2-アミノエタノールのマウスを用いた
経口投与による13週間毒性試験（混水試験）報告書

試験番号：0603

APPENDICES

APPENDICES

APPENDICES (CONTINUED)

APPENDIX A 1

IDENTITY OF 2-AMINOETHANOL

IN THE 13-WEEK DRINKING WATER STUDY

IDENTITY OF 2-AMINOETHANOL IN THE 13-WEEK DRINKING WATER STUDY

Test Substance : 2-Aminoethanol (Wako Pure Chemical Industries, Ltd.)

Lot No. : SDP0398

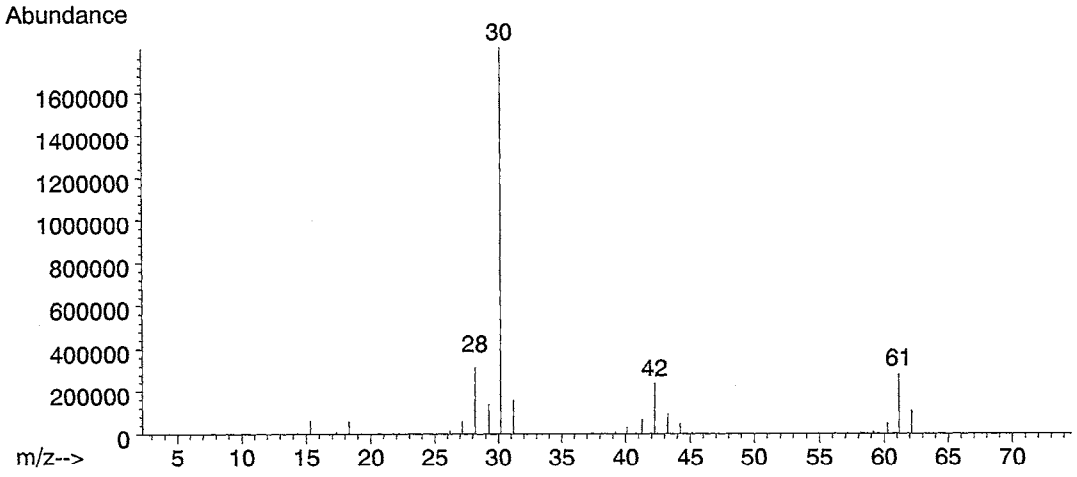
1. Spectral Data

Mass Spectrometry

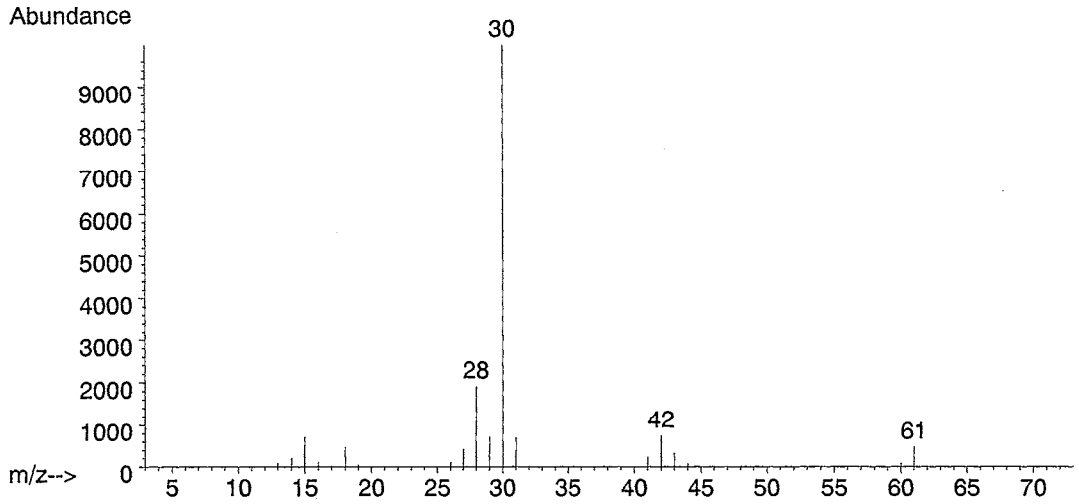
Instrument : Hewlett Packard 5989B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

