

メタクリル酸 = 2,3-エポキシプロピルのラットを用いた
吸入による13週間毒性試験報告書

試験番号 : 0770

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TABLE A

**CONCENTRATIONS OF 2,3-EPOXYPROPYL METHACRYLATE
IN THE INHALATION CHAMBER
OF THE 13-WEEK INHALATION STUDY**

CONCENTRATIONS OF 2,3-EPOXYPROPYL METHACRYLATE IN THE
INHALATION CHAMBER OF THE 13-WEEK INHALATION STUDY

Group Name	Concentration(ppm) Mean \pm S.D.
Control	0.0 \pm 0.0
1 ppm	1.0 \pm 0.1
2 ppm	2.0 \pm 0.1
5 ppm	5.0 \pm 0.1
10 ppm	10.0 \pm 0.2
20 ppm	20.1 \pm 0.5

TABLE B1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
1ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
2ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
5ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
10ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
20ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
		Number of survival/ Number of effective animals Survival rate(%)													

TABLE B2

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCr.j]
 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	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
1ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
2ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
5ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
10ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
20ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
		Number of survival/ Number of effective animals Survival rate(%)													

TABLE C1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 1

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
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	1ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	2ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	5ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	10ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	20ppm	10	10	10	10	10	10	10	10	10	10	10	10	10

(HAN190)

BATS 4

TABLE C2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 2

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
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	1
	1ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	20ppm	0	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	9
	1ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	2ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	5ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	10ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	20ppm	10	10	10	10	10	10	10	10	10	10	10	10	10

(HAN190)

BATS 4

TABLE D1

**BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE**

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCr.j]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control		1ppm			2ppm			5ppm			10ppm			20ppm		
	Av. Wt.	No. of Surviv. <10>	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.
0-0	120 (10)	10/10	120 (10)	100	10/10	120 (10)	100	10/10	120 (10)	100	10/10	120 (10)	100	10/10	120 (10)	100	10/10
1-7	150 (10)	10/10	148 (10)	99	10/10	146 (10)	97	10/10	148 (10)	99	10/10	148 (10)	99	10/10	139 (10)	93	10/10
2-7	185 (10)	10/10	181 (10)	98	10/10	180 (10)	97	10/10	181 (10)	98	10/10	180 (10)	97	10/10	168 (10)	91	10/10
3-7	209 (10)	10/10	204 (10)	98	10/10	204 (10)	98	10/10	205 (10)	98	10/10	204 (10)	98	10/10	187 (10)	89	10/10
4-7	230 (10)	10/10	225 (10)	98	10/10	223 (10)	97	10/10	224 (10)	97	10/10	224 (10)	97	10/10	205 (10)	89	10/10
5-7	246 (10)	10/10	241 (10)	98	10/10	239 (10)	97	10/10	240 (10)	98	10/10	241 (10)	98	10/10	223 (10)	91	10/10
6-7	261 (10)	10/10	255 (10)	98	10/10	251 (10)	96	10/10	254 (10)	97	10/10	255 (10)	98	10/10	234 (10)	90	10/10
7-7	274 (10)	10/10	268 (10)	98	10/10	265 (10)	97	10/10	267 (10)	97	10/10	269 (10)	98	10/10	247 (10)	90	10/10
8-7	283 (10)	10/10	275 (10)	97	10/10	273 (10)	96	10/10	274 (10)	97	10/10	275 (10)	97	10/10	253 (10)	89	10/10
9-7	297 (10)	10/10	287 (10)	97	10/10	284 (10)	96	10/10	286 (10)	96	10/10	288 (10)	97	10/10	267 (10)	90	10/10
10-7	304 (10)	10/10	296 (10)	97	10/10	292 (10)	96	10/10	294 (10)	97	10/10	295 (10)	97	10/10	270 (10)	89	10/10
11-7	311 (10)	10/10	301 (10)	97	10/10	299 (10)	96	10/10	299 (10)	96	10/10	303 (10)	97	10/10	280 (10)	90	10/10
12-7	316 (10)	10/10	307 (10)	97	10/10	305 (10)	97	10/10	302 (10)	96	10/10	306 (10)	97	10/10	281 (10)	89	10/10
13-7	320 (10)	10/10	312 (10)	98	10/10	310 (10)	97	10/10	307 (10)	96	10/10	310 (10)	97	10/10	285 (10)	89	10/10

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

TABLE D2

**BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE**

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCr1j]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control		1ppm		2ppm		5ppm		10ppm		20ppm						
	Av. Wt.	No. of Surviv. <10>	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.			
0-0	94 (10)	10/10	94 (10)	100	10/10	95 (10)	101	10/10	95 (10)	101	10/10	95 (10)	101	10/10	94 (10)	100	10/10
1-7	112 (10)	10/10	109 (10)	97	10/10	109 (10)	97	10/10	108 (10)	96	10/10	108 (10)	96	10/10	104 (10)	93	10/10
2-7	123 (10)	10/10	123 (10)	100	10/10	122 (10)	99	10/10	122 (10)	99	10/10	120 (10)	98	10/10	118 (10)	96	10/10
3-7	135 (10)	10/10	132 (10)	98	10/10	131 (10)	97	10/10	133 (10)	99	10/10	129 (10)	96	10/10	126 (10)	93	10/10
4-7	141 (10)	10/10	142 (10)	101	10/10	137 (10)	97	10/10	141 (10)	100	10/10	137 (10)	97	10/10	134 (10)	95	10/10
5-7	148 (10)	10/10	148 (10)	100	10/10	146 (10)	99	10/10	148 (10)	100	10/10	144 (10)	97	10/10	143 (10)	97	10/10
6-7	154 (10)	10/10	154 (10)	100	10/10	151 (10)	98	10/10	153 (10)	99	10/10	148 (10)	96	10/10	146 (10)	95	10/10
7-7	159 (10)	10/10	159 (10)	100	10/10	157 (10)	99	10/10	159 (10)	100	10/10	153 (10)	96	10/10	153 (10)	96	10/10
8-7	161 (10)	10/10	160 (10)	99	10/10	157 (10)	98	10/10	157 (10)	98	10/10	153 (10)	95	10/10	154 (10)	96	10/10
9-7	167 (10)	10/10	166 (10)	99	10/10	163 (10)	98	10/10	164 (10)	98	10/10	160 (10)	96	10/10	162 (10)	97	10/10
10-7	173 (10)	10/10	171 (10)	99	10/10	168 (10)	97	10/10	168 (10)	97	10/10	164 (10)	95	10/10	166 (10)	96	10/10
11-7	175 (10)	10/10	174 (10)	99	10/10	171 (10)	98	10/10	171 (10)	98	10/10	169 (10)	97	10/10	169 (10)	97	10/10
12-7	177 (10)	10/10	175 (10)	99	10/10	173 (10)	98	10/10	174 (10)	98	10/10	171 (10)	97	10/10	170 (10)	96	10/10
13-7	177 (10)	10/10	176 (10)	99	10/10	174 (10)	98	10/10	174 (10)	98	10/10	171 (10)	97	10/10	169 (10)	95	10/10

