,respiratory region		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Digestive system}																		
liver			< 5>				< 5>				< 5>				< 5>			
	herniation		1 (20)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square

Organ	Findings	Group Name	3000 ppm
		No. of Animals on Study	5
		Grade	1+ (%) / 2+ (%) / 3+ (%) / 4+ (%)
{Respiratory system}			
nasal cavit			< 5>
	inflammatory infiltration		5 (100) / 0 (0) / 0 (0) / 0 (0) *
	goblet cell hyperplasia		1 (20) / 0 (0) / 0 (0) / 0 (0)
	squamous cell metaplasia:respiratory epithelium		0 (0) / 5 (100) / 0 (0) / 0 (0) *
	atrophy:olfactory epithelium		5 (100) / 0 (0) / 0 (0) / 0 (0) *
	exudate:neutrophil leukocyte,respiratory region		4 (80) / 0 (0) / 0 (0) / 0 (0)
{Digestive system}			
liver			< 5>
	herniation		0 (0) / 0 (0) / 0 (0) / 0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
< a > a : Number of animals examined at the site
  b   b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square