

ブチルアルデヒドのラットを用いた
吸入による 13 週間毒性試験報告書

試験番号 : 0897

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: FEMALE

TABLE A

CONCENTRATIONS OF BUTYRALDEHYDE
IN THE INHALATION CHAMBER
OF THE 13-WEEK INHALATION STUDY

CONCENTRATIONS OF BUTYRALDEHYDE IN THE
INHALATION CHAMBER OF THE 13-WEEK INHALATION STUDY

Group Name	Concentration(ppm) Mean \pm S.D.
Control	0.0 \pm 0.0
100 ppm	100.6 \pm 1.7
300 ppm	300.8 \pm 5.9
1000 ppm	997.5 \pm 18.0
3000 ppm	2991.7 \pm 59.5

TABLE B1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0897

SURVIVAL ANIMAL NUMBERS

ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]

REPORT TYPE : A1 13

SEX : MALE

Group Name	Animals At start	Administration (Weeks)													
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Control	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
100 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
300 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
1000 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
3000 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0

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

TABLE B2

SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0897

SURVIVAL ANIMAL NUMBERS

ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]

REPORT TYPE : A1 13

SEX : FEMALE

Group Name	Animals At start	Administration (Weeks)													
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Control	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
100 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
300 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
1000 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0
3000 ppm	10	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0	10/10 100.0

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

TABLE C1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0897
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day												
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	100 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	300 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	1000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	3000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10

(HAN190)

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TABLE C2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrIj[F344/DuCrj]
 REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day												
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	300 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	100 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	300 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	1000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	3000 ppm	10	10	10	10	10	10	10	10	10	10	10	9	9

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TABLE D1

BODY WEIGHT CHANGES AND
SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control		100 ppm			300 ppm			1000 ppm			3000 ppm		
	Av. Wt. <10>	No. of Surviv. <10>	Av. Wt. <10>	% of cont. <10>	No. of Surviv.	Av. Wt. <10>	% of cont. <10>	No. of Surviv.	Av. Wt. <10>	% of cont. <10>	No. of Surviv.	Av. Wt. <10>	% of cont. <10>	No. of Surviv.
0-0	110 (10)	10/10	111 (10)	101	10/10	111 (10)	101	10/10	111 (10)	101	10/10	110 (10)	100	10/10
1-7	139 (10)	10/10	142 (10)	102	10/10	141 (10)	101	10/10	139 (10)	100	10/10	132 (10)	95	10/10
2-7	170 (10)	10/10	172 (10)	101	10/10	172 (10)	101	10/10	171 (10)	101	10/10	158 (10)	93	10/10
3-7	197 (10)	10/10	197 (10)	100	10/10	199 (10)	101	10/10	197 (10)	100	10/10	184 (10)	93	10/10
4-7	219 (10)	10/10	217 (10)	99	10/10	221 (10)	101	10/10	217 (10)	99	10/10	200 (10)	91	10/10
5-7	236 (10)	10/10	233 (10)	99	10/10	239 (10)	101	10/10	233 (10)	99	10/10	213 (10)	90	10/10
6-7	251 (10)	10/10	247 (10)	98	10/10	253 (10)	101	10/10	248 (10)	99	10/10	226 (10)	90	10/10
7-7	263 (10)	10/10	259 (10)	98	10/10	266 (10)	101	10/10	261 (10)	99	10/10	240 (10)	91	10/10
8-7	272 (10)	10/10	268 (10)	99	10/10	275 (10)	101	10/10	270 (10)	99	10/10	247 (10)	91	10/10
9-7	284 (10)	10/10	279 (10)	98	10/10	285 (10)	100	10/10	282 (10)	99	10/10	259 (10)	91	10/10
10-7	292 (10)	10/10	285 (10)	98	10/10	292 (10)	100	10/10	292 (10)	100	10/10	266 (10)	91	10/10
11-7	298 (10)	10/10	291 (10)	98	10/10	298 (10)	100	10/10	298 (10)	100	10/10	272 (10)	91	10/10
12-7	305 (10)	10/10	297 (10)	97	10/10	303 (10)	99	10/10	304 (10)	100	10/10	276 (10)	90	10/10
13-7	309 (10)	10/10	301 (10)	97	10/10	307 (10)	99	10/10	307 (10)	99	10/10	281 (10)	91	10/10

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

TABLE D2

BODY WEIGHT CHANGES AND
SURVIVAL ANIMAL NUMBERS : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

Week-Day on Study	Control		100 ppm			300 ppm			1000 ppm			3000 ppm		
	Av. Wt.	No. of Surviv. <10>	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.	Av. Wt.	% of cont. <10>	No. of Surviv.
0-0	93 (10)	10/10	93 (10)	100	10/10	93 (10)	100	10/10	93 (10)	100	10/10	93 (10)	100	10/10
1-7	109 (10)	10/10	108 (10)	99	10/10	109 (10)	100	10/10	108 (10)	99	10/10	103 (10)	94	10/10
2-7	121 (10)	10/10	121 (10)	100	10/10	123 (10)	102	10/10	121 (10)	100	10/10	113 (10)	93	10/10
3-7	132 (10)	10/10	130 (10)	98	10/10	132 (10)	100	10/10	132 (10)	100	10/10	125 (10)	95	10/10
4-7	138 (10)	10/10	139 (10)	101	10/10	141 (10)	102	10/10	140 (10)	101	10/10	132 (10)	96	10/10
5-7	146 (10)	10/10	147 (10)	101	10/10	147 (10)	101	10/10	147 (10)	101	10/10	136 (10)	93	10/10
6-7	152 (10)	10/10	153 (10)	101	10/10	154 (10)	101	10/10	153 (10)	101	10/10	143 (10)	94	10/10
7-7	157 (10)	10/10	160 (10)	102	10/10	159 (10)	101	10/10	160 (10)	102	10/10	149 (10)	95	10/10
8-7	158 (10)	10/10	162 (10)	103	10/10	161 (10)	102	10/10	162 (10)	103	10/10	153 (10)	97	10/10
9-7	163 (10)	10/10	167 (10)	102	10/10	168 (10)	103	10/10	169 (10)	104	10/10	157 (10)	96	10/10
10-7	167 (10)	10/10	171 (10)	102	10/10	172 (10)	103	10/10	172 (10)	103	10/10	160 (10)	96	10/10
11-7	171 (10)	10/10	173 (10)	101	10/10	176 (10)	103	10/10	175 (10)	102	10/10	164 (10)	96	10/10
12-7	175 (10)	10/10	177 (10)	101	10/10	177 (10)	101	10/10	177 (10)	101	10/10	164 (10)	94	10/10
13-7	174 (10)	10/10	176 (10)	101	10/10	177 (10)	102	10/10	177 (10)	102	10/10	167 (10)	96	10/10

