

2-ブロモプロパンのラットを用いた
吸入による 2 週間毒性試験報告書

試験番号：0834

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TABLE A

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

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

Group Name	Concentration(ppm)
	Mean $\pm$ S.D.
Control	0.0 $\pm$ 0.0
300 ppm	300.1 $\pm$ 1.9
1000 ppm	1002.6 $\pm$ 3.7
3000 ppm	2996.0 $\pm$ 10.1
10000 ppm	9973.0 $\pm$ 30.3

TABLE B 1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
REPORT TYPE : A1 2
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 1

Group Name	Animals At start	Administration (Days)													
		0-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
Control	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
300ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
1000ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
3000ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
10000ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
Number of survival/ Number of effective animals Survival rate(%)															

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STUDY NO. : 0834

ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]

REPORT TYPE : A1 2

SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 2

Group Name	Animals At start	Administration (Days) 2-7
Control	5	5/ 5 100.0
300ppm	5	5/ 5 100.0
1000ppm	5	5/ 5 100.0
3000ppm	5	5/ 5 100.0
10000ppm	5	5/ 5 100.0
Number of survival/ Number of effective animals Survival rate(%)		

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TABLE B 2

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1 2
 SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 3

Group Name	Animals At start	Administration (Days)		1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
		0-0	1-1												
Control	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
300ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
1000ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
3000ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
10000ppm	5	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0	5/ 5 100.0
Number of survival/ Number of effective animals Survival rate(%)															

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BAIS5

STUDY NO. : 0834

ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]

REPORT TYPE : A1 2

SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 4

Group Name	Animals At start	Administration (Days) 2-7
Control	5	5/ 5 100.0
300ppm	5	5/ 5 100.0
1000ppm	5	5/ 5 100.0
3000ppm	5	5/ 5 100.0
10000ppm	5	4/ 5 80.0
Number of survival/ Number of effective animals Survival rate(%)		

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TABLE C 1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day				
		1-2	1-4	1-7	2-3	2-7
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	0
HUNCHBACK POSITION	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	5
ATAXIC GAIT	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	0
WEAKNESS	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	5
WASTING	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	5
SOILED PERI-GENITALIA	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	3
LACRIMATION	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	3	4

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day				
		1-2	1-4	1-7	2-3	2-7
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	5
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	5
IRREGULAR BREATHING	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	5
SUBNORMAL TEMP	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	5
NON REMARKABLE	Control	5	5	5	5	5
	300ppm	5	5	5	5	5
	1000ppm	5	5	5	5	5
	3000ppm	5	5	5	5	5
	10000ppm	5	5	5	0	0

TABLE C 2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 3

Clinical sign	Group Name	Administration Week-day				
		1-2	1-4	1-7	2-3	2-7
MORIBUND SACRIFICE	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	0
HUNCHBACK POSITION	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	4
ATAXIC GAIT	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	0
WEAKNESS	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	4
WASTING	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	4
SOILED PERI-GENITALIA	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	3	4

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 4

Clinical sign	Group Name	Administration Week-day				
		1-2	1-4	1-7	2-3	2-7
LACRIMATION	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	1	4
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	4	3
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	5	4
IRREGULAR BREATHING	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	4
SUBNORMAL TEMP	Control	0	0	0	0	0
	300ppm	0	0	0	0	0
	1000ppm	0	0	0	0	0
	3000ppm	0	0	0	0	0
	10000ppm	0	0	0	0	4
NON REMARKABLE	Control	5	5	5	5	5
	300ppm	5	5	5	5	5
	1000ppm	5	5	5	5	5
	3000ppm	5	5	5	5	5
	10000ppm	5	5	5	0	0

TABLE D 1

BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 1

Week-Day on Study	Control		300ppm		1000ppm		3000ppm		10000ppm					
	Av. Wt.	No. of Surviv. < 5>	Av. Wt.	% of cont. < 5>	No. of Surviv.	Av. Wt.	% of cont. < 5>	No. of Surviv.	Av. Wt.	% of cont. < 5>	No. of Surviv.	Av. Wt.	% of cont. < 5>	No. of Surviv.
0-0	117 (5)	5/ 5	117 (5)	100	5/ 5	117 (5)	100	5/ 5	117 (5)	100	5/ 5	117 (5)	100	5/ 5
1-2	125 (5)	5/ 5	125 (5)	100	5/ 5	124 (5)	99	5/ 5	121 (5)	97	5/ 5	114 (5)	91	5/ 5
1-4	129 (5)	5/ 5	131 (5)	102	5/ 5	129 (5)	100	5/ 5	124 (5)	96	5/ 5	110 (5)	85	5/ 5
1-7	144 (5)	5/ 5	144 (5)	100	5/ 5	144 (5)	100	5/ 5	133 (5)	92	5/ 5	114 (5)	79	5/ 5
2-3	158 (5)	5/ 5	160 (5)	101	5/ 5	156 (5)	99	5/ 5	141 (5)	89	5/ 5	101 (5)	64	5/ 5
2-7	175 (5)	5/ 5	177 (5)	101	5/ 5	172 (5)	98	5/ 5	152 (5)	87	5/ 5	84 (5)	48	5/ 5
< >:No. of effective animals, ():No. of measured animals Av. Wt. : g														

(B10040)

