4-クロロ-2-ニトロアニリンのラットを用いた
経口投与による 13 週間毒性試験（混餌試験）報告書

試験番号：0745

TABLES

TABLES

TABLES (CONTINUED)

TABLE A 1

SURVIVAL ANIMAL NUMBERS: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 13
SEX : MALE

SURVIVAL ANIMAL NUMBERS

Group Name	Animals At start	Administration (Weeks) 0	1	2	3	4	5	6	7	8	9	10	11	12	13
Control	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
640 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
1600 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
4000 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
7000 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
10000 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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(%)

TABLE A 2

SURVIVAL ANIMAL NUMBERS: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 13
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

Group Name	Animals At start	Administration (Weeks) 0	1	2	3	4	5	6	7	8	9	10	11	12	13
Control	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
640 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
1600 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
4000 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
7000 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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
10000 ppm	10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
		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(%)

TABLE B 1

CLINICAL OBSERVATION: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	0	8	9	10	10	10	10	10	10	10
	1600 ppm	0	4	4	4	10	10	10	10	10	10	10	10	10
	4000 ppm	0	7	8	8	9	10	10	10	10	10	10	10	10
	7000 ppm	0	10	10	10	10	10	10	10	10	10	10	10	10
	10000 ppm	0	10	10	10	10	10	10	10	10	10	10	10	10
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	1600 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	4000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	7000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	10000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1600 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	7000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1600 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	7000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	640 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1600 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	7000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE B 2

CLINICAL OBSERVATION: FEMALE

Clinical sign	Group Name	Administration Week-day 1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	3	3	3	4	4	5	5	5	5	5
	1600 ppm	7	5	5	5	5	5	6	6	7	7	7	9	10
	4000 ppm	5	3	4	6	8	8	10	10	10	10	10	10	10
	7000 ppm	4	9	9	9	10	10	10	10	10	10	10	10	10
	10000 ppm	4	8	10	10	10	10	10	10	10	10	10	10	10
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	1600 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	4000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	7000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	10000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1600 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	7000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1600 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	7000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	10	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	640 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1600 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	7000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE C 1

BODY WEIGHT CHANGES AND

SURVIVAL ANIMAL NUMBERS: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control Av. Wt.	Control No. of Surviv. <10>	640 ppm Av. Wt.	640 ppm % of cont. <10>	640 ppm No. of Surviv.	1600 ppm Av. Wt.	1600 ppm % of cont. <10>	1600 ppm No. of Surviv.	4000 ppm Av. Wt.	4000 ppm % of cont. <10>	4000 ppm No. of Surviv.	7000 ppm Av. Wt.	7000 ppm % of cont. <10>	7000 ppm No. of Surviv.	10000 ppm Av. Wt.	10000 ppm % of cont. <10>	10000 ppm No. of Surviv.
0-0	118 (10)	10/10	118 (10)	100	10/10	118 (10)	100	10/10	118 (10)	100	10/10	118 (10)	100	10/10	118 (10)	100	10/10
1-7	148 (10)	10/10	148 (10)	100	10/10	148 (10)	100	10/10	145 (10)	98	10/10	142 (10)	96	10/10	133 (10)	90	10/10
2-7	182 (10)	10/10	181 (10)	99	10/10	181 (10)	99	10/10	174 (10)	96	10/10	173 (10)	95	10/10	161 (10)	88	10/10
3-7	209 (10)	10/10	210 (10)	100	10/10	207 (10)	99	10/10	204 (10)	98	10/10	197 (10)	94	10/10	186 (10)	89	10/10
4-7	232 (10)	10/10	233 (10)	100	10/10	228 (10)	98	10/10	225 (10)	97	10/10	216 (10)	93	10/10	204 (10)	88	10/10
5-7	249 (10)	10/10	250 (10)	100	10/10	246 (10)	99	10/10	244 (10)	98	10/10	232 (10)	93	10/10	221 (10)	89	10/10
6-7	264 (10)	10/10	263 (10)	100	10/10	260 (10)	98	10/10	258 (10)	98	10/10	243 (10)	92	10/10	232 (10)	88	10/10
7-7	279 (10)	10/10	276 (10)	99	10/10	276 (10)	99	10/10	270 (10)	97	10/10	254 (10)	91	10/10	242 (10)	87	10/10
8-7	291 (10)	10/10	288 (10)	99	10/10	288 (10)	99	10/10	282 (10)	97	10/10	264 (10)	91	10/10	250 (10)	86	10/10
9-7	301 (10)	10/10	298 (10)	99	10/10	299 (10)	99	10/10	293 (10)	97	10/10	274 (10)	91	10/10	258 (10)	86	10/10
10-7	309 (10)	10/10	307 (10)	99	10/10	308 (10)	100	10/10	301 (10)	97	10/10	281 (10)	91	10/10	267 (10)	86	10/10
11-7	316 (10)	10/10	314 (10)	99	10/10	316 (10)	100	10/10	308 (10)	97	10/10	287 (10)	91	10/10	270 (10)	85	10/10
12-7	324 (10)	10/10	320 (10)	99	10/10	324 (10)	100	10/10	316 (10)	98	10/10	292 (10)	90	10/10	276 (10)	85	10/10
13-7	328 (10)	10/10	325 (10)	99	10/10	329 (10)	100	10/10	320 (10)	98	10/10	297 (10)	91	10/10	279 (10)	85	10/10