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

TABLE D3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration		week-day		1-7		2-7		3-7		4-7		5-7		6-7	
	0-0															
Control	120±	4	150±	6	185±	5	209±	7	230±	8	246±	8	261±	8		
1ppm	120±	4	148±	8	181±	10	204±	12	225±	12	241±	12	255±	13		
2ppm	120±	5	146±	9	180±	13	204±	15	223±	16	239±	18	251±	20		
5ppm	120±	4	148±	6	181±	8	205±	10	224±	9	240±	9	254±	10		
10ppm	120±	5	148±	6	180±	9	204±	10	224±	12	241±	11	255±	12		
20ppm	120±	5	139±	5**	168±	7**	187±	9**	205±	10**	223±	10**	234±	11**		

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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			
	7-7	8-7	9-7	10-7										
Control	274±	9	283±	10	297±	12	304±	14	311±	14	316±	15	320±	16
1ppm	268±	14	275±	15	287±	16	296±	16	301±	15	307±	15	312±	16
2ppm	265±	20	273±	23	284±	22	292±	24	299±	24	305±	23	310±	25
5ppm	267±	12	274±	12	286±	13	294±	12	299±	11	302±	10	307±	10
10ppm	269±	12	275±	13	288±	13	295±	13	303±	12	306±	12	310±	12
20ppm	247±	14**	253±	15**	267±	16**	270±	16**	280±	16**	281±	15**	285±	16**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE D4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	94± 4	112± 6	123± 7	135± 7	141± 10	148± 9	154± 10
1ppm	94± 3	109± 4	123± 3	132± 4	142± 5	148± 5	154± 8
2ppm	95± 3	109± 5	122± 4	131± 6	137± 7	146± 7	151± 7
5ppm	95± 3	108± 5	122± 5	133± 5	141± 6	148± 6	153± 8
10ppm	95± 3	108± 4	120± 5	129± 5	137± 6	144± 7	148± 7
20ppm	94± 3	104± 5**	118± 4	126± 6**	134± 6	143± 8	146± 7

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration		week-day		8-7	9-7	10-7	11-7	12-7	13-7				
	7-7													
Control	159±	9	161±	10	167±	13	173±	13	175±	11	177±	11	177±	11
1ppm	159±	7	160±	6	166±	6	171±	7	174±	7	175±	6	176±	6
2ppm	157±	8	157±	8	163±	10	168±	10	171±	9	173±	10	174±	9
5ppm	159±	7	157±	8	164±	11	168±	10	171±	12	174±	11	174±	10
10ppm	153±	9	153±	8	160±	8	164±	9	169±	10	171±	7	171±	8
20ppm	153±	8	154±	8	162±	10	166±	10	169±	10	170±	9	169±	9

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE E1

**FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE**

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1.j[F344/DuCr.j]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control		1ppm		2ppm		5ppm		10ppm		20ppm						
	Av. FC.	No. of Surviv. <10>	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.			
1-7	14.3 (10)	10/10	14.8 (10)	103	10/10	14.1 (10)	99	10/10	13.9 (10)	97	10/10	14.0 (10)	98	10/10	12.6 (10)	88	10/10
2-7	16.4 (10)	10/10	16.2 (10)	99	10/10	16.0 (10)	98	10/10	15.9 (10)	97	10/10	15.6 (10)	95	10/10	14.1 (10)	86	10/10
3-7	16.8 (10)	10/10	16.6 (10)	99	10/10	16.8 (10)	100	10/10	16.7 (10)	99	10/10	16.4 (10)	98	10/10	14.8 (10)	88	10/10
4-7	17.1 (10)	10/10	16.8 (10)	98	10/10	17.0 (10)	99	10/10	16.8 (10)	98	10/10	16.2 (10)	95	10/10	14.9 (10)	87	10/10
5-7	17.2 (10)	10/10	17.4 (10)	101	10/10	17.3 (10)	101	10/10	17.2 (10)	100	10/10	16.7 (10)	97	10/10	15.8 (10)	92	10/10
6-7	17.1 (10)	10/10	17.1 (10)	100	10/10	16.7 (10)	98	10/10	16.6 (10)	97	10/10	16.4 (10)	96	10/10	15.3 (10)	89	10/10
7-7	16.9 (10)	10/10	16.6 (10)	98	10/10	16.4 (10)	97	10/10	16.3 (10)	96	10/10	16.3 (10)	96	10/10	15.5 (10)	92	10/10
8-7	17.0 (10)	10/10	16.1 (10)	95	10/10	16.1 (10)	95	10/10	16.1 (10)	95	10/10	16.0 (10)	94	10/10	15.7 (10)	92	10/10
9-7	16.4 (10)	10/10	16.2 (10)	99	10/10	15.8 (10)	96	10/10	16.1 (10)	98	10/10	15.8 (10)	96	10/10	15.8 (10)	96	10/10
10-7	16.5 (10)	10/10	16.1 (10)	98	10/10	15.6 (10)	95	10/10	15.6 (10)	95	10/10	15.5 (10)	94	10/10	14.8 (10)	90	10/10
11-7	16.8 (10)	10/10	16.2 (10)	96	10/10	15.9 (10)	95	10/10	16.4 (10)	98	10/10	15.7 (10)	93	10/10	15.3 (10)	91	10/10
12-7	16.1 (10)	10/10	15.8 (10)	98	10/10	15.4 (10)	96	10/10	15.6 (10)	97	10/10	15.3 (10)	95	10/10	14.9 (10)	93	10/10
13-7	16.1 (10)	10/10	16.0 (10)	99	10/10	15.6 (10)	97	10/10	15.1 (10)	94	10/10	15.2 (10)	94	10/10	14.5 (10)	90	10/10

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

TABLE E2

**FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE**

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1.j[F344/DuCr.j]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control		1ppm			2ppm			5ppm			10ppm			20ppm		
	Av. FC.	No. of Surviv. <10>	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.
1-7	11.3 (10)	10/10	11.0 (10)	97	10/10	10.8 (10)	96	10/10	10.8 (10)	96	10/10	10.7 (10)	95	10/10	9.8 (10)	87	10/10
2-7	11.4 (10)	10/10	11.7 (10)	103	10/10	11.4 (10)	100	10/10	11.8 (10)	104	10/10	11.2 (10)	98	10/10	10.6 (10)	93	10/10
3-7	11.9 (10)	10/10	11.5 (10)	97	10/10	11.3 (10)	95	10/10	11.6 (10)	97	10/10	10.7 (10)	90	10/10	10.5 (10)	88	10/10
4-7	11.2 (10)	10/10	11.3 (10)	101	10/10	11.0 (10)	98	10/10	11.7 (10)	104	10/10	10.8 (10)	96	10/10	10.4 (10)	93	10/10
5-7	11.9 (10)	10/10	11.8 (10)	99	10/10	11.6 (10)	97	10/10	12.2 (10)	103	10/10	11.0 (10)	92	10/10	10.8 (10)	91	10/10
6-7	11.8 (10)	10/10	11.5 (10)	97	10/10	11.2 (10)	95	10/10	11.3 (10)	96	10/10	10.6 (10)	90	10/10	10.6 (10)	90	10/10
7-7	11.8 (10)	10/10	11.4 (10)	97	10/10	11.3 (10)	96	10/10	11.4 (10)	97	10/10	10.6 (10)	90	10/10	10.6 (10)	90	10/10
8-7	11.0 (10)	10/10	11.0 (10)	100	10/10	11.0 (10)	100	10/10	10.6 (10)	96	10/10	10.4 (10)	95	10/10	10.8 (10)	98	10/10
9-7	11.0 (10)	10/10	10.9 (10)	99	10/10	10.9 (10)	99	10/10	10.6 (10)	96	10/10	10.3 (10)	94	10/10	11.0 (10)	100	10/10
10-7	11.4 (10)	10/10	11.1 (10)	97	10/10	10.9 (10)	96	10/10	10.7 (10)	94	10/10	10.4 (10)	91	10/10	10.2 (10)	89	10/10
11-7	11.4 (10)	10/10	11.4 (10)	100	10/10	11.0 (10)	96	10/10	11.0 (10)	96	10/10	10.9 (10)	96	10/10	10.9 (10)	96	10/10
12-7	11.2 (10)	10/10	11.0 (10)	98	10/10	10.6 (10)	95	10/10	10.8 (10)	96	10/10	10.7 (10)	96	10/10	10.4 (10)	93	10/10
13-7	10.6 (10)	10/10	10.9 (10)	103	10/10	10.7 (10)	101	10/10	10.5 (10)	99	10/10	10.1 (10)	95	10/10	10.1 (10)	95	10/10

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

TABLE E3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	14.3± 1.0	16.4± 1.0	16.8± 0.8	17.1± 1.1	17.2± 0.9	17.1± 0.4	16.9± 0.7
1ppm	14.8± 1.1	16.2± 1.2	16.6± 1.3	16.8± 1.4	17.4± 1.4	17.1± 1.4	16.6± 1.2
2ppm	14.1± 0.8	16.0± 1.3	16.8± 1.7	17.0± 1.3	17.3± 1.6	16.7± 1.6	16.4± 1.2
5ppm	13.9± 0.7	15.9± 0.9	16.7± 0.8	16.8± 0.8	17.2± 0.9	16.6± 1.0	16.3± 0.7
10ppm	14.0± 0.7	15.6± 0.9	16.4± 0.8	16.2± 0.9	16.7± 0.6	16.4± 0.7	16.3± 0.7
20ppm	12.6± 0.8**	14.1± 1.0**	14.8± 1.4**	14.9± 1.5**	15.8± 1.1*	15.3± 1.2**	15.5± 1.3

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	17.0± 0.9	16.4± 1.3	16.5± 1.0	16.8± 0.8	16.1± 0.9	16.1± 0.8
1ppm	16.1± 0.9	16.2± 0.9	16.1± 0.9	16.2± 0.9	15.8± 1.0	16.0± 0.7
2ppm	16.1± 1.3	15.8± 1.1	15.6± 1.2	15.9± 1.1	15.4± 1.2	15.6± 1.0
5ppm	16.1± 0.9	16.1± 0.9	15.6± 0.8	16.4± 0.7	15.6± 0.7	15.1± 0.6*
10ppm	16.0± 0.8	15.8± 0.6	15.5± 0.5	15.7± 0.5*	15.3± 0.7	15.2± 0.7
20ppm	15.7± 1.2	15.8± 1.2	14.8± 1.1**	15.3± 1.2**	14.9± 0.9	14.5± 1.2**