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TABLE D 2

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

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 2

Week-Day on Study	Control		300ppm		1000ppm		3000ppm		10000ppm					
	Av. Wt.	No. of Surviv. < 5>	Av. Wt.	% of cont. < 5>	No. of Surviv.	Av. Wt.	% of cont. < 5>	No. of Surviv.	Av. Wt.	% of cont. < 5>	No. of Surviv.	Av. Wt.	% of cont. < 5>	No. of Surviv.
0-0	96 (5)	5/ 5	96 (5)	100	5/ 5	96 (5)	100	5/ 5	96 (5)	100	5/ 5	96 (5)	100	5/ 5
1-2	101 (5)	5/ 5	100 (5)	99	5/ 5	103 (5)	102	5/ 5	99 (5)	98	5/ 5	95 (5)	94	5/ 5
1-4	103 (5)	5/ 5	103 (5)	100	5/ 5	105 (5)	102	5/ 5	98 (5)	95	5/ 5	89 (5)	86	5/ 5
1-7	111 (5)	5/ 5	111 (5)	100	5/ 5	113 (5)	102	5/ 5	105 (5)	95	5/ 5	90 (5)	81	5/ 5
2-3	119 (5)	5/ 5	119 (5)	100	5/ 5	120 (5)	101	5/ 5	108 (5)	91	5/ 5	82 (5)	69	5/ 5
2-7	125 (5)	5/ 5	125 (5)	100	5/ 5	127 (5)	102	5/ 5	115 (5)	92	5/ 5	69 (4)	55	4/ 5
< >:No. of effective animals, ():No. of measured animals														
Av. Wt. : g														

(B10040)

BAIS 5

TABLE D 3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J [F344/DuCrJ]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

Group Name	Administration		week-day									
	0-0		1-2		1-4		1-7		2-3		2-7	
Control	117±	3	125±	3	129±	3	144±	4	158±	6	175±	7
300ppm	117±	4	125±	5	131±	6	144±	5	160±	7	177±	9
1000ppm	117±	5	124±	4	129±	5	144±	5	156±	6	172±	8
3000ppm	117±	3	121±	4	124±	4	133±	4**	141±	6**	152±	5**
10000ppm	117±	4	114±	6**	110±	6**	114±	6**	101±	6**	84±	10**

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

Test of Dunnett

(HAN260)

BAIS 5

TABLE D 4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J [F344/DuCrJ]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 2

Group Name	Administration		week-day									
	0-0		1-2		1-4		1-7		2-3		2-7	
Control	96±	2	101±	2	103±	3	111±	2	119±	5	125±	4
300ppm	96±	4	100±	4	103±	5	111±	4	119±	5	125±	6
1000ppm	96±	3	103±	3	105±	5	113±	5	120±	6	127±	7
3000ppm	96±	2	99±	3	98±	3	105±	4	108±	4*	115±	4*
10000ppm	96±	3	95±	3*	89±	3**	90±	2**	82±	6**	69±	5**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett

(HAN260)

BAIS 5

TABLE E 1

FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

MEAN FOOD CONSUMPTION (FC) AND SURVIVAL

PAGE : 1

Week-Day on Study	Control		300ppm		1000ppm		3000ppm		10000ppm					
	Av. FC.	No. of Surviv. < 5>	Av. FC.	% of cont. < 5>	No. of Surviv.	Av. FC.	% of cont. < 5>	No. of Surviv.	Av. FC.	% of cont. < 5>	No. of Surviv.	Av. FC.	% of cont. < 5>	No. of Surviv.
1-7	15.1 (5)	5/ 5	15.4 (5)	102	5/ 5	15.2 (5)	101	5/ 5	13.9 (5)	92	5/ 5	9.8 (5)	65	5/ 5
2-7	16.1 (5)	5/ 5	16.9 (5)	105	5/ 5	16.4 (5)	102	5/ 5	13.6 (5)	84	5/ 5	4.3 (5)	27	5/ 5
< >:No. of effective animals, ():No. of measured animals														
Av. FC. : g														

(B10040)

BAIS 5

TABLE E 2

FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

PAGE : 2

Week-Day on Study	Control		300ppm		1000ppm		3000ppm		10000ppm					
	Av. FC.	No. of Surviv. < 5>	Av. FC.	% of cont. < 5>	No. of Surviv.	Av. FC.	% of cont. < 5>	No. of Surviv.	Av. FC.	% of cont. < 5>	No. of Surviv.	Av. FC.	% of cont. < 5>	No. of Surviv.
1-7	12.4 (5)	5/ 5	12.6 (5)	102	5/ 5	13.3 (5)	107	5/ 5	11.2 (5)	90	5/ 5	8.2 (5)	66	5/ 5
2-7	12.2 (5)	5/ 5	12.6 (5)	103	5/ 5	12.9 (5)	106	5/ 5	10.9 (5)	89	5/ 5	4.5 (4)	37	4/ 5
< >:No. of effective animals, ():No. of measured animals Av. FC. : g														
(B10040)														

BAIS 5

TABLE E 3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)	
	1-7 (7)	2-7 (7)
Control	15.1± 0.6	16.1± 1.1
300ppm	15.4± 0.7	16.9± 0.5
1000ppm	15.2± 0.6	16.4± 0.4
3000ppm	13.9± 1.5	13.6± 1.1**
10000ppm	9.8± 1.1**	4.3± 1.6**

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

Test of Dunnett

(HAN260)

BAIS 5

TABLE E 4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 2

Group Name	Administration week-day (effective)	
	1-7 (7)	2-7 (7)
Control	12.4 ± 0.6	12.2 ± 0.6
300ppm	12.6 ± 0.8	12.6 ± 0.8
1000ppm	13.3 ± 1.4	12.9 ± 1.5
3000ppm	11.2 ± 0.8	10.9 ± 0.8
10000ppm	8.2 ± 0.5**	4.5 ± 1.5**

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

Test of Dunnett

(HAN260)

BAIS5

TABLE F 1

HEMATOLOGY : MALE

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrJ]
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (3W)

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	5	8.34±	0.07	15.1±	0.1	44.2±	0.5	53.1±	0.4	18.0±	0.2	34.0±	0.3	949±	33
300ppm	4	8.39±	0.15	15.2±	0.2	44.9±	1.0	53.5±	0.3	18.2±	0.1	34.0±	0.3	956±	19
1000ppm	5	8.36±	0.30	15.3±	0.6	44.6±	1.5	53.3±	0.2	18.3±	0.2	34.3±	0.5	961±	20
3000ppm	5	8.33±	0.12	15.3±	0.2	44.1±	0.9	53.1±	0.4	18.4±	0.1**	34.7±	0.4	288±	33**
10000ppm	4	4.68±	2.03*	8.4±	3.7	24.1±	10.7*	51.5±	0.9**	18.1±	0.1	35.1±	0.4**	8±	6**

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

Test of Dunnett

(HCL070)

BAIS 5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J[F344/DuCrJ]
MEASURE. TIME : 1
SEX : MALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	RETICULOCYTE %	
Control	5	3.1±	0.4
300ppm	4	3.3±	0.3
1000ppm	5	3.1±	0.3
3000ppm	5	0.8±	0.1
10000ppm	4	0.1±	0.0

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

Test of Dunnett

(HCL070)

BAIS 5

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	WBC 10 ³ /μl		Differential NEUTRO		WBC (%) LYMPHO		MONO		EOSINO		BASO		OTHER	
Control	5	3.86±	0.61	23.0±	3.8	73.4±	4.0	2.1±	0.4	0.8±	0.1	0.2±	0.1	0.5±	0.3
300ppm	4	3.45±	0.29	24.5±	5.8	72.1±	6.6	1.8±	0.8	0.8±	0.2	0.3±	0.1	0.5±	0.1
1000ppm	5	3.13±	0.59	21.0±	3.8	74.9±	3.8	2.2±	0.2	0.8±	0.3	0.4±	0.2	0.6±	0.2
3000ppm	5	1.42±	0.26**	15.5±	3.4*	81.5±	3.8*	0.9±	0.2	1.5±	0.8	0.3±	0.2	0.3±	0.1
10000ppm	4	0.17±	0.06**	7.3±	4.0**	87.9±	5.6**	1.7±	1.8	2.4±	2.1	2.0±	2.7	0.1±	0.3

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS5

TABLE F 2

HEMATOLOGY : FEMALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrI J [F344/DuCrJ]
MEASURE. TIME : 1
SEX : FEMALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	RED BLOOD CELL 1 0 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV f l		MCH p g		MCHC g/dl		PLATELET 1 0 ³ /μl	
Control	5	8.41±	0.27	15.5±	0.5	44.5±	1.5	52.9±	0.2	18.5±	0.1	34.9±	0.2	916±	71
300ppm	5	8.52±	0.25	15.7±	0.6	45.2±	1.1	53.0±	0.4	18.5±	0.2	34.9±	0.4	956±	58
1000ppm	5	8.42±	0.28	15.5±	0.5	44.7±	1.2	53.1±	0.4	18.4±	0.2	34.7±	0.4	939±	69
3000ppm	4	8.30±	0.14	15.3±	0.2	43.6±	0.5	52.5±	0.6	18.5±	0.1	35.2±	0.3	271±	25**
10000ppm	1	4.88	?	8.6	?	24.2	?	49.7	?	17.7	?	35.6	?	6	?

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

Test of Dunnett

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

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	RETICULOCYTE %	
Control	5	1.8±	0.1
300ppm	5	1.8±	0.2
1000ppm	5	1.6±	0.3
3000ppm	4	0.5±	0.1**
10000ppm	1	0.1	?

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

Test of Dunnett

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

(HCL070)

BAIS5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J[F344/DuCrJ]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (3W)

PAGE : 6

Group Name	NO. of Animals	WBC 10 ³ /μl		Differential NEUTRO		WBC (%) LYMPHO		MONO		EOSINO		BASO		OTHER	
Control	5	2.80±	0.84	20.5±	5.4	75.3±	5.4	2.0±	0.5	1.3±	0.5	0.2±	0.1	0.7±	0.3
300ppm	5	3.09±	0.69	19.4±	3.1	76.6±	3.4	2.1±	0.4	1.2±	0.1	0.2±	0.1	0.5±	0.2
1000ppm	5	2.59±	0.91	16.8±	4.0	79.4±	4.2	2.0±	0.2	0.9±	0.2	0.2±	0.2	0.6±	0.1
3000ppm	4	1.18±	0.11*	15.8±	4.6	80.5±	5.2	0.6±	0.2**	2.3±	1.1	0.4±	0.2	0.5±	0.3
10000ppm	1	0.18	?	19.3	?	71.1	?	4.1	?	5.5	?	2.7	?	0.0	?

