

メチルアミ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：0681

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TABLE A

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

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

Group Name	Concentration(ppm) Mean \pm S.D.
Control	0.0 \pm 0.0
28 ppm	28.5 \pm 1.0
83 ppm	83.2 \pm 1.2
250 ppm	253.2 \pm 5.0
500 ppm	496.7 \pm 9.8
750 ppm	748.9 \pm 9.1

TABLE B1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1 2
 SEX : MALE

SURVIVAL ANIMAL NUMBERS

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
28ppm	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
83ppm	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
250ppm	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
500ppm	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	4/ 5 80.0	4/ 5 80.0
750ppm	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(%)													

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1 2
SEX : MALE

SURVIVAL ANIMAL NUMBERS

Group Name	Animals At start	Administration (Days)	
		2-7	3-1
Control	5	5/ 5 100.0	5/ 5 100.0
28ppm	5	5/ 5 100.0	5/ 5 100.0
83ppm	5	5/ 5 100.0	5/ 5 100.0
250ppm	5	5/ 5 100.0	5/ 5 100.0
500ppm	5	3/ 5 60.0	3/ 5 60.0
750ppm	5	5/ 5 100.0	3/ 5 60.0

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

TABLE B2

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1 2
 SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

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
28ppm	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
83ppm	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
250ppm	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
500ppm	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
750ppm	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(%)													

STUDY NO. : 0681

SURVIVAL ANIMAL NUMBERS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 2

SEX : FEMALE

PAGE : 4

Group Name	Animals At start	Administration (Days)	
		2-7	3-1
Control	5	5/ 5 100.0	5/ 5 100.0
28ppm	5	5/ 5 100.0	5/ 5 100.0
83ppm	5	5/ 5 100.0	5/ 5 100.0
250ppm	5	5/ 5 100.0	5/ 5 100.0
500ppm	5	4/ 5 80.0	4/ 5 80.0
750ppm	5	4/ 5 80.0	4/ 5 80.0

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

BAIS4

TABLE C1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0681
 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												
		1-1 2	1-2 1	1-4 1	1-4 2	1-5 2	1-6 2	1-7 1	1-7 2	2-3 1	2-5 2	2-7 1	2-7 2	3-1 1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	28ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	83ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	250ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	500ppm	0	0	0	0	0	0	0	0	0	1	1	2	2
	750ppm	0	0	0	0	0	0	0	0	0	0	0	0	2
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	750ppm	0	0	0	0	0	0	0	1	0	0	0	-	-
PREENING	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	0	0	3	0	0	0	-	-
	750ppm	0	0	0	0	0	0	0	3	0	0	0	-	-
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	2	0	0	0	0	0	0	1	0	0	0	-	-
	500ppm	5	0	0	0	0	0	0	3	0	0	0	-	-
	750ppm	5	0	0	0	0	0	0	3	0	1	1	-	-
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	0	0	0	0	0	2	-	-
	750ppm	0	0	0	0	2	5	4	5	5	5	5	-	-
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	750ppm	0	0	0	0	0	1	1	2	0	0	0	-	-

STUDY NO. : 0681
 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												
		1-1 2	1-2 1	1-4 1	1-4 2	1-5 2	1-6 2	1-7 1	1-7 2	2-3 1	2-5 2	2-7 1	2-7 2	3-1 1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	2	3	3	4	3	4	-	-
	750ppm	0	0	0	1	2	2	2	2	5	5	5	-	-
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	5	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	5	0	0	0	0	0	0	0	0	3	4	-	-
	750ppm	5	1	0	4	4	4	1	4	3	5	5	-	-
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	2	0	0	3	4	4	1	1	3	5	4	-	-
	500ppm	5	4	0	2	4	4	5	5	5	4	4	-	-
	750ppm	5	2	0	5	5	5	5	5	5	5	5	-	-
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	750ppm	0	0	0	0	0	0	0	1	0	0	0	-	-
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	-	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-	-
	750ppm	0	0	0	0	0	0	0	1	0	0	0	-	-

TABLE C2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0681
 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											
		1-1 2	1-2 1	1-4 1	1-4 2	1-5 2	1-6 2	1-7 1	1-7 2	2-3 1	2-5 2	2-7 1	2-7 2
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0
	28ppm	0	0	0	0	0	0	0	0	0	0	0	0
	83ppm	0	0	0	0	0	0	0	0	0	0	0	0
	250ppm	0	0	0	0	0	0	0	0	0	0	0	0
	500ppm	0	0	0	0	0	0	0	0	0	0	1	1
	750ppm	0	0	0	0	0	0	0	0	0	0	0	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-
	750ppm	0	0	0	0	0	0	0	1	0	0	0	-
PREENING	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-
	500ppm	0	0	0	0	0	0	0	3	0	0	0	-
	750ppm	0	0	0	0	0	0	0	2	0	0	0	-
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	2	0	0	1	1	0	0	0	0	0	0	-
	500ppm	5	0	0	0	0	0	0	4	0	0	0	-
	750ppm	5	0	0	0	0	0	0	2	0	0	0	-
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-
	750ppm	0	0	0	0	3	5	4	4	2	3	5	-
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	0	0	0	0	0	0	1	1	1	1	2	-
	500ppm	0	0	0	1	1	3	3	3	4	5	4	-
	750ppm	0	0	1	1	3	4	4	4	5	5	5	-

STUDY NO. : 0681
 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											
		1-1 2	1-2 1	1-4 1	1-4 2	1-5 2	1-6 2	1-7 1	1-7 2	2-3 1	2-5 2	2-7 1	2-7 2
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	5	0	0	0	0	0	0	0	0	0	0	-
	500ppm	5	0	0	0	0	0	0	3	0	4	3	-
	750ppm	5	1	0	5	5	5	2	3	3	5	5	-
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	3	1	0	2	2	1	2	2	1	4	5	-
	500ppm	5	5	0	4	5	5	5	5	5	5	4	-
	750ppm	5	5	0	5	5	5	5	5	5	5	5	-
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	-
	28ppm	0	0	0	0	0	0	0	0	0	0	0	-
	83ppm	0	0	0	0	0	0	0	0	0	0	0	-
	250ppm	0	0	0	0	0	0	0	0	0	0	0	-
	500ppm	0	0	0	0	0	0	0	0	0	0	0	-
	750ppm	0	0	0	0	0	0	0	1	0	0	0	-

TABLE D1

BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control		28ppm		83ppm		250ppm		500ppm		750ppm						
	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	125 (5)	5/ 5	125 (5)	100	5/ 5	125 (5)	100	5/ 5	125 (5)	100	5/ 5	124 (5)	99	5/ 5	125 (5)	100	5/ 5
1-2	130 (5)	5/ 5	129 (5)	99	5/ 5	125 (5)	96	5/ 5	121 (5)	93	5/ 5	114 (5)	88	5/ 5	109 (5)	84	5/ 5
1-4	136 (5)	5/ 5	135 (5)	99	5/ 5	133 (5)	98	5/ 5	124 (5)	91	5/ 5	117 (5)	86	5/ 5	105 (5)	77	5/ 5
1-7	145 (5)	5/ 5	143 (5)	99	5/ 5	135 (5)	93	5/ 5	118 (5)	81	5/ 5	112 (5)	77	5/ 5	100 (5)	69	5/ 5
2-3	157 (5)	5/ 5	155 (5)	99	5/ 5	145 (5)	92	5/ 5	126 (5)	80	5/ 5	116 (5)	74	5/ 5	101 (5)	64	5/ 5
2-7	173 (5)	5/ 5	172 (5)	99	5/ 5	157 (5)	91	5/ 5	135 (5)	78	5/ 5	108 (3)	62	3/ 5	95 (5)	55	5/ 5
< >:No. of effective animals, ():No. of measured animals Av. Wt. : g																	

TABLE D2

BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control		28ppm		83ppm		250ppm		500ppm		750ppm						
	Av. Wt. < 5>	No. of Surviv. < 5>	Av. Wt. < 5>	% of cont. < 5>	No. of Surviv. < 5>	Av. Wt. < 5>	% of cont. < 5>	No. of Surviv. < 5>	Av. Wt. < 5>	% of cont. < 5>	No. of Surviv. < 5>	Av. Wt. < 5>	% of cont. < 5>	No. of Surviv. < 5>			
0-0	99 (5)	5/ 5	100 (5)	101	5/ 5	100 (5)	101	5/ 5	99 (5)	100	5/ 5	100 (5)	101	5/ 5	99 (5)	100	5/ 5
1-2	101 (5)	5/ 5	103 (5)	102	5/ 5	102 (5)	101	5/ 5	96 (5)	95	5/ 5	91 (5)	90	5/ 5	87 (5)	86	5/ 5
1-4	104 (5)	5/ 5	106 (5)	102	5/ 5	106 (5)	102	5/ 5	99 (5)	95	5/ 5	89 (5)	86	5/ 5	84 (5)	81	5/ 5
1-7	108 (5)	5/ 5	109 (5)	101	5/ 5	107 (5)	99	5/ 5	95 (5)	88	5/ 5	88 (5)	81	5/ 5	83 (5)	77	5/ 5
2-3	113 (5)	5/ 5	115 (5)	102	5/ 5	113 (5)	100	5/ 5	98 (5)	87	5/ 5	91 (5)	81	5/ 5	83 (5)	73	5/ 5
2-7	120 (5)	5/ 5	125 (5)	104	5/ 5	119 (5)	99	5/ 5	102 (5)	85	5/ 5	93 (4)	78	4/ 5	78 (4)	65	4/ 5

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

TABLE D3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration		week-day		1-4		1-7		2-3		2-7	
	0-0		1-2									
Control	125±	5	130±	7	136±	8	145±	12	157±	15	173±	19
28ppm	125±	5	129±	5	135±	7	143±	8	155±	9	172±	9
83ppm	125±	5	125±	5	133±	7	135±	8	145±	9	157±	8
250ppm	125±	5	121±	4*	124±	6*	118±	6**	126±	6**	135±	6**
500ppm	124±	6	114±	5**	117±	5**	112±	5**	116±	7**	108±	7**
750ppm	125±	5	109±	4**	105±	7**	100±	6**	101±	8**	95±	8**

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

Test of Dunnett

TABLE D4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day		1-2		1-4		1-7		2-3		2-7	
	0-0											
Control	99±	2	101±	3	104±	3	108±	3	113±	4	120±	5
28ppm	100±	2	103±	2	106±	3	109±	4	115±	4	125±	4
83ppm	100±	2	102±	2	106±	3	107±	4	113±	3	119±	2
250ppm	99±	2	96±	3*	99±	5	95±	5**	98±	4**	102±	3**
500ppm	100±	2	91±	3**	89±	3**	88±	3**	91±	3**	93±	7**
750ppm	99±	3	87±	3**	84±	4**	83±	3**	83±	3**	78±	1**

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

Test of Dunnett

TABLE E1

FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : MALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control		28ppm		83ppm		250ppm		500ppm		750ppm						
	Av. FC. < 5>	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	14.0 (5)	5/ 5	13.5 (5)	96	5/ 5	12.6 (5)	90	5/ 5	8.7 (5)	62	5/ 5	7.4 (5)	53	5/ 5	5.1 (5)	36	5/ 5
2-7	15.0 (5)	5/ 5	14.9 (5)	99	5/ 5	12.8 (5)	85	5/ 5	11.3 (5)	75	5/ 5	9.3 (3)	62	3/ 5	8.6 (5)	57	5/ 5
< >:No. of effective animals, ():No. of measured animals Av. FC. : g																	

TABLE E2

FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control		28ppm			83ppm			250ppm			500ppm			750ppm		
	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.	Av. FC.	% of cont. < 5>	No. of Surviv.
1-7	11.1 (5)	5/ 5	11.1 (5)	100	5/ 5	10.7 (5)	96	5/ 5	8.2 (5)	74	5/ 5	5.9 (5)	53	5/ 5	4.8 (5)	43	5/ 5
2-7	11.1 (5)	5/ 5	11.7 (5)	105	5/ 5	10.8 (5)	97	5/ 5	9.4 (5)	85	5/ 5	9.6 (4)	86	4/ 5	8.1 (4)	73	4/ 5
< >:No. of effective animals, ():No. of measured animals Av. FC. : g																	

TABLE E3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day(effective)	
	1-7(6)	2-7(7)
Control	14.0± 1.1	15.0± 1.8
28ppm	13.5± 1.1	14.9± 1.1
83ppm	12.6± 0.9	12.8± 0.7*
250ppm	8.7± 1.1**	11.3± 0.2**
500ppm	7.4± 0.7**	9.3± 0.7**
750ppm	5.1± 1.9**	8.6± 1.0**

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

Test of Dunnett

TABLE E4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[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(6)	2-7(7)
Control	11.1± 0.7	11.1± 0.7
28ppm	11.1± 0.5	11.7± 0.6
83ppm	10.7± 0.7	10.8± 0.4
250ppm	8.2± 0.6**	9.4± 0.8**
500ppm	5.9± 0.7**	9.6± 0.9*
750ppm	4.8± 0.4**	8.1± 0.5**

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

Test of Dunnett

TABLE F1

HEMATOLOGY : MALE

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (3W)

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	8.75±	0.46	16.3±	0.7	43.9±	1.7	50.1±	0.8	18.6±	0.2	37.1±	0.4	928±	108
28ppm	5	8.76±	0.31	16.2±	0.5	43.7±	1.2	49.9±	0.5	18.5±	0.2	37.0±	0.3	939±	31
83ppm	5	8.96±	0.15	16.5±	0.1	44.5±	0.5	49.7±	0.5	18.4±	0.2	37.0±	0.2	821±	47
250ppm	5	8.95±	0.38	16.4±	0.6	44.1±	1.9	49.3±	0.4	18.3±	0.2	37.2±	0.5	800±	81
500ppm	3	8.33±	0.22	15.5±	0.7	42.7±	0.7	51.3±	0.8	18.6±	0.6	36.3±	1.6	1093±	106*
750ppm	3	7.93±	0.81*	14.5±	1.6	39.6±	3.5*	50.0±	0.8	18.3±	0.2	36.6±	0.7	988±	118

Significant difference ; * : P ≤ 0.05

** : P ≤ 0.01

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (3W)

PAGE : 2

Group Name	NO. of Animals	RETICULOCYTE %	
Control	5	2.8±	0.5
28ppm	5	2.9±	0.2
83ppm	5	2.1±	0.3
250ppm	5	2.3±	0.6
500ppm	3	7.0±	1.5*
750ppm	3	6.9±	4.0

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (3W)

PAGE : 3

Group Name	NO. of Animals	WBC 10 ³ /μl	Differential WBC (%)
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Control	5	5.53 ± 0.90	
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28ppm	5	5.14 ± 0.85	
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83ppm	5	5.21 ± 1.17	
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250ppm	5	3.93 ± 1.34	
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500ppm	3	3.63 ± 0.40	
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750ppm	3	2.56 ± 1.43**	
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Significant difference ; * : P ≤ 0.05

** : P ≤ 0.01

Test of Dunnett

(HCL070)

BAIS 4

TABLE F2

HEMATOLOGY : FEMALE

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (3W)

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	5	9.13±	0.40	17.1±	0.6	45.2±	1.8	49.5±	0.5	18.7±	0.2	37.9±	0.2	808±	31
28ppm	5	8.94±	0.25	16.7±	0.5	44.2±	0.9	49.4±	0.4	18.6±	0.1	37.7±	0.5	811±	28
83ppm	5	9.02±	0.22	16.9±	0.4	44.7±	1.0	49.6±	0.3	18.8±	0.1	37.9±	0.3	798±	56
250ppm	5	8.81±	0.33	16.2±	0.7*	43.2±	1.8	49.0±	0.5	18.3±	0.3*	37.5±	0.3	843±	65
500ppm	4	7.86±	0.59**	14.4±	1.1**	39.7±	2.6**	50.5±	0.8	18.3±	0.2*	36.3±	0.4**	1060±	63**
750ppm	4	6.93±	1.25**	12.8±	2.1**	36.4±	5.3**	52.7±	3.9**	18.5±	0.4	35.2±	2.7**	1181±	528*

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

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (3W)

PAGE : 5

Group Name	NO. of Animals	RETICULOCYTE %	
Control	5	1.5±	0.1
28ppm	5	2.0±	0.3*
83ppm	5	1.5±	0.3
250ppm	5	1.9±	0.7
500ppm	4	7.0±	2.4**
750ppm	4	10.7±	5.9**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0681
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 1 O ³ /μl	Differential WBC (%)
Control	5	3.79± 0.83	
28ppm	5	3.47± 1.07	
83ppm	5	3.11± 1.28	
250ppm	5	2.54± 0.63	
500ppm	4	2.82± 0.54	
750ppm	4	2.26± 1.22	

Significant difference ; * : P ≤ 0.05

** : P ≤ 0.01

Test of Dunnett

(HCL070)

BAIS 4

TABLE G1

BIOCHEMISTRY : MALE

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

ALL ANIMALS (3W)

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	6.0±	0.2	3.6±	0.1	1.5±	0.1	0.10±	0.01	179±	19	51±	7	42±	12
28ppm	5	5.9±	0.1	3.5±	0.1	1.5±	0.1	0.11±	0.01	180±	3	45±	2	38±	11
83ppm	5	5.8±	0.2	3.6±	0.1	1.6±	0.1**	0.10±	0.00	193±	16	46±	2	34±	8
250ppm	5	5.5±	0.1**	3.1±	0.1	1.3±	0.1*	0.11±	0.00	171±	23	67±	5**	13±	4**
500ppm	3	5.4±	0.2**	2.7±	0.0	1.0±	0.1**	0.11±	0.01	111±	3*	84±	11**	17±	3**
750ppm	3	4.7±	0.4**	2.3±	0.3	1.0±	0.1**	0.11±	0.01	122±	12*	74±	19**	12±	11**

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

ALL ANIMALS (3W)

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID		AST		ALT		LDH		ALP		G-GTP		CK	
		mg/dl		I U/l		I U/l		I U/l		I U/l		I U/l		I U/l	
Control	5	94±	9	67±	5	31±	1	103±	10	711±	38	1±	1	185±	12
28ppm	5	87±	5	70±	3	30±	2	130±	47	774±	43	1±	0	211±	45
83ppm	5	91±	5	70±	3	29±	1	142±	52	701±	21	1±	1	223±	43
250ppm	5	109±	5	73±	3*	29±	1	168±	38	470±	32**	1±	0	195±	27
500ppm	3	131±	16*	135±	29**	82±	20	155±	44	432±	43**	2±	1	215±	6
750ppm	3	109±	39	127±	40**	102±	37*	172±	59	473±	65**	2±	1	305±	145

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

ALL ANIMALS (3W)

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	17.3±	1.1	0.5±	0.0	143±	1	3.2±	0.1	104±	0	10.4±	0.4	7.7±	0.6
28ppm	5	17.4±	1.4	0.5±	0.0	143±	0	3.2±	0.2	103±	1	10.4±	0.3	7.8±	0.6
83ppm	5	18.2±	1.3	0.5±	0.1	143±	1	3.3±	0.1	103±	1	10.1±	0.3	7.3±	0.7
250ppm	5	19.0±	2.2	0.5±	0.1	141±	1	3.5±	0.1	103±	1	10.0±	0.4	7.0±	1.0
500ppm	3	29.8±	2.3**	0.5±	0.0	145±	3	3.6±	0.2*	102±	3	9.9±	0.2	8.1±	0.3
750ppm	3	47.3±	20.5**	0.5±	0.1	141±	1*	3.8±	0.2**	99±	3	9.0±	0.4**	8.7±	2.0

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

Test of Dunnett

(HCL074)

BAIS 4

TABLE G2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

ALL ANIMALS (3W)

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	5.8±	0.2	3.5±	0.1	1.5±	0.1	0.10±	0.01	141±	9	63±	4	15±	2
28ppm	5	5.7±	0.2	3.4±	0.1	1.5±	0.1	0.11±	0.01	141±	3	62±	8	14±	4
83ppm	5	5.8±	0.2	3.5±	0.1	1.6±	0.1	0.11±	0.01	142±	11	59±	4	12±	2
250ppm	5	5.0±	0.1**	2.8±	0.1**	1.2±	0.1**	0.11±	0.01	132±	27	71±	9	12±	1
500ppm	4	5.1±	0.2**	2.5±	0.1**	1.0±	0.1**	0.11±	0.01	117±	17	82±	9	17±	2
750ppm	4	4.3±	0.8**	2.2±	0.4**	1.0±	0.1**	0.11±	0.01	121±	44	65±	19	14±	7

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

ALL ANIMALS (3W)

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	5	114±	6	69±	5	29±	3	208±	120	554±	30	1±	0	199±	62
28ppm	5	109±	10	62±	18	29±	3	194±	97	601±	33	2±	0*	191±	42
83ppm	5	104±	7	72±	4	30±	4	193±	86	596±	40	2±	1	217±	39
250ppm	5	123±	14	80±	6**	28±	2	208±	120	388±	28**	2±	0*	178±	42
500ppm	4	148±	15	89±	14**	40±	14	263±	86	440±	36*	1±	1	189±	49
750ppm	4	98±	35	185±	141**	131±	110*	380±	119	496±	107	3±	1**	553±	339

Significant difference ; * : P ≤ 0.05

** : P ≤ 0.01

Test of Dunnett

STUDY NO. : 0681

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

ALL ANIMALS (3W)

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	18.5±	1.5	0.6±	0.1	142±	1	3.5±	0.2	105±	1	10.0±	0.2	6.9±	1.1
28ppm	5	17.8±	1.0	0.6±	0.1	142±	1	3.4±	0.2	105±	0	9.9±	0.3	7.3±	0.8
83ppm	5	19.1±	1.4	0.5±	0.1	141±	1	3.5±	0.2	104±	1	10.1±	0.2	7.0±	1.0
250ppm	5	19.6±	1.0	0.5±	0.0	141±	1	3.6±	0.3	105±	1	9.4±	0.2*	7.1±	0.8
500ppm	4	21.6±	3.7	0.5±	0.0	141±	1	4.1±	0.5*	100±	4**	9.9±	0.2	8.2±	1.0
750ppm	4	57.5±	20.9**	0.4±	0.1	141±	3	4.3±	0.3**	99±	4**	9.0±	0.7**	9.2±	0.1**