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

TABLE D3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration		week-day		2-7		3-7		4-7		5-7		6-7	
	0-0		1-7											
Control	110±	4	139±	9	170±	11	197±	12	219±	12	236±	11	251±	12
100 ppm	111±	4	142±	7	172±	9	197±	11	217±	15	233±	14	247±	14
300 ppm	111±	4	141±	6	172±	8	199±	9	221±	11	239±	13	253±	14
1000 ppm	111±	4	139±	7	171±	8	197±	8	217±	9	233±	9	248±	11
3000 ppm	110±	4	132±	8	158±	8*	184±	7**	200±	8**	213±	7**	226±	8**

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

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration		week-day		9-7		10-7		11-7		12-7		13-7	
	7-7		8-7											
Control	263±	12	272±	14	284±	13	292±	12	298±	12	305±	12	309±	12
100 ppm	259±	14	268±	14	279±	13	285±	15	291±	13	297±	15	301±	16
300 ppm	266±	16	275±	18	285±	17	292±	16	298±	16	303±	17	307±	18
1000 ppm	261±	11	270±	11	282±	10	292±	10	298±	11	304±	11	307±	10
3000 ppm	240±	9**	247±	9**	259±	10**	266±	9**	272±	8**	276±	9**	281±	8**

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

Test of t

TABLE D4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration		week-day		2-7		3-7		4-7		5-7		6-7	
	0-0		1-7											
Control	93±	2	109±	5	121±	5	132±	7	138±	8	146±	8	152±	10
100 ppm	93±	2	108±	3	121±	3	130±	4	139±	4	147±	5	153±	5
300 ppm	93±	2	109±	3	123±	4	132±	5	141±	5	147±	5	154±	5
1000 ppm	93±	3	108±	2	121±	4	132±	4	140±	5	147±	5	153±	5
3000 ppm	93±	3	103±	3**	113±	4**	125±	4*	132±	5	136±	5**	143±	5*

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

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration		week-day		7-7		8-7		9-7		10-7		11-7		12-7		13-7	
Control	157±	9	158±	9	163±	10	167±	10	171±	11	175±	11	174±	11				
100 ppm	160±	5	162±	7	167±	6	171±	5	173±	7	177±	8	176±	8				
300 ppm	159±	5	161±	6	168±	6	172±	8	176±	8	177±	9	177±	7				
1000 ppm	160±	5	162±	6	169±	6	172±	6	175±	7	177±	5	177±	7				
3000 ppm	149±	5*	153±	5	157±	5	160±	6	164±	5	164±	6*	167±	5				

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

Test of t

TABLE E1

FOOD CONSUMPTION CHANGES AND
SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control		100 ppm			300 ppm			1000 ppm			3000 ppm		
	Av. FC.	No. of Surviv. <10>	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.
1-7	15.8 (10)	10/10	15.7 (10)	99	10/10	15.6 (10)	99	10/10	15.1 (10)	96	10/10	14.2 (10)	90	10/10
2-7	17.4 (10)	10/10	17.1 (10)	98	10/10	16.9 (10)	97	10/10	16.7 (10)	96	10/10	15.5 (10)	89	10/10
3-7	18.6 (10)	10/10	17.6 (10)	95	10/10	17.7 (10)	95	10/10	18.1 (10)	97	10/10	16.5 (10)	89	10/10
4-7	19.0 (10)	10/10	18.0 (10)	95	10/10	18.5 (10)	97	10/10	18.2 (10)	96	10/10	15.9 (10)	84	10/10
5-7	18.4 (10)	10/10	17.7 (10)	96	10/10	17.8 (10)	97	10/10	17.3 (10)	94	10/10	16.2 (10)	88	10/10
6-7	18.6 (10)	10/10	17.7 (10)	95	10/10	18.0 (10)	97	10/10	17.7 (10)	95	10/10	16.2 (10)	87	10/10
7-7	18.3 (10)	10/10	17.2 (10)	94	10/10	17.7 (10)	97	10/10	17.5 (10)	96	10/10	16.3 (10)	89	10/10
8-7	17.4 (10)	10/10	16.9 (10)	97	10/10	17.2 (10)	99	10/10	17.3 (10)	99	10/10	15.9 (10)	91	10/10
9-7	18.0 (10)	10/10	17.4 (10)	97	10/10	17.7 (10)	98	10/10	17.5 (10)	97	10/10	16.3 (10)	91	10/10
10-7	17.7 (10)	10/10	16.8 (10)	95	10/10	17.1 (10)	97	10/10	17.2 (10)	97	10/10	16.2 (10)	92	10/10
11-7	17.5 (10)	10/10	16.6 (10)	95	10/10	17.2 (10)	98	10/10	17.3 (10)	99	10/10	16.2 (10)	93	10/10
12-7	17.1 (10)	10/10	16.8 (10)	98	10/10	16.6 (10)	97	10/10	17.0 (10)	99	10/10	15.9 (10)	93	10/10
13-7	17.4 (10)	10/10	16.4 (10)	94	10/10	16.7 (10)	96	10/10	16.8 (10)	97	10/10	15.9 (10)	91	10/10