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

TABLE E4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	11.3± 0.8	11.4± 0.8	11.9± 1.2	11.2± 0.8	11.9± 1.0	11.8± 1.2	11.8± 0.9
1ppm	11.0± 0.5	11.7± 0.4	11.5± 0.5	11.3± 0.5	11.8± 1.0	11.5± 0.8	11.4± 0.6
2ppm	10.8± 0.6	11.4± 0.8	11.3± 1.0	11.0± 0.9	11.6± 1.0	11.2± 0.9	11.3± 1.0
5ppm	10.8± 0.6	11.8± 0.6	11.6± 0.7	11.7± 0.6	12.2± 0.9	11.3± 0.9	11.4± 0.9
10ppm	10.7± 0.4	11.2± 0.8	10.7± 1.1*	10.8± 0.8	11.0± 0.7	10.6± 1.0*	10.6± 0.8**
20ppm	9.8± 0.5**	10.6± 0.4*	10.5± 0.8**	10.4± 0.5	10.8± 0.8*	10.6± 0.7*	10.6± 0.5**

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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± 0.8	11.0± 1.0	11.4± 1.3	11.4± 0.7	11.2± 0.5	10.6± 0.7
1ppm	11.0± 0.7	10.9± 0.6	11.1± 0.6	11.4± 0.6	11.0± 0.5	10.9± 0.6
2ppm	11.0± 1.2	10.9± 0.9	10.9± 1.1	11.0± 0.9	10.6± 0.8	10.7± 0.7
5ppm	10.6± 0.9	10.6± 1.0	10.7± 0.9	11.0± 0.8	10.8± 1.0	10.5± 0.5
10ppm	10.4± 0.7	10.3± 1.0	10.4± 0.9	10.9± 1.1	10.7± 0.6	10.1± 0.6
20ppm	10.8± 0.7	11.0± 0.8	10.2± 0.9	10.9± 0.6	10.4± 0.4	10.1± 0.8

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE F1

HEMATOLOGY : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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 /μℓ	HEMOGLOBIN g/dℓ	HEMATOCRIT %	MCV f ℓ	MCH p g	MCHC g/dℓ	PLATELET 10 ⁹ /μℓ
Control	10	9.62± 0.13	16.1± 0.3	46.0± 0.7	47.8± 0.5	16.7± 0.2	34.9± 0.2	680± 47
1ppm	10	9.69± 0.21	16.0± 0.3	46.1± 1.0	47.6± 0.3	16.5± 0.1	34.8± 0.2	686± 48
2ppm	10	9.53± 0.22	16.0± 0.3	45.8± 0.9	48.1± 0.3	16.8± 0.1	34.9± 0.2	718± 51
5ppm	10	9.58± 0.14	16.0± 0.3	45.8± 0.8	47.8± 0.4	16.7± 0.2	34.9± 0.3	674± 67
10ppm	10	9.62± 0.30	16.0± 0.5	46.0± 1.4	47.8± 0.4	16.6± 0.1	34.8± 0.2	677± 76
20ppm	10	9.73± 0.17	16.3± 0.4	46.5± 0.9	47.8± 0.3	16.7± 0.1	34.9± 0.2	720± 43

Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	RETICULOCYTE %		PROTHROMBIN TIME s e c		APTT s e c	
Control	10	1.8±	0.2	15.4±	2.0	23.3±	1.2
1ppm	10	1.9±	0.2	14.7±	1.8	23.0±	1.4
2ppm	10	2.1±	0.1**	14.0±	1.0	22.8±	1.4
5ppm	10	1.8±	0.1	14.6±	1.6	22.9±	1.6
10ppm	10	1.8±	0.1	14.9±	1.6	23.5±	1.5
20ppm	10	1.9±	0.2	14.7±	2.5	23.2±	2.4

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

Group Name	NO. of Animals	WBC		Differential		WBC (%)		MONO	EOSINO	BASO	OTHER				
		10 ³ /μl		NEUTRO		LYMPHO									
Control	10	6.13±	1.11	24±	6	73±	5	2±	1	1±	0	0±	0	1±	0
1ppm	10	6.04±	1.29	23±	3	73±	4	2±	0	1±	0	0±	0	1±	0
2ppm	10	5.93±	1.56	22±	4	75±	4	1±	1	1±	0	0±	0	1±	0
5ppm	10	6.27±	1.50	24±	3	73±	3	1±	0	1±	0	0±	0	1±	0
10ppm	10	5.80±	1.36	23±	6	74±	7	1±	1	1±	0	0±	0	1±	0
20ppm	10	6.49±	1.63	23±	4	74±	4	1±	1	1±	0	0±	0	1±	0

Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

TABLE F2

HEMATOLOGY : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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 /μℓ	HEMOGLOBIN g/dℓ	HEMATOCRIT %	MCV fℓ	MCH p g	MCHC g/dℓ	PLATELET 10 ⁶ /μℓ
Control	10	8.85± 0.20	16.0± 0.4	44.8± 1.2	50.6± 0.4	18.1± 0.2	35.7± 0.2	761± 34
1ppm	10	8.76± 0.26	15.9± 0.5	44.3± 1.4	50.6± 0.3	18.1± 0.1	35.9± 0.2	794± 50
2ppm	10	8.75± 0.20	15.9± 0.3	44.3± 0.9	50.7± 0.3	18.1± 0.1	35.8± 0.2	771± 57
5ppm	10	8.86± 0.14	16.1± 0.3	44.7± 0.6	50.5± 0.3	18.1± 0.2	36.0± 0.4	746± 38
10ppm	10	8.84± 0.23	16.1± 0.5	44.7± 1.2	50.6± 0.3	18.1± 0.1	35.9± 0.3	774± 63
20ppm	10	8.77± 0.20	15.9± 0.4	44.1± 1.1	50.3± 0.2	18.1± 0.1	36.0± 0.2	788± 48

Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

PAGE : 5

Group Name	NO. of Animals	RETICULOCYTE %		PROTHROMBIN TIME s e c		APTT s e c	
Control	10	1.7±	0.2	12.9±	0.3	16.6±	0.8
1ppm	10	1.9±	0.3	13.1±	0.5	17.1±	0.7
2ppm	10	1.9±	0.2	12.9±	0.6	16.9±	0.8
5ppm	10	1.8±	0.2	12.7±	0.5	17.1±	0.5
10ppm	10	1.8±	0.2	13.1±	0.3	17.0±	0.7
20ppm	10	1.7±	0.1	13.1±	0.3	17.3±	0.7

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14#)

Group Name	NO. of Animals	WBC		Differential		WBC (%)		MONO	EOSINO	BASO	OTHER				
		10 ³ /μl		NEUTRO		LYMPHO									
Control	10	3.84±	1.23	23±	4	73±	5	2±	0	2±	1	0±	0	1±	0
1ppm	10	3.18±	0.93	22±	5	74±	6	2±	1	2±	1	0±	0	1±	0
2ppm	10	3.57±	1.21	22±	5	73±	5	2±	1	2±	1	0±	0	1±	1
5ppm	10	3.67±	0.92	20±	3	76±	4	2±	0	2±	1	0±	0	1±	0
10ppm	10	3.66±	0.88	21±	5	75±	5	2±	1	2±	0	0±	0	1±	1
20ppm	10	4.32±	1.18	19±	3	77±	3	2±	1	1±	0	0±	0	1±	0

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

TABLE G1

BIOCHEMISTRY : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	6.5±	0.1	3.5±	0.1	1.2±	0.1	0.09±	0.01	193±	9	62±	4	72±	28
1ppm	10	6.5±	0.2	3.5±	0.1	1.2±	0.1	0.09±	0.01	196±	14	62±	8	63±	19
2ppm	10	6.4±	0.2	3.5±	0.1	1.2±	0.0*	0.10±	0.01	190±	13	61±	5	65±	25
5ppm	10	6.6±	0.1	3.5±	0.1	1.2±	0.1	0.09±	0.01	197±	8	62±	4	65±	18
10ppm	10	6.5±	0.1	3.5±	0.1	1.2±	0.0	0.09±	0.01	192±	12	63±	4	67±	12
20ppm	10	6.4±	0.1	3.5±	0.1	1.2±	0.0	0.09±	0.01	184±	11	62±	4	48±	7

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	117±	8	114±	40	63±	16	139±	71	375±	33	1±	0	103±	16
1ppm	10	115±	11	122±	42	63±	15	139±	74	395±	40	1±	1	108±	15
2ppm	10	114±	8	101±	32	55±	14	122±	38	391±	19	0±	1	107±	19
5ppm	10	116±	6	123±	44	66±	18	154±	49	369±	26	1±	0	111±	18
10ppm	10	118±	5	128±	78	68±	24	176±	91	380±	32	1±	1	124±	27
20ppm	10	114±	2	81±	16	45±	8	120±	30	374±	32	1±	0	111±	11

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	18.2±	1.5	0.6±	0.1	143±	1	3.4±	0.1	107±	1	10.3±	0.2	5.3±	0.7
1ppm	10	18.9±	1.6	0.6±	0.1	142±	1	3.4±	0.1	107±	1	10.2±	0.3	5.4±	0.7
2ppm	10	18.6±	1.4	0.5±	0.0	142±	1	3.5±	0.3	106±	2	10.3±	0.2	5.6±	1.0
5ppm	10	18.3±	1.3	0.6±	0.0	142±	2	3.4±	0.2	107±	2	10.2±	0.2	5.2±	0.9
10ppm	10	17.7±	1.6	0.6±	0.1	142±	1	3.5±	0.2	106±	1	10.2±	0.2	5.4±	0.9
20ppm	10	18.7±	1.1	0.5±	0.0	143±	1	3.5±	0.3	106±	1	10.2±	0.2	5.6±	0.8

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE G2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	3.5±	0.1	1.2±	0.1	0.10±	0.01	142±	13	75±	6	15±	4
1ppm	10	6.3±	0.2	3.5±	0.1	1.2±	0.0	0.10±	0.01	143±	10	69±	7	11±	3
2ppm	10	6.3±	0.1	3.4±	0.1	1.2±	0.1	0.10±	0.01	133±	14	69±	5	13±	3
5ppm	10	6.3±	0.2	3.5±	0.2	1.2±	0.1	0.10±	0.01	145±	10	69±	4	15±	4
10ppm	10	6.3±	0.2	3.4±	0.1	1.2±	0.1	0.10±	0.01	140±	9	70±	6	14±	4
20ppm	10	6.2±	0.2	3.4±	0.1	1.2±	0.1	0.10±	0.01	144±	12	69±	6	11±	2

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

Group Name	NO. of Animals	PHOSPHOLIPID mg/dℓ		AST I U/ℓ		ALT I U/ℓ		LDH I U/ℓ		ALP I U/ℓ		G-GTP I U/ℓ		CK I U/ℓ	
Control	10	138±	7	76±	3	41±	7	122±	24	294±	35	1±	0	113±	14
1ppm	10	131±	12	75±	10	36±	5	138±	36	310±	25	1±	0	121±	24
2ppm	10	130±	7	71±	7	35±	4	115±	45	308±	37	1±	0	112±	23
5ppm	10	133±	8	73±	13	37±	13	130±	61	302±	25	1±	0	116±	33
10ppm	10	131±	8	71±	11	37±	16*	104±	28	306±	21	1±	0	100±	15
20ppm	10	130±	8	67±	5	29±	2**	115±	73	311±	29	3±	5	104±	34