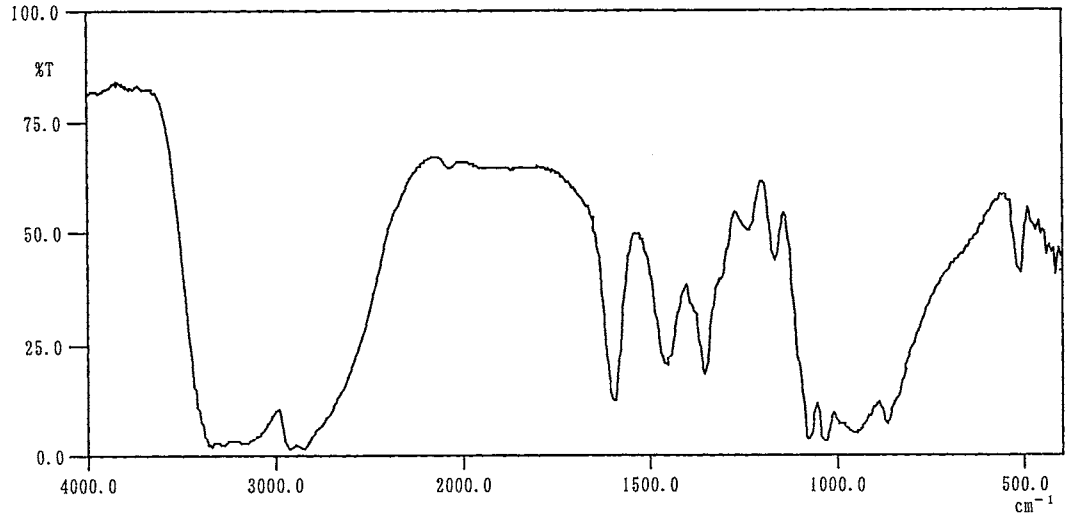
Result: The mass spectrum was consistent with literature spectrum.
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY : John Wiley and Sons.)

Infrared Spectrometry

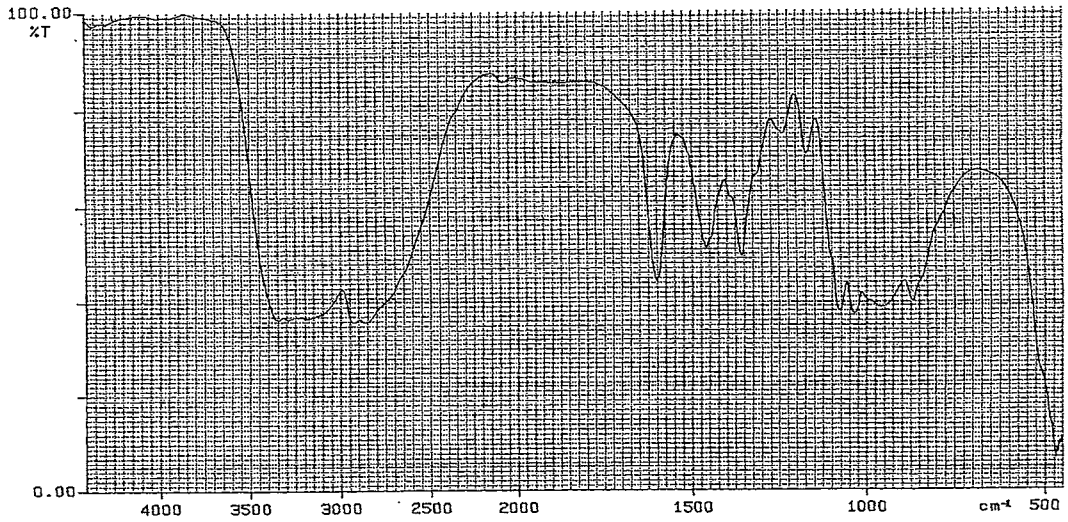
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.
(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Conclusion: The test substance was identified as 2-aminoethanol by mass spectrum and infrared spectrum.