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

TABLE E2

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

MEAN FOOD CONSUMPTION(FC) AND SURVIVAL

Week-Day on Study	Control		100 ppm			300 ppm			1000 ppm			3000 ppm		
	Av. FC.	No. of Surviv. <10>	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.	Av. FC.	% of cont. <10>	No. of Surviv.
1-7	12.0 (10)	10/10	12.4 (10)	103	10/10	11.8 (10)	98	10/10	12.5 (10)	104	10/10	10.8 (10)	90	10/10
2-7	11.9 (10)	10/10	12.3 (10)	103	10/10	12.0 (10)	101	10/10	12.4 (10)	104	10/10	10.5 (10)	88	10/10
3-7	11.9 (10)	10/10	12.1 (10)	102	10/10	11.8 (10)	99	10/10	12.5 (10)	105	10/10	10.8 (10)	91	10/10
4-7	12.0 (10)	10/10	12.2 (10)	102	10/10	11.6 (10)	97	10/10	12.2 (10)	102	10/10	10.8 (10)	90	10/10
5-7	11.6 (10)	10/10	12.2 (10)	105	10/10	11.4 (10)	98	10/10	12.3 (10)	106	10/10	10.9 (10)	94	10/10
6-7	11.9 (10)	10/10	11.7 (10)	98	10/10	11.6 (10)	97	10/10	12.0 (10)	101	10/10	10.9 (10)	92	10/10
7-7	11.8 (10)	10/10	12.1 (10)	103	10/10	11.4 (10)	97	10/10	12.2 (10)	103	10/10	11.2 (10)	95	10/10
8-7	11.1 (10)	10/10	11.6 (10)	105	10/10	11.4 (10)	103	10/10	12.0 (10)	108	10/10	11.5 (10)	104	10/10
9-7	11.5 (10)	10/10	12.1 (10)	105	10/10	11.7 (10)	102	10/10	12.1 (10)	105	10/10	11.2 (10)	97	10/10
10-7	11.2 (10)	10/10	11.6 (10)	104	10/10	11.8 (10)	105	10/10	12.2 (10)	109	10/10	11.4 (10)	102	10/10
11-7	12.3 (10)	10/10	12.0 (10)	98	10/10	12.1 (10)	98	10/10	12.3 (10)	100	10/10	11.6 (10)	94	10/10
12-7	11.6 (10)	10/10	12.2 (10)	105	10/10	11.6 (10)	100	10/10	12.0 (10)	103	10/10	11.3 (10)	97	10/10
13-7	11.7 (10)	10/10	11.3 (10)	97	10/10	11.5 (10)	98	10/10	11.8 (10)	101	10/10	11.5 (10)	98	10/10

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

TABLE E3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)						
	1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	15.8± 1.4	17.4± 1.7	18.6± 1.6	19.0± 1.5	18.4± 1.7	18.6± 1.8	18.3± 1.7
100 ppm	15.7± 1.1	17.1± 1.6	17.6± 1.2	18.0± 1.0	17.7± 1.3	17.7± 1.1	17.2± 1.0
300 ppm	15.6± 1.1	16.9± 1.0	17.7± 1.3	18.5± 1.3	17.8± 1.4	18.0± 1.4	17.7± 1.3
1000 ppm	15.1± 1.2	16.7± 1.3	18.1± 1.2	18.2± 1.1	17.3± 1.0	17.7± 1.2	17.5± 0.9
3000 ppm	14.2± 1.1**	15.5± 1.5*	16.5± 1.1**	15.9± 0.7**	16.2± 0.9**	16.2± 0.9**	16.3± 0.8**

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

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)					
	8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)
Control	17.4± 1.5	18.0± 1.4	17.7± 1.2	17.5± 0.9	17.1± 0.9	17.4± 0.9
100 ppm	16.9± 1.1	17.4± 0.9	16.8± 0.9	16.6± 0.8*	16.8± 1.2	16.4± 1.1*
300 ppm	17.2± 1.3	17.7± 1.4	17.1± 1.2	17.2± 0.9	16.6± 1.0	16.7± 1.3
1000 ppm	17.3± 1.0	17.5± 0.8	17.2± 0.8	17.3± 1.1	17.0± 1.0	16.8± 0.7
3000 ppm	15.9± 0.9*	16.3± 1.1**	16.2± 1.0**	16.2± 1.0**	15.9± 1.0*	15.9± 0.8**

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

Test of t

TABLE E4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)						
	1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	12.0± 0.4	11.9± 0.7	11.9± 0.6	12.0± 0.7	11.6± 0.5	11.9± 0.7	11.8± 0.8
100 ppm	12.4± 0.6	12.3± 0.6	12.1± 0.6	12.2± 0.4	12.2± 0.6*	11.7± 0.7	12.1± 0.5
300 ppm	11.8± 0.8	12.0± 0.8	11.8± 0.5	11.6± 0.6	11.4± 0.5	11.6± 0.5	11.4± 0.6
1000 ppm	12.5± 0.8	12.4± 0.8	12.5± 1.0	12.2± 0.9	12.3± 1.2	12.0± 0.8	12.2± 0.6
3000 ppm	10.8± 0.4**	10.5± 0.7**	10.8± 0.7**	10.8± 0.7**	10.9± 0.8*	10.9± 0.6**	11.2± 0.6