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

TABLE C 2

BODY WEIGHT CHANGES AND

SURVIVAL ANIMAL NUMBERS: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control Av. Wt.	Control No. of Surviv. <10>	640 ppm Av. Wt.	640 ppm % of cont. <10>	640 ppm No. of Surviv.	1600 ppm Av. Wt.	1600 ppm % of cont. <10>	1600 ppm No. of Surviv.	4000 ppm Av. Wt.	4000 ppm % of cont. <10>	4000 ppm No. of Surviv.	7000 ppm Av. Wt.	7000 ppm % of cont. <10>	7000 ppm No. of Surviv.	10000 ppm Av. Wt.	10000 ppm % of cont. <10>	10000 ppm No. of Surviv.
0-0	96 (10)	10/10	96 (10)	100	10/10	96 (10)	100	10/10	96 (10)	100	10/10	96 (10)	100	10/10	96 (10)	100	10/10
1-7	113 (10)	10/10	112 (10)	99	10/10	113 (10)	100	10/10	108 (10)	96	10/10	105 (10)	93	10/10	102 (10)	90	10/10
2-7	127 (10)	10/10	125 (10)	98	10/10	124 (10)	98	10/10	121 (10)	95	10/10	119 (10)	94	10/10	116 (10)	91	10/10
3-7	137 (10)	10/10	138 (10)	101	10/10	137 (10)	100	10/10	131 (10)	96	10/10	128 (10)	93	10/10	125 (10)	91	10/10
4-7	145 (10)	10/10	146 (10)	101	10/10	144 (10)	99	10/10	137 (10)	94	10/10	135 (10)	93	10/10	131 (10)	90	10/10
5-7	154 (10)	10/10	155 (10)	101	10/10	151 (10)	98	10/10	142 (10)	92	10/10	141 (10)	92	10/10	136 (10)	88	10/10
6-7	159 (10)	10/10	161 (10)	101	10/10	157 (10)	99	10/10	149 (10)	94	10/10	146 (10)	92	10/10	141 (10)	89	10/10
7-7	168 (10)	10/10	168 (10)	100	10/10	161 (10)	96	10/10	154 (10)	92	10/10	151 (10)	90	10/10	146 (10)	87	10/10
8-7	172 (10)	10/10	170 (10)	99	10/10	165 (10)	96	10/10	158 (10)	92	10/10	154 (10)	90	10/10	149 (10)	87	10/10
9-7	177 (10)	10/10	175 (10)	99	10/10	169 (10)	95	10/10	161 (10)	91	10/10	158 (10)	89	10/10	152 (10)	86	10/10
10-7	180 (10)	10/10	178 (10)	99	10/10	173 (10)	96	10/10	165 (10)	92	10/10	160 (10)	89	10/10	155 (10)	86	10/10
11-7	184 (10)	10/10	182 (10)	99	10/10	177 (10)	96	10/10	167 (10)	91	10/10	162 (10)	88	10/10	158 (10)	86	10/10
12-7	186 (10)	10/10	184 (10)	99	10/10	178 (10)	96	10/10	168 (10)	90	10/10	165 (10)	89	10/10	160 (10)	86	10/10
13-7	188 (10)	10/10	186 (10)	99	10/10	180 (10)	96	10/10	171 (10)	91	10/10	166 (10)	88	10/10	163 (10)	87	10/10

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

TABLE C 3

BODY WEIGHT CHANGES: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 0-0	1-7	2-7	3-7	4-7	5-7	6-7
Control	118± 3	148± 3	182± 5	209± 4	232± 4	249± 5	264± 6
640 ppm	118± 4	148± 7	181± 7	210± 7	233± 8	250± 9	263± 11
1600 ppm	118± 3	148± 5	181± 6	207± 8	228± 9	246± 9	260± 12
4000 ppm	118± 4	145± 7	174± 11	204± 10	225± 12	244± 12	258± 13
7000 ppm	118± 4	142± 5*	173± 6*	197± 6**	216± 6**	232± 8**	243± 8**
10000 ppm	118± 4	133± 5**	161± 7**	186± 8**	204± 10**	221± 10**	232± 10**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 7-7	8-7	9-7	10-7	11-7	12-7	13-7
Control	279± 7	291± 8	301± 8	309± 9	316± 8	324± 9	328± 8
640 ppm	276± 11	288± 14	298± 13	307± 13	314± 13	320± 11	325± 11
1600 ppm	276± 11	288± 11	299± 12	308± 12	316± 12	324± 13	329± 14
4000 ppm	270± 16	282± 17	293± 19	301± 20	308± 21	316± 22	320± 22
7000 ppm	254± 8**	264± 8**	274± 9**	281± 9**	287± 7**	292± 8**	297± 8**
10000 ppm	242± 11**	250± 11**	258± 12**	267± 11**	270± 11**	276± 12**	279± 10**

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

TABLE C 4

BODY WEIGHT CHANGES: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 0-0	1-7	2-7	3-7	4-7	5-7	6-7
Control	96± 2	113± 3	127± 2	137± 4	145± 5	154± 7	159± 7
640 ppm	96± 2	112± 4	125± 5	138± 6	146± 8	155± 8	161± 9
1600 ppm	96± 2	113± 4	124± 5	137± 4	144± 5	151± 6	157± 7
4000 ppm	96± 2	108± 3*	121± 3**	131± 4**	137± 3**	142± 4**	149± 3**
7000 ppm	96± 2	105± 3**	119± 4**	128± 4**	135± 4**	141± 3**	146± 4**
10000 ppm	96± 2	102± 3**	116± 3**	125± 3**	131± 3**	136± 4**	141± 4**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 7-7	8-7	9-7	10-7	11-7	12-7	13-7
Control	168± 8	172± 8	177± 10	180± 10	184± 9	186± 10	188± 9
640 ppm	168± 10	170± 10	175± 10	178± 10	182± 11	184± 11	186± 10
1600 ppm	161± 8	165± 8	169± 9	173± 10	177± 10	178± 11	180± 11
4000 ppm	154± 5**	158± 6**	161± 6**	165± 7**	167± 8**	168± 7**	171± 8**
7000 ppm	151± 3**	154± 4**	158± 5**	160± 5**	162± 5**	165± 4**	166± 6**
10000 ppm	146± 5**	149± 4**	152± 4**	155± 5**	158± 5**	160± 5**	163± 6**

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

TABLE D 1

FOOD CONSUMPTION CHANGES AND

SURVIVAL ANIMAL NUMBERS: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control Av. FC.	Control No. of Surviv. <10>	640 ppm Av. FC.	640 ppm % of cont. <10>	640 ppm No. of Surviv.	1600 ppm Av. FC.	1600 ppm % of cont. <10>	1600 ppm No. of Surviv.	4000 ppm Av. FC.	4000 ppm % of cont. <10>	4000 ppm No. of Surviv.	7000 ppm Av. FC.	7000 ppm % of cont. <10>	7000 ppm No. of Surviv.	10000 ppm Av. FC.	10000 ppm % of cont. <10>	10000 ppm No. of Surviv.
1-7	13.2 (10)	10/10	13.0 (10)	98	10/10	13.0 (10)	98	10/10	12.2 (10)	92	10/10	11.1 (10)	84	10/10	9.4 (10)	71	10/10
2-7	14.4 (10)	10/10	14.4 (10)	100	10/10	14.5 (10)	101	10/10	13.6 (10)	94	10/10	13.2 (10)	92	10/10	12.6 (10)	88	10/10
3-7	15.0 (10)	10/10	15.3 (10)	102	10/10	14.8 (10)	99	10/10	14.7 (10)	98	10/10	13.7 (10)	91	10/10	13.2 (10)	88	10/10
4-7	15.2 (10)	10/10	15.4 (10)	101	10/10	15.0 (10)	99	10/10	14.9 (10)	98	10/10	13.6 (10)	89	10/10	13.1 (10)	86	10/10
5-7	15.2 (10)	10/10	15.2 (10)	100	10/10	14.9 (10)	98	10/10	14.9 (10)	98	10/10	13.6 (10)	89	10/10	13.4 (10)	88	10/10
6-7	15.1 (10)	10/10	15.0 (10)	99	10/10	14.6 (10)	97	10/10	14.6 (10)	97	10/10	13.4 (10)	89	10/10	13.0 (10)	86	10/10
7-7	15.5 (10)	10/10	15.5 (10)	100	10/10	15.1 (10)	97	10/10	14.9 (10)	96	10/10	13.5 (10)	87	10/10	13.1 (10)	85	10/10
8-7	15.4 (10)	10/10	15.4 (10)	100	10/10	15.0 (10)	97	10/10	14.7 (10)	95	10/10	13.2 (10)	86	10/10	12.7 (10)	82	10/10
9-7	15.4 (10)	10/10	15.6 (10)	101	10/10	15.2 (10)	99	10/10	15.0 (10)	97	10/10	13.6 (10)	88	10/10	13.1 (10)	85	10/10
10-7	15.1 (10)	10/10	15.4 (10)	102	10/10	15.0 (10)	99	10/10	14.7 (10)	97	10/10	13.5 (10)	89	10/10	13.0 (10)	86	10/10
11-7	14.9 (10)	10/10	15.0 (10)	101	10/10	14.6 (10)	98	10/10	14.5 (10)	97	10/10	13.3 (10)	89	10/10	12.5 (10)	84	10/10
12-7	14.9 (10)	10/10	14.8 (10)	99	10/10	14.7 (10)	99	10/10	14.4 (10)	97	10/10	13.3 (10)	89	10/10	12.7 (10)	85	10/10
13-7	14.8 (10)	10/10	14.7 (10)	99	10/10	14.4 (10)	97	10/10	14.5 (10)	98	10/10	13.3 (10)	90	10/10	12.5 (10)	84	10/10