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

Test of Dunnett

(HCL074)

BAIS 4

TABLE H1

GROSS FINDINGS : MALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	Control	28ppm	83ppm	250ppm
			0 (%)	0 (%)	0 (%)	0 (%)
lung	red zone		- (-)	- (-)	- (-)	- (-)
thymus	atrophic		- (-)	- (-)	- (-)	- (-)
small intes	gas		- (-)	- (-)	- (-)	- (-)
large intes	gas		- (-)	- (-)	- (-)	- (-)
eye	turbid		- (-)	- (-)	- (-)	- (-)
	red		- (-)	- (-)	- (-)	- (-)

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	500ppm 2 (%)	750ppm 2 (%)
lung	red zone		1 (50)	0 (0)
thymus	atrophic		0 (0)	2 (100)
small intes	gas		0 (0)	2 (100)
large intes	gas		0 (0)	2 (100)
eye	turbid		0 (0)	2 (100)
	red		1 (50)	0 (0)

(HPT080)

BAIS 4

TABLE H2

GROSS FINDINGS : MALE
SACRIFICED ANIMALS

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

Organ	Findings	Group Name NO. of Animals	Control					
			5	(%)	5	(%)		
					28ppm			
					5	(%)	83ppm	
					5	(%)	5	(%)
							250ppm	
					5	(%)	5	(%)
thymus	atrophic		0	(0)	0	(0)	0	(0)
small intes	gas		0	(0)	0	(0)	0	(0)
large intes	gas		0	(0)	0	(0)	0	(0)
liver	herniation		0	(0)	1	(20)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

Organ	Findings	Group Name NO. of Animals	500ppm		750ppm	
			3	(%)	3	(%)
thymus	atrophic		2	(67)	3	(100)
small intes	gas		1	(33)	2	(67)
large intes	gas		2	(67)	2	(67)
liver	herniation		0	(0)	0	(0)
eye	turbid		3	(100)	3	(100)

TABLE H3

GROSS FINDINGS : FEMALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name NO. of Animals	Control 0 (%)	28ppm 0 (%)	83ppm 0 (%)	250ppm 0 (%)
thymus	atrophic		- (-)	- (-)	- (-)	- (-)
stomach	gas		- (-)	- (-)	- (-)	- (-)

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	500ppm 1 (%)	750ppm 1 (%)
thymus	atrophic		1 (100)	0 (0)
stomach	gas		0 (0)	1 (100)

(HPT080)

BAIS 4

TABLE H4

GROSS FINDINGS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0681
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							
			5	(%)	5	(%)				
				28ppm		83ppm		250ppm		
			5	(%)	5	(%)	5	(%)	5	(%)
thymus	atrophic		0	(0)	0	(0)	0	(0)	0	(0)
stomach	gas		0	(0)	0	(0)	0	(0)	0	(0)
small intes	gas		0	(0)	0	(0)	0	(0)	0	(0)
large intes	gas		0	(0)	0	(0)	0	(0)	0	(0)
liver	herniation		0	(0)	0	(0)	2	(40)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)	2	(40)

(HPT080)

BAIS 4

STUDY NO. : 0681
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	500ppm		750ppm	
			4	(%)	4	(%)
thymus	atrophic		0	(0)	4	(100)
stomach	gas		0	(0)	1	(25)
small intes	gas		0	(0)	3	(75)
large intes	gas		0	(0)	3	(75)
liver	herniation		1	(25)	1	(25)
eye	turbid		4	(100)	4	(100)

(HPT080)

BAIS 4

TABLE I1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

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

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	154± 16	0.262± 0.028	0.040± 0.001	2.267± 0.227	0.587± 0.061	0.657± 0.046
28ppm	5	152± 8	0.273± 0.038	0.045± 0.003*	2.401± 0.136	0.641± 0.059	0.693± 0.033
83ppm	5	139± 7	0.224± 0.016	0.043± 0.003	2.274± 0.120	0.598± 0.037	0.644± 0.034
250ppm	5	118± 5**	0.147± 0.020**	0.049± 0.002**	2.186± 0.178	0.533± 0.037	0.597± 0.024*
500ppm	3	95± 5**	0.050± 0.005**	0.049± 0.002**	1.941± 0.079	0.480± 0.032*	0.605± 0.025
750ppm	3	86± 9**	0.032± 0.015**	0.050± 0.002**	1.560± 0.310**	0.458± 0.036**	0.553± 0.020**

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

Test of Dunnett

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

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

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	5	1.221±	0.134	0.362±	0.033	4.682±	0.668	1.689±	0.080
28ppm	5	1.214±	0.073	0.364±	0.022	4.612±	0.329	1.698±	0.033
83ppm	5	1.143±	0.047	0.318±	0.022	4.180±	0.296	1.677±	0.019
250ppm	5	1.081±	0.046*	0.260±	0.019**	3.653±	0.091**	1.657±	0.035
500ppm	3	0.959±	0.056**	0.182±	0.008**	3.064±	0.146**	1.582±	0.048*
750ppm	3	0.949±	0.034**	0.135±	0.042**	2.827±	0.482**	1.566±	0.028**

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

Test of Dunnett

TABLE 12

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

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

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	107± 4	0.229± 0.027	0.047± 0.001	0.078± 0.014	0.468± 0.044	0.542± 0.027
28ppm	5	111± 4	0.251± 0.021	0.051± 0.006	0.074± 0.007	0.482± 0.023	0.564± 0.017
83ppm	5	104± 2	0.233± 0.010	0.050± 0.003	0.069± 0.007	0.475± 0.012	0.586± 0.012*
250ppm	5	90± 3**	0.123± 0.014**	0.052± 0.002	0.058± 0.011**	0.455± 0.030	0.519± 0.015
500ppm	4	82± 6**	0.072± 0.022**	0.056± 0.005**	0.043± 0.008**	0.450± 0.034	0.533± 0.040
750ppm	4	70± 4**	0.027± 0.008**	0.054± 0.002*	0.043± 0.003**	0.409± 0.042*	0.511± 0.062

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

Test of Dunnett

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

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

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	5	0.900±	0.040	0.265±	0.008	3.182±	0.168	1.553±	0.029
28ppm	5	0.943±	0.051	0.280±	0.012	3.348±	0.143	1.574±	0.051
83ppm	5	0.922±	0.018	0.266±	0.012	3.150±	0.093	1.562±	0.019
250ppm	5	0.907±	0.042	0.206±	0.015**	2.909±	0.119	1.544±	0.022
500ppm	4	0.916±	0.056	0.176±	0.024**	2.987±	0.257	1.519±	0.024
750ppm	4	0.896±	0.081	0.116±	0.043**	2.526±	0.389**	1.514±	0.016

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

TABLE J1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

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

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	154± 16	0.170± 0.008	0.026± 0.002	1.478± 0.183	0.381± 0.009	0.426± 0.019
28ppm	5	152± 8	0.180± 0.017	0.030± 0.002	1.585± 0.058	0.422± 0.021*	0.458± 0.017
83ppm	5	139± 7	0.161± 0.014	0.031± 0.003*	1.633± 0.083	0.429± 0.019**	0.462± 0.024
250ppm	5	118± 5**	0.125± 0.015**	0.041± 0.003**	1.859± 0.175**	0.452± 0.018**	0.508± 0.019**
500ppm	3	95± 5**	0.053± 0.003**	0.051± 0.002**	2.051± 0.016**	0.507± 0.031**	0.639± 0.005**
750ppm	3	86± 9**	0.036± 0.013**	0.058± 0.003**	1.796± 0.183*	0.532± 0.025**	0.643± 0.039**

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

Test of Dunnett

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

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

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	0.790 ± 0.019	0.235 ± 0.006	3.023 ± 0.159	1.100 ± 0.085
28ppm	5	0.801 ± 0.020	0.240 ± 0.006	3.040 ± 0.084	1.122 ± 0.069
83ppm	5	0.820 ± 0.012*	0.228 ± 0.008	2.997 ± 0.094	1.205 ± 0.053
250ppm	5	0.918 ± 0.020**	0.221 ± 0.011*	3.104 ± 0.108	1.408 ± 0.043**
500ppm	3	1.013 ± 0.020**	0.192 ± 0.003**	3.238 ± 0.128	1.673 ± 0.037**
750ppm	3	1.103 ± 0.074**	0.155 ± 0.031**	3.260 ± 0.226	1.823 ± 0.143**

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

Test of Dunnett

TABLE J2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: %

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

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	107± 4	0.215± 0.025	0.044± 0.001	0.074± 0.013	0.438± 0.027	0.508± 0.020
28ppm	5	111± 4	0.225± 0.014	0.046± 0.005	0.067± 0.005	0.434± 0.022	0.508± 0.010
83ppm	5	104± 2	0.223± 0.008	0.048± 0.004	0.066± 0.006	0.455± 0.013	0.561± 0.013**
250ppm	5	90± 3**	0.137± 0.012**	0.058± 0.004**	0.064± 0.010	0.507± 0.036**	0.578± 0.032**
500ppm	4	82± 6**	0.087± 0.021**	0.069± 0.007**	0.052± 0.008**	0.550± 0.036**	0.652± 0.056**
750ppm	4	70± 4**	0.039± 0.010**	0.078± 0.003**	0.062± 0.005	0.588± 0.047**	0.738± 0.100**

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

Test of Dunnett

STUDY NO. : 0681
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	0.843 ± 0.010	0.249 ± 0.005	2.978 ± 0.096	1.455 ± 0.049
28ppm	5	0.848 ± 0.016	0.252 ± 0.005	3.013 ± 0.132	1.416 ± 0.047
83ppm	5	0.884 ± 0.028**	0.255 ± 0.010	3.016 ± 0.037	1.496 ± 0.019*
250ppm	5	1.010 ± 0.036**	0.230 ± 0.016	3.243 ± 0.166	1.721 ± 0.050**
500ppm	4	1.120 ± 0.055**	0.214 ± 0.013*	3.641 ± 0.027**	1.861 ± 0.138**
750ppm	4	1.289 ± 0.094**	0.166 ± 0.055**	3.633 ± 0.537*	2.183 ± 0.118**

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

Test of Dunnett

TABLE K1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
ALL ANIMALS

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study		Grade		No. of Animals on Study		Grade		No. of Animals on Study		Grade		No. of Animals on Study		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>			
	goblet cell hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:squamous epithelium	0	0	0	0	1	0	0	0	4	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	inflammation:respiratory epithelium	0	0	0	0	0	0	0	0	1	1	0	0	0	1	4	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(20)	(0)	(0)	(0)	(20)	(80)	(0)
	squamous cell metaplasia:respiratory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
	ulcer:squamous epithelium	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	ulcer:respiratory epithelium	0	0	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)	(100)	(0)
	atrophy:olfactory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:respiratory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(20)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm					
		Group Name		5		5		5			
		No. of Animals on Study		1	2	3	4	1	2	3	4
		Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}											
nasal cavit											
	goblet cell hyperplasia	< 5>				< 5>					
		2	2	0	0	1	3	0	0		
		(40)	(40)	(0)	(0)	(20)	(60)	(0)	(0)		
	inflammation:squamous epithelium	0	0	1	4	0	0	0	5		
		(0)	(0)	(20)	(80)	(0)	(0)	(0)	(100)		
	inflammation:respiratory epithelium	0	0	5	0	0	1	4	0		
		(0)	(0)	(100)	(0)	(0)	(20)	(80)	(0)		
	squamous cell metaplasia:respiratory epithelium	0	4	0	0	2	3	0	0		
		(0)	(80)	(0)	(0)	(40)	(60)	(0)	(0)		
	ulcer:squamous epithelium	0	0	5	0	0	0	5	0		
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)		
	ulcer:respiratory epithelium	0	0	5	0	0	1	4	0		
		(0)	(0)	(100)	(0)	(0)	(20)	(80)	(0)		
	atrophy:olfactory epithelium	3	1	0	0	4	0	0	0		
		(60)	(20)	(0)	(0)	(80)	(0)	(0)	(0)		
	necrosis:respiratory epithelium	0	4	1	0	1	4	0	0		
		(0)	(80)	(20)	(0)	(20)	(80)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				5				5				5			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}																	
nasal cavit	necrosis:squamous epithelium	0	0	0	0	0	0	0	0	4	0	0	0	0	1	4	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(0)	(0)	(20)	(80)
nasopharynx	inflammation	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)
	squamous cell metaplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(20)	(0)	(0)
	necrosis: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	inflammation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell metaplasia	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
trachea	degeneration: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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm			
		Group Name		5		5		5	
		No. of Animals on Study				No. of Animals on Study			
Grade		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}									
nasal cavit	necrosis:squamous epithelium	< 5>				< 5>			
		0	0	4	1	0	0	5	0
		(0)	(0)	(80)	(20)	(0)	(0)	(100)	(0)
nasopharynx	inflammation	< 5>				< 5>			
		2	2	0	0	3	2	0	0
		(40)	(40)	(0)	(0)	(60)	(40)	(0)	(0)
	squamous cell metaplasia	0	5	0	0	0	3	1	0
		(0)	(100)	(0)	(0)	(0)	(60)	(20)	(0)
	necrosis:epithelium	3	0	0	0	3	0	1	0
		(60)	(0)	(0)	(0)	(60)	(0)	(20)	(0)
larynx	inflammation	< 5>				< 5>			
		2	1	0	0	5	0	0	0
		(40)	(20)	(0)	(0)	(100)	(0)	(0)	(0)
	squamous cell metaplasia	3	1	0	0	0	4	1	0
		(60)	(20)	(0)	(0)	(0)	(80)	(20)	(0)
trachea	degeneration:epithelium	< 5>				< 5>			
		0	0	0	0	1	1	0	0
		(0)	(0)	(0)	(0)	(20)	(20)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name		Control				28ppm				83ppm				250ppm			
		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}																			
trachea	inflammation	< 5>				< 5>				< 5>				< 5>					
	necrosis: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)	(0)	(0)	
lung	hemorrhage	< 5>				< 5>				< 5>				< 5>					
	inflammation:foreign body	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Hematopoietic system}																			
thymus	atrophy	< 0>				< 0>				< 0>				< 0>					
		0	0	0	0	0	0	0	0	0	0	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	< 5>				< 5>				< 5>				< 5>					
		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm			
		No. of Animals on Study				No. of Animals on Study			
		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}									
trachea		< 5>				< 5>			
	inflammation	1	0	0	0	0	0	0	0
		(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:epithelium	0	1	0	0	0	0	0	0
		(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)
lung		< 5>				< 5>			
	hemorrhage	0	1	0	0	0	0	0	0
		(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:foreign body	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Hematopoietic system}									
thymus		< 2>				< 5>			
	atrophy	0	0	2	0	0	0	5	0
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
{Digestive system}									
liver		< 5>				< 5>			
	herniation	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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm				
		No. of Animals on Study				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)
	necrosis:focal	0	0	0	0	0	0	0	0	0	0	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	eosinophilic body	< 5>				< 5>				< 5>				< 5>				
		2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0
	(40)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Special sense organs/appendage}																		
eye	keratitis	< 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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		5		5		5		
		No. of Animals on Study		1	2	3	4	1	2	3
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Digestive system}										
liver	necrosis:central	< 5>				< 5>				
		1	0	0	0	0	0	0	0	0
		(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	1	0	0	0	1	0	0	0	0
		(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)
{Urinary system}										
kidney	eosinophilic body	< 5>				< 5>				
		0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}										
eye	keratitis	< 5>				< 5>				
		0	0	3	2	0	0	4	1	
		(0)	(0)	(60)	(40)	(0)	(0)	(80)	(20)	