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

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 13
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)					
	8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)
Control	11.1± 0.5	11.5± 0.6	11.2± 0.6	12.3± 1.2	11.6± 1.1	11.7± 1.1
100 ppm	11.6± 0.6	12.1± 0.4**	11.6± 0.6	12.0± 0.7	12.2± 0.8	11.3± 0.7
300 ppm	11.4± 0.3	11.7± 0.6	11.8± 0.7	12.1± 1.1	11.6± 0.9	11.5± 0.6
1000 ppm	12.0± 0.6**	12.1± 0.6*	12.2± 0.6**	12.3± 1.0	12.0± 0.5	11.8± 0.7
3000 ppm	11.5± 1.1	11.2± 0.4	11.4± 0.5	11.6± 0.3	11.3± 0.6	11.5± 0.9

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

Test of t

TABLE F1

HEMATOLOGY : MALE

(PROTHROMBIN TIME, APTT n=5)

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	10	9.02±	0.29	15.1±	0.3	45.0±	1.0	49.9±	0.8	16.8±	0.3	33.6±	0.3	723±	55
100 ppm	10	8.92±	0.29	15.0±	0.5	44.8±	1.2	50.3±	0.6	16.9±	0.2	33.6±	0.3	790±	64*
300 ppm	10	8.91±	0.39	14.9±	0.6	44.4±	1.6	49.8±	0.7	16.7±	0.2	33.5±	0.5	781±	67*
1000 ppm	10	8.92±	0.31	14.8±	0.5	44.3±	1.4	49.7±	0.5	16.6±	0.2	33.4±	0.3	738±	53
3000 ppm	10	9.02±	0.39	14.9±	0.5	44.7±	1.6	49.6±	0.7	16.6±	0.3	33.4±	0.4	769±	71

Significant difference : * : P ≤ 0.05

** : P ≤ 0.01

Test of t

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STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	RETICULOCYTE %		PROTHROMBIN TIME sec		APTT sec	
Control	10	2.1±	0.2	11.8±	0.3	15.8±	0.5
100 ppm	10	2.2±	0.4	12.2±	0.5	16.5±	1.4
300 ppm	10	2.1±	0.3	12.4±	0.8	17.3±	2.8
1000 ppm	10	2.1±	0.3	11.7±	0.1	15.3±	0.9
3000 ppm	10	1.9±	0.3	12.1±	0.3	16.0±	1.0

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	WBC		Differential		WBC (%)		MONO	EOSINO	BASO	OTHER				
		$10^3/\mu\ell$		NEUTRO		LYMPHO									
Control	10	4.45±	0.92	27±	4	69±	4	2±	1	1±	1	0±	0	1±	0
100 ppm	10	3.94±	0.82	27±	5	69±	6	2±	0	1±	1	0±	0	1±	0
300 ppm	10	4.38±	0.71	28±	4	68±	4	2±	0	1±	1	0±	0	1±	1
1000 ppm	10	4.27±	0.68	27±	5	70±	5	2±	0	1±	0	0±	0	1±	0
3000 ppm	10	4.16±	1.04	25±	5	71±	5	2±	1	1±	0	0±	0	0±	1

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of t

TABLE F2

HEMATOLOGY : FEMALE

(PROTHROMBIN TIME, APTT n=5)

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	10	8.36±	0.37	15.0±	0.7	43.8±	2.0	52.3±	0.5	18.0±	0.2	34.4±	0.4	839±	61
100 ppm	9	8.27±	0.23	15.0±	0.3	43.4±	1.0	52.4±	0.4	18.1±	0.2	34.5±	0.4	811±	45
300 ppm	10	8.35±	0.13	15.0±	0.3	43.7±	0.7	52.3±	0.4	18.0±	0.3	34.4±	0.6	825±	64
1000 ppm	10	8.22±	0.27	14.8±	0.5	43.1±	1.4	52.4±	0.4	18.0±	0.2	34.3±	0.4	812±	46
3000 ppm	10	8.31±	0.22	15.0±	0.3	43.4±	0.9	52.2±	0.6	18.0±	0.4	34.5±	0.6	816±	56

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	RETICULOCYTE %		PROTHROMBIN TIME sec		APTT sec	
Control	10	1.7±	0.2	11.6±	0.1	12.9±	0.6
100 ppm	9	1.9±	0.3	11.8±	0.2	13.1±	0.9
300 ppm	10	1.7±	0.3	11.6±	0.4	12.6±	0.4
1000 ppm	10	1.7±	0.3	11.6±	0.3	13.1±	0.9
3000 ppm	10	1.5±	0.1*	11.4±	0.2	13.1±	0.3

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (14W)

Group Name	NO. of Animals	WBC		Differential		WBC (%)		MONO	EOSINO	BASO	OTHER				
		10 ³ /μl		NEUTRO		LYMPHO									
Control	10	2.64±	0.85	25±	5	71±	5	2±	0	2±	0	0±	0	0±	1
100 ppm	9	2.28±	0.54	26±	4	71±	4	2±	1	1±	0*	0±	0	0±	1
300 ppm	10	2.21±	0.60	27±	6	69±	6	2±	1	2±	0	0±	0	1±	1
1000 ppm	10	2.08±	0.36	22±	4	74±	4	2±	1	2±	0	0±	0	0±	1
3000 ppm	10	2.41±	0.61	24±	3	72±	3	2±	0	2±	1	0±	0	1±	1

