

ジフェニルアミ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：0669

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TABLE A 1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0669

SURVIVAL ANIMAL NUMBERS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 13

SEX : MALE

PAGE : 1

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
256 ppm	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
640 ppm	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
1600 ppm	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
4000 ppm	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
10000 ppm	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(%)													

(HAN360)

BAIS4

TABLE A 2

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1 13
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 2

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
256 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
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
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(%)															

(HAN360)

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TABLE B 1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0669
 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
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	256 ppm	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
	10000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	2
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	256 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1
	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
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	256 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1
	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
	10000 ppm	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	10
	256 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	640 ppm	9	9	9	9	9	9	9	9	9	9	9	9	9
	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
	10000 ppm	10	10	10	10	10	10	10	10	9	9	9	9	8

TABLE B 2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0669
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
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	256 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	640 ppm	0	0	0	0	0	1	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	1	1	1	1	1
	10000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	256 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	640 ppm	10	10	10	10	10	9	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	9	9	9	9	9
	10000 ppm	10	10	10	10	10	10	10	10	9	9	9	9	9

(HAN190)

BAIS 4

TABLE C 1

BODY WEIGHT CHANGES
AND SURVIVAL ANIMAL NUMBERS
: MALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 1

Week-Day on Study	Control			256 ppm			640 ppm			1600 ppm			4000 ppm			10000 ppm		
	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	126 (10)	10/10		126 (10)	100	10/10	126 (10)	100	10/10	126 (10)	100	10/10	126 (10)	100	10/10	126 (10)	100	10/10
1-7	155 (10)	10/10		156 (10)	101	10/10	153 (10)	99	10/10	153 (10)	99	10/10	149 (10)	96	10/10	133 (10)	86	10/10
2-7	186 (10)	10/10		186 (10)	100	10/10	181 (10)	97	10/10	182 (10)	98	10/10	177 (10)	95	10/10	156 (10)	84	10/10
3-7	212 (10)	10/10		211 (10)	100	10/10	205 (10)	97	10/10	205 (10)	97	10/10	202 (10)	95	10/10	179 (10)	84	10/10
4-7	234 (10)	10/10		234 (10)	100	10/10	225 (10)	96	10/10	223 (10)	95	10/10	220 (10)	94	10/10	199 (10)	85	10/10
5-7	249 (10)	10/10		248 (10)	100	10/10	239 (10)	96	10/10	241 (10)	97	10/10	235 (10)	94	10/10	215 (10)	86	10/10
6-7	262 (10)	10/10		262 (10)	100	10/10	252 (10)	96	10/10	254 (10)	97	10/10	249 (10)	95	10/10	229 (10)	87	10/10
7-7	276 (10)	10/10		276 (10)	100	10/10	266 (10)	96	10/10	267 (10)	97	10/10	258 (10)	93	10/10	240 (10)	87	10/10
8-7	286 (10)	10/10		288 (10)	101	10/10	278 (10)	97	10/10	279 (10)	98	10/10	271 (10)	95	10/10	250 (10)	87	10/10
9-7	299 (10)	10/10		302 (10)	101	10/10	289 (10)	97	10/10	291 (10)	97	10/10	281 (10)	94	10/10	260 (10)	87	10/10
10-7	307 (10)	10/10		310 (10)	101	10/10	299 (10)	97	10/10	301 (10)	98	10/10	291 (10)	95	10/10	269 (10)	88	10/10
11-7	316 (10)	10/10		318 (10)	101	10/10	306 (10)	97	10/10	306 (10)	97	10/10	295 (10)	93	10/10	274 (10)	87	10/10
12-7	323 (10)	10/10		324 (10)	100	10/10	314 (10)	97	10/10	314 (10)	97	10/10	301 (10)	93	10/10	281 (10)	87	10/10
13-7	327 (10)	10/10		331 (10)	101	10/10	317 (10)	97	10/10	317 (10)	97	10/10	304 (10)	93	10/10	283 (10)	87	10/10
< >:No. of effective animals, () :No. of measured animals																		
Av. Wt. : g																		

(BI0040)

BAIS 4

TABLE C 2

BODY WEIGHT CHANGES
AND SURVIVAL ANIMAL NUMBERS
: FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 2

Week-Day on Study	Control			256 ppm			640 ppm			1600 ppm			4000 ppm			10000 ppm		
	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	100 (10)	10/10		100 (10)	100	10/10	100 (10)	100	10/10	100 (10)	100	10/10	100 (10)	100	10/10	100 (10)	100	10/10
1-7	113 (10)	10/10		113 (10)	100	10/10	113 (10)	100	10/10	111 (10)	98	10/10	110 (10)	97	10/10	102 (10)	90	10/10
2-7	123 (10)	10/10		125 (10)	102	10/10	124 (10)	101	10/10	122 (10)	99	10/10	120 (10)	98	10/10	115 (10)	93	10/10
3-7	133 (10)	10/10		133 (10)	100	10/10	131 (10)	98	10/10	130 (10)	98	10/10	128 (10)	96	10/10	124 (10)	93	10/10
4-7	139 (10)	10/10		140 (10)	101	10/10	138 (10)	99	10/10	138 (10)	99	10/10	134 (10)	96	10/10	130 (10)	94	10/10
5-7	145 (10)	10/10		146 (10)	101	10/10	144 (10)	99	10/10	145 (10)	100	10/10	139 (10)	96	10/10	135 (10)	93	10/10
6-7	152 (10)	10/10		153 (10)	101	10/10	144 (10)	95	10/10	150 (10)	99	10/10	145 (10)	95	10/10	141 (10)	93	10/10
7-7	155 (10)	10/10		157 (10)	101	10/10	151 (10)	97	10/10	155 (10)	100	10/10	148 (10)	95	10/10	144 (10)	93	10/10
8-7	160 (10)	10/10		160 (10)	100	10/10	155 (10)	97	10/10	158 (10)	99	10/10	151 (10)	94	10/10	148 (10)	93	10/10
9-7	164 (10)	10/10		164 (10)	100	10/10	160 (10)	98	10/10	162 (10)	99	10/10	154 (10)	94	10/10	153 (10)	93	10/10
10-7	169 (10)	10/10		167 (10)	99	10/10	163 (10)	96	10/10	164 (10)	97	10/10	159 (10)	94	10/10	156 (10)	92	10/10
11-7	173 (10)	10/10		170 (10)	98	10/10	166 (10)	96	10/10	166 (10)	96	10/10	161 (10)	93	10/10	159 (10)	92	10/10
12-7	176 (10)	10/10		175 (10)	99	10/10	170 (10)	97	10/10	169 (10)	96	10/10	165 (10)	94	10/10	162 (10)	92	10/10
13-7	177 (10)	10/10		174 (10)	98	10/10	170 (10)	96	10/10	170 (10)	96	10/10	166 (10)	94	10/10	165 (10)	93	10/10
< >:No. of effective animals, ():No. of measured animals																		
Av. Wt. : g																		

(BI0040)

BAIS 4

TABLE C 3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0669
 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													
	0-0		1-7		2-7		3-7		4-7		5-7		6-7			
Control	126±	4	155±	7	186±	9	212±	11	234±	13	249±	13	262±	15		
256 ppm	126±	4	156±	5	186±	7	211±	9	234±	9	248±	8	262±	11		
640 ppm	126±	4	153±	5	181±	5	205±	4	225±	5	239±	6	252±	6		
1600 ppm	126±	4	153±	5	182±	6	205±	5	223±	8	241±	7	254±	8		
4000 ppm	126±	4	149±	7	177±	9*	202±	10*	220±	12*	235±	12**	249±	13*		
10000 ppm	126±	4	133±	3**	156±	3**	179±	5**	199±	5**	215±	6**	229±	5**		

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week-day		7-7		8-7		9-7		10-7		11-7		12-7		13-7	
Control	276±	15	286±	14	299±	17	307±	18	316±	17	323±	18	327±	19		
256 ppm	276±	11	288±	11	302±	11	310±	11	318±	13	324±	14	331±	12		
640 ppm	266±	7	278±	8	289±	9	299±	11	306±	11	314±	11	317±	12		
1600 ppm	267±	9	279±	11	291±	10	301±	11	306±	11	314±	11	317±	12		
4000 ppm	258±	14**	271±	17*	281±	17**	291±	17*	295±	18**	301±	19**	304±	17**		
10000 ppm	240±	6**	250±	7**	260±	7**	269±	8**	274±	9**	281±	9**	283±	10**		

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

Test of Dunnett

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TABLE C 4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration		week-day									
	0-0		1-7		2-7		3-7		4-7		5-7	
Control	100±	2	113±	3	123±	6	133±	6	139±	8	145±	9
256 ppm	100±	2	113±	4	125±	5	133±	5	140±	6	146±	6
640 ppm	100±	2	113±	3	124±	5	131±	7	138±	7	144±	9
1600 ppm	100±	2	111±	4	122±	5	130±	6	138±	8	145±	7
4000 ppm	100±	2	110±	3	120±	4	128±	4	134±	5	139±	5
10000 ppm	100±	2	102±	3**	115±	5**	124±	5**	130±	7*	135±	6**

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

Test of Dunnett

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BATS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week-day		7-7		8-7		9-7		10-7		11-7		12-7		13-7	
Control	155±	10	160±	10	164±	10	169±	11	173±	11	176±	12	177±	11		
256 ppm	157±	6	160±	8	164±	6	167±	8	170±	8	175±	8	174±	8		
640 ppm	151±	9	155±	9	160±	11	163±	13	166±	12	170±	13	170±	12		
1600 ppm	155±	9	158±	10	162±	11	164±	11	166±	12	169±	12	170±	12		
4000 ppm	148±	5	151±	6	154±	6	159±	7	161±	6*	165±	7	166±	7		
10000 ppm	144±	5*	148±	6*	153±	6*	156±	6*	159±	6**	162±	7*	165±	7		

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

Test of Dunnett

(HAN260)

BATS 4

TABLE D 1

FOOD CONSUMPTION CHANGES
AND SURVIVAL ANIMAL NUMBERS
: MALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

PAGE : 1

Week-Day on Study	Control		256 ppm			640 ppm			1600 ppm			4000 ppm			10000 ppm		
	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	13.2 (10)	10/10	13.1 (10)	99	10/10	12.6 (10)	95	10/10	12.6 (10)	95	10/10	12.1 (10)	92	10/10	9.5 (10)	72	10/10
2-7	14.5 (10)	10/10	14.1 (10)	97	10/10	13.4 (10)	92	10/10	13.6 (10)	94	10/10	13.5 (10)	93	10/10	12.0 (10)	83	10/10
3-7	15.3 (10)	10/10	15.2 (10)	99	10/10	14.5 (10)	95	10/10	14.5 (10)	95	10/10	14.9 (10)	97	10/10	13.0 (10)	85	10/10
4-7	15.9 (10)	10/10	15.5 (10)	97	10/10	14.6 (10)	92	10/10	14.8 (10)	93	10/10	14.8 (10)	93	10/10	13.3 (10)	84	10/10
5-7	15.6 (10)	10/10	15.4 (10)	99	10/10	14.5 (10)	93	10/10	15.0 (10)	96	10/10	14.8 (10)	95	10/10	13.7 (10)	88	10/10
6-7	15.1 (10)	10/10	15.0 (10)	99	10/10	14.4 (10)	95	10/10	14.5 (10)	96	10/10	15.0 (10)	99	10/10	13.6 (10)	90	10/10
7-7	15.6 (10)	10/10	15.3 (10)	98	10/10	14.5 (10)	93	10/10	14.6 (10)	94	10/10	14.8 (10)	95	10/10	13.6 (10)	87	10/10
8-7	15.1 (10)	10/10	15.2 (10)	101	10/10	14.2 (10)	94	10/10	14.4 (10)	95	10/10	14.8 (10)	98	10/10	13.5 (10)	89	10/10
9-7	15.5 (10)	10/10	15.5 (10)	100	10/10	14.5 (10)	94	10/10	14.9 (10)	96	10/10	15.1 (10)	97	10/10	13.8 (10)	89	10/10
10-7	15.0 (10)	10/10	14.8 (10)	99	10/10	14.4 (10)	96	10/10	14.7 (10)	98	10/10	14.8 (10)	99	10/10	13.9 (10)	93	10/10
11-7	15.2 (10)	10/10	15.0 (10)	99	10/10	14.3 (10)	94	10/10	14.4 (10)	95	10/10	14.1 (10)	93	10/10	13.6 (10)	89	10/10
12-7	15.1 (10)	10/10	14.8 (10)	98	10/10	14.5 (10)	96	10/10	14.4 (10)	95	10/10	14.3 (10)	95	10/10	13.5 (10)	89	10/10
13-7	15.2 (10)	10/10	14.8 (10)	97	10/10	14.3 (10)	94	10/10	14.3 (10)	94	10/10	13.9 (10)	91	10/10	13.3 (10)	88	10/10
< >:No. of effective animals, () :No. of measured animals																	
									Av.FC. : g								

(BI0040)

BAIS 4

TABLE D 2

FOOD CONSUMPTION CHANGES
AND SURVIVAL ANIMAL NUMBERS
: FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

PAGE : 2

Week-Day on Study	Control			256 ppm			640 ppm			1600 ppm			4000 ppm			10000 ppm		
	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	10.2 (10)	10/10		10.3 (10)	101	10/10	10.0 (10)	98	10/10	9.5 (10)	93	10/10	9.1 (9)	89	10/10	8.3 (10)	81	10/10
2-7	10.3 (10)	10/10		10.2 (10)	99	10/10	9.9 (10)	96	10/10	9.6 (10)	93	10/10	9.4 (10)	91	10/10	8.9 (10)	86	10/10
3-7	10.5 (10)	10/10		10.7 (10)	102	10/10	10.4 (10)	99	10/10	10.1 (10)	96	10/10	10.0 (10)	95	10/10	9.1 (10)	87	10/10
4-7	10.4 (10)	10/10		10.4 (10)	100	10/10	10.2 (10)	98	10/10	10.5 (10)	101	10/10	9.7 (10)	93	10/10	8.7 (10)	84	10/10
5-7	10.2 (10)	10/10		10.3 (10)	101	10/10	10.4 (10)	102	10/10	10.5 (10)	103	10/10	9.7 (10)	95	10/10	8.6 (10)	84	10/10
6-7	10.2 (10)	10/10		10.1 (10)	99	10/10	9.2 (10)	90	10/10	10.2 (10)	100	10/10	9.5 (10)	93	10/10	8.6 (10)	84	10/10
7-7	9.8 (10)	10/10		10.0 (10)	102	10/10	10.0 (10)	102	10/10	10.0 (10)	102	10/10	9.6 (10)	98	10/10	8.6 (10)	88	10/10
8-7	9.6 (10)	10/10		9.6 (10)	100	10/10	9.6 (10)	100	10/10	9.6 (10)	100	10/10	9.4 (10)	98	10/10	8.3 (10)	86	10/10
9-7	9.7 (10)	10/10		9.6 (10)	99	10/10	9.7 (10)	100	10/10	9.9 (10)	102	10/10	9.3 (10)	96	10/10	8.5 (10)	88	10/10
10-7	9.7 (10)	10/10		9.5 (10)	98	10/10	9.6 (10)	99	10/10	9.5 (10)	98	10/10	9.5 (10)	98	10/10	8.5 (10)	88	10/10
11-7	10.0 (10)	10/10		9.6 (10)	96	10/10	9.7 (10)	97	10/10	9.4 (10)	94	10/10	9.4 (10)	94	10/10	8.8 (10)	88	10/10
12-7	10.0 (10)	10/10		9.9 (10)	99	10/10	9.8 (10)	98	10/10	9.8 (10)	98	10/10	9.7 (10)	97	10/10	8.8 (10)	88	10/10
13-7	9.7 (10)	10/10		9.5 (10)	98	10/10	9.3 (10)	96	10/10	9.7 (10)	100	10/10	9.4 (10)	97	10/10	8.8 (10)	91	10/10
< >:No. of effective animals, () :No. of measured animals																		
										Av. FC. : g								

(BI0040)

BAIS 4

TABLE D 3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration 1-7(7)	week-day(effective) 2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	13.2± 0.6	14.5± 0.9	15.3± 0.9	15.9± 0.9	15.6± 0.9	15.1± 1.0	15.6± 1.5
256 ppm	13.1± 0.7	14.1± 0.9	15.2± 1.0	15.5± 1.2	15.4± 0.6	15.0± 0.8	15.3± 0.7
640 ppm	12.6± 0.6	13.4± 0.5**	14.5± 0.4*	14.6± 0.5**	14.5± 0.4**	14.4± 0.5	14.5± 0.7
1600 ppm	12.6± 0.4	13.6± 0.6*	14.5± 0.6	14.8± 0.9*	15.0± 0.8	14.5± 0.8	14.6± 0.8
4000 ppm	12.1± 0.5**	13.5± 0.8**	14.9± 1.0	14.8± 0.6*	14.8± 0.6*	15.0± 0.7	14.8± 0.8
10000 ppm	9.5± 0.4**	12.0± 0.3**	13.0± 0.5**	13.3± 0.8**	13.7± 0.4**	13.6± 0.5**	13.6± 0.4**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration 8-7(7)	week-day(effective) 9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)
Control	15.1± 0.8	15.5± 1.1	15.0± 1.2	15.2± 1.0	15.1± 1.0	15.2± 1.3
256 ppm	15.2± 0.7	15.5± 0.5	14.8± 0.7	15.0± 0.9	14.8± 0.7	14.8± 0.5
640 ppm	14.2± 0.4	14.5± 0.6*	14.4± 0.5	14.3± 0.6	14.5± 0.5	14.3± 0.7
1600 ppm	14.4± 1.0	14.9± 0.8	14.7± 0.8	14.4± 0.7	14.4± 0.6	14.3± 0.7
4000 ppm	14.8± 1.1	15.1± 0.7	14.8± 0.7	14.1± 1.0*	14.3± 0.9	13.9± 0.7**
10000 ppm	13.5± 0.6**	13.8± 0.6**	13.9± 0.7	13.6± 0.7**	13.5± 0.7**	13.3± 0.5**

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

Test of Dunnett

(HAN260)

BAIS 4

TABLE D 4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

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	10.2± 0.5	10.3± 0.6	10.5± 0.5	10.4± 0.6	10.2± 1.3	10.2± 0.6	9.8± 0.7
256 ppm	10.3± 0.5	10.2± 0.6	10.7± 0.6	10.4± 0.7	10.3± 0.8	10.1± 0.7	10.0± 0.7
640 ppm	10.0± 0.4	9.9± 0.8	10.4± 0.7	10.2± 0.6	10.4± 0.6	9.2± 2.7	10.0± 0.8
1600 ppm	9.5± 0.4*	9.6± 0.5	10.1± 0.6	10.5± 0.6	10.5± 0.8	10.2± 0.8	10.0± 0.8
4000 ppm	9.1± 0.3**	9.4± 0.5*	10.0± 0.6	9.7± 0.6	9.7± 0.5	9.5± 0.5	9.6± 0.4
10000 ppm	8.3± 1.6**	8.9± 0.7**	9.1± 0.6**	8.7± 0.8**	8.6± 0.6**	8.6± 0.6**	8.6± 0.7**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

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	9.6± 0.7	9.7± 0.6	9.7± 0.5	10.0± 0.5	10.0± 0.6	9.7± 0.6
256 ppm	9.6± 0.5	9.6± 0.4	9.5± 0.7	9.6± 0.6	9.9± 0.7	9.5± 0.6
640 ppm	9.6± 1.0	9.7± 0.9	9.6± 1.0	9.7± 0.8	9.8± 0.6	9.3± 0.8
1600 ppm	9.6± 0.7	9.9± 0.8	9.5± 0.8	9.4± 1.0	9.8± 1.0	9.7± 0.8
4000 ppm	9.4± 0.5	9.3± 0.5	9.5± 0.5	9.4± 0.5	9.7± 0.6	9.4± 0.6
10000 ppm	8.3± 0.5**	8.5± 0.6**	8.5± 0.5**	8.8± 0.6**	8.8± 0.6**	8.8± 0.5

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

Test of Dunnett

(HAN260)

BATS 4

TABLE E 1

CHEMICAL INTAKE CHANGES : MALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : mg/kg/day
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

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
256 ppm	22±	1	20±	1	18±	1	17±	1	16±	0	15±	0	14±	0
640 ppm	53±	1	48±	1	45±	1	42±	1	39±	1	37±	1	35±	2
1600 ppm	133±	3	120±	3	113±	3	106±	4	99±	4	92±	3	87±	3
4000 ppm	324±	11	304±	10	295±	9	268±	10	251±	6	241±	6	229±	6
10000 ppm	711±	32	770±	23	728±	24	669±	33	637±	21	594±	24	568±	12

(HAN300)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : mg/kg/day
 REPORT TYPE : A1 13
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration (weeks)											
	8		9		10		11		12		13	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
256 ppm	14±	1	13±	0	12±	1	12±	1	12±	1	12±	1
640 ppm	33±	1	32±	1	31±	1	30±	1	30±	1	29±	1
1600 ppm	83±	3	82±	3	78±	2	75±	2	73±	2	72±	2
4000 ppm	219±	6	215±	10	204±	5	191±	8	190±	7	183±	5
10000 ppm	541±	22	530±	16	517±	17	498±	23	481±	15	471±	14

(HAN300)

BAIS 4

TABLE E 2

CHEMICAL INTAKE CHANGES : FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : mg/kg/day
 REPORT TYPE : A1 13
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

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
256 ppm	23±	1	21±	1	21±	1	19±	1	18±	1	17±	1	16±	1
640 ppm	57±	2	51±	2	51±	2	48±	1	46±	2	40±	10	42±	4
1600 ppm	137±	4	127±	4	124±	4	122±	5	117±	6	109±	4	103±	4
4000 ppm	331±	15	314±	13	314±	15	289±	11	279±	10	264±	6	260±	11
10000 ppm	813±	168	773±	37	735±	24	666±	41	637±	29	608±	30	595±	34

(HAN300)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : mg/kg/d a y
 REPORT TYPE : A1 13
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration (weeks)											
	8	9	10	11	12	13						
Control	0± 0	0± 0	0± 0	0± 0	0± 0	0± 0						
256 ppm	15± 0	15± 0	14± 1	14± 1	15± 1	14± 1						
640 ppm	40± 4	39± 2	38± 2	37± 1	37± 2	35± 2						
1600 ppm	97± 4	98± 3	92± 3	91± 5	92± 4	91± 3						
4000 ppm	249± 12	242± 10	240± 8	234± 9	235± 11	228± 11						
10000 ppm	563± 19	558± 30	546± 18	551± 32	542± 29	537± 24						

(HAN300)

BAIS 4

TABLE F 1

HEMATOLOGY : MALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	10	9.31±	0.18	16.3±	0.3	42.8±	0.7	46.0±	0.4	17.5±	0.2	38.1±	0.3	718±	65
256 ppm	10	9.29±	0.18	16.2±	0.3	43.0±	0.8	46.3±	0.2	17.5±	0.2	37.8±	0.4	704±	73
640 ppm	10	8.98±	0.10**	15.9±	0.2*	42.0±	0.5	46.8±	0.3**	17.7±	0.2	37.9±	0.4	704±	42
1600 ppm	10	8.53±	0.26**	15.5±	0.4**	41.3±	1.1**	48.4±	0.4**	18.2±	0.3**	37.6±	0.3	678±	52
4000 ppm	10	7.92±	0.19**	14.9±	0.3**	40.3±	0.8**	50.8±	0.5**	18.8±	0.3**	36.9±	0.4**	653±	75
10000 ppm	10	7.33±	0.14**	14.6±	0.3**	39.9±	0.8**	54.5±	0.6**	19.9±	0.5**	36.5±	0.6**	525±	38**

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

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0669
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 %		METHEMOGLOBIN %	
Control	10	1.9±	0.1	0.6±	0.1
256 ppm	10	1.9±	0.2	0.8±	0.2
640 ppm	10	2.4±	0.2**	1.0±	0.2**
1600 ppm	10	3.3±	0.5**	1.0±	0.2**
4000 ppm	10	4.7±	0.4**	2.5±	0.5**
10000 ppm	10	6.9±	0.5**	4.1±	1.0**

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

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	WBC 1 O ³ /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHER	
Control	10	6.49±	1.04	0±	0	18±	3	1±	1	0±	0	3±	1	78±	3	0±	0
256 ppm	10	7.07±	1.04	0±	0	20±	5	1±	1	0±	0	3±	1	76±	5	0±	0
640 ppm	10	7.09±	1.06	0±	0	20±	3	1±	1	0±	0	2±	0	77±	3	0±	0
1600 ppm	10	8.00±	1.33*	1±	1	17±	4	1±	1	0±	0	3±	1	79±	3	0±	1
4000 ppm	10	7.84±	1.60*	0±	0	14±	2	1±	1	0±	0	2±	1	83±	2*	0±	0
10000 ppm	10	5.78±	0.68	1±	1	14±	4	1±	1	0±	0	2±	1	83±	5	0±	0

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

TABLE F 2

HEMATOLOGY : FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	10	8.68±	0.27	16.3±	0.4	41.9±	0.9	48.3±	0.8	18.8±	0.4	38.8±	0.4	772±	38
256 ppm	10	8.20±	0.09**	15.7±	0.2**	40.7±	0.3**	49.6±	0.4**	19.1±	0.2*	38.6±	0.3	826±	22**
640 ppm	10	8.12±	0.20**	15.8±	0.3**	40.8±	0.8**	50.2±	0.4**	19.4±	0.2**	38.6±	0.3	804±	37
1600 ppm	10	7.58±	0.14**	14.8±	0.2**	38.8±	0.7**	51.3±	0.5**	19.6±	0.2**	38.2±	0.3**	823±	40**
4000 ppm	10	7.32±	0.15**	14.6±	0.3**	38.5±	0.6**	52.6±	0.6**	20.0±	0.2**	38.0±	0.3**	793±	33
10000 ppm	10	6.65±	0.19**	14.0±	0.2**	37.5±	0.5**	56.4±	1.0**	21.1±	0.5**	37.4±	0.4**	579±	32**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	RETICULOCYTE %		METHEMOGLOBIN %	
Control	10	1.7±	0.3	0.6±	0.1
256 ppm	10	2.3±	0.3**	0.9±	0.2**
640 ppm	10	2.3±	0.3**	0.9±	0.1**
1600 ppm	10	3.3±	0.5**	1.3±	0.2**
4000 ppm	10	4.7±	1.0**	2.8±	0.4**
10000 ppm	10	8.4±	1.0**	4.4±	0.5**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

PAGE : 6

Group Name	No. of Animals	WBC 1 O ³ /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHER	
Control	10	4.44±	0.90	1±	1	19±	6	1±	1	0±	0	2±	1	78±	6	0±	0
256 ppm	10	4.68±	0.54	0±	0	14±	3*	1±	1	0±	0	2±	1	83±	2*	0±	0
640 ppm	10	4.72±	1.19	1±	1	16±	2	1±	1	0±	0	2±	1	81±	2	0±	0
1600 ppm	10	5.17±	1.49	0±	1	14±	3*	1±	1	0±	0	2±	1	83±	4*	0±	1
4000 ppm	10	5.37±	1.08	0±	0	12±	3**	1±	1	0±	0	2±	1	85±	3**	0±	0
10000 ppm	10	4.94±	1.02	0±	1	12±	3**	1±	1	0±	0	2±	1	85±	3**	0±	0

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

TABLE G 1

BIOCHEMISTRY : MALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 1

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	6.4±	0.1	3.6±	0.1	1.2±	0.1	0.10±	0.01	183±	6	60±	3	58±	16
256 ppm	10	6.4±	0.1	3.6±	0.1	1.3±	0.1	0.10±	0.01	187±	12	58±	3	67±	17
640 ppm	10	6.3±	0.1	3.6±	0.1	1.3±	0.1*	0.11±	0.01	181±	10	59±	4	60±	22
1600 ppm	10	6.4±	0.1	3.7±	0.1**	1.4±	0.1**	0.12±	0.01**	188±	7	63±	4	77±	18
4000 ppm	10	6.6±	0.1**	4.0±	0.1**	1.5±	0.1**	0.12±	0.01**	180±	6	81±	7**	67±	19
10000 ppm	10	6.5±	0.1*	4.0±	0.1**	1.6±	0.1**	0.16±	0.01**	168±	8**	85±	4**	55±	18

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

PAGE : 2

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	115±	5	81±	20	45±	8	185±	64	256±	9	1±	0	107±	14
256 ppm	10	113±	10	95±	27	52±	13	192±	61	266±	21	1±	0	102±	17
640 ppm	10	115±	7	98±	25	52±	10	176±	60	264±	20	1±	1	94±	16
1600 ppm	10	125±	4**	117±	50	62±	25*	202±	72	277±	21	1±	1	87±	14**
4000 ppm	10	152±	12**	104±	27	58±	15*	188±	59	272±	20	1±	0	76±	6**
10000 ppm	10	158±	8**	97±	41	45±	14	193±	96	268±	19	1±	0	73±	8**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 3

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	19.0±	1.1	0.6±	0.1	143±	2	3.7±	0.3	105±	1	10.4±	0.1	5.7±	0.5
256 ppm	10	18.6±	1.3	0.5±	0.0	143±	1	3.5±	0.1	105±	1	10.4±	0.2	5.5±	0.6
640 ppm	10	19.0±	1.4	0.5±	0.0	143±	1	3.5±	0.2	106±	1	10.2±	0.2	5.3±	0.6
1600 ppm	10	19.4±	1.2	0.5±	0.0	143±	1	3.5±	0.2	105±	1	10.3±	0.2	5.2±	0.7
4000 ppm	10	20.5±	2.2	0.5±	0.0	143±	2	3.6±	0.2	105±	1	10.3±	0.2	5.2±	0.6
10000 ppm	10	21.3±	1.9**	0.5±	0.0	142±	1	3.8±	0.2	105±	1	10.3±	0.2	5.5±	0.6

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

TABLE G 2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

PAGE : 4

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	6.0±	0.2	3.5±	0.1	1.4±	0.1	0.11±	0.01	144±	7	67±	4	12±	4
256 ppm	10	6.1±	0.1	3.6±	0.1*	1.4±	0.1	0.12±	0.01*	140±	8	68±	3	10±	3
640 ppm	10	6.2±	0.1	3.7±	0.1**	1.5±	0.1	0.12±	0.01	151±	10	71±	3	11±	3
1600 ppm	10	6.3±	0.1**	3.8±	0.1**	1.6±	0.1**	0.13±	0.01**	153±	12	70±	6	11±	3
4000 ppm	10	6.5±	0.1**	4.0±	0.1**	1.6±	0.1**	0.15±	0.01**	153±	11	79±	5**	11±	2
10000 ppm	10	6.4±	0.1**	4.0±	0.1**	1.6±	0.1**	0.18±	0.02**	147±	7	90±	6**	13±	3

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 5

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	129±	8	69±	10	34±	6	94±	17	190±	15	2±	1	82±	9
256 ppm	10	132±	6	73±	20	37±	13	99±	31	188±	18	1±	0	77±	9
640 ppm	10	134±	4	70±	9	33±	3	120±	53	205±	14	2±	1	79±	15
1600 ppm	10	130±	9	73±	18	34±	8	149±	75	209±	18	2±	1	83±	22
4000 ppm	10	141±	7**	76±	15	34±	7	159±	68*	202±	13	1±	1	82±	20
10000 ppm	10	155±	9**	86±	18	34±	6	204±	69**	244±	21**	2±	1	83±	27

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 6

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	17.8±	1.4	0.5±	0.1	143±	1	3.6±	0.4	107±	1	10.0±	0.1	4.6±	1.2
256 ppm	10	17.4±	1.7	0.5±	0.0	143±	2	3.6±	0.2	107±	1	10.1±	0.1	4.9±	1.0
640 ppm	10	18.0±	2.8	0.5±	0.1	143±	0	3.6±	0.2	107±	1	10.0±	0.2	4.5±	0.9
1600 ppm	10	18.3±	1.6	0.5±	0.0	143±	1	3.7±	0.3	107±	1	10.1±	0.1	4.7±	1.2
4000 ppm	10	20.0±	1.9	0.5±	0.0	144±	1	3.7±	0.3	107±	1	10.2±	0.1	4.9±	0.7
10000 ppm	10	22.0±	2.6**	0.5±	0.0	142±	1	4.0±	0.3*	106±	1	10.1±	0.2	5.1±	0.7

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

TABLE H 1

URINALYSIS : MALE

STUDY NO. : 0669

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

URINALYSIS

PAGE : 1

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	4	6		0	0	2	8	0	0		10	0	0	0	0	0		0	8	2	0	0	0		10	0	0	0
256 ppm	10	0	0	0	0	0	5	5		0	0	2	8	0	0		10	0	0	0	0	0		0	9	1	0	0	0		10	0	0	0
640 ppm	10	0	0	0	0	0	5	5		0	0	1	9	0	0		10	0	0	0	0	0		0	10	0	0	0	0		10	0	0	0
1600 ppm	10	0	0	0	0	0	6	4		0	0	2	7	1	0		10	0	0	0	0	0		0	10	0	0	0	0		10	0	0	0
4000 ppm	10	0	0	0	0	0	7	3		0	0	2	8	0	0		10	0	0	0	0	0		—	—	—	—	—	—		—	—	—	—
10000 ppm	10	0	0	0	0	0	9	1	*	0	0	1	9	0	0		10	0	0	0	0	0		—	—	—	—	—	—		—	—	—	—

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

Test of CHI SQUARE

REPORT TYPE : A1

URINALYSIS

PAGE : 2

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	
256 ppm	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	
10000 ppm	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 H 2

URINALYSIS : FEMALE

SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 3

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	8	2		0	2	6	2	0	0		10	0	0	0	0	0		4	6	0	0	0	0		10	0	0	0	
256 ppm	10	0	0	0	0	0	6	4		0	2	6	2	0	0		10	0	0	0	0	0		6	4	0	0	0	0		10	0	0	0	
640 ppm	10	0	0	0	0	0	5	5		0	4	5	1	0	0		10	0	0	0	0	0		4	6	0	0	0	0		10	0	0	0	
1600 ppm	10	0	0	0	0	0	8	2		0	4	6	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	7	3		1	5	4	0	0	0		10	0	0	0	0	0		—	—	—	—	—	—		—	—	—	—	
10000 ppm	10	0	0	0	0	0	7	3		0	2	8	0	0	0		10	0	0	0	0	0		—	—	—	—	—	—		—	—	—	—	

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

Test of CHI SQUARE

STUDY NO. : 0669

URINALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

PAGE : 4

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

TABLE I 1

GROSS FINDINGS : MALE :
ALL ANIMALS

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		256 ppm		640 ppm		1600 ppm	
			10	(%)	10	(%)	10	(%)	10	(%)
spleen	enlarged		0	(0)	0	(0)	0	(0)	0	(0)
	rough		0	(0)	0	(0)	0	(0)	0	(0)
liver	herniation		1	(10)	1	(10)	0	(0)	1	(10)
eye	turbid		0	(0)	0	(0)	1	(10)	0	(0)

(HPT080)

BATS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	4000 ppm		10000 ppm	
			10	(%)	10	(%)
spleen	enlarged		10	(100)	10	(100)
	rough		10	(100)	10	(100)
liver	herniation		1	(10)	0	(0)
eye	turbid		0	(0)	0	(0)

(HPT080)

BATS 4

TABLE I 2

GROSS FINDINGS : FEMALE :
ALL ANIMALS

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		256 ppm		640 ppm		1600 ppm	
			10	(%)	10	(%)	10	(%)	10	(%)
spleen	enlarged		0	(0)	0	(0)	0	(0)	0	(0)
	rough		0	(0)	0	(0)	0	(0)	0	(0)
liver	herniation		2	(20)	0	(0)	1	(10)	1	(10)

(HPT080)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	4000 ppm		10000 ppm	
			10	(%)	10	(%)
spleen	enlarged		0	(0)	10	(100)
	rough		0	(0)	10	(100)
liver	herniation		1	(10)	1	(10)

(HPT080)

BAIS 4

TABLE J 1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

PAGE : 1

Group Name	NO. of Animals	Body Weight		THYMUS		ADRENALS		TESTES		HEART		LUNGS	
Control	10	306±	18	0.201±	0.030	0.051±	0.003	3.162±	0.109	0.914±	0.066	0.998±	0.050
256 ppm	10	310±	13	0.201±	0.021	0.051±	0.003	3.104±	0.146	0.920±	0.027	0.984±	0.037
640 ppm	10	298±	11	0.192±	0.018	0.050±	0.005	3.123±	0.098	0.880±	0.039	0.979±	0.016
1600 ppm	10	298±	10	0.183±	0.018	0.049±	0.007	3.117±	0.212	0.885±	0.074	0.974±	0.058
4000 ppm	10	284±	16**	0.179±	0.019	0.048±	0.005	3.140±	0.137	0.898±	0.070	0.950±	0.079*
10000 ppm	10	264±	9**	0.182±	0.015	0.050±	0.005	3.101±	0.121	0.854±	0.041*	0.910±	0.053**

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

PAGE : 2

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	10	1.886±	0.091	0.588±	0.055	7.513±	0.480	1.923±	0.028
256 ppm	10	1.869±	0.070	0.581±	0.029	7.657±	0.438	1.901±	0.034
640 ppm	10	1.831±	0.078	0.592±	0.030	7.490±	0.413	1.904±	0.043
1600 ppm	10	1.847±	0.088	0.711±	0.058**	8.342±	0.410**	1.905±	0.044
4000 ppm	10	1.925±	0.161	1.013±	0.065**	9.823±	0.559**	1.884±	0.065
10000 ppm	10	1.979±	0.088	1.586±	0.098**	10.061±	0.546**	1.865±	0.023**

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

Test of Dunnett

(HCL040)

BAIS 4

TABLE J 2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

PAGE : 3

Group Name	NO. of Animals	Body Weight		THYMUS		ADRENALS		OVARIES		HEART		LUNGS	
Control	10	164±	11	0.163±	0.007	0.055±	0.007	0.095±	0.011	0.577±	0.026	0.697±	0.030
256 ppm	10	163±	8	0.157±	0.021	0.055±	0.006	0.093±	0.009	0.591±	0.034	0.689±	0.038
640 ppm	10	158±	12	0.162±	0.026	0.055±	0.004	0.091±	0.012	0.573±	0.051	0.692±	0.037
1600 ppm	10	159±	12	0.162±	0.016	0.055±	0.003	0.095±	0.006	0.589±	0.039	0.699±	0.037
4000 ppm	10	154±	6	0.165±	0.019	0.050±	0.002	0.090±	0.007	0.574±	0.030	0.680±	0.039
10000 ppm	10	152±	6*	0.162±	0.028	0.045±	0.003**	0.078±	0.008**	0.566±	0.047	0.662±	0.046

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

PAGE : 4

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	10	1.089±	0.062	0.368±	0.022	3.770±	0.228	1.766±	0.033
256 ppm	10	1.124±	0.061	0.394±	0.026	3.869±	0.186	1.751±	0.037
640 ppm	10	1.114±	0.043	0.391±	0.026	3.948±	0.251	1.739±	0.047
1600 ppm	10	1.115±	0.057	0.456±	0.037**	4.378±	0.304**	1.756±	0.030
4000 ppm	10	1.112±	0.036	0.636±	0.043**	4.922±	0.217**	1.749±	0.043
10000 ppm	10	1.180±	0.063**	1.063±	0.050**	5.490±	0.305**	1.731±	0.048

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

Test of Dunnett

(HCL040)

BAIS 4

TABLE K 1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

PAGE : 1

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	10	306± 18	0.066± 0.010	0.017± 0.001	1.036± 0.071	0.299± 0.014	0.326± 0.018
256 ppm	10	310± 13	0.065± 0.005	0.016± 0.001	1.003± 0.057	0.297± 0.013	0.317± 0.010
640 ppm	10	298± 11	0.064± 0.006	0.017± 0.002	1.051± 0.038	0.296± 0.010	0.330± 0.013
1600 ppm	10	298± 10	0.062± 0.007	0.016± 0.002	1.047± 0.068	0.297± 0.015	0.327± 0.014
4000 ppm	10	284± 16**	0.063± 0.007	0.017± 0.002	1.107± 0.049*	0.316± 0.014*	0.334± 0.016
10000 ppm	10	264± 9**	0.069± 0.006	0.019± 0.002*	1.178± 0.059**	0.324± 0.015**	0.345± 0.019*

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0669
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	0.617± 0.023	0.192± 0.011	2.453± 0.065	0.630± 0.038
256 ppm	10	0.604± 0.021	0.188± 0.008	2.470± 0.070	0.614± 0.024
640 ppm	10	0.615± 0.015	0.199± 0.012	2.517± 0.079	0.641± 0.023
1600 ppm	10	0.620± 0.022	0.239± 0.015**	2.801± 0.101**	0.640± 0.014
4000 ppm	10	0.677± 0.026**	0.357± 0.019**	3.460± 0.116**	0.664± 0.022*
10000 ppm	10	0.751± 0.015**	0.602± 0.030**	3.817± 0.120**	0.709± 0.022**

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

Test of Dunnett

(HCL042)

BAIS 4

TABLE K 2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: %

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

PAGE : 3

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	10	164± 11	0.099± 0.004	0.033± 0.003	0.058± 0.006	0.352± 0.018	0.426± 0.022
256 ppm	10	163± 8	0.096± 0.010	0.034± 0.004	0.057± 0.006	0.363± 0.018	0.423± 0.021
640 ppm	10	158± 12	0.102± 0.013	0.035± 0.004	0.058± 0.006	0.363± 0.016	0.439± 0.027
1600 ppm	10	159± 12	0.102± 0.009	0.035± 0.002	0.060± 0.005	0.372± 0.029	0.440± 0.018
4000 ppm	10	154± 6	0.107± 0.009	0.032± 0.002	0.059± 0.005	0.373± 0.018	0.442± 0.016
10000 ppm	10	152± 6*	0.106± 0.015	0.029± 0.002*	0.051± 0.004	0.371± 0.028	0.434± 0.021

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	0.664± 0.026	0.224± 0.011	2.300± 0.096	1.081± 0.076
256 ppm	10	0.690± 0.029	0.242± 0.014**	2.374± 0.075	1.077± 0.057
640 ppm	10	0.707± 0.047*	0.247± 0.008**	2.499± 0.075**	1.105± 0.089
1600 ppm	10	0.702± 0.032*	0.287± 0.009**	2.754± 0.104**	1.108± 0.076
4000 ppm	10	0.723± 0.019**	0.414± 0.022**	3.200± 0.071**	1.139± 0.037
10000 ppm	10	0.775± 0.032**	0.698± 0.025**	3.602± 0.131**	1.137± 0.033

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

Test of Dunnett

(HCL042)

BAIS 4

TABLE L 1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE :
ALL ANIMALS

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ_____	Findings_____	Group Name	Control				256 ppm				640 ppm				1600 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
nasal cavit			<10>				<10>				<10>				<10>			
	respiratory metaplasia:gland		1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Hematopoietic system)																		
bone marrow			<10>				<10>				<10>				<10>			
	increased hematopoiesis		0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(60)	(0)	(0)
spleen			<10>				<10>				<10>				<10>			
	deposit of hemosiderin		0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)
	extramedullary hematopoiesis		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)	(100)	(0)	(0)	
	engorgement of erythrocyte		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)	(100)	(0)	(0)	
	capsule hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name		4000 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>					
	respiratory metaplasia:gland	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Hematopoietic system)											
bone marrow		<10>				<10>					
	increased hematopoiesis	10	0	0	0	0 **	10	0	0	0	0 **
		(100)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(0)
spleen		<10>				<10>					
	deposit of hemosiderin	10	0	0	0	0 **	10	0	0	0	0 **
		(100)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis	10	0	0	0	0 **	10	0	0	0	0 **
		(100)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(0)
	engorgement of erythrocyte	10	0	0	0	0 **	0	10	0	0	0 **
		(100)	(0)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	capsule hyperplasia	10	0	0	0	0 **	1	9	0	0	0 **
		(100)	(0)	(0)	(0)	(0)	(10)	(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. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				256 ppm 10				640 ppm 10				1600 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver			<10>				<10>				<10>				<10>			
	herniation		1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	necrosis:focal		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)
	deposit of hemosiderin		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)
	granulation		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)
	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>			
	deposit of hemosiderin		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)
	eosinophilic body		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)

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. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

		4000 ppm				10000 ppm			
		No. of Animals on Study				No. of Animals on Study			
		Grade				Grade			
Organ	Findings	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)									
liver		<10>				<10>			
	herniation	1	0	0	0	0	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of hemosiderin	6	0	0	0 *	10	0	0	0 **
		(60)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	granulation	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hepatocellular hypertrophy:central	10	0	0	0 **	10	0	0	0 **
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
(Urinary system)									
kidney		<10>				<10>			
	deposit of hemosiderin	10	0	0	0 **	10	0	0	0 **
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	eosinophilic body	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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				256 ppm 10				640 ppm 10				1600 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																		
kidney	degeneration:tubule		<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)
(Endocrine system)																		
pituitary	Rathke pouch		<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)
(Reproductive system)																		
testis	germ cell necrosis		<10>				<10>				<10>				<10>			
			0	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)
prostate	lymphocytic infiltration		<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)
[Special sense organs/appendage]																		
eye	retinal atrophy		<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)

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. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 6

		Group Name	4000 ppm				10000 ppm			
		No. of Animals on Study	10				10			
Organ	Findings	Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}										
kidney			<10>				<10>			
	degeneration:tubule		0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Endocrine system}										
pituitary			<10>				<10>			
	Rathke pouch		2	0	0	0	2	0	0	0
			(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Reproductive system}										
testis			<10>				<10>			
	germ cell necrosis		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prostate			<10>				<10>			
	lymphocytic infiltration		0	1	0	0	0	0	0	0
			(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}										
eye			<10>				<10>			
	retinal atrophy		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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				256 ppm 10				640 ppm 10				1600 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																		
eye	mineralization:cornea		<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)
Harder gl	lymphocytic infiltration		<10>				<10>				<10>				<10>			
			2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(20)	(0)	(0)	(0)	(0)	(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																	

(HPT150)

BAIS4

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 8

Organ_____	Findings_____	Group Name	4000 ppm				10000 ppm				
		No. of Animals on Study	10				10				
		Grade	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}											
eye			<10>				<10>				
	mineralization:cornea		0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl			<10>				<10>				
	lymphocytic infiltration		1	0	0	0	6	3	0	0	**
			(10)	(0)	(0)	(0)	(60)	(30)	(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 : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

(HPT150)

BAIS4

TABLE L 2

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE :
ALL ANIMALS

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 9

Organ	Findings	Group Name	Control				256 ppm				640 ppm				1600 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	granulation		<10>				<10>				<10>				<10>			
		0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
		(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	
	increased hematopoiesis	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0 *	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	
spleen	deposit of hemosiderin		<10>				<10>				<10>				<10>			
		0	0	0	0	0	0	0	0	10	0	0	0 **	10	0	0	0 **	
		(0)	(0)	(0)	(0)	(0)	(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	10	0	0	0 **	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
	engorgement of erythrocyte	0	0	0	0	0	0	0	0	9	0	0	0 **	10	0	0	0 **	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(90)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
	capsule hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
(Digestive system)																		
liver	herniation		<10>				<10>				<10>				<10>			
		2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	
		(20)	(0)	(0)	(0)	(0)	(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																		

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade	4000 ppm				10000 ppm			
			10				10			
			1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)										
bone marrow	granulation		<10>				<10>			
			0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	increased hematopoiesis		10	0	0	0 **	10	0	0	0 **
			(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
spleen	deposit of hemosiderin		<10>				<10>			
			10	0	0	0 **	7	0	0	0 **
			(100)	(0)	(0)	(0)	(70)	(0)	(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 **	0	10	0	0 **
			(100)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
	capsule hyperplasia		10	0	0	0 **	0	10	0	0 **
			(100)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
(Digestive system)										
liver	herniation		<10>				<10>			
			1	0	0	0	2	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 : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				256 ppm 10				640 ppm 10				1600 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver	deposit of hemosiderin		<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)
	granulation		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)
	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	deposit of hemosiderin		<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)
	mineralization:cortico-medullary junction		0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Endocrine system)																		
pituitary	Rathke pouch		<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)

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. : 0869
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 12

		Group Name				4000 ppm				10000 ppm			
		No. of Animals on Study				10				10			
		Grade											
Organ	Findings	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}													
liver		<10>				<10>				<10>			
	deposit of hemosiderin	7	0	0	0 **	10	0	0	0 **	10	0	0	0 **
		(70)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	granulation	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hepatocellular hypertrophy:central	10	0	0	0 **	4	6	0	0 **	4	6	0	0 **
		(100)	(0)	(0)	(0)	(40)	(60)	(0)	(0)	(40)	(60)	(0)	(0)
{Urinary system}													
kidney		<10>				<10>				<10>			
	deposit of hemosiderin	10	0	0	0 **	10	0	0	0 **	10	0	0	0 **
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	mineralization:cortico-medullary junction	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Endocrine system}													
pituitary		<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)

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. : 0669
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 13

Organ	Findings	Group Name				Control				256 ppm				640 ppm				1600 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
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Special sense organs/appendage}

Harder gl	lymphocytic infiltration	<10>				<10>				<10>				<10>			
		2	1	0	0	2	0	0	0	1	0	0	0	1	0	0	0
		(20)	(10)	(0)	(0)	(20)	(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 : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

(HPT150)

BAIS4

STUDY NO. : 0669
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 14

Organ_____	Findings_____	Group Name				4000 ppm				10000 ppm			
		No. of Animals on Study				10				10			
		Grade											
		1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

(Special sense organs/appendage)

Harder gl	lymphocytic infiltration	<10>				<10>			
		2	0	0	0	4	3	1	0
		(20)	(0)	(0)	(0)	(40)	(30)	(10)	(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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

(HPT150)

BAIS4