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett

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

TABLE G 1

BIOCHEMISTRY : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J [F344/DuCrJ]
MEASURE. TIME : 1
SEX : MALE

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (3W)

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	5	5.4±	0.1	3.2±	0.1	1.4±	0.1	0.03±	0.00	151±	20	64±	5	54±	9
300ppm	4	5.5±	0.1	3.2±	0.1	1.4±	0.1	0.03±	0.01	157±	12	68±	5	52±	3
1000ppm	5	5.3±	0.2	3.2±	0.1	1.4±	0.1	0.03±	0.00	157±	18	68±	6	49±	13
3000ppm	5	5.3±	0.1	3.1±	0.0	1.5±	0.1	0.04±	0.00	153±	14	68±	5	33±	6**
10000ppm !	3	5.3±	0.8	2.1±	0.4	0.7±	0.1	0.07±	0.03	129±	26	53±	27	21±	4

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST U/L		ALT U/L		LDH U/L		ALP U/L		G-GTP U/L		CK U/L	
Control	5	112±	5	59±	2	32±	2	81±	19	1086±	60	0.7±	0.1	219±	19
300ppm	4	116±	8	59±	3	29±	2	103±	50	1052±	72	0.6±	0.1	232±	46
1000ppm	5	113±	7	59±	3	27±	2*	82±	26	999±	76	0.7±	0.1	231±	29
3000ppm	5	106±	5	58±	6	25±	4**	89±	21	882±	13**	0.8±	0.1	225±	26
10000ppm !	3	94±	40	557±	672	443±	599	399±	528	270±	98	1.0±	0.4	255±	103

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

Test of Dunnett

! : Significant test is not applied to this group.

(HCL074)

BAIS5

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1J[F344/DuCrJ]
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

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	5	16.9±	1.0	0.22±	0.02	144±	0	3.6±	0.1	105±	0	10.0±	0.1	7.9±	0.2
300ppm	4	17.9±	0.7	0.24±	0.01	144±	1	3.5±	0.1	106±	1*	10.0±	0.1	7.7±	0.3
1000ppm	5	17.4±	1.5	0.22±	0.01	144±	1	3.8±	0.2	106±	1*	9.9±	0.2	8.1±	0.4
3000ppm	5	17.0±	1.1	0.21±	0.01	143±	2	4.2±	0.3**	108±	3**	10.1±	0.1	8.3±	0.3
10000ppm !	3	57.6±	30.3	0.20±	0.01	141±	3	5.2±	0.4	110±	4	10.3±	0.7	8.8±	1.7

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

Test of Dunnett

! : Significant test is not applied to this group.

TABLE G 2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

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	5	5.4±	0.2	3.2±	0.1	1.5±	0.0	0.03±	0.01	130±	7	77±	7	22±	6
300ppm	5	5.5±	0.2	3.3±	0.1	1.5±	0.0	0.03±	0.01	129±	9	79±	3	19±	5
1000ppm	5	5.5±	0.2	3.3±	0.1	1.5±	0.1	0.03±	0.01	134±	9	82±	3	20±	6
3000ppm	5	5.3±	0.2	3.2±	0.1	1.5±	0.1	0.04±	0.01*	150±	16*	88±	4**	21±	3
10000ppm !	2	5.4±	1.3	2.0±	0.2	0.6±	0.1	0.10±	0.01	98±	1	42±	4	28±	2

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST U/L		ALT U/L		LDH U/L		ALP U/L		G-GTP U/L		CK U/L	
Control	5	138±	10	62±	3	27±	2	136±	52	810±	45	1.0±	0.2	233±	30
300ppm	5	138±	8	63±	4	27±	3	138±	43	786±	24	1.0±	0.2	240±	46
1000ppm	5	138±	4	60±	2	24±	2	122±	30	729±	38*	1.0±	0.1	225±	12
3000ppm	5	140±	5	57±	2*	22±	1**	103±	29	677±	57**	0.9±	0.1	207±	37
10000ppm !	2	89±	16	1429±	1322	1439±	1394	1674±	2198	248±	1	1.4±	0.3	1145±	1132

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

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	5	17.8±	0.6	0.24±	0.03	145±	2	3.5±	0.3	109±	2	9.8±	0.3	7.3±	0.4
300ppm	5	17.9±	0.8	0.25±	0.01	144±	2	3.5±	0.2	111±	3	9.8±	0.3	7.3±	0.2
1000ppm	5	17.5±	2.2	0.25±	0.02	144±	1	3.5±	0.0	111±	3	10.0±	0.1	7.3±	0.3
3000ppm	5	18.6±	1.2	0.23±	0.01	143±	2	3.9±	0.2*	112±	2	9.8±	0.5	7.3±	0.3
10000ppm !	2	97.4±	4.2	0.35±	0.08	142±	0	5.8±	0.6	107±	1	10.6±	0.8	11.7±	2.2

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

Test of Dunnett

! : Significant test is not applied to this group.