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

TABLE G1

BIOCHEMISTRY : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	TOTAL PROTEIN		ALBUMIN		A/G RATIO		T-BILIRUBIN		GLUCOSE		T-CHOLESTEROL		TRIGLYCERIDE	
		g/dl		g/dl				mg/dl		mg/dl		mg/dl		mg/dl	
Control	10	6.2±	0.1	3.5±	0.0	1.3±	0.1	0.04±	0.01	192±	13	74±	6	63±	13
100 ppm	10	6.2±	0.2	3.5±	0.1	1.2±	0.1	0.04±	0.01	181±	14	74±	11	45±	9**
300 ppm	10	6.3±	0.2	3.5±	0.1	1.2±	0.0	0.04±	0.01	181±	12	75±	9	52±	12
1000 ppm	10	6.2±	0.1	3.4±	0.1*	1.3±	0.1	0.04±	0.01	188±	12	71±	7	56±	17
3000 ppm	10	6.0±	0.1**	3.4±	0.1*	1.3±	0.0*	0.04±	0.01	174±	12**	67±	6*	40±	14**

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

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

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	10	127±	6	146±	39	76±	16	170±	62	390±	50	0.5±	0.3	111±	27
100 ppm	10	124±	13	108±	32*	59±	12*	128±	62	365±	22	0.4±	0.4	104±	18
300 ppm	10	126±	10	123±	46	63±	18	134±	64	378±	19	0.5±	0.4	98±	11
1000 ppm	10	123±	8	124±	36	63±	12	121±	46	398±	41	0.3±	0.3	90±	8*
3000 ppm	10	117±	8**	85±	17**	45±	7**	74±	18**	402±	34	0.3±	0.3	92±	9

Significant difference : * : P ≤ 0.05

** : P ≤ 0.01

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	UREA NITROGEN mg/dℓ		CREATININE mg/dℓ		SODIUM mEq/ℓ		POTASSIUM mEq/ℓ		CHLORIDE mEq/ℓ		CALCIUM mg/dℓ		INORGANIC PHOSPHORUS mg/dℓ	
Control	10	19.5±	0.9	0.35±	0.03	143±	1	3.5±	0.2	104±	2	10.2±	0.1	5.4±	0.6
100 ppm	10	17.9±	1.4**	0.35±	0.03	144±	1	3.5±	0.2	105±	1	10.1±	0.2	5.2±	0.7
300 ppm	10	18.5±	1.4	0.35±	0.03	143±	1	3.5±	0.3	104±	1	10.0±	0.2*	5.2±	0.5
1000 ppm	10	19.0±	1.1	0.36±	0.03	143±	1	3.5±	0.2	104±	1	10.0±	0.2*	5.3±	0.6
3000 ppm	10	18.7±	1.5	0.33±	0.03	142±	1	3.6±	0.2	104±	1	9.9±	0.2**	5.4±	0.8

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of t

TABLE G2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	10	6.2±	0.2	3.4±	0.1	1.3±	0.1	0.04±	0.01	137±	14	84±	8	20±	6
100 ppm	10	6.1±	0.2	3.5±	0.1	1.3±	0.1	0.04±	0.01	133±	12	81±	7	19±	5
300 ppm	10	6.1±	0.2	3.4±	0.2	1.3±	0.1	0.04±	0.01	146±	20	84±	10	19±	4
1000 ppm	10	6.0±	0.2	3.4±	0.1	1.3±	0.1	0.04±	0.01	138±	13	83±	6	19±	6
3000 ppm	10	5.9±	0.1*	3.4±	0.1	1.3±	0.1	0.05±	0.01	133±	8	77±	4*	16±	3

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST		ALT		LDH		ALP		G-GTP		CK	
				U/L		U/L		U/L		U/L		U/L		U/L	
Control	10	153±	14	86±	37	50±	33	92±	46	274±	18	0.9±	0.3	96±	20
100 ppm	10	143±	10	66±	4	30±	4	96±	66	291±	30	0.7±	0.4	99±	40
300 ppm	10	147±	15	76±	17	39±	11	87±	28	271±	16	0.7±	0.4	95±	20
1000 ppm	10	149±	9	66±	4	32±	5	84±	30	284±	35	0.8±	0.4	95±	18
3000 ppm	10	140±	5*	70±	10	34±	8	98±	41	317±	27**	0.8±	0.3	106±	27

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of t

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (14W)

REPORT TYPE : A1

Group Name	NO. of Animals	UREA NITROGEN mg/dℓ		CREATININE mg/dℓ		SODIUM mEq/ℓ		POTASSIUM mEq/ℓ		CHLORIDE mEq/ℓ		CALCIUM mg/dℓ		INORGANIC PHOSPHORUS mg/dℓ	
Control	10	19.9±	2.0	0.35±	0.02	144±	1	3.6±	0.2	105±	1	9.9±	0.1	4.9±	0.8
100 ppm	10	17.8±	1.5*	0.36±	0.02	144±	1	3.5±	0.3	106±	1	9.9±	0.3	4.8±	1.1
300 ppm	10	19.4±	1.8	0.36±	0.03	144±	1	3.5±	0.2	105±	2	10.0±	0.2	4.6±	1.1
1000 ppm	10	19.1±	1.4	0.35±	0.03	143±	1	3.5±	0.3	105±	1	9.8±	0.2	4.9±	0.8
3000 ppm	10	18.9±	1.8	0.36±	0.02	142±	1*	3.6±	0.2	105±	2	9.8±	0.2	4.7±	1.2