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	19.1±	1.9	0.6±	0.0	142±	1	3.2±	0.1	108±	2	9.8±	0.2	4.7±	0.9
1ppm	10	18.8±	1.3	0.6±	0.0	142±	1	3.3±	0.1	109±	1	9.8±	0.4	4.3±	1.0
2ppm	10	18.1±	1.0	0.6±	0.1	141±	1	3.3±	0.3	108±	2	9.8±	0.2	4.7±	1.0
5ppm	10	18.3±	1.0	0.6±	0.0	142±	1	3.5±	0.5	107±	1	10.0±	0.2	5.1±	1.3
10ppm	10	19.2±	1.7	0.6±	0.1	142±	1	3.4±	0.3	108±	1	10.0±	0.2	5.1±	1.1
20ppm	10	20.1±	3.1	0.6±	0.2	141±	1	3.6±	0.4	108±	2	9.9±	0.3	5.1±	1.3

Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

TABLE H1

URINALYSIS : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Bilirubin			CHI			
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+		-	+	2+
Control	10	0	0	0	0	0	9	1		0	1	7	2	0	0		10	0	0	0	0	0		6	4	0	0	0	0		10	0	0	0
1ppm	10	0	0	0	1	4	2	3	*	0	0	8	2	0	0		10	0	0	0	0	0		6	4	0	0	0	0		10	0	0	0
2ppm	10	0	0	0	0	1	8	1		0	2	5	3	0	0		10	0	0	0	0	0		6	3	1	0	0	0		10	0	0	0
5ppm	10	0	0	0	3	1	4	2		0	5	4	1	0	0		10	0	0	0	0	0		7	2	1	0	0	0		10	0	0	0
10ppm	10	0	0	0	1	4	5	0		0	5	5	0	0	0		10	0	0	0	0	0		7	3	0	0	0	0		10	0	0	0
20ppm	10	0	0	0	0	4	5	1		0	1	8	1	0	0		10	0	0	0	0	0		9	1	0	0	0	0		10	0	0	0

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of CHI SQUARE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	Occult blood				CHI	Urobilinogen				CHI
		-	±	2+	3+		±	2+	3+	4+	
Control	10	10	0	0	0	0	10	0	0	0	0
1ppm	10	10	0	0	0	0	10	0	0	0	0
2ppm	10	8	2	0	0	0	10	0	0	0	0
5ppm	10	10	0	0	0	0	10	0	0	0	0
10ppm	10	10	0	0	0	0	10	0	0	0	0
20ppm	10	10	0	0	0	0	10	0	0	0	0

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

TABLE H2

URINALYSIS : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Bilirubin			CHI			
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+		-	+	2+
Control	10	0	0	0	2	3	3	2		2	7	1	0	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0
1ppm	10	0	0	0	1	2	2	5		3	6	1	0	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0
2ppm	10	0	0	0	1	3	5	1		2	6	2	0	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0
5ppm	10	0	0	0	0	3	4	3		3	6	1	0	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0
10ppm	10	0	0	0	2	3	4	1		4	4	2	0	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0
20ppm	10	0	0	0	1	2	1	6		2	4	3	1	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

STUDY NO. : 0770

URINALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Occult blood					Urobilinogen						
		-	±	+	2+	3+	CHI	±	+	2+	3+	4+	CHI
Control	10	10	0	0	0	0	0	10	0	0	0	0	0
1ppm	10	10	0	0	0	0	0	10	0	0	0	0	0
2ppm	10	10	0	0	0	0	0	10	0	0	0	0	0
5ppm	10	10	0	0	0	0	0	10	0	0	0	0	0
10ppm	10	10	0	0	0	0	0	10	0	0	0	0	0
20ppm	10	10	0	0	0	0	0	10	0	0	0	0	0

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

BATS 4

TABLE I 1

GROSS FINDINGS : MALE

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	Control			
			10 (%)	1ppm	2ppm	5ppm
liver	herniation		1 (10)	0 (0)	1 (10)	1 (10)

(HPT080)

BAIS 4

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	10ppm		20ppm	
			10	(%)	10	(%)
liver	herniation		1	(10)	0	(0)

(HPT080)

TABLE I 2

GROSS FINDINGS : FEMALE

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : AI
SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control			
			10 (%)	10 (%)	10 (%)	10 (%)
				1ppm	2ppm	5ppm
liver	herniation	2 (20)	0 (0)	0 (0)	0 (0)	0 (0)
eye	white	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)

(HPT080)

BAIS 4

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name NO. of Animals	10ppm		20ppm	
			10	(%)	10	(%)
liver	herniation		1	(10)	1	(10)
eye	white		0	(0)	0	(0)

(HPT080)

BAIS 4

TABLE J1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	299± 13	0.249± 0.034	0.051± 0.003	3.142± 0.070	0.924± 0.054	0.948± 0.059
1ppm	10	290± 15	0.250± 0.027	0.049± 0.004	3.062± 0.082	0.919± 0.027	0.926± 0.034
2ppm	10	290± 23	0.237± 0.021	0.049± 0.003	3.129± 0.101	0.940± 0.059	0.936± 0.055
5ppm	10	285± 10	0.243± 0.025	0.051± 0.004	3.080± 0.085	0.907± 0.057	0.940± 0.060
10ppm	10	290± 13	0.235± 0.034	0.051± 0.003	3.146± 0.116	0.914± 0.058	0.961± 0.051
20ppm	10	262± 15**	0.198± 0.028**	0.051± 0.004	3.057± 0.092	0.889± 0.073	0.945± 0.071

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	1.808±	0.082	0.548±	0.041	7.361±	0.504	1.905±	0.043
1ppm	10	1.784±	0.052	0.529±	0.025	7.184±	0.444	1.875±	0.074
2ppm	10	1.815±	0.106	0.539±	0.034	7.098±	0.696	1.915±	0.041
5ppm	10	1.807±	0.091	0.525±	0.025	7.078±	0.224	1.926±	0.027
10ppm	10	1.803±	0.072	0.546±	0.025	7.031±	0.408	1.922±	0.051
20ppm	10	1.772±	0.131	0.512±	0.040	6.562±	0.510**	1.904±	0.043

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE J2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	163± 11	0.195± 0.022	0.054± 0.003	0.095± 0.008	0.592± 0.042	0.691± 0.040
1ppm	10	163± 6	0.188± 0.030	0.056± 0.006	0.099± 0.011	0.612± 0.034	0.686± 0.038
2ppm	10	160± 8	0.177± 0.019	0.056± 0.008	0.102± 0.017	0.605± 0.027	0.689± 0.058
5ppm	10	160± 10	0.185± 0.020	0.056± 0.007	0.100± 0.013	0.612± 0.033	0.674± 0.054
10ppm	10	157± 7	0.188± 0.024	0.055± 0.006	0.096± 0.014	0.587± 0.038	0.688± 0.035
20ppm	10	153± 9	0.177± 0.016	0.057± 0.005	0.099± 0.007	0.606± 0.026	0.708± 0.052

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

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	1.073±	0.040	0.349±	0.018	3.749±	0.208	1.780±	0.024
1ppm	10	1.090±	0.043	0.346±	0.018	3.749±	0.154	1.750±	0.023
2ppm	10	1.087±	0.048	0.354±	0.034	3.759±	0.244	1.756±	0.038
5ppm	10	1.089±	0.045	0.353±	0.018	3.795±	0.241	1.759±	0.036
10ppm	10	1.070±	0.039	0.352±	0.022	3.657±	0.185	1.751±	0.035
20ppm	10	1.113±	0.070	0.356±	0.020	3.726±	0.265	1.740±	0.027

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE K1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	299 ± 13	0.083 ± 0.009	0.017 ± 0.001	1.053 ± 0.042	0.310 ± 0.013	0.318 ± 0.021
1ppm	10	290 ± 15	0.086 ± 0.008	0.017 ± 0.001	1.057 ± 0.038	0.317 ± 0.014	0.320 ± 0.015
2ppm	10	290 ± 23	0.082 ± 0.005	0.017 ± 0.001	1.085 ± 0.075	0.325 ± 0.015	0.324 ± 0.013
5ppm	10	285 ± 10	0.085 ± 0.008	0.018 ± 0.001	1.082 ± 0.033	0.318 ± 0.015	0.330 ± 0.015
10ppm	10	290 ± 13	0.081 ± 0.010	0.018 ± 0.001	1.087 ± 0.044	0.316 ± 0.014	0.332 ± 0.013
20ppm	10	262 ± 15**	0.076 ± 0.009	0.020 ± 0.002**	1.170 ± 0.041**	0.340 ± 0.020**	0.361 ± 0.015**

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0770
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

PAGE : 2

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	0.605 ± 0.020	0.183 ± 0.011	2.462 ± 0.086	0.638 ± 0.027
1ppm	10	0.616 ± 0.023	0.183 ± 0.005	2.477 ± 0.065	0.648 ± 0.033
2ppm	10	0.628 ± 0.033	0.186 ± 0.005	2.447 ± 0.074	0.664 ± 0.040
5ppm	10	0.634 ± 0.029	0.184 ± 0.006	2.485 ± 0.044	0.676 ± 0.024*
10ppm	10	0.623 ± 0.025	0.189 ± 0.005	2.427 ± 0.074	0.664 ± 0.029
20ppm	10	0.677 ± 0.025**	0.196 ± 0.006**	2.505 ± 0.077	0.729 ± 0.032**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

TABLE K2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[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	163± 11	0.120± 0.012	0.033± 0.002	0.058± 0.004	0.364± 0.011	0.425± 0.021
1ppm	10	163± 6	0.115± 0.018	0.035± 0.004	0.061± 0.006	0.376± 0.019	0.421± 0.015
2ppm	10	160± 8	0.111± 0.010	0.035± 0.005	0.063± 0.010	0.379± 0.013	0.431± 0.035
5ppm	10	160± 10	0.116± 0.011	0.035± 0.003	0.063± 0.008	0.384± 0.010**	0.422± 0.024
10ppm	10	157± 7	0.120± 0.014	0.035± 0.003	0.061± 0.007	0.374± 0.010	0.439± 0.014
20ppm	10	153± 9	0.116± 0.011	0.037± 0.003	0.065± 0.004	0.396± 0.013**	0.462± 0.022**

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01

Test of Dunnett

TABLE L1

**HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE**

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name No. of Animals on Study				10ppm				20ppm			
		Grade				10				10			
		1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}													
nasal cavit		<10>				<10>							
	inflammatory infiltration	1	0	0	0	5	0	0	0	0	0	0	0
		(10)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	3	0	0	0	5	0	0	0	0	0	0	0
		(30)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	regeneration:respiratory epithelium	10	0	0	0	10	0	0	0	0	0	0	0
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	regeneration:olfactory epithelium	0	0	0	0	3	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	atrophy:olfactory epithelium	0	0	0	0	7	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(70)	(10)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:olfactory epithelium	0	0	0	0	9	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(90)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:respiratory epithelium	0	0	0	0	3	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:respiratory epithelium	6	0	0	0	10	0	0	0	0	0	0	0
		(60)	(0)	(0)	(0)	(100)	(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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCr.j]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name No. of Animals on Study Grade	Control				1ppm				2ppm				5ppm			
			10				10				10				10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Hematopoietic system)																		
bone marrow	granulation		<10>				<10>				<10>				<10>			
		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)	
(Circulatory system)																		
heart	inflammatory cell nest		<10>				<10>				<10>				<10>			
		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	herniation		<10>				<10>				<10>				<10>			
		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)	
(Urinary system)																		
kidney	eosinophilic body		<10>				<10>				<10>				<10>			
		8	2	0	0	8	2	0	0	8	2	0	0	9	1	0	0	
		(80)	(20)	(0)	(0)	(80)	(20)	(0)	(0)	(80)	(20)	(0)	(0)	(90)	(10)	(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

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name		10ppm				20ppm			
		No. of Animals on Study		10				10			
		Grade		1	2	3	4	1	2	3	4
				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}											
bone marrow	granulation	<10>				<10>					
		0	0	0	0	1	0	0	0		
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)		
{Circulatory system}											
heart	inflammatory cell nest	<10>				<10>					
		2	0	0	0	0	0	0	0		
		(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
{Digestive system}											
liver	herniation	<10>				<10>					
		1	0	0	0	0	0	0	0		
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
{Urinary system}											
kidney	eosinophilic body	<10>				<10>					
		10	0	0	0	10	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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Control				1ppm				2ppm				5ppm				
		No. of Animals on Study				10				10				10				
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Urinary system}																		
kidney	regeneration:proximal tubule	<10>				<10>				<10>				<10>				
		0	0	0	0	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)	
{Endocrine system}																		
pituitary	Rathke pouch	<10>				<10>				<10>				<10>				
		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)	(0)	(0)	(0)	(0)	
thyroid	ultimobranchial body remanet	<10>				<10>				<10>				<10>				
		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	lymphocytic infiltration	<10>				<10>				<10>				<10>				
		1	0	0	0	2	0	0	0	2	0	0	0	6	0	0	0	
		(10)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	

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

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	10ppm				20ppm			
		1	2	3	4	1	2	3	4
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}									
kidney	regeneration:proximal tubule	<10>				<10>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Endocrine system}									
pituitary	Rathke pouch	<10>				<10>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
thyroid	ultimobranchial body remanet	<10>				<10>			
		1	0	0	0	0	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}									
Harder gl	lymphocytic infiltration	<10>				<10>			
		3	0	0	0	3	0	0	0
		(30)	(0)	(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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

TABLE L2

**HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE**

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCr.j]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name				Group Name			
		10ppm				20ppm			
		No. of Animals on Study				No. of Animals on Study			
Grade		10		10		4			
		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}									
nasal cavit									
	inflammatory infiltration	<10>				<10>			
		1	0	0	0	5	0	0	0 *
		(10)	(0)	(0)	(0)	(50)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	4	0	0	0	9	0	0	0 **
		(40)	(0)	(0)	(0)	(90)	(0)	(0)	(0)
	regeneration:respiratory epithelium	8	0	0	0 **	10	0	0	0 **
		(80)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	regeneration:olfactory epithelium	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	atrophy:olfactory epithelium	0	0	0	0	6	0	0	0 *
		(0)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
	necrosis:olfactory epithelium	0	0	0	0	9	1	0	0 **
		(0)	(0)	(0)	(0)	(90)	(10)	(0)	(0)
	erosion:respiratory epithelium	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	hyperplasia:respiratory epithelium	0	0	0	0	9	0	0	0 **
		(0)	(0)	(0)	(0)	(90)	(0)	(0)	(0)

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

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name No. of Animals on Study Grade	Control				1ppm				2ppm				5ppm			
			10				10				10				10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
bone marrow	granulation		<10>				<10>				<10>				<10>			
			0	2	0	0	2	1	0	0	3	1	0	0	4	1	0	0
			(0)	(20)	(0)	(0)	(20)	(10)	(0)	(0)	(30)	(10)	(0)	(0)	(40)	(10)	(0)	(0)
(Circulatory system)																		
heart	inflammatory cell nest		<10>				<10>				<10>				<10>			
			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)
(Digestive system)																		
stomach	hyperplasia:forestomach		<10>				<10>				<10>				<10>			
			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)
	inflammation:forestomach		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)
liver	herniation		<10>				<10>				<10>				<10>			
			2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(20)	(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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name		10ppm				20ppm			
		No. of Animals on Study		10				10			
		Grade		1	2	3	4	1	2	3	4
				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)											
bone marrow	granulation	<10>				<10>					
		2	0	0	0	1	1	0	0		
		(20)	(0)	(0)	(0)	(10)	(10)	(0)	(0)		
(Circulatory system)											
heart	inflammatory cell nest	<10>				<10>					
		0	0	0	0	0	0	0	0		
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
(Digestive system)											
stomach	hyperplasia:forestomach	<10>				<10>					
		0	0	0	0	1	0	0	0		
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)		
	inflammation:forestomach	<10>				<10>					
		0	0	0	0	1	0	0	0		
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)		
liver	herniation	<10>				<10>					
		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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Control				1ppm				2ppm				5ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																	
pituitary	Rathke pouch	<10>				<10>				<10>				<10>			
		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)
thyroid	ultimobranchial body remanet	<10>				<10>				<10>				<10>			
		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)
{Special sense organs/appendage}																	
eye	cataract	<10>				<10>				<10>				<10>			
		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)	(0)	(0)	(0)
Harder gl	lymphocytic infiltration	<10>				<10>				<10>				<10>			
		3	0	0	0	5	0	0	0	3	0	0	0	4	0	0	0
		(30)	(0)	(0)	(0)	(50)	(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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0770
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 14W)

Organ	Findings	Group Name No. of Animals on Study Grade	10ppm				20ppm			
			10				10			
			1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Endocrine system}										
pituitary	Rathke pouch		<10>				<10>			
		0	0	0	0	1	0	0	0	(0) (0) (0) (0) (10) (0) (0) (0)
thyroid	ultimobranchial body remanet		<10>				<10>			
		2	0	0	0	1	0	0	0	(20) (0) (0) (0) (10) (0) (0) (0)
{Special sense organs/appendage}										
eye	cataract		<10>				<10>			
		0	0	0	0	0	0	0	0	(0) (0) (0) (0) (0) (0) (0) (0)
Harder gl	lymphocytic infiltration		<10>				<10>			
		8	0	0	0	6	0	0	0	(80) (0) (0) (0) (60) (0) (0) (0)

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