TABLE H 1

GROSS FINDINGS : MALE: ALL ANIMALS

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		300ppm		1000ppm		3000ppm	
			5	(%)	5	(%)	5	(%)	5	(%)
thymus	atrophic		0	(0)	0	(0)	0	(0)	5	(100)
stomach	glandular stomach:red zone		0	(0)	0	(0)	0	(0)	0	(0)
testis	red		0	(0)	0	(0)	0	(0)	0	(0)
	red zone		0	(0)	0	(0)	0	(0)	0	(0)
epididymis	red zone		0	(0)	0	(0)	0	(0)	0	(0)

(HPT080)

BA1S 5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	10000ppm 5 (%)
thymus	atrophic		5 (100)
stomach	glandular stomach:red zone		5 (100)
testis	red		2 (40)
	red zone		3 (60)
epididymis	red zone		2 (40)

(HPT080)

BAIS 5

TABLE H 2

GROSS FINDINGS : FEMALE: ALL ANIMALS

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrIGrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		300ppm		1000ppm		3000ppm	
			5	(%)	5	(%)	5	(%)	5	(%)
thymus	atrophic		0	(0)	0	(0)	0	(0)	5	(100)
stomach	glandular stomach:red zone		0	(0)	0	(0)	0	(0)	0	(0)
liver	white zone		0	(0)	0	(0)	0	(0)	0	(0)
brain	red zone		0	(0)	0	(0)	0	(0)	0	(0)

(HPT080)

BAIS 5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrIGrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 4

Organ_____	Findings_____	Group Name	10000ppm
		NO. of Animals	5 (%)
thymus	atrophic		4 (80)
stomach	glandular stomach:red zone		5 (100)
liver	white zone		1 (20)
brain	red zone		1 (20)

(HPT080)

BAIS 5

TABLE H 3

GROSS FINDINGS : FEMALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrIj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 1

Organ	Findings	Group Name	Control		300ppm		1000ppm		3000ppm	
		NO. of Animals	0	(%)	0	(%)	0	(%)	0	(%)
stomach	glandular stomach:red zone		-	(-)	-	(-)	-	(-)	-	(-)
liver	white zone		-	(-)	-	(-)	-	(-)	-	(-)
brain	red zone		-	(-)	-	(-)	-	(-)	-	(-)

(HPT080)

BAIS 5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 2

Organ	Findings	Group Name	10000ppm
		NO. of Animals	1 (%)
stomach	glandular stomach:red zone		1 (100)
liver	white zone		1 (100)
brain	red zone		1 (100)

(HPT080)

BAIS 5

TABLE H 4

GROSS FINDINGS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		300ppm		1000ppm		3000ppm	
			5	(%)	5	(%)	5	(%)	5	(%)
thymus	atrophic		0	(0)	0	(0)	0	(0)	5	(100)
stomach	glandular stomach:red zone		0	(0)	0	(0)	0	(0)	0	(0)

(HPT080)

BAIS 5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrIGrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	10000ppm 4 (%)
thymus	atrophic		4 (100)
stomach	glandular stomach:red zone		4 (100)

(HPT080)

BAIS 5

TABLE I 1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

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

PAGE : 1

Group Name	NO. of Animals	Body Weight		THYMUS		ADRENALS		TESTES		HEART		LUNGS	
Control	5	157±	6	0.277±	0.030	0.050±	0.009	2.419±	0.105	0.607±	0.040	0.674±	0.036
300ppm	5	158±	7	0.269±	0.035	0.046±	0.002	2.314±	0.110	0.606±	0.013	0.687±	0.044
1000ppm	5	154±	7	0.236±	0.023	0.045±	0.008	2.128±	0.224*	0.596±	0.023	0.686±	0.009
3000ppm	5	134±	4**	0.087±	0.005**	0.042±	0.003	1.929±	0.066**	0.542±	0.025**	0.635±	0.021
10000ppm !	4	76±	8	0.022±	0.003	0.056±	0.006	1.035±	0.114	0.385±	0.023	0.450±	0.026

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

PAGE : 2

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN		EPIDIDYM	
Control	5	1.214±	0.067	0.393±	0.029	4.714±	0.272	1.749±	0.014	0.295±	0.026
300ppm	5	1.230±	0.078	0.397±	0.026	4.887±	0.247	1.733±	0.018	0.261±	0.019
1000ppm	5	1.221±	0.067	0.376±	0.007	4.727±	0.209	1.695±	0.022**	0.261±	0.048
3000ppm	5	1.164±	0.013	0.285±	0.009**	4.237±	0.100**	1.668±	0.027**	0.258±	0.015
10000ppm !	4	0.980±	0.045	0.123±	0.034	3.674±	0.450	1.573±	0.011	0.152±	0.023

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

Test of Dunnett

! : Significant test is not applied to this group.