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of t

TABLE H1

URINALYSIS : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrIj[F344/DuCrj]
 MEASURE TIME : 1
 SEX : MALE

URINALYSIS

REPORT TYPE : A1

Group Name	NO. of Animals	pH_____							CHI	Protein_____					CHI	Glucose_____					CHI	Ketone body					CHI	Bilirubin				CHI
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+	-	
Control	10	0	0	0	0	0	0	10	0	0	8	2	0	0	10	0	0	0	0	0	6	3	1	0	0	0	10	0	0	0		
100 ppm	10	0	0	0	0	1	0	9	2	5	3	0	0	0	*	10	0	0	0	0	8	2	0	0	0	0	10	0	0	0		
300 ppm	10	0	0	0	0	0	0	10	0	3	4	3	0	0	10	0	0	0	0	0	8	1	1	0	0	0	10	0	0	0		
1000 ppm	10	0	0	0	0	0	0	10	0	3	5	2	0	0	10	0	0	0	0	0	7	1	1	1	0	0	10	0	0	0		
3000 ppm	10	0	0	0	0	0	1	9	0	4	4	2	0	0	10	0	0	0	0	0	7	3	0	0	0	0	10	0	0	0		

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

Test of CHI SQUARE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE. TIME : 1
 SEX : MALE

URINALYSIS

REPORT TYPE : A1

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	10	10	0	0	0	0		10	0	0	0	0	
100 ppm	10	10	0	0	0	0		10	0	0	0	0	
300 ppm	10	10	0	0	0	0		10	0	0	0	0	
1000 ppm	10	10	0	0	0	0		10	0	0	0	0	
3000 ppm	10	10	0	0	0	0		10	0	0	0	0	

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

Test of CHI SQUARE

TABLE H2

URINALYSIS : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH_____							CHI	Protein_____					CHI	Glucose_____					CHI	Ketone body					CHI	Bilirubin				CHI		
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+	-		+	2+
Control	10	0	0	0	0	0	1	9		7	2	1	0	0	0		10	0	0	0	0	0		8	2	0	0	0	0		10	0	0	0
100 ppm	10	0	0	0	0	0	0	10		6	2	2	0	0	0		10	0	0	0	0	0		8	2	0	0	0	0		10	0	0	0
300 ppm	10	0	0	0	1	0	2	7		4	3	3	0	0	0		10	0	0	0	0	0		7	3	0	0	0	0		10	0	0	0
1000 ppm	10	0	0	0	0	0	2	8		5	4	1	0	0	0		10	0	0	0	0	0		9	1	0	0	0	0		10	0	0	0
3000 ppm	10	0	0	0	0	0	0	10		6	4	0	0	0	0		10	0	0	0	0	0		10	0	0	0	0	0		10	0	0	0

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

Test of CHI SQUARE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	10	10	0	0	0	0		10	0	0	0	0	
100 ppm	10	10	0	0	0	0		10	0	0	0	0	
300 ppm	10	10	0	0	0	0		10	0	0	0	0	
1000 ppm	10	10	0	0	0	0		10	0	0	0	0	
3000 ppm	10	10	0	0	0	0		10	0	0	0	0	

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

Test of CHI SQUARE

TABLE I1

GROSS FINDINGS : MALE

STUDY NO. : 0897
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	Control			
			10	100 ppm	300 ppm	1000 ppm
			(%)	(%)	(%)	(%)
lung	white zone		1 (10)	1 (10)	1 (10)	2 (20)
liver	herniation		0 (0)	2 (20)	1 (10)	1 (10)

STUDY NO. : 0897
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

Organ_____	Findings_____	Group Name NO. of Animals	3000 ppm 10 (%)
lung	white zone		3 (30)
liver	herniation		2 (20)

TABLE I2

GROSS FINDINGS : FEMALE

STUDY NO. : 0897
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name NO. of Animals	Control			
			10	100 ppm	300 ppm	1000 ppm
			(%)	(%)	(%)	(%)
lung	white zone		0 (0)	0 (0)	1 (10)	2 (20)
liver	herniation		0 (0)	0 (0)	1 (10)	2 (20)
eye	white		0 (0)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0897
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

Organ_____	Findings_____	Group Name NO. of Animals	3000 ppm 10 (%)
lung	white zone		0 (0)
liver	herniation		1 (10)
eye	white		1 (10)

TABLE J1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

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

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	10	1.645±	0.056	0.570±	0.031	6.921±	0.294	1.886±	0.044
100 ppm	10	1.625±	0.101	0.555±	0.040	6.595±	0.478	1.890±	0.031
300 ppm	10	1.635±	0.090	0.571±	0.041	6.799±	0.522	1.906±	0.059
1000 ppm	10	1.660±	0.066	0.589±	0.030	6.856±	0.201	1.908±	0.034
3000 ppm	10	1.628±	0.076	0.513±	0.037**	5.999±	0.228**	1.857±	0.020

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

TABLE J2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

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

Group Name	NO. of Animals	Body Weight		THYMUS		ADRENALS		OVARIES		HEART		LUNGS	
Control	10	159±	10	0.180±	0.014	0.054±	0.003	0.091±	0.009	0.590±	0.041	0.662±	0.027
100 ppm	10	161±	7	0.188±	0.018	0.056±	0.005	0.090±	0.005	0.577±	0.026	0.674±	0.038
300 ppm	10	162±	7	0.182±	0.019	0.054±	0.004	0.088±	0.005	0.582±	0.028	0.670±	0.032
1000 ppm	10	162±	6	0.191±	0.016	0.057±	0.006	0.094±	0.012	0.594±	0.028	0.700±	0.024**
3000 ppm	10	151±	5*	0.163±	0.017*	0.055±	0.004	0.086±	0.011	0.585±	0.032	0.675±	0.042