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

TABLE K2

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name				28ppm				83ppm				250ppm			
		Control				0				0				0			
		No. of Animals on Study				Grade				Grade				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>			
goblet cell hyperplasia		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
inflammation:squamous epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
inflammation:respiratory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
squamous cell metaplasia:respiratory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
ulcer:squamous epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
ulcer:respiratory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
atrophy:olfactory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
necrosis:respiratory epithelium		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		2		2		4		
		No. of Animals on Study		Grade		Grade		Grade		
		1	2	3	4	1	2	3	4	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}										
nasal cavit										
		< 2>				< 2>				
	goblet cell hyperplasia	1	0	0	0	0	1	0	0	
		(50)	(0)	(0)	(0)	(0)	(50)	(0)	(0)	
	inflammation:squamous epithelium	0	0	0	2	0	0	0	2	
		(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	
	inflammation:respiratory epithelium	0	0	2	0	0	1	1	0	
		(0)	(0)	(100)	(0)	(0)	(50)	(50)	(0)	
	squamous cell metaplasia:respiratory epithelium	0	1	0	0	1	1	0	0	
		(0)	(50)	(0)	(0)	(50)	(50)	(0)	(0)	
	ulcer:squamous epithelium	0	0	2	0	0	0	2	0	
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	
	ulcer:respiratory epithelium	0	0	2	0	0	1	1	0	
		(0)	(0)	(100)	(0)	(0)	(50)	(50)	(0)	
	atrophy:olfactory epithelium	0	1	0	0	1	0	0	0	
		(0)	(50)	(0)	(0)	(50)	(0)	(0)	(0)	
	necrosis:respiratory epithelium	0	1	1	0	1	1	0	0	
		(0)	(50)	(50)	(0)	(50)	(50)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm							
		No. of Animals on Study				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>							
	necrosis:squamous epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
nasopharynx		< 0>				< 0>				< 0>				< 0>							
	inflammation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	squamous cell metaplasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	
	necrosis:epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	
larynx		< 0>				< 0>				< 0>				< 0>							
	inflammation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	
	squamous cell metaplasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	
trachea		< 0>				< 0>				< 0>				< 0>							
	degeneration:epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		2		2		4		
		No. of Animals on Study		1	2	1	2	3	4	
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)		
{Respiratory system}										
nasal cavit	necrosis:squamous epithelium	< 2>				< 2>				
		0	0	1	1	0	0	2	0	
		(0)	(0)	(50)	(50)	(0)	(0)	(100)	(0)	
nasopharynx	inflammation	< 2>				< 2>				
		0	1	0	0	1	1	0	0	
			(0)	(50)	(0)	(0)	(50)	(50)	(0)	(0)
	squamous cell metaplasia	< 2>				< 2>				
0		2	0	0	0	1	0	0		
		(0)	(100)	(0)	(0)	(0)	(50)	(0)	(0)	
necrosis:epithelium	< 2>				< 2>					
	2	0	0	0	1	0	1	0		
		(100)	(0)	(0)	(0)	(50)	(0)	(50)	(0)	
larynx	inflammation	< 2>				< 2>				
		1	0	0	0	2	0	0	0	
		(50)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
squamous cell metaplasia	< 2>				< 2>					
	1	0	0	0	0	1	1	0		
		(50)	(0)	(0)	(0)	(0)	(50)	(50)	(0)	
trachea	degeneration:epithelium	< 2>				< 2>				
		0	0	0	0	1	1	0	0	
		(0)	(0)	(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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				0				0				0			
Grade		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
trachea	inflammation	< 0>				< 0>				< 0>				< 0>			
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	necrosis:epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
lung	hemorrhage	< 0>				< 0>				< 0>				< 0>			
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	inflammation:foreign body	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Hematopoietic system}																	
thymus	atrophy	< 0>				< 0>				< 0>				< 0>			
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Digestive system}																	
liver	necrosis:central	< 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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name 500ppm				Group Name 750ppm					
		No. of Animals on Study				No. of Animals on Study					
		Grade	1	2	3	4	Grade	1	2	3	4
		(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)	
{Respiratory system}											
trachea	inflammation		< 2>					< 2>			
		1	0	0	0	0	0	0	0	0	0
		(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:epithelium	0	1	0	0	0	0	0	0	0	0
		(0)	(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung	hemorrhage		< 2>					< 2>			
		0	1	0	0	0	0	0	0	0	0
		(0)	(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:foreign body	0	0	0	0	1	0	0	0	0	0
		(0)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}											
thymus	atrophy		< 0>					< 2>			
		0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
{Digestive system}											
liver	necrosis:central		< 2>					< 2>			
		1	0	0	0	0	0	0	0	0	0
		(50)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		0				0				0				0			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Digestive system}

liver	necrosis:focal	< 0>				< 0>				< 0>				< 0>			
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

{Special sense organs/appendage}

eye	keratitis	< 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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm			
		No. of Animals on Study		Grade		No. of Animals on Study		Grade	
		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Digestive system}

liver	necrosis:focal	< 2>				< 2>			
		1	0	0	0	0	0	0	0
		(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

{Special sense organs/appendage}

eye	keratitis	< 2>				< 2>			
		0	0	2	0	0	0	2	0
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(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