TABLE I 2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

PAGE : 3

Group Name	NO. of Animals	Body Weight		THYMUS		ADRENALS		OVARIES		HEART		LUNGS	
Control	5	111±	3	0.242±	0.016	0.051±	0.006	0.077±	0.011	0.476±	0.011	0.545±	0.029
300ppm	5	112±	5	0.244±	0.015	0.051±	0.006	0.089±	0.018	0.480±	0.032	0.580±	0.035
1000ppm	5	112±	5	0.214±	0.017*	0.052±	0.003	0.079±	0.013	0.480±	0.022	0.587±	0.034
3000ppm	5	101±	3**	0.091±	0.008**	0.046±	0.001	0.070±	0.008	0.433±	0.021*	0.545±	0.026
10000ppm !	3	63±	4	0.032±	0.012	0.067±	0.014	0.041±	0.005	0.332±	0.037	0.424±	0.045

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrIGrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

PAGE : 4

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	5	0.933±	0.053	0.291±	0.016	3.497±	0.136	1.614±	0.026
300ppm	5	0.949±	0.040	0.292±	0.015	3.479±	0.200	1.605±	0.040
1000ppm	5	0.937±	0.041	0.294±	0.024	3.492±	0.226	1.629±	0.038
3000ppm	5	0.920±	0.030	0.232±	0.013**	3.215±	0.128	1.574±	0.026
10000ppm !	3	0.896±	0.073	0.104±	0.026	3.288±	0.761	1.498±	0.027

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

Test of Dunnett

! : Significant test is not applied to this group.

TABLE J 1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

PAGE : 1

Group Name	NO. of Animals	Body Weight (g)		THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	157±	6	0.177± 0.016	0.032± 0.006	1.543± 0.054	0.387± 0.018	0.430± 0.014
300ppm	5	158±	7	0.171± 0.017	0.029± 0.001	1.469± 0.053	0.386± 0.020	0.436± 0.020
1000ppm	5	154±	7	0.154± 0.022	0.030± 0.007	1.381± 0.087**	0.388± 0.027	0.447± 0.020
3000ppm	5	134±	4**	0.065± 0.005**	0.032± 0.003	1.436± 0.060*	0.404± 0.012	0.473± 0.025**
10000ppm !	4	76±	8	0.030± 0.003	0.074± 0.013	1.375± 0.247	0.507± 0.025	0.594± 0.046

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

PAGE : 2

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN	EPIDIDYM
Control	5	0.774± 0.027	0.250± 0.010	3.005± 0.072	1.116± 0.035	0.188± 0.014
300ppm	5	0.781± 0.043	0.252± 0.010	3.101± 0.096	1.101± 0.051	0.165± 0.010
1000ppm	5	0.794± 0.007	0.245± 0.009	3.074± 0.059	1.104± 0.054	0.169± 0.024
3000ppm	5	0.866± 0.016**	0.212± 0.005**	3.153± 0.028**	1.242± 0.041**	0.192± 0.013
10000ppm !	4	1.295± 0.126	0.160± 0.026	4.818± 0.240	2.081± 0.211	0.201± 0.039

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

Test of Dunnett

! : Significant test is not applied to this group.

TABLE J 2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0834
ANIMAL : RAT F344/DuCrI CrIj[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

PAGE : 3

Group Name	NO. of Animals	Body Weight (g)		THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	111±	3	0.218± 0.010	0.046± 0.005	0.069± 0.011	0.429± 0.017	0.490± 0.021
300ppm	5	112±	5	0.217± 0.007	0.045± 0.006	0.079± 0.016	0.427± 0.022	0.516± 0.035
1000ppm	5	112±	5	0.191± 0.011**	0.047± 0.005	0.070± 0.010	0.430± 0.008	0.525± 0.016
3000ppm	5	101±	3**	0.090± 0.006**	0.045± 0.001	0.069± 0.006	0.427± 0.021	0.537± 0.012*
10000ppm !	3	63±	4	0.049± 0.017	0.106± 0.019	0.065± 0.005	0.523± 0.029	0.669± 0.057

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

Test of Dunnett

! : Significant test is not applied to this group.

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	0.840± 0.055	0.261± 0.010	3.145± 0.088	1.452± 0.042
300ppm	5	0.845± 0.015	0.260± 0.008	3.095± 0.106	1.430± 0.056
1000ppm	5	0.839± 0.032	0.262± 0.011	3.122± 0.070	1.459± 0.044
3000ppm	5	0.907± 0.028*	0.229± 0.009**	3.171± 0.094	1.553± 0.021**
10000ppm !	3	1.414± 0.035	0.162± 0.033	5.158± 0.949	2.370± 0.103

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

Test of Dunnett

! : Significant test is not applied to this group.

TABLE K 1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
ALL ANIMALS

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 3W)

PAGE : 1

Organ	Findings	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit	squamous cell metaplasia:respiratory epithelium		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)
	hyperplasia:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	regeneration:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (80)	0 (0)	0 (0)	0 (0)
	regeneration:respiratory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (80)	0 (0)	0 (0)	0 (0)
	regeneration:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	necrosis:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
{Digestive system}																		
stomach	hemorrhage		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
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																	

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 2

Organ	Findings	Group Name	10000ppm			
		No. of Animals on Study	1+	2+	3+	4+
		Grade	(%)	(%)	(%)	(%)

{Respiratory system}

		< 5>			
nasal cavit	squamous cell metaplasia:respiratory epithelium	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia:transitional epithelium	1 (20)	0 (0)	0 (0)	0 (0)
	regeneration:transitional epithelium	5 (100)	0 (0)	0 (0)	0 (0)
	regeneration:respiratory epithelium	5 (100)	0 (0)	0 (0)	0 (0)
	regeneration:olfactory epithelium	2 (40)	0 (0)	0 (0)	0 (0)
	necrosis:olfactory epithelium	4 (80)	0 (0)	0 (0)	0 (0)

{Digestive system}

		< 5>			
stomach	hemorrhage	1 (20)	4 (80)	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			

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 3

Organ	Findings	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver	necrosis:central		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Reproductive system}																		
testis	hemorrhage		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	germ cell necrosis		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)
epididymis	decreased:sperma		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)
	debris of spermatic elements		0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	0 (0)	0 (0)	0 (0)	5 (100)	0 (0)	0 (0)	0 (0)	5 (100)	0 (0)	0 (0)	0 (0)
{Special sense organs/appendage}																		
nasolacr d	squamous cell hyperplasia		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (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																	

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 3W)

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study	10000ppm 5	1+ (%)	2+ (%)	3+ (%)	4+ (%)
-------	----------	---------------------------------------	---------------	-----------	-----------	-----------	-----------

{Digestive system}

liver	necrosis:central	< 5>			
		2 (40)	2 (40)	0 (0)	0 (0)

{Reproductive system}

testis	hemorrhage	< 5>			
		2 (40)	0 (0)	3 (60)	0 (0)

germ cell necrosis	< 5>			
	0 (0)	0 (0)	5 (100)	0 (0)

epididymis	decreased:sperma	< 5>			
		0 (0)	0 (0)	5 (100)	0 (0)

debris of spermatic elements	< 5>			
	2 (40)	3 (60)	0 (0)	0 (0)

{Special sense organs/appendage}

nasolacr d	squamous cell hyperplasia	< 5>			
		2 (40)	3 (60)	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			

TABLE K 2

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
ALL ANIMALS

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 5

Organ_____	Findings_____	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			< 5>				< 5>				< 5>				< 5>			
	squamous cell metaplasia:respiratory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	regeneration:transitional epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	regeneration:respiratory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	regeneration:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
larynx			< 5>				< 5>				< 5>				< 5>			
	regeneration:epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
trachea			< 5>				< 5>				< 5>				< 5>			
	regeneration:epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
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																	

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 3W)

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study	10000ppm			
			Grade	1+ (%)	2+ (%)	3+ (%)

{Respiratory system}

nasal cavit	squamous cell metaplasia:respiratory epithelium		< 5>				
		1	0	0	0		
		(20)	(0)	(0)	(0)		
	regeneration:transitional epithelium	5	0	0	0		
		(100)	(0)	(0)	(0)		
	regeneration:respiratory epithelium	5	0	0	0		
		(100)	(0)	(0)	(0)		
	regeneration:olfactory epithelium	5	0	0	0		
		(100)	(0)	(0)	(0)		
	necrosis:olfactory epithelium	2	0	0	0		
		(40)	(0)	(0)	(0)		
larynx	regeneration:epithelium		< 5>				
		3	0	0	0		
		(60)	(0)	(0)	(0)		
trachea	regeneration:epithelium		< 5>				
		1	0	0	0		
		(20)	(0)	(0)	(0)		

Grade	1+ : Slight	2+ : Moderate	3+ : Marked	4+ : Severe
< a >	a : Number of animals examined at the site			
b	b : Number of animals with lesion			
(c)	c : b / a * 100			

(HPT150)

BAIS5

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 3W)

PAGE : 7

		Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	5				5				5				5			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung	congestion		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	edema:perivascular		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}																		
stomach	hemorrhage		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
liver	necrosis:central		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Reproductive system}																		
ovary	atrophy		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
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																	

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study	10000ppm 5	1+ (%)	2+ (%)	3+ (%)	4+ (%)
-------	----------	---------------------------------------	---------------	-----------	-----------	-----------	-----------

{Respiratory system}

lung			< 5>				
	congestion	1 (20)	0 (0)	0 (0)	0 (0)		
	edema:perivascular	1 (20)	0 (0)	0 (0)	0 (0)		

{Digestive system}

stomach			< 5>				
	hemorrhage	2 (40)	3 (60)	0 (0)	0 (0)		
liver			< 5>				
	necrosis:central	0 (0)	2 (40)	3 (60)	0 (0)		

{Reproductive system}

ovary			< 5>				
	atrophy	5 (100)	0 (0)	0 (0)	0 (0)		

Grade	1+ : Slight	2+ : Moderate	3+ : Marked	4+ : Severe
< a >	a : Number of animals examined at the site			
b	b : Number of animals with lesion			
(c)	c : b / a * 100			

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 9

Organ	Findings	Group Name				Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study				5				5				5				5			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			

[Special sense organs/appendage]

nasolacr d	squamous cell hyperplasia	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

(HPT150)

BA1S5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0- 3W)

PAGE : 10

Organ	Findings	Group Name	10000ppm			
		No. of Animals on Study	5			
		Grade	1+	2+	3+	4+
			(%)	(%)	(%)	(%)

{Special sense organs/appendage}

nasolacr d		< 5>			
	squamous cell hyperplasia	2	3	0	0
		(40)	(60)	(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			

(HPT150)

BA1S5

TABLE K 3

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 1

Organ_____	Findings_____	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	0				0				0				0			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			< 0>				< 0>				< 0>				< 0>			
	regeneration:transitional epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	regeneration:respiratory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	regeneration:olfactory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
larynx			< 0>				< 0>				< 0>				< 0>			
	regeneration:epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Digestive system}																		
stomach			< 0>				< 0>				< 0>				< 0>			
	hemorrhage		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
liver			< 0>				< 0>				< 0>				< 0>			
	necrosis:central		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
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																	

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study Grade	10000ppm 1 1+ (%)	2+ (%)	3+ (%)	4+ (%)
-------	----------	--	----------------------------	-----------	-----------	-----------

{Respiratory system}

nasal cavit	regeneration:transitional epithelium		< 1>			
		1 (100)	0 (0)	0 (0)	0 (0)	

	regeneration:respiratory epithelium		< 1>			
		1 (100)	0 (0)	0 (0)	0 (0)	

	regeneration:olfactory epithelium		< 1>			
		1 (100)	0 (0)	0 (0)	0 (0)	

larynx	regeneration:epithelium		< 1>			
		1 (100)	0 (0)	0 (0)	0 (0)	

{Digestive system}

stomach	hemorrhage		< 1>			
		0 (0)	1 (100)	0 (0)	0 (0)	

liver	necrosis:central		< 1>			
		0 (0)	0 (0)	1 (100)	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			

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 3

Organ_____	Findings_____	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	0				0				0				0			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
ovary			< 0>				< 0>				< 0>				< 0>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Special sense organs/appendage}																		
nasolacr d			< 0>				< 0>				< 0>				< 0>			
	squamous cell hyperplasia		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
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																	

(HPT150)

BA1S5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J[F344/DuCrJ]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 4

Organ	Findings	Group Name	10000ppm			
		No. of Animals on Study	1			
		Grade	1+	2+	3+	4+
			(%)	(%)	(%)	(%)

{Reproductive system}

ovary	atrophy	< 1>			
		1	0	0	0
		(100)	(0)	(0)	(0)

{Special sense organs/appendage}

nasolacr d	squamous cell hyperplasia	< 1>			
		0	1	0	0
		(0)	(100)	(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			

(HPT150)

BAIS5

TABLE K 4

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (3W)

PAGE : 5

Organ_____	Findings_____	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			< 5>				< 5>				< 5>				< 5>			
	squamous cell metaplasia:respiratory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	regeneration:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	regeneration:respiratory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	regeneration:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	necrosis:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
larynx	regenaration:epithelium		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
trachea	regenaration:epithelium		< 5>				< 5>				< 5>				< 5>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
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																	

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1J[F344/DuCrJ]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 6

Organ	Findings	Group Name	10000ppm			
		No. of Animals on Study	1+	2+	3+	4+
		Grade	(%)	(%)	(%)	(%)

[Respiratory system]

nasal cavit		< 4>					
	squamous cell metaplasia:respiratory epithelium	1	0	0	0		
		(25)	(0)	(0)	(0)		
	regeneration:transitional epithelium	4	0	0	0		
		(100)	(0)	(0)	(0)		
	regeneration:respiratory epithelium	4	0	0	0		
		(100)	(0)	(0)	(0)		
	regeneration:olfactory epithelium	4	0	0	0		
		(100)	(0)	(0)	(0)		
	necrosis:olfactory epithelium	2	0	0	0		
		(50)	(0)	(0)	(0)		
	larynx		< 4>				
		regeneration:epithelium	2	0	0	0	
		(50)	(0)	(0)	(0)		
trachea		< 4>					
	regeneration:epithelium	1	0	0	0		
		(25)	(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			

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (3W)

PAGE : 7

Organ_____	Findings_____	Group Name	Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
{Respiratory system}																		
lung	congestion		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	edema:perivascular		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}																		
stomach	hemorrhage		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
liver	necrosis:central		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
{Reproductive system}																		
ovary	atrophy		< 5>				< 5>				< 5>				< 5>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	

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

STUDY NO. : 0834
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (3W)

PAGE : 8

		Group Name	10000ppm			
		No. of Animals on Study	4			
Organ	Findings	Grade	1+	2+	3+	4+
			(%)	(%)	(%)	(%)
{Respiratory system}						
lung	congestion		< 4>			
			1 (25)	0 (0)	0 (0)	0 (0)
	edema:perivascular		< 4>			
			1 (25)	0 (0)	0 (0)	0 (0)
{Digestive system}						
stomach	hemorrhage		< 4>			
			2 (50)	2 (50)	0 (0)	0 (0)
liver	necrosis:central		< 4>			
			0 (0)	2 (50)	2 (50)	0 (0)
{Reproductive system}						
ovary	atrophy		< 4>			
			4 (100)	0 (0)	0 (0)	0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 9

Organ	Findings	Group Name		Control				300ppm				1000ppm				3000ppm			
		No. of Animals on Study		5				5				5				5			
		Grade		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Special sense organs/appendage}

nasolacr d	squamous cell hyperplasia	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

(HPT150)

BA1S5

STUDY NO. : 0834
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 10

Organ	Findings	Group Name	10000ppm			
		No. of Animals on Study	4			
		Grade	1+	2+	3+	4+
			(%)	(%)	(%)	(%)

{Special sense organs/appendage}

nasolacr d		< 4>			
squamous cell hyperplasia		2	2	0	0
		(50)	(50)	(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			

(HPT150)

BA1S5