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

TABLE D 2

FOOD CONSUMPTION CHANGES AND

SURVIVAL ANIMAL NUMBERS: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control Av. FC.	Control No. of Surviv. <10>	640 ppm Av. FC.	640 ppm % of cont. <10>	640 ppm No. of Surviv.	1600 ppm Av. FC.	1600 ppm % of cont. <10>	1600 ppm No. of Surviv.	4000 ppm Av. FC.	4000 ppm % of cont. <10>	4000 ppm No. of Surviv.	7000 ppm Av. FC.	7000 ppm % of cont. <10>	7000 ppm No. of Surviv.	10000 ppm Av. FC.	10000 ppm % of cont. <10>	10000 ppm No. of Surviv.
1-7	10.8 (10)	10/10	10.3 (10)	95	10/10	10.1 (10)	94	10/10	9.4 (10)	87	10/10	8.2 (10)	76	10/10	7.5 (10)	69	10/10
2-7	10.8 (10)	10/10	10.5 (10)	97	10/10	10.5 (10)	97	10/10	10.1 (10)	94	10/10	9.6 (10)	89	10/10	9.6 (10)	89	10/10
3-7	10.9 (10)	10/10	10.9 (10)	100	10/10	10.5 (10)	96	10/10	10.3 (10)	94	10/10	9.4 (10)	86	10/10	9.3 (10)	85	10/10
4-7	10.8 (10)	10/10	10.9 (10)	101	10/10	10.5 (10)	97	10/10	10.3 (10)	95	10/10	9.3 (10)	86	10/10	8.9 (10)	82	10/10
5-7	11.0 (10)	10/10	11.1 (10)	101	10/10	10.5 (10)	95	10/10	10.4 (10)	95	10/10	9.5 (10)	86	10/10	8.8 (10)	80	10/10
6-7	11.0 (10)	10/10	10.9 (10)	99	10/10	10.0 (10)	91	10/10	10.1 (10)	92	10/10	9.3 (10)	85	10/10	8.7 (10)	79	10/10
7-7	11.3 (10)	10/10	11.1 (10)	98	10/10	10.2 (10)	90	10/10	10.5 (10)	93	10/10	9.1 (9)	81	10/10	8.8 (10)	78	10/10
8-7	11.0 (10)	10/10	10.4 (10)	95	10/10	9.7 (10)	88	10/10	10.0 (10)	91	10/10	9.1 (10)	83	10/10	8.4 (10)	76	10/10
9-7	11.2 (10)	10/10	10.7 (10)	96	10/10	9.9 (10)	88	10/10	10.0 (10)	89	10/10	9.1 (10)	81	10/10	8.5 (10)	76	10/10
10-7	10.8 (10)	10/10	10.6 (10)	98	10/10	9.9 (10)	92	10/10	10.0 (10)	93	10/10	9.0 (10)	83	10/10	8.5 (10)	79	10/10
11-7	10.8 (10)	10/10	10.4 (10)	96	10/10	9.7 (10)	90	10/10	9.9 (10)	92	10/10	8.8 (10)	81	10/10	8.4 (10)	78	10/10
12-7	10.7 (10)	10/10	10.3 (10)	96	10/10	9.9 (10)	93	10/10	9.8 (10)	92	10/10	9.0 (10)	84	10/10	8.4 (10)	79	10/10
13-7	10.5 (10)	10/10	10.2 (10)	97	10/10	9.6 (10)	91	10/10	9.9 (10)	94	10/10	8.9 (10)	85	10/10	8.5 (10)	81	10/10

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

TABLE D 3

FOOD CONSUMPTION CHANGES: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day(effective) 1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	13.2± 0.7	14.4± 0.6	15.0± 0.6	15.2± 0.5	15.2± 0.7	15.1± 0.7	15.5± 0.8
640 ppm	13.0± 0.6	14.4± 0.8	15.3± 0.6	15.4± 0.6	15.2± 0.5	15.0± 0.9	15.5± 1.0
1600 ppm	13.0± 0.5	14.5± 0.6	14.8± 0.6	15.0± 0.5	14.9± 0.5	14.6± 0.5	15.1± 0.6
4000 ppm	12.2± 0.9**	13.6± 1.1*	14.7± 0.8	14.9± 0.9	14.9± 0.9	14.6± 0.7	14.9± 1.0
7000 ppm	11.1± 0.5**	13.2± 0.6**	13.7± 0.6**	13.6± 0.7**	13.6± 0.6**	13.4± 0.6**	13.5± 0.6**
10000 ppm	9.4± 0.7**	12.6± 0.5**	13.2± 0.7**	13.1± 0.7**	13.4± 0.6**	13.0± 0.7**	13.1± 0.8**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day(effective) 8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)
Control	15.4± 0.7	15.4± 0.7	15.1± 0.6	14.9± 0.7	14.9± 0.8	14.8± 0.6
640 ppm	15.4± 0.8	15.6± 0.9	15.4± 0.8	15.0± 0.8	14.8± 0.8	14.7± 0.7
1600 ppm	15.0± 0.5	15.2± 0.6	15.0± 0.5	14.6± 0.5	14.7± 0.6	14.4± 0.6
4000 ppm	14.7± 1.0	15.0± 1.1	14.7± 1.0	14.5± 1.2	14.4± 0.9	14.5± 1.0
7000 ppm	13.2± 0.4**	13.6± 0.5**	13.5± 0.5**	13.3± 0.4**	13.3± 0.6**	13.3± 0.5**
10000 ppm	12.7± 0.8**	13.1± 0.8**	13.0± 0.8**	12.5± 0.7**	12.7± 0.6**	12.5± 0.5**

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

TABLE D 4

FOOD CONSUMPTION CHANGES: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day(effective) 1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	10.8± 0.3	10.8± 0.4	10.9± 0.4	10.8± 0.5	11.0± 0.8	11.0± 0.7	11.3± 0.7
640 ppm	10.3± 0.4	10.5± 0.5	10.9± 0.8	10.9± 0.7	11.1± 0.8	10.9± 0.7	11.1± 0.7
1600 ppm	10.1± 0.5**	10.5± 0.5	10.5± 0.6	10.5± 0.7	10.5± 0.7	10.0± 0.6**	10.2± 0.7**
4000 ppm	9.4± 0.4**	10.1± 0.6*	10.3± 0.4*	10.3± 0.4	10.4± 0.5	10.1± 0.5*	10.5± 0.6*
7000 ppm	8.2± 0.5**	9.6± 0.5**	9.4± 0.4**	9.3± 0.5**	9.5± 0.8**	9.3± 0.7**	9.1± 0.3**
10000 ppm	7.5± 0.3**	9.6± 0.4**	9.3± 0.4**	8.9± 0.5**	8.8± 0.4**	8.7± 0.4**	8.8± 0.5**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day(effective) 8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)
Control	11.0± 0.9	11.2± 0.8	10.8± 0.7	10.8± 0.4	10.7± 0.6	10.5± 0.6
640 ppm	10.4± 0.6	10.7± 0.6	10.6± 0.7	10.4± 0.8	10.3± 0.9	10.2± 0.7
1600 ppm	9.7± 0.8**	9.9± 0.9**	9.9± 1.0*	9.7± 1.1**	9.9± 1.0*	9.6± 1.0*
4000 ppm	10.0± 0.6**	10.0± 0.4**	10.0± 0.7*	9.9± 0.6**	9.8± 0.6*	9.9± 0.6
7000 ppm	9.1± 0.5**	9.1± 0.5**	9.0± 0.5**	8.8± 0.4**	9.0± 0.4**	8.9± 0.6**
10000 ppm	8.4± 0.4**	8.5± 0.4**	8.5± 0.3**	8.4± 0.4**	8.4± 0.3**	8.5± 0.4**

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

TABLE E 1

CHEMICAL INTAKE CHANGES: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : mg/kg/day
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 1		2		3		4		5		6		7	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
640 ppm	56±	1	51±	2	46±	1	42±	1	39±	1	37±	1	36±	1
1600 ppm	141±	3	128±	3	114±	3	105±	3	97±	3	90±	3	88±	2
4000 ppm	336±	13	311±	9	289±	8	265±	8	245±	5	227±	5	221±	6
7000 ppm	547±	14	531±	15	485±	14	440±	11	408±	9	386±	8	370±	11
10000 ppm	708±	30	784±	24	707±	25	642±	22	608±	12	561±	13	542±	16

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : mg／kg／d a y
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 8		9		10		11		12		13	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
640 ppm	34±	1	33±	1	32±	1	30±	1	30±	1	29±	1
1600 ppm	83±	2	81±	3	78±	1	74±	2	73±	2	70±	2
4000 ppm	209±	6	205±	3	196±	4	189±	6	182±	3	182±	7
7000 ppm	349±	9	347±	11	336±	13	324±	13	318±	12	314±	10
10000 ppm	506±	15	507±	14	486±	19	461±	15	459±	13	450±	12

TABLE E 2

CHEMICAL INTAKE CHANGES: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : mg／kg／d a y
REPORT TYPE : A1 13
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 1		2		3		4		5		6		7	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
640 ppm	59±	2	54±	2	51±	2	48±	2	46±	2	43±	1	42±	2
1600 ppm	144±	4	136±	8	123±	6	116±	6	112±	5	103±	5	101±	5
4000 ppm	348±	6	335±	15	314±	12	299±	9	292±	12	271±	12	272±	12
7000 ppm	549±	21	562±	19	515±	15	483±	17	471±	33	448±	31	421±	9
10000 ppm	733±	36	828±	34	738±	25	681±	35	649±	30	613±	29	600±	31

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : mg/kg/day
REPORT TYPE : A1 13
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 8		9		10		11		12		13	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
640 ppm	39±	2	39±	1	38±	1	36±	1	36±	2	35±	1
1600 ppm	94±	4	93±	5	92±	7	88±	7	89±	6	85±	6
4000 ppm	253±	9	250±	9	242±	10	237±	5	232±	9	232±	5
7000 ppm	413±	23	403±	17	393±	17	380±	16	379±	16	374±	20
10000 ppm	565±	26	558±	23	547±	18	532±	20	522±	14	521±	18

TABLE F 1

HEMATOLOGY: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RED BLOOD CELL $10^6/\mu\ell$		HEMOGLOBIN g/dℓ		HEMATOCRIT %		MCV f ℓ		MCH p g		MCHC g/dℓ		PLATELET $10^3/\mu\ell$	
Control	10	9.57±	0.09	15.7±	0.1	44.8±	0.5	46.8±	0.3	16.4±	0.1	35.0±	0.4	711±	61
640 ppm	10	9.48±	0.17	15.6±	0.3	44.6±	0.6	47.0±	0.4	16.5±	0.1	35.1±	0.3	746±	69
1600 ppm	10	9.51±	0.18	15.5±	0.2	44.4±	0.8	46.8±	0.3	16.3±	0.2	34.8±	0.4	785±	42*
4000 ppm	10	9.43±	0.34*	15.2±	0.6**	43.8±	1.6**	46.4±	0.4	16.2±	0.2**	34.8±	0.4	803±	76**
7000 ppm	10	9.15±	0.21**	14.7±	0.3**	42.7±	1.1**	46.7±	0.4	16.1±	0.2**	34.5±	0.1**	820±	43**
10000 ppm	10	9.09±	0.30**	14.8±	0.4**	42.9±	1.3**	47.2±	0.4	16.3±	0.2	34.5±	0.1**	843±	43**

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

Group Name	NO. of Animals	RETICULOCYTE %		METHEMOGLOBIN %	
Control	10	1.7±	0.1	0.6±	0.1
640 ppm	10	1.7±	0.1	0.5±	0.2
1600 ppm	10	1.8±	0.2	0.6±	0.1
4000 ppm	10	2.3±	0.2**	0.7±	0.2
7000 ppm	10	2.5±	0.3**	0.7±	0.1
10000 ppm	10	2.6±	0.3**	0.9±	0.2**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$	Differential WBC (%) NEUTRO	LYMPHO	MONO	EOSINO	BASO	OTHER
Control	10	7.22± 1.28	22± 4	74± 5	2± 1	1± 0	0± 0	1± 0
640 ppm	10	7.74± 1.61	21± 4	75± 4	2± 1	1± 0	0± 0	1± 0
1600 ppm	10	7.60± 1.85	23± 5	73± 5	2± 0	1± 0	0± 0	1± 0
4000 ppm	10	7.40± 1.17	21± 2	75± 2	2± 0	1± 0	0± 0	1± 0
7000 ppm	10	7.84± 1.84	21± 2	75± 2	2± 0	1± 0	0± 0	1± 0
10000 ppm	10	7.56± 1.54	20± 2	76± 3	2± 0	1± 0	0± 0	1± 0

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

TABLE F 2

HEMATOLOGY: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RED BLOOD CELL $10^6/\mu\ell$		HEMOGLOBIN g/dℓ		HEMATOCRIT %		MCV f ℓ		MCH p g		MCHC g/dℓ		PLATELET $10^3/\mu\ell$	
Control	10	8.70±	0.20	15.5±	0.3	42.7±	0.9	49.1±	0.3	17.8±	0.2	36.3±	0.3	794±	54
640 ppm	10	8.65±	0.22	15.4±	0.4	42.4±	1.0	49.0±	0.2	17.7±	0.2	36.2±	0.3	826±	37
1600 ppm	10	8.52±	0.15	15.1±	0.3*	41.8±	0.9	49.1±	0.5	17.7±	0.1	36.2±	0.4	879±	26**
4000 ppm	10	8.23±	0.19**	14.5±	0.3**	40.9±	0.9**	49.7±	0.3**	17.6±	0.1*	35.4±	0.4**	879±	47**
7000 ppm	10	8.03±	0.20**	13.9±	0.3**	40.1±	0.9**	49.9±	0.4**	17.3±	0.2**	34.7±	0.3**	937±	44**
10000 ppm	10	8.17±	0.22**	14.1±	0.3**	40.9±	1.1**	50.1±	0.5**	17.3±	0.2**	34.5±	0.3**	945±	63**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RETICULOCYTE %		METHEMOGLOBIN %	
Control	10	1.5±	0.1	0.7±	0.2
640 ppm	10	1.7±	0.2	0.7±	0.2
1600 ppm	10	2.1±	0.4**	0.7±	0.2
4000 ppm	10	2.4±	0.2**	0.9±	0.2
7000 ppm	10	3.7±	0.6**	1.0±	0.1*
10000 ppm	10	4.0±	0.5**	1.0±	0.3*

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$		Differential WBC (%) NEUTRO		LYMPHO		MONO		EOSINO		BASO		OTHER	
Control	10	4.54±	0.56	21±	2	74±	2	3±	1	1±	0	0±	0	1±	0
640 ppm	10	4.38±	1.02	20±	4	76±	4	2±	0	1±	0	0±	0	1±	0
1600 ppm	10	4.51±	1.05	23±	8	73±	8	2±	0	1±	0	0±	0	1±	0
4000 ppm	10	4.63±	0.99	19±	3	77±	3	2±	0**	1±	0	0±	0	1±	1
7000 ppm	10	5.29±	0.85	19±	3	78±	3	2±	0*	1±	0	0±	0	1±	0
10000 ppm	10	5.58±	1.09	18±	3	78±	3	2±	0**	1±	0	0±	0	2±	1

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

TABLE G 1

BIOCHEMISTRY: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

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	10	6.6±	0.2	3.4±	0.1	1.1±	0.0	0.10±	0.01	178±	10	61±	4	60±	13
640 ppm	10	6.7±	0.1	3.6±	0.0**	1.1±	0.1	0.11±	0.01	176±	11	72±	5**	66±	24
1600 ppm	10	6.9±	0.2**	3.7±	0.1**	1.1±	0.1	0.10±	0.01	186±	12	83±	6**	75±	25
4000 ppm	10	7.2±	0.2**	3.9±	0.1**	1.2±	0.1	0.12±	0.01**	182±	6	108±	7**	66±	25
7000 ppm	10	7.3±	0.1**	3.9±	0.1**	1.2±	0.1	0.14±	0.01**	179±	10	112±	8**	52±	19
10000 ppm	10	7.4±	0.2**	4.0±	0.1**	1.2±	0.0**	0.14±	0.01**	172±	10	113±	8**	38±	13

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST IU/l		ALT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CK IU/l	
Control	10	114±	7	144±	33	72±	13	166±	41	396±	36	1±	0	105±	19
640 ppm	10	128±	8*	119±	45	60±	18	137±	38	361±	27*	1±	1	97±	12
1600 ppm	10	145±	9**	112±	32	59±	12	137±	46	345±	17**	1±	1	103±	13
4000 ppm	10	177±	16**	103±	34*	55±	16*	131±	44	308±	25**	1±	1	93±	19
7000 ppm	10	180±	14**	90±	30**	43±	11**	121±	50	293±	26**	1±	1	93±	28
10000 ppm	10	183±	14**	71±	16**	34±	6**	94±	28**	282±	31**	2±	1	88±	16

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

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	10	18.9± 1.1	0.5± 0.0	142± 1	3.6± 0.3	106± 1	10.4± 0.2	5.4± 0.8
640 ppm	10	18.8± 1.1	0.5± 0.0	142± 1	3.7± 0.2	105± 1	10.4± 0.2	5.4± 0.7
1600 ppm	10	19.3± 1.1	0.5± 0.0	142± 0	3.8± 0.3	105± 1	10.7± 0.1**	5.5± 0.6
4000 ppm	10	21.5± 1.6**	0.6± 0.1	141± 1	3.8± 0.3	105± 1	10.8± 0.1**	5.4± 0.6
7000 ppm	10	21.9± 1.5**	0.6± 0.0	142± 1	3.8± 0.2	104± 1	10.9± 0.1**	5.4± 0.4
10000 ppm	10	21.8± 2.1**	0.6± 0.1	142± 1	3.8± 0.2	104± 1*	11.0± 0.3**	5.3± 0.4

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

TABLE G 2

BIOCHEMISTRY: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

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	10	6.3± 0.2	3.4± 0.1	1.2± 0.1	0.11± 0.01	141± 14	67± 6	14± 4
640 ppm	10	6.4± 0.2	3.5± 0.1	1.2± 0.1	0.11± 0.01	148± 11	80± 6**	16± 5
1600 ppm	10	6.7± 0.2**	3.6± 0.1**	1.2± 0.1	0.13± 0.01**	152± 6	95± 6**	17± 4
4000 ppm	10	6.8± 0.2**	3.7± 0.1**	1.2± 0.0	0.17± 0.02**	145± 12	116± 10**	14± 3
7000 ppm	10	6.9± 0.2**	3.8± 0.1**	1.2± 0.1	0.20± 0.03**	150± 7	124± 12**	15± 4
10000 ppm	10	6.9± 0.2**	3.8± 0.1**	1.2± 0.1	0.17± 0.01**	147± 5	126± 10**	13± 2

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	PHOSPHOLIPID mg/dℓ		AST IU/ℓ		ALT IU/ℓ		LDH IU/ℓ		ALP IU/ℓ		G-GTP IU/ℓ		CK IU/ℓ	
Control	10	131±	12	74±	6	37±	7	91±	22	271±	28	1±	0	100±	15
640 ppm	10	149±	11*	74±	13	39±	8	96±	16	259±	22	1±	0	97±	12
1600 ppm	10	166±	13**	83±	16	43±	8	113±	31	251±	26	2±	0	100±	13
4000 ppm	10	187±	15**	84±	33	48±	21	116±	39	233±	28**	2±	1	101±	15
7000 ppm	10	191±	18**	72±	15	33±	8	107±	21	233±	15**	2±	1**	90±	14
10000 ppm	10	194±	13**	64±	8	32±	3	101±	19	260±	32	2±	1**	94±	19