TABLE K3

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
SACRIFICED ANIMALS

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				5				5				5			
Grade		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit																	
	goblet 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)
	inflammation:squamous epithelium	0	0	0	0	1	0	0	0	4	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	inflammation:respiratory epithelium	0	0	0	0	0	0	0	0	1	1	0	0	0	1	4	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(20)	(0)	(0)	(0)	(20)	(80)	(0)
	squamous cell metaplasia:respiratory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
	ulcer:squamous epithelium	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	ulcer:respiratory epithelium	0	0	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)	(100)	(0)
	atrophy:olfactory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:respiratory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(20)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		3		3		4		
		No. of Animals on Study		1	2	3	4	1	2	3
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}										
nasal cavit										
	goblet cell hyperplasia	< 3>				< 3>				
		1	2	0	0	1	2	0	0	
		(33)	(67)	(0)	(0)	(33)	(67)	(0)	(0)	
	inflammation:squamous epithelium	0	0	1	2	0	0	0	3	
		(0)	(0)	(33)	(67)	(0)	(0)	(0)	(100)	
	inflammation:respiratory epithelium	0	0	3	0	0	0	3	0	
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	
	squamous cell metaplasia:respiratory epithelium	0	3	0	0	1	2	0	0	
		(0)	(100)	(0)	(0)	(33)	(67)	(0)	(0)	
	ulcer:squamous epithelium	0	0	3	0	0	0	3	0	
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	
	ulcer:respiratory epithelium	0	0	3	0	0	0	3	0	
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	
	atrophy:olfactory epithelium	3	0	0	0	3	0	0	0	
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
	necrosis:respiratory epithelium	0	3	0	0	0	3	0	0	
		(0)	(100)	(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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm					
		No. of Animals on Study				5				5				5					
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
{Respiratory system}																			
nasal cavit	necrosis:squamous epithelium	< 5>				< 5>				< 5>				< 5>					
		0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	4	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(0)	(0)	(20)	(80)	(0)	(0)
nasopharynx	inflammation	< 5>				< 5>				< 5>				< 5>					
		0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(0)	(0)
	squamous cell metaplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(20)	(0)	(0)	(0)	(0)	(0)
	necrosis: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)	(0)	(0)	(0)	(0)
larynx	inflammation	< 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)	(0)	(0)
	squamous cell metaplasia	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																			
thymus	atrophy	< 0>				< 0>				< 0>				< 0>					
		0	0	0	0	0	0	0	0	0	0	0	0	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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name				Group Name			
		500ppm				750ppm			
		No. of Animals on Study				No. of Animals on Study			
Grade		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}									
nasal cavit	necrosis:squamous epithelium	< 3>				< 3>			
		0	0	3	0	0	0	3	0
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
nasopharynx	inflammation	< 3>				< 3>			
		2	1	0	0	2	1	0	0
		(67)	(33)	(0)	(0)	(67)	(33)	(0)	(0)
	squamous cell metaplasia	0	3	0	0	0	2	1	0
		(0)	(100)	(0)	(0)	(0)	(67)	(33)	(0)
	necrosis:epithelium	1	0	0	0	2	0	0	0
		(33)	(0)	(0)	(0)	(67)	(0)	(0)	(0)
larynx	inflammation	< 3>				< 3>			
		1	1	0	0	3	0	0	0
		(33)	(33)	(0)	(0)	(100)	(0)	(0)	(0)
	squamous cell metaplasia	2	1	0	0	0	3	0	0
		(67)	(33)	(0)	(0)	(0)	(100)	(0)	(0)
{Hematopoietic system}									
thymus	atrophy	< 2>				< 3>			
		0	0	2	0	0	0	3	0
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study		Grade		No. of Animals on Study		Grade		No. of Animals on Study		Grade		No. of Animals on Study		Grade	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Digestive system}																	
liver	herniation	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	necrosis:focal	0	0	0	0	0	0	0	0	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	eosinophilic body	< 5>				< 5>				< 5>				< 5>			
		2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
		(40)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}																	
eye	keratitis	< 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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name				Group Name			
		500ppm				750ppm			
		No. of Animals on Study				No. of Animals on Study			
		3				3			
		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}									
liver	herniation	< 3>				< 3>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(33)	(0)	(0)	(0)
{Urinary system}									
kidney	eosinophilic body	< 3>				< 3>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}									
eye	keratitis	< 3>				< 3>			
		0	0	1	2	0	0	2	1
		(0)	(0)	(33)	(67)	(0)	(0)	(67)	(33)

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

TABLE K4

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
ALL ANIMALS

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	Control 5				28ppm 5				83ppm 5				250ppm 5			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Respiratory system}																		
nasal cavit			< 5>				< 5>				< 5>				< 5>			
	goblet cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	inflammation:squamous epithelium		0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (100)
	inflammation:respiratory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	0 (0)	0 (0)	0 (0)	0 (0)	3 (60)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (100)
	squamous cell metaplasia:respiratory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	4 (80)	1 (20)
	ulcer:squamous epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (100)
	ulcer: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)	5 (100)	0 (0)
	atrophy:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)
	necrosis: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)	5 (100)	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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm			
		Group Name		5		5		5	
		No. of Animals on Study				No. of Animals on Study			
Grade		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}									
nasal cavit									
	goblet cell hyperplasia	< 5>				< 5>			
		4	0	0	0	3	0	0	0
		(80)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
	inflammation:squamous epithelium	0	0	1	4	0	0	0	5
		(0)	(0)	(20)	(80)	(0)	(0)	(0)	(100)
	inflammation:respiratory epithelium	0	0	5	0	0	1	4	0
		(0)	(0)	(100)	(0)	(0)	(20)	(80)	(0)
	squamous cell metaplasia:respiratory epithelium	1	3	1	0	1	3	0	0
		(20)	(60)	(20)	(0)	(20)	(60)	(0)	(0)
	ulcer:squamous epithelium	0	0	5	0	0	0	5	0
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
	ulcer:respiratory epithelium	0	1	4	0	0	0	5	0
		(0)	(20)	(80)	(0)	(0)	(0)	(100)	(0)
	atrophy:olfactory epithelium	5	0	0	0	3	0	0	0
		(100)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
	necrosis:respiratory epithelium	0	5	0	0	0	2	3	0
		(0)	(100)	(0)	(0)	(0)	(40)	(60)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		Group Name		No. of Animals on Study		Group Name		No. of Animals on Study		Group Name		No. of Animals on Study		Group Name		No. of Animals on Study	
		Grade	1	2	3	4	Grade	1	2	3	4	Grade	1	2	3	4	
		(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)		
{Respiratory system}																	
nasal cavit	necrosis:squamous epithelium	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	1	1	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(20)	(0)	(0)	(0)	(0)	(100)	(0)
nasopharynx	inflammation	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
	squamous cell metaplasia	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)
	necrosis: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	inflammation	< 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)
	squamous cell metaplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung	inflammation:foreign body	< 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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		5		5		5		
		No. of Animals on Study		5		5		5		
Grade		1	2	3	4	1	2	3	4	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}										
nasal cavit	necrosis:squamous epithelium	< 5>				< 5>				
		0	1	4	0	0	0	3	2	
		(0)	(20)	(80)	(0)	(0)	(0)	(60)	(40)	
nasopharynx	inflammation	< 5>				< 5>				
		3	2	0	0	1	3	0	0	
			(60)	(40)	(0)	(0)	(20)	(60)	(0)	(0)
	squamous cell metaplasia	< 5>				< 5>				
0		2	3	0	1	2	1	0		
		(0)	(40)	(60)	(0)	(20)	(40)	(20)	(0)	
necrosis:epithelium	< 5>				< 5>					
	3	0	0	0	2	0	1	0		
		(60)	(0)	(0)	(0)	(40)	(0)	(20)	(0)	
larynx	inflammation	< 5>				< 5>				
		0	0	0	0	3	1	0	0	
			(0)	(0)	(0)	(0)	(60)	(20)	(0)	(0)
squamous cell metaplasia	< 5>				< 5>					
	3	0	0	0	2	3	0	0		
		(60)	(0)	(0)	(0)	(40)	(60)	(0)	(0)	
lung	inflammation:foreign body	< 5>				< 5>				
		0	1	0	0	0	0	0	0	
		(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
Grade		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																	
thymus	atrophy	< 0>				< 0>				< 0>				< 0>			
		0	0	0	0	0	0	0	0	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	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																	
kidney	mineralization:cortico-medullary junction	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Special sense organs/appendage}																	
eye	keratitis	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm			
		No. of Animals on Study				No. of Animals on Study			
		1	2	3	4	1	2	3	4
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}									
thymus	atrophy	< 5>				< 4>			
		0	0	1	0	0	0	4	0
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
{Digestive system}									
liver	herniation	< 5>				< 5>			
		1	0	0	0	1	0	0	0
		(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Urinary system}									
kidney	mineralization:cortico-medullary junction	< 5>				< 5>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}									
eye	keratitis	< 5>				< 5>			
		0	1	3	1	0	1	1	3
		(0)	(20)	(60)	(20)	(0)	(20)	(20)	(60)

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

TABLE K5

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm				
		No. of Animals on Study				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 >				
	goblet cell hyperplasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	inflammation:squamous epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	inflammation:respiratory epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	squamous cell metaplasia:respiratory epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	ulcer:squamous epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	ulcer:respiratory epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	atrophy:olfactory epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	necrosis:respiratory epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm			
		1	2	3	4	1	2	3	4
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
No. of Animals on Study									
		< 1 >				< 1 >			
nasal cavit	goblet cell hyperplasia	1 (100)	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)
	inflammation:squamous epithelium	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	1 (100)
	inflammation:respiratory epithelium	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	ulcer:squamous epithelium	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)
	ulcer:respiratory epithelium	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)
	atrophy:olfactory epithelium	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	necrosis:respiratory epithelium	0 (0)	1 (100)	0 (0)	0 (0)	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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				0				0				0			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit	necrosis:squamous epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
nasopharynx	inflammation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	squamous cell metaplasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	necrosis:epithelium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
larynx	inflammation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	squamous cell metaplasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
lung	inflammation:foreign body	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		1		1		1		
		No. of Animals on Study		1		1		1		
Grade		1	2	3	4	1	2	3	4	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}										
nasal cavit		< 1>				< 1>				
	necrosis:squamous epithelium	0	0	1	0	0	0	0	1	
		(0)	(0)	(100)	(0)	(0)	(0)	(0)	(100)	
nasopharynx		< 1>				< 1>				
	inflammation	1	0	0	0	0	1	0	0	
			(100)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
	squamous cell metaplasia	0	1	0	0	0	0	0	0	
		(0)	(100)	(0)	(0)	(0)	(0)	(0)	(0)	
	necrosis:epithelium	1	0	0	0	0	0	1	0	
		(100)	(0)	(0)	(0)	(0)	(0)	(100)	(0)	
larynx		< 1>				< 1>				
	inflammation	0	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	squamous cell metaplasia	0	0	0	0	1	0	0	0	
		(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
lung		< 1>				< 1>				
	inflammation:foreign body	0	1	0	0	0	0	0	0	
		(0)	(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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		0				0				0				0			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																	
thymus	atrophy	< 0>				< 0>				< 0>				< 0>			
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Special sense organs/appendage}																	
eye	keratitis	< 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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm			
		No. of Animals on Study				No. of Animals on Study			
		1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Hematopoietic system}

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

{Special sense organs/appendage}

		< 1 >				< 1 >			
eye	keratitis	0	1	0	0	0	0	1	0
		(0)	(100)	(0)	(0)	(0)	(0)	(100)	(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

TABLE K6

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control No. of Animals on Study Grade				28ppm 5				83ppm 5				250ppm 5			
		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Respiratory system}																	
nasal cavit																	
	goblet 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)
	inflammation:squamous epithelium	0	0	0	0	1	0	0	0	2	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	inflammation:respiratory epithelium	0	0	0	0	2	0	0	0	3	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	squamous cell metaplasia:respiratory epithelium	0	0	0	0	1	0	0	0	1	0	0	0	0	4	1	0
		(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(80)	(20)	(0)
	ulcer:squamous epithelium	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(100)	(0)
	ulcer:respiratory epithelium	0	0	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)	(100)	(0)
	atrophy:olfactory epithelium	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)	(20)	(0)	(0)	(0)
	necrosis:respiratory epithelium	0	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)	(100)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm				
		Group Name		4		4		4		
		No. of Animals on Study		1	2	3	4	1	2	3
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}										
nasal cavit										
	goblet cell hyperplasia	< 4>				< 4>				
		3	0	0	0	2	0	0	0	
		(75)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	
	inflammation:squamous epithelium	0	0	1	3	0	0	0	4	
		(0)	(0)	(25)	(75)	(0)	(0)	(0)	(100)	
	inflammation:respiratory epithelium	0	0	4	0	0	1	3	0	
		(0)	(0)	(100)	(0)	(0)	(25)	(75)	(0)	
	squamous cell metaplasia:respiratory epithelium	0	3	1	0	1	3	0	0	
		(0)	(75)	(25)	(0)	(25)	(75)	(0)	(0)	
	ulcer:squamous epithelium	0	0	4	0	0	0	4	0	
		(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	
	ulcer:respiratory epithelium	0	1	3	0	0	0	4	0	
		(0)	(25)	(75)	(0)	(0)	(0)	(100)	(0)	
	atrophy:olfactory epithelium	4	0	0	0	3	0	0	0	
		(100)	(0)	(0)	(0)	(75)	(0)	(0)	(0)	
	necrosis:respiratory epithelium	0	4	0	0	0	2	2	0	
		(0)	(100)	(0)	(0)	(0)	(50)	(50)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm				
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				
Grade		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}																		
nasal cavit	necrosis:squamous epithelium	< 5>				< 5>				< 5>				< 5>				
		0	0	0	0	0	0	0	0	1	1	0	0	0	0	5	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(20)	(0)	(0)	(0)	(0)	(100)	(0)	
nasopharynx	inflammation	< 5>				< 5>				< 5>				< 5>				
		0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
	squamous cell metaplasia	0				0				0				4				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	
necrosis: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	inflammation	< 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)
squamous cell metaplasia		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Hematopoietic system}																		
thymus	atrophy	< 0>				< 0>				< 0>				< 0>				
		0	0	0	0	0	0	0	0	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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name 500ppm				Group Name 750ppm					
		No. of Animals on Study				No. of Animals on Study					
		Grade	1	2	3	4	Grade	1	2	3	4
		(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)	
{Respiratory system}											
nasal cavit		< 4>				< 4>					
	necrosis:squamous epithelium	0	1	3	0	0	0	3	1		
		(0)	(25)	(75)	(0)	(0)	(0)	(75)	(25)		
nasopharynx		< 4>				< 4>					
	inflammation	2	2	0	0	1	2	0	0		
		(50)	(50)	(0)	(0)	(25)	(50)	(0)	(0)		
	squamous cell metaplasia	0	1	3	0	1	2	1	0		
		(0)	(25)	(75)	(0)	(25)	(50)	(25)	(0)		
	necrosis:epithelium	2	0	0	0	2	0	0	0		
		(50)	(0)	(0)	(0)	(50)	(0)	(0)	(0)		
larynx		< 4>				< 4>					
	inflammation	0	0	0	0	2	1	0	0		
		(0)	(0)	(0)	(0)	(50)	(25)	(0)	(0)		
	squamous cell metaplasia	3	0	0	0	1	3	0	0		
		(75)	(0)	(0)	(0)	(25)	(75)	(0)	(0)		
{Hematopoietic system}											
thymus		< 0>				< 4>					
	atrophy	0	0	0	0	0	0	4	0		
		(0)	(0)	(0)	(0)	(0)	(0)	(100)	(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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				28ppm				83ppm				250ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
Grade		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																	
liver	herniation	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																	
kidney	mineralization:cortico-medullary junction	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Special sense organs/appendage}																	
eye	keratitis	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)

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

STUDY NO. : 0681
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	500ppm				750ppm			
		1	2	3	4	1	2	3	4
		No. of Animals on Study				No. of Animals on Study			
		Grade				Grade			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Digestive system}

liver	herniation	< 4>				< 4>			
		1	0	0	0	1	0	0	0
		(25)	(0)	(0)	(0)	(25)	(0)	(0)	(0)

{Urinary system}

kidney	mineralization:cortico-medullary junction	< 4>				< 4>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

{Special sense organs/appendage}

eye	keratitis	< 4>				< 4>			
		0	0	3	1	0	1	0	3
		(0)	(0)	(75)	(25)	(0)	(25)	(0)	(75)

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