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

TABLE K1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCrI CrI j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

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

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	10	285 ± 10	0.083 ± 0.008	0.019 ± 0.002	1.093 ± 0.032	0.308 ± 0.012	0.323 ± 0.015
100 ppm	10	277 ± 14	0.082 ± 0.005	0.019 ± 0.002	1.116 ± 0.047	0.316 ± 0.012	0.325 ± 0.013
300 ppm	10	283 ± 16	0.085 ± 0.011	0.019 ± 0.002	1.084 ± 0.079	0.318 ± 0.014	0.328 ± 0.016
1000 ppm	10	284 ± 9	0.089 ± 0.010	0.018 ± 0.002	1.111 ± 0.035	0.315 ± 0.015	0.332 ± 0.019
3000 ppm	10	257 ± 8**	0.074 ± 0.010*	0.020 ± 0.002	1.210 ± 0.028**	0.336 ± 0.016**	0.356 ± 0.012**

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

TABLE K2

ORGAN WEIGHT, RELATIVE : FEMALE

TABLE L1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		Grade				Grade				Grade				Grade			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavit																	
	inflammation:respiratory epithelium	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	respiratory metaplasia:gland	7	0	0	0	9	0	0	0	8	0	0	0	8	0	0	0
		(70)	(0)	(0)	(0)	(90)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(80)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	squamous cell metaplasia: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)
	atrophy:olfactory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	4	6	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(40)	(60)	(0)	(0)
larynx																	
	inflammatory infiltration	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	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)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals on Study				
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)
[Respiratory system]						
nasal cavit	inflammation:respiratory epithelium		<10>			
		0	0	0	0	
		(0)	(0)	(0)	(0)	
	respiratory metaplasia:olfactory epithelium	0	0	0	0	
		(0)	(0)	(0)	(0)	
	respiratory metaplasia:gland	4	0	0	0	
	(40)	(0)	(0)	(0)		
squamous cell metaplasia:respiratory epithelium	3	7	0	0 **		
	(30)	(70)	(0)	(0)		
squamous cell metaplasia:olfactory epithelium	1	0	0	0		
	(10)	(0)	(0)	(0)		
atrophy:olfactory epithelium	0	1	9	0 **		
	(0)	(10)	(90)	(0)		
larynx	inflammatory infiltration		<10>			
		0	0	0	0	
	(0)	(0)	(0)	(0)		
squamous cell metaplasia	4	0	0	0		
	(40)	(0)	(0)	(0)		

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		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}																	
trachea	inflammatory infiltration	0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
lung	accumulation of foamy cells	0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)
{Circulatory system}																	
heart	inflammatory infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)
{Digestive system}																	
liver	herniation	0 (0)	0 (0)	0 (0)	0 (0)	2 (20)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)
	inflammatory cell nest	0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals on Study				
		1+	2+	3+	4+	
		3000 ppm				
		10				
		Grade	1+	2+	3+	4+
			(%)	(%)	(%)	(%)
[Respiratory system]						
trachea	inflammatory infiltration		<10>			
		0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)
lung	accumulation of foamy cells		<10>			
		4	0	0	0	0
		(40)	(0)	(0)	(0)	(0)
[Circulatory system]						
heart	inflammatory infiltration		<10>			
		1	0	0	0	0
		(10)	(0)	(0)	(0)	(0)
[Digestive system]						
liver	herniation		<10>			
		2	0	0	0	0
		(20)	(0)	(0)	(0)	(0)
	inflammatory cell nest					
		0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		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]																	
pancreas	atrophy	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	lymphocytic infiltration	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
[Urinary system]																	
kidney	mineralization:papilla	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	regeneration:proximal tubule	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0
		(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
[Endocrine system]																	
pituitary	hemorrhage	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	3000 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)
[Digestive system]						
pancreas	atrophy		0 (0)	0 (0)	0 (0)	0 (0)
	lymphocytic infiltration		0 (0)	0 (0)	0 (0)	0 (0)
[Urinary system]						
kidney	mineralization:papilla		1 (10)	0 (0)	0 (0)	0 (0)
	regeneration:proximal tubule		0 (0)	0 (0)	0 (0)	0 (0)
	eosinophilic droplet:proximal tubule		10 (100)	0 (0)	0 (0)	0 (0)
[Endocrine system]						
pituitary	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		Grade				Grade				Grade				Grade			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
pituitary	degeneration:focal	<10>				<10>				<10>				<10>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	Rathke pouch	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
thyroid	ultimobranchial body remanet	<10>				<10>				<10>				<10>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
adrenal	hyperplasia:cortical cell	<10>				<10>				<10>				<10>			
		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
[Reproductive system]																	
testis	atrophy	<10>				<10>				<10>				<10>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	multinucleated giant cell formation	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals on Study			
		1+ (%)	2+ (%)	3+ (%)	4+ (%)
		3000 ppm			
		10			
[Endocrine system]					
pituitary	degeneration:focal	0 (0)	0 (0)	0 (0)	0 (0)
	Rathke pouch	0 (0)	0 (0)	0 (0)	0 (0)
thyroid	ultimobranchial body remanet	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia:cortical cell	0 (0)	0 (0)	0 (0)	0 (0)
[Reproductive system]					
testis	atrophy	0 (0)	0 (0)	0 (0)	0 (0)
	multinucleated giant cell formation	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	Control				100 ppm				300 ppm				1000 ppm			
			10				10				10				10			
			1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
epididymis	debris of spermatic elements		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
			<10>				<10>				<10>				<10>			
[Special sense organs/appendage]																		
Harder gl	lymphocytic infiltration		1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
			<10>				<10>				<10>				<10>			