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

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	10	16.4± 2.3	0.6± 0.1	142± 1	3.5± 0.2	107± 1	10.0± 0.3	4.7± 1.1
640 ppm	10	17.9± 1.9	0.6± 0.1	142± 1	3.3± 0.2	107± 1	10.1± 0.2	4.4± 1.1
1600 ppm	10	18.6± 1.7	0.5± 0.0	143± 1	3.4± 0.3	106± 2	10.3± 0.1**	4.8± 1.1
4000 ppm	10	18.3± 1.2	0.6± 0.0	142± 1	3.4± 0.3	107± 1	10.3± 0.2**	4.5± 1.0
7000 ppm	10	21.0± 1.9**	0.6± 0.0	142± 1	3.4± 0.3	107± 2	10.4± 0.1**	4.8± 0.6
10000 ppm	10	22.3± 3.3**	0.5± 0.0	142± 1	3.8± 0.3	106± 2	10.6± 0.2**	5.0± 0.4

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

TABLE H 1

URINALYSIS: MALE

Urinalysis of male rats

In the dosed groups, pH, protein, ketone body and bilirubin could not be measured by urine test paper in some animals, because their urine were colored by metabolite of test substance.

The inspection items and number of animals that could not be measured are shown as followed.

pH: 4000 ppm(1), 7000 ppm(6), 10000 ppm(9)

Protein: 1600 ppm(5), 4000 ppm(9), 7000 ppm and 10000 ppm(10)

Ketone body: 1600 ppm(1), 4000 ppm(5), 7000 ppm(7), 10000 ppm(10)

Bilirubin: 1600 ppm(6), 4000 ppm(9), 7000 ppm and 10000 ppm(10)

Therefore, pH and ketone body in 10000 ppm dosed group, protein and bilirubin in 4000 ppm and above dosed groups could not be evaluated.

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH 5.0	6.0	6.5	7.0	7.5	8.0	8.5	CHI	Protein −	±	+	2+	3+	4+	CHI	Glucose −	±	+	2+	3+	4+	CHI	Ketone body −	±	+	2+	3+	4+	CHI	Bilirubin −	+	2+	3+	CHI
Control	10	0	0	0	0	0	2	8		0	0	6	4	0	0		10	0	0	0	0	0		1	9	0	0	0	0		10	0	0	0	
640 ppm	10	0	0	0	0	0	8	2	**	0	0	9	1	0	0		10	0	0	0	0	0		2	8	0	0	0	0		10	0	0	0	
1600 ppm	10	0	0	0	0	1	9	0	**	0	1	4	0	0	0		10	0	0	0	0	0		1	8	0	0	0	0		4	0	0	0	
4000 ppm	10	0	0	0	0	1	8	0	**	0	1	0	0	0	0	?	10	0	0	0	0	0		1	4	0	0	0	0		1	0	0	0	?
7000 ppm	10	0	0	0	0	0	4	0	**	0	0	0	0	0	0		10	0	0	0	0	0		0	3	0	0	0	0		0	0	0	0	
10000 ppm	10	0	0	0	0	0	1	0	?	0	0	0	0	0	0		10	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

? : Significant test is not applied, because No. of data in this group is less than 3.

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	Occult blood −	±	+	2+	3+	CHI	Urobilinogen ±	+	2+	3+	4+	CHI
Control	10	10	0	0	0	0		10	0	0	0	0	
640 ppm	10	10	0	0	0	0		10	0	0	0	0	
1600 ppm	10	10	0	0	0	0		10	0	0	0	0	
4000 ppm	10	10	0	0	0	0		10	0	0	0	0	
7000 ppm	10	10	0	0	0	0		10	0	0	0	0	
10000 ppm	10	10	0	0	0	0		10	0	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

TABLE H 2

URINALYSIS: FEMALE

Urinalysis of female rats

In the dosed groups, pH, protein, ketone body and bilirubin could not be measured by urine test paper in some animals, because their urine were colored by metabolite of test substance.

The inspection items and number of animals that could not be measured are shown as followed.

pH: 7000 ppm(1), 10000 ppm(2)

Protein: 4000 ppm(8), 7000 ppm and 10000 ppm(10)

Ketone body: 1600 ppm(1), 4000 ppm(7), 7000 ppm and 10000 ppm(10)

Bilirubin: 1600 ppm(1), 4000 ppm(6), 7000 ppm and 10000 ppm(10)

Therefore, protein in 4000 ppm and above dosed groups, ketone body and bilirubin in 7000 ppm and above dosed groups could not be evaluated.

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH 5.0	6.0	6.5	7.0	7.5	8.0	8.5	CHI	Protein −	±	+	2+	3+	4+	CHI	Glucose −	±	+	2+	3+	4+	CHI	Ketone body −	±	+	2+	3+	4+	CHI	Bilirubin −	+	2+	3+	CHI
Control	10	0	0	0	0	0	4	6		0	2	8	0	0	0		10	0	0	0	0	0		7	3	0	0	0	0		10	0	0	0	
640 ppm	10	0	0	0	0	1	5	4		0	7	3	0	0	0	*	10	0	0	0	0	0		8	2	0	0	0	0		10	0	0	0	
1600 ppm	10	0	0	0	0	1	6	3		0	7	3	0	0	0	*	10	0	0	0	0	0		6	3	0	0	0	0		9	0	0	0	
4000 ppm	10	0	0	0	0	0	5	5		0	1	1	0	0	0	?	10	0	0	0	0	0		3	0	0	0	0	0		4	0	0	0	
7000 ppm	10	0	0	0	0	2	3	4		0	0	0	0	0	0		10	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	
10000 ppm	10	0	0	0	0	0	5	3		0	0	0	0	0	0		10	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

? : Significant test is not applied, because No. of data in this group is less than 3.

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	Occult blood −	±	+	2+	3+	CHI	Urobilinogen ±	+	2+	3+	4+	CHI
Control	10	10	0	0	0	0		10	0	0	0	0	
640 ppm	10	10	0	0	0	0		10	0	0	0	0	
1600 ppm	10	10	0	0	0	0		10	0	0	0	0	
4000 ppm	10	10	0	0	0	0		10	0	0	0	0	
7000 ppm	10	10	0	0	0	0		10	0	0	0	0	
10000 ppm	10	10	0	0	0	0		10	0	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

TABLE I 1

GROSS FINDINGS: MALE: ALL ANIMALS

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 14W)

Organ	Findings	Group Name / NO. of Animals	Control 10 (%)	640 ppm 10 (%)	1600 ppm 10 (%)	4000 ppm 10 (%)
liver	herniation		0 (0)	2 (20)	2 (20)	1 (10)

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 14W)

Organ	Findings	Group Name NO. of Animals	7000 ppm 10 (%)	10000 ppm 10 (%)
liver	herniation		1 (10)	0 (0)

TABLE I 2

GROSS FINDINGS: FEMALE: ALL ANIMALS

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 14W)

Organ	Findings	Group Name / NO. of Animals	Control 10 (%)	640 ppm 10 (%)	1600 ppm 10 (%)	4000 ppm 10 (%)
liver	herniation		1 (10)	0 (0)	1 (10)	2 (20)
ovary	cyst		0 (0)	1 (10)	0 (0)	0 (0)

Organ	Findings	Group Name / NO. of Animals	7000 ppm 10 (%)	10000 ppm 10 (%)
liver	herniation		0 (0)	1 (10)
ovary	cyst		0 (0)	0 (0)

TABLE J 1

ORGAN WEIGHT, ABSOLUTE: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	10	309± 7	0.244± 0.021	0.049± 0.003	3.134± 0.131	0.963± 0.046	0.976± 0.049
640 ppm	10	304± 11	0.247± 0.026	0.051± 0.004	3.157± 0.071	0.944± 0.044	0.974± 0.054
1600 ppm	10	307± 15	0.229± 0.020	0.052± 0.005	3.253± 0.104	0.969± 0.042	0.966± 0.051
4000 ppm	10	299± 21	0.221± 0.021	0.051± 0.004	3.335± 0.292	0.906± 0.054*	0.945± 0.039
7000 ppm	10	276± 9**	0.200± 0.016**	0.050± 0.002	3.317± 0.162*	0.876± 0.031**	0.919± 0.042*
10000 ppm	10	258± 9**	0.184± 0.016**	0.048± 0.003	3.294± 0.096*	0.826± 0.046**	0.873± 0.050**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	1.906± 0.070	0.607± 0.032	7.478± 0.264	1.916± 0.037
640 ppm	10	1.891± 0.091	0.605± 0.030	7.932± 0.530	1.937± 0.059
1600 ppm	10	1.965± 0.081	0.607± 0.037	8.811± 0.455**	1.949± 0.057
4000 ppm	10	1.982± 0.160	0.626± 0.059	9.703± 0.883**	1.908± 0.039
7000 ppm	10	1.946± 0.092	0.615± 0.032	9.451± 0.360**	1.903± 0.053
10000 ppm	10	1.879± 0.100	0.604± 0.019	9.228± 0.483**	1.882± 0.039

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

TABLE J 2

ORGAN WEIGHT, ABSOLUTE: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	10	176± 9	0.204± 0.030	0.056± 0.004	0.126± 0.012	0.651± 0.027	0.722± 0.024
640 ppm	10	173± 9	0.194± 0.027	0.057± 0.006	0.137± 0.058	0.646± 0.061	0.719± 0.059
1600 ppm	10	167± 9*	0.183± 0.020	0.056± 0.004	0.116± 0.013	0.622± 0.035	0.709± 0.022
4000 ppm	10	157± 7**	0.185± 0.023	0.056± 0.006	0.111± 0.020	0.609± 0.028*	0.703± 0.047
7000 ppm	10	152± 5**	0.177± 0.018	0.054± 0.005	0.109± 0.013	0.583± 0.024**	0.669± 0.028**
10000 ppm	10	150± 5**	0.161± 0.016**	0.052± 0.005	0.100± 0.016**	0.556± 0.025**	0.658± 0.041**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	10	1.180±	0.044	0.412±	0.024	4.096±	0.185	1.788±	0.042
640 ppm	10	1.177±	0.067	0.398±	0.031	4.219±	0.302	1.789±	0.060
1600 ppm	10	1.148±	0.037	0.423±	0.027	4.401±	0.215*	1.778±	0.024
4000 ppm	10	1.145±	0.061	0.447±	0.022*	4.899±	0.259**	1.775±	0.047
7000 ppm	10	1.094±	0.047**	0.495±	0.021**	5.213±	0.169**	1.758±	0.032
10000 ppm	10	1.079±	0.042**	0.515±	0.026**	5.602±	0.180**	1.726±	0.031**

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

TABLE K 1

ORGAN WEIGHT, RELATIVE: MALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	10	309± 7	0.079± 0.006	0.016± 0.001	1.014± 0.036	0.312± 0.014	0.316± 0.012
640 ppm	10	304± 11	0.081± 0.006	0.017± 0.001	1.039± 0.029	0.310± 0.010	0.320± 0.013
1600 ppm	10	307± 15	0.074± 0.005	0.017± 0.001	1.062± 0.047	0.316± 0.010	0.315± 0.012
4000 ppm	10	299± 21	0.074± 0.009	0.017± 0.002	1.120± 0.099**	0.304± 0.012	0.317± 0.015
7000 ppm	10	276± 9**	0.072± 0.005	0.018± 0.001**	1.203± 0.064**	0.317± 0.011	0.333± 0.009*
10000 ppm	10	258± 9**	0.071± 0.006*	0.019± 0.001**	1.278± 0.036**	0.320± 0.013	0.339± 0.012**

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	0.616± 0.020	0.196± 0.010	2.420± 0.082	0.620± 0.010
640 ppm	10	0.622± 0.023	0.199± 0.006	2.607± 0.123**	0.637± 0.020
1600 ppm	10	0.641± 0.016	0.198± 0.008	2.872± 0.092**	0.636± 0.031
4000 ppm	10	0.664± 0.025**	0.210± 0.009**	3.247± 0.106**	0.642± 0.043
7000 ppm	10	0.705± 0.019**	0.223± 0.007**	3.424± 0.079**	0.690± 0.019**
10000 ppm	10	0.729± 0.039**	0.234± 0.011**	3.577± 0.122**	0.730± 0.022**

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

TABLE K 2

ORGAN WEIGHT, RELATIVE: FEMALE

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	10	176± 9	0.115± 0.014	0.032± 0.003	0.072± 0.007	0.370± 0.012	0.410± 0.020
640 ppm	10	173± 9	0.112± 0.013	0.033± 0.003	0.078± 0.029	0.373± 0.019	0.415± 0.027
1600 ppm	10	167± 9*	0.110± 0.008	0.034± 0.003	0.069± 0.007	0.373± 0.020	0.425± 0.020
4000 ppm	10	157± 7**	0.117± 0.012	0.036± 0.003*	0.070± 0.011	0.387± 0.011	0.447± 0.022**
7000 ppm	10	152± 5**	0.116± 0.010	0.035± 0.003	0.072± 0.009	0.383± 0.013	0.439± 0.011*
10000 ppm	10	150± 5**	0.108± 0.010	0.034± 0.003	0.067± 0.010	0.372± 0.017	0.440± 0.023*

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

STUDY NO. : 0745
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (14W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	0.670± 0.016	0.234± 0.013	2.324± 0.067	1.016± 0.057
640 ppm	10	0.680± 0.034	0.230± 0.012	2.433± 0.090*	1.034± 0.051
1600 ppm	10	0.688± 0.036	0.253± 0.015*	2.634± 0.099**	1.066± 0.052
4000 ppm	10	0.727± 0.017**	0.284± 0.008**	3.112± 0.060**	1.129± 0.050**
7000 ppm	10	0.718± 0.019**	0.325± 0.013**	3.421± 0.066**	1.154± 0.040**
10000 ppm	10	0.722± 0.018**	0.345± 0.021**	3.749± 0.122**	1.155± 0.028**

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

TABLE L 1

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS: MALE: ALL ANIMALS

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 10				640 ppm 10				1600 ppm 10				4000 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
nasal cavit			<10>				<10>				<10>				<10>			
	mineralization		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung			<10>				<10>				<10>				<10>			
	accumulation of foamy cells		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Hematopoietic system)																		
bone marrow			<10>				<10>				<10>				<10>			
	erythropoiesis:increased		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)
spleen			<10>				<10>				<10>				<10>			
	deposit of hemosiderin		10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0
			(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	extramedullary hematopoiesis		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	engorgement of erythrocyte		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(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

Organ	Findings	Group Name	7000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}										
nasal cavit			<10>				<10>			
	mineralization		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung			<10>				<10>			
	accumulation of foamy cells		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}										
bone marrow			<10>				<10>			
	erythropoiesis:increased		1	0	0	0	4	0	0	0
			(10)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
spleen			<10>				<10>			
	deposit of hemosiderin		3	7	0	0 **	0	10	0	0 **
			(30)	(70)	(0)	(0)	(0)	(100)	(0)	(0)
	extramedullary hematopoiesis		7	0	0	0 **	10	0	0	0 **
			(70)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	engorgement of erythrocyte		3	0	0	0	8	0	0	0 **
			(30)	(0)	(0)	(0)	(80)	(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	Control				640 ppm				1600 ppm				4000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Circulatory system}																		
heart			<10>				<10>				<10>				<10>			
	inflammatory cell nest		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}																		
liver			<10>				<10>				<10>				<10>			
	herniation		0	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	hepatocellular hypertrophy:central		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			<10>				<10>				<10>				<10>			
	eosinophilic body		0	10	0	0	0	10	0	0	0	10	0	0	0	9	1	0
			(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(90)	(10)	(0)
{Endocrine system}																		
thyroid			<10>				<10>				<10>				<10>			
	ultimobranchial body remanet		1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(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

Organ	Findings	Group Name	7000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}										
heart			<10>				<10>			
	inflammatory cell nest		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}										
liver			<10>				<10>			
	herniation		1	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hepatocellular hypertrophy:central		4	0	0	0	10	0	0	0 **
			(40)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
{Urinary system}										
kidney			<10>				<10>			
	eosinophilic body		0	0	10	0 **	0	0	10	0 **
			(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
{Endocrine system}										
thyroid			<10>				<10>			
	ultimobranchial body remanet		1	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(10)	(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	Control				640 ppm				1600 ppm				4000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
epididymis			<10>				<10>				<10>				<10>			
	spermatogenic granuloma		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)	(10)	(0)	(0)	(0)
{Special sense organs/appendage}																		
Harder gl			<10>				<10>				<10>				<10>			
	lymphocytic infiltration		1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(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

Organ	Findings	Group Name	7000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}										
epididymis			<10>				<10>			
	spermatogenic granuloma		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}										
Harder gl			<10>				<10>			
	lymphocytic infiltration		2	0	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(10)	(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 L 2

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS: FEMALE: ALL ANIMALS

Organ	Findings	Group Name	Control				640 ppm				1600 ppm				4000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
bone marrow			<10>				<10>				<10>				<10>			
	granulation		3	0	0	0	3	1	0	0	2	1	0	0	2	0	0	0
			(30)	(0)	(0)	(0)	(30)	(10)	(0)	(0)	(20)	(10)	(0)	(0)	(20)	(0)	(0)	(0)
	myelofibrosis		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erythropoiesis:increased		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)
spleen			<10>				<10>				<10>				<10>			
	deposit of hemosiderin		10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0
			(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	extramedullary hematopoiesis		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)	(10)	(0)	(0)	(0)
	engorgement of erythrocyte		0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(30)	(0)	(0)	(0)
{Digestive system}																		
liver			<10>				<10>				<10>				<10>			
	herniation		1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(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	7000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}										
bone marrow			<10>				<10>			
	granulation		0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	myelofibrosis		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erythropoiesis:increased		1	0	0	0	4	0	0	0
			(10)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
spleen			<10>				<10>			
	deposit of hemosiderin		1	9	0	0 **	2	8	0	0 **
			(10)	(90)	(0)	(0)	(20)	(80)	(0)	(0)
	extramedullary hematopoiesis		10	0	0	0 **	10	0	0	0 **
			(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	engorgement of erythrocyte		10	0	0	0 **	10	0	0	0 **
			(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
{Digestive system}										
liver			<10>				<10>			
	herniation		1	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(10)	(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	Control				640 ppm				1600 ppm				4000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<10>				<10>				<10>				<10>			
	inflammatory cell nest		1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	hepatocellular hypertrophy:central		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			<10>				<10>				<10>				<10>			
	mineralization:cortico-medullary junction		2	0	0	0	2	0	0	0	5	0	0	0	2	0	0	0
			(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	mineralization:papilla		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of brown pigment:proximal tubule		0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
{Endocrine system}																		
pituitary			<10>				<10>				<10>				<10>			
	Rathke pouch		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)

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	7000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}										
liver			<10>				<10>			
	inflammatory cell nest		1	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hepatocellular hypertrophy:central		7	0	0	0 **	10	0	0	0 **
			(70)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
{Urinary system}										
kidney			<10>				<10>			
	mineralization:cortico-medullary junction		3	0	0	0	1	0	0	0
			(30)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	mineralization:papilla		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of brown pigment:proximal tubule		0	10	0	0 **	0	10	0	0 **
			(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)
{Endocrine system}										
pituitary			<10>				<10>			
	Rathke pouch		0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(10)	(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	Control				640 ppm				1600 ppm				4000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
thyroid			<10>				<10>				<10>				<10>			
	ultimobranchial body remanet		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
{Reproductive system}																		
ovary			<10>				<10>				<10>				<10>			
	cyst		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}																		
Harder gl			<10>				<10>				<10>				<10>			
	lymphocytic infiltration		5	0	0	0	5	0	0	0	3	1	0	0	3	0	0	0
			(50)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(30)	(10)	(0)	(0)	(30)	(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	7000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}										
thyroid			<10>				<10>			
	ultimobranchial body remanet		0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
{Reproductive system}										
ovary			<10>				<10>			
	cyst		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}										
Harder gl			<10>				<10>			
	lymphocytic infiltration		3	0	0	0	4	0	0	0
			(30)	(0)	(0)	(0)	(40)	(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