APPENDIX A 2

STABILITY OF 2-AMINOETHANOL IN THE 13-WEEK DRINKING WATER STUDY

STABILITY OF 2-AMINOETHANOL IN THE 13-WEEK DRINKING WATER STUDY

Test Substance : 2-Aminoethanol (Wako Pure Chemical Industries, Ltd.)

Lot No. : SDP0398

1. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Carbowax-20M + KOH 0.8% (2 mmϕ × 2 m)

Column Temperature: 190 °C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μL

Date Analyzed	Peak No.	Retention Time (min)	Area (%)
2005.08.23	1	1.128	100
2005.12.22	1	1.126	100

Result: Gas chromatography indicated one major peak (peak No.1) analyzed on 2005.8.23 and one major peak (peak No.1) analyzed on 2005.12.22. No new trace impurity peak in the test substance analyzed on 2005.12.22 was detected.

2. Conclusion: The test substance was stable for the period that the test substance had been used for the study.

APPENDIX A 3

CONCENTRATION OF 2-AMINOETHANOL IN FORMULATED WATER IN THE 13-WEEK DRINKING WATER STUDY

CONCENTRATION OF 2-AMINOETHANOL IN FORMULATED WATER IN THE 13-WEEK DRINKING WATER STUDY

Analytical Method : The samples were analyzed by gas chromatography.

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Carbowax-20M + KOH 0.8% (2 mmϕ × 2 m)

Column Temperature: 190 °C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μL

	Target Concentration				
Date Analyzed	1250[a]	2500	5000	10000	20000
2005.09.15	1220[b] (97.6)[c]	2410 (96.4)	5000 (100)	9800 (98.0)	19900 (99.5)

[a] ppm
[b] ppm (Mean measured concentration.)
[c] % (Mean measured concentration/target concentration × 100.)

APPENDIX A 4

STABILITY OF 2-AMINOETHANOL IN FORMULATED WATER IN THE 13-WEEK DRINKING WATER STUDY

STABILITY OF 2-AMINOETHANOL IN FORMULATED WATER IN THE 13-WEEK DRINKING WATER STUDY

Analytical Method : The samples were analyzed by gas chromatography.

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Carbowax-20M + KOH 0.8% (2 mmϕ × 2 m)

Column Temperature: 190 °C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μL

	Target Concentration	
Date Analyzed	1250[a]	20000
2005.08.12	1250 (100)[b]	20900 (100)
2005.08.16[c]	1240 (99.2)	20300 (97.1)

[a] ppm
[b] % (Percentage was based on the concentration on date of preparation.)
[c] Animal room samples

APPENDIX B 1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1
	10000 ppm	0	0	0	0	0	0	1	2	2	3	4	5	5
	20000 ppm	0	0	0	1	5	8	9	9	9	9	9	9	9
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0
	20000 ppm	1	1	1	0	0	1	0	0	0	0	0	0	0
A LOT OF SPILLED FOOD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	3	2	1	0	0
	20000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	20000 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	1	1	1	1	1	1	1	2	1	1	0	1
	20000 ppm	3	3	3	6	5	2	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0
	20000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	20000 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	1	1	1	2	2	4	2	3	3	2	1	0	1
	20000 ppm	4	3	3	8	4	2	1	1	1	1	1	0	0
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	1250 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	2500 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	5000 ppm	9	9	9	9	9	9	9	9	9	9	9	9	9
	10000 ppm	9	8	8	8	8	6	7	5	5	5	5	5	4
	20000 ppm	6	7	7	1	0	0	0	0	0	0	0	0	0

APPENDIX B 2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	2
	20000 ppm	0	0	0	0	0	1	8	9	9	9	9	9	9
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	20000 ppm	0	0	0	0	0	2	0	0	0	0	0	0	0
A LOT OF SPILLED FOOD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	4	3	0	0	0
	20000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	2	3	3	2	2	2
	20000 ppm	2	3	2	5	7	8	2	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	0	0	1	1	2	2	1
	20000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	0	0	0	0	0	0	3	2	2	2	1	1	1
	20000 ppm	0	0	0	0	0	0	0	1	1	1	1	0	0