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

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

{Reproductive system}

epididymis	debris of spermatic elements	<10>			
		0 (0)	0 (0)	0 (0)	0 (0)

{Special sense organs/appendage}

Harder gl	lymphocytic infiltration	<10>			
		0 (0)	0 (0)	0 (0)	0 (0)

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

TABLE L2

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : FEMALE

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		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																	
	inflammation:respiratory epithelium	3 (30)	2 (20)	0 (0)	0 (0)	3 (30)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:gland	9 (90)	0 (0)	0 (0)	0 (0)	5 (50)	0 (0)	0 (0)	0 (0)	5 (50)	0 (0)	0 (0)	0 (0)	7 (70)	0 (0)	0 (0)	0 (0)
	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)
	squamous cell metaplasia: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)
	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)	6 (60)	4 (40)	0 (0)	0 (0) **
larynx																	
	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																	
	accumulation of foamy cells	1 (10)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (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
 Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals on Study Grade			
		1+ (%)	2+ (%)	3+ (%)	4+ (%)
		3000 ppm 10			
[Respiratory system]					
nasal cavit			<10>		
	inflammation:respiratory epithelium	0 (0)	2 (20)	0 (0)	0 (0)
	respiratory metaplasia:gland	5 (50)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium	4 (40)	6 (60)	0 (0)	0 ** (0)
	squamous cell metaplasia:olfactory epithelium	1 (10)	0 (0)	0 (0)	0 (0)
	atrophy:olfactory epithelium	0 (0)	2 (20)	8 (80)	0 ** (0)
larynx			<10>		
	squamous cell metaplasia	5 (50)	0 (0)	0 (0)	0 * (0)
lung			<10>		
	accumulation of foamy cells	3 (30)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		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]																	
bone marrow	granulation	3 (30)	0 (0)	0 (0)	0 (0)	3 (30)	0 (0)	0 (0)	0 (0)	3 (30)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)
lymph node	granulomatous change	0 (0)	0 (0)	0 (0)	0 (0)	2 (20)	0 (0)	0 (0)	0 (0)	2 (20)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)
[Circulatory system]																	
heart	inflammatory infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (20)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)
[Digestive system]																	
liver	herniation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	3 (30)	0 (0)	0 (0)	0 (0)
	inflammatory cell nest	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (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
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	3000 ppm				
			10	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	
[Hematopoietic system]							
bone marrow	granulation		<10>	2	0	0	0
			(20)	(0)	(0)	(0)	(0)
lymph node	granulomatous change		<10>	1	0	0	0
			(10)	(0)	(0)	(0)	(0)
[Circulatory system]							
heart	inflammatory infiltration		<10>	0	0	0	0
			(0)	(0)	(0)	(0)	(0)
[Digestive system]							
liver	herniation		<10>	1	0	0	0
			(10)	(0)	(0)	(0)	(0)
	inflammatory cell nest			3	0	0	0
			(30)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		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]																	
pancreas	granulation	<10>				<10>				<10>				<10>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Urinary system]																	
kidney	cyst	<10>				<10>				<10>				<10>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:papilla	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
[Endocrine system]																	
pituitary	Rathke pouch	<10>				<10>				<10>				<10>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
thyroid	ultimobranchial body remanet	<10>				<10>				<10>				<10>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	3000 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)
[Digestive system]						
pancreas	granulation		<10>			
			1 (10)	0 (0)	0 (0)	0 (0)
[Urinary system]						
kidney	cyst		<10>			
			0 (0)	0 (0)	0 (0)	0 (0)
		mineralization:papilla	0 (0)	0 (0)	0 (0)	0 (0)
[Endocrine system]						
pituitary	Rathke pouch		<10>			
			0 (0)	0 (0)	0 (0)	0 (0)
thyroid	ultimobranchial body remanet		<10>			
			0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				100 ppm 10				300 ppm 10				1000 ppm 10			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
{Endocrine system}																		
adrenal	hyperplasia:cortical cell		0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	accessory cortical nodule		1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
{Reproductive system}																		
uterus	lymphocytic infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
{Special sense organs/appendage}																		
eye	cataract		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	retinal 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)	

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals on Study Grade	3000 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)
[Endocrine system]						
adrenal	hyperplasia:cortical cell		0 (0)	0 (0)	0 (0)	0 (0)
	accessory cortical nodule		0 (0)	0 (0)	0 (0)	0 (0)
[Reproductive system]						
uterus	lymphocytic infiltration		0 (0)	0 (0)	0 (0)	0 (0)
[Special sense organs/appendage]						
eye	cataract		1 (10)	0 (0)	0 (0)	0 (0)
	retinal atrophy		0 (0)	1 (10)	0 (0)	0 (0)

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

STUDY NO. : 0897
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

Organ	Findings	Control				100 ppm				300 ppm				1000 ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		10				10				10				10			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Special sense organs/appendage}

Harder gl	lymphocytic infiltration	<10>				<10>				<10>				<10>			
		1	0	0	0	2	1	0	0	2	0	0	0	1	0	0	0
		(10)	(0)	(0)	(0)	(20)	(10)	(0)	(0)	(20)	(0)	(0)	(0)	(10)	(0)	(0)	(0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
 < a > a : Number of animals examined at the site
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 (c) c : b / a * 100
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 REPORT TYPE : A1
 SEX : FEMALE

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

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

{Special sense organs/appendage}

Harder gl	lymphocytic infiltration		<10>			
		2	0	0	0	
		(20)	(0)	(0)	(0)	

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