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1 13

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	1250 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	10000 ppm	2	0	0	3	3	3	2	6	6	6	5	5	3
	20000 ppm	7	7	5	9	9	9	2	1	1	1	1	1	1
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	10	10	10
	1250 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	2500 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	5000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10
	10000 ppm	8	10	10	7	7	7	7	4	4	4	4	4	5
	20000 ppm	3	2	5	1	1	0	0	0	0	0	0	0	0

APPENDIX C 1

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 0	1	2	3	4	5	6
Control	23.0± 0.8	24.3± 0.9	25.4± 1.3	26.1± 1.3	26.8± 1.4	27.4± 1.6	27.9± 1.6
1250 ppm	23.0± 0.7	24.2± 0.8	25.2± 0.9	25.9± 0.9	26.5± 1.0	27.1± 1.1	27.7± 1.1
2500 ppm	23.0± 0.7	24.4± 0.9	25.3± 0.9	26.0± 1.1	27.1± 1.1	27.7± 1.4	28.7± 1.5
5000 ppm	23.0± 0.8	24.0± 0.9	24.9± 1.1	25.9± 1.1	26.8± 1.2	27.0± 1.3	28.0± 1.4
10000 ppm	23.0± 0.8	23.6± 1.8	24.1± 1.7	25.2± 1.1	24.8± 2.3*	24.5± 3.0*	23.6± 4.1**
20000 ppm	23.1± 0.7	22.1± 3.0*	22.7± 3.6**	22.6± 4.1**	19.8± 2.7**	17.0± 2.2**	15.5± 1.1 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 7	8	9	10	11	12	13
Control	28.4± 1.6	29.2± 2.1	29.8± 2.2	30.5± 2.4	31.1± 2.3	31.5± 2.4	31.8± 2.3
1250 ppm	28.1± 1.1	29.2± 1.3	29.8± 1.4	30.6± 1.5	31.1± 1.4	31.4± 1.5	31.9± 1.8
2500 ppm	29.4± 1.7	30.6± 1.9	31.0± 2.1	31.9± 2.0	32.5± 1.9	32.7± 2.1	33.4± 2.0
5000 ppm	28.4± 1.6	29.3± 1.9	29.9± 2.3	30.4± 2.0	31.1± 2.1	31.4± 2.4	32.0± 2.5
10000 ppm	23.8± 4.4**	24.4± 4.6**	24.1± 5.6**	25.3± 4.9*	26.9± 4.5*	28.9± 1.6	28.1± 3.7*
20000 ppm	16.3 ?	20.9 ?	22.1 ?	24.2 ?	24.3 ?	24.9 ?	21.7 ?

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

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

APPENDIX C 2

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 0	1	2	3	4	5	6
Control	18.7± 0.6	19.2± 0.8	20.1± 0.6	20.5± 0.9	21.1± 0.6	21.4± 0.6	21.9± 0.8
1250 ppm	18.6± 0.6	19.5± 0.9	19.8± 0.3	20.6± 0.7	21.0± 0.8	21.3± 0.7	21.6± 0.8
2500 ppm	18.6± 0.6	19.4± 1.0	20.2± 0.9	20.6± 1.0	21.0± 1.2	21.5± 1.0	21.7± 1.0
5000 ppm	18.6± 0.6	19.3± 1.0	20.1± 0.7	20.2± 0.8	20.9± 1.0	21.1± 0.6	21.2± 0.9
10000 ppm	18.6± 0.6	18.7± 0.7	19.8± 0.7	20.1± 0.8	19.7± 1.2**	20.1± 1.3*	18.8± 2.0**
20000 ppm	18.7± 0.6	18.0± 0.6**	18.9± 0.5**	18.8± 0.8**	16.5± 2.1**	14.5± 2.7**	12.6± 1.5**

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 7	8	9	10	11	12	13
Control	22.2± 1.0	22.6± 0.6	22.7± 1.0	22.8± 0.9	22.9± 1.1	23.1± 0.9	23.4± 0.9
1250 ppm	22.5± 0.8	22.8± 0.8	22.8± 0.7	23.3± 0.7	23.3± 0.8	23.7± 1.3	23.7± 0.8
2500 ppm	22.8± 1.3	22.3± 1.3	22.7± 1.4	23.4± 1.2	23.3± 1.3	23.9± 1.5	23.5± 1.0
5000 ppm	21.9± 1.0	22.4± 0.9	22.8± 1.3	22.7± 0.7	23.3± 1.0	23.1± 1.1	23.2± 0.8
10000 ppm	18.3± 2.7**	18.8± 2.8**	18.9± 3.0**	19.1± 3.6*	20.4± 3.1	20.5± 2.8*	20.1± 3.1**
20000 ppm	12.5± 0.2 ?	13.5 ?	14.8 ?	16.4 ?	18.9 ?	18.8 ?	20.1 ?

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

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

APPENDIX D 1

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 1	2	3	4	5	6	7
Control	4.2± 0.3	4.0± 0.3	4.0± 0.3	4.0± 0.3	4.1± 0.3	4.2± 0.3	4.2± 0.3
1250 ppm	3.9± 0.2	3.9± 0.3	3.9± 0.2	3.9± 0.2	4.0± 0.2	4.0± 0.2	4.1± 0.2
2500 ppm	4.0± 0.3	4.0± 0.2	4.0± 0.2	4.1± 0.3	4.1± 0.3	4.3± 0.3	4.3± 0.3
5000 ppm	4.0± 0.2	3.9± 0.3	3.9± 0.1	3.9± 0.2	3.9± 0.2*	4.1± 0.2	4.1± 0.2
10000 ppm	3.8± 0.4*	3.7± 0.3	3.8± 0.3	3.6± 0.6	3.4± 0.8**	3.6± 0.8*	3.7± 0.6
20000 ppm	3.4± 0.7**	3.5± 0.5**	3.4± 0.6**	2.7± 0.6**	2.7± 0.7**	3.4± 1.5 ?	3.3 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 8	9	10	11	12	13
Control	4.2± 0.4	4.3± 0.3	4.2± 0.3	4.2± 0.3	4.3± 0.3	4.2± 0.2
1250 ppm	4.1± 0.2	4.2± 0.2	4.1± 0.2	4.1± 0.2	4.1± 0.2	4.2± 0.2
2500 ppm	4.4± 0.3	4.5± 0.3	4.3± 0.3	4.4± 0.2	4.3± 0.3	4.3± 0.3
5000 ppm	4.1± 0.3	4.2± 0.3	4.0± 0.2	4.1± 0.2	4.1± 0.3	4.2± 0.2
10000 ppm	3.7± 0.6*	4.0± 0.3	3.5± 0.5**	3.8± 0.5	3.9± 0.4	3.5± 0.8
20000 ppm	4.3 ?	3.9 ?	3.9 ?	4.0 ?	3.8 ?	3.4 ?

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

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

APPENDIX D 2

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 1	2	3	4	5	6	7
Control	3.4± 0.2	3.6± 0.3	3.6± 0.3	3.7± 0.2	3.8± 0.2	4.0± 0.3	4.0± 0.2
1250 ppm	3.5± 0.2	3.5± 0.2	3.6± 0.2	3.7± 0.2	3.7± 0.2	3.9± 0.3	4.0± 0.2
2500 ppm	3.4± 0.1	3.5± 0.2	3.5± 0.2	3.6± 0.2	3.7± 0.1	3.8± 0.2	4.0± 0.2
5000 ppm	3.4± 0.2	3.4± 0.2*	3.5± 0.2	3.6± 0.2	3.6± 0.2	3.8± 0.4	3.9± 0.5
10000 ppm	3.2± 0.2	3.4± 0.1	3.4± 0.1	3.3± 0.4*	3.4± 0.5	3.2± 0.6**	3.1± 0.6**
20000 ppm	2.8± 0.2**	3.0± 0.1**	3.0± 0.2**	2.4± 0.5**	2.2± 0.5**	2.4± 0.4**	2.3± 0.7 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 8	9	10	11	12	13
Control	4.1± 0.2	4.1± 0.2	3.9± 0.2	3.8± 0.2	3.9± 0.2	3.9± 0.2
1250 ppm	4.1± 0.2	4.0± 0.3	3.9± 0.3	3.9± 0.2	3.9± 0.3	3.8± 0.2
2500 ppm	3.8± 0.3*	4.0± 0.3	4.0± 0.5	3.9± 0.5	4.0± 0.6	3.8± 0.6
5000 ppm	3.9± 0.4	4.0± 0.5	3.7± 0.2	3.8± 0.3	3.8± 0.3	3.7± 0.4
10000 ppm	3.2± 0.4**	3.4± 0.8	3.0± 0.7**	3.2± 0.5**	3.2± 0.6**	3.2± 0.7**
20000 ppm	2.2 ?	2.5 ?	2.8 ?	3.1 ?	2.8 ?	3.1 ?

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

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

APPENDIX E 1

WATER CONSUMPTION CHANGES : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 1	2	3	4	5	6	7
Control	4.3± 0.6	4.4± 1.0	4.5± 1.1	4.3± 1.0	4.4± 1.1	4.6± 1.1	4.5± 1.0
1250 ppm	4.6± 0.8	4.4± 0.6	4.1± 0.4	3.9± 0.5	3.8± 0.4	3.9± 0.3	4.0± 0.4
2500 ppm	4.6± 0.8	4.4± 0.6	4.4± 0.8	4.2± 0.6	4.1± 0.7	4.3± 0.4	4.4± 0.9
5000 ppm	4.2± 0.3	4.1± 0.3	3.9± 0.3	4.1± 0.3	3.7± 0.2	4.2± 0.3	3.8± 0.2
10000 ppm	3.3± 0.7**	3.5± 1.0*	3.6± 0.6**	3.4± 1.1	2.8± 1.1**	2.8± 0.7**	2.9± 0.5**
20000 ppm	2.5± 0.6**	2.6± 0.5**	2.4± 0.8**	1.5± 0.6**	1.0± 0.4**	1.2± 0.1 ?	1.5 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 8	9	10	11	12	13
Control	4.3± 0.9	4.3± 0.9	4.1± 0.6	4.1± 0.7	4.1± 0.8	4.1± 0.6
1250 ppm	3.8± 0.4	3.8± 0.4	3.7± 0.3	3.6± 0.3	3.7± 0.3	3.6± 0.4
2500 ppm	4.2± 0.7	4.3± 0.7	4.3± 0.8	4.1± 0.7	4.0± 0.7	4.0± 0.7
5000 ppm	3.7± 0.2	3.7± 0.2	3.7± 0.2	3.5± 0.2	3.6± 0.2	3.7± 0.3
10000 ppm	2.8± 0.7**	3.0± 1.0*	3.0± 1.0*	3.3± 1.0*	3.3± 0.3	2.7± 0.7**
20000 ppm	2.1 ?	2.0 ?	2.3 ?	1.4 ?	2.2 ?	1.5 ?

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

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

APPENDIX E 2

WATER CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 1	2	3	4	5	6	7
Control	4.4± 0.4	4.6± 0.4	4.4± 0.5	4.8± 1.2	4.4± 0.4	4.7± 0.6	4.5± 0.5
1250 ppm	4.3± 0.5	4.4± 0.6	4.1± 0.4	4.1± 0.4*	4.1± 0.4	4.3± 0.3	4.3± 0.5
2500 ppm	4.1± 0.3	4.2± 0.3	4.0± 0.3	4.0± 0.2**	3.9± 0.3**	4.2± 0.4	4.1± 0.2
5000 ppm	3.9± 0.6	4.0± 0.5*	3.8± 0.4*	3.8± 0.4**	3.7± 0.4**	3.9± 0.5**	4.2± 0.8
10000 ppm	3.6± 0.3**	3.9± 0.3**	3.7± 0.4**	3.1± 0.9**	3.2± 1.3**	2.6± 1.0**	2.3± 0.8**
20000 ppm	2.6± 0.3**	2.8± 0.3**	2.5± 0.3**	1.6± 0.8**	1.3± 0.6**	1.2± 0.2**	1.3± 0.6 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g
REPORT TYPE : A1 13
SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 8	9	10	11	12	13
Control	4.6± 0.4	4.5± 0.4	4.5± 0.3	4.5± 0.8	4.5± 0.4	4.4± 0.4
1250 ppm	4.2± 0.5	4.3± 0.5	4.3± 0.4	4.2± 0.3	4.3± 0.7	4.3± 0.6
2500 ppm	4.1± 0.4	4.1± 0.3	4.3± 0.7	4.0± 0.7	4.2± 0.5	4.0± 0.6
5000 ppm	4.5± 1.5*	4.0± 0.6	3.8± 0.6*	4.0± 0.6	4.3± 1.0	4.0± 0.9
10000 ppm	2.4± 0.8**	2.5± 0.7**	2.7± 0.7**	2.9± 0.9**	3.3± 0.5**	3.0± 0.9**
20000 ppm	1.4 ?	1.5 ?	1.5 ?	2.0 ?	1.6 ?	2.3 ?

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

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

APPENDIX F 1

CHEMICAL INTAKE CHANGES : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : mg/kg/day
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 1	2	3	4	5	6	7
Control	0± 0	0± 0	0± 0	0± 0	0± 0	0± 0	0± 0
1250 ppm	239± 37	217± 26	197± 17	186± 18	174± 16	177± 13	178± 17
2500 ppm	467± 85	433± 63	425± 84	388± 62	372± 64	377± 41	376± 84
5000 ppm	874± 63	824± 77	753± 54	759± 68	692± 58	746± 79	679± 56
10000 ppm	1390± 230	1452± 339	1408± 195	1337± 363	1120± 370	1181± 217	1237± 178
20000 ppm	2214± 413	2238± 232	2111± 465	1437± 424	1231± 644	1496± 194	1840

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : mg/kg/day
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 8	9	10	11	12	13
Control	0± 0	0± 0	0± 0	0± 0	0± 0	0± 0
1250 ppm	163± 17	160± 14	153± 13	147± 12	146± 12	141± 13
2500 ppm	343± 65	345± 63	334± 67	314± 65	303± 60	303± 54
5000 ppm	643± 61	627± 58	604± 58	570± 48	575± 53	575± 55
10000 ppm	1150± 204	1220± 234	1188± 289	1232± 314	1138± 132	961± 181
20000 ppm	2010	1810	1901	1152	1767	1382

APPENDIX F 2

CHEMICAL INTAKE CHANGES : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : mg/kg/d a y
REPORT TYPE : A1 13
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 1	2	3	4	5	6	7
Control	0± 0	0± 0	0± 0	0± 0	0± 0	0± 0	0± 0
1250 ppm	275± 36	275± 38	247± 30	245± 31	240± 24	250± 17	237± 30
2500 ppm	525± 52	527± 54	486± 46	475± 40	453± 44	487± 53	451± 25
5000 ppm	1017± 184	1008± 158	940± 124	908± 116	883± 100	915± 116	952± 187
10000 ppm	1938± 163	1989± 225	1832± 206	1576± 431	1582± 588	1361± 415	1262± 344
20000 ppm	2829± 281	2950± 319	2626± 256	1803± 674	1737± 444	1917± 364	2081± 873

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : mg/kg/d a y
REPORT TYPE : A1 13
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 8		9		10		11		12		13	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
1250 ppm	228±	28	237±	31	228±	24	223±	20	226±	33	225±	33
2500 ppm	465±	60	447±	35	457±	78	438±	91	445±	71	428±	67
5000 ppm	1009±	335	873±	134	835±	142	861±	145	935±	247	859±	203
10000 ppm	1261±	328	1316±	272	1399±	255	1431±	369	1625±	312	1475±	437
20000 ppm	2074		2027		1829		2116		1702		2289	

APPENDIX G 1

HEMATOLOGY : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RED BLOOD CELL $10^6/\mu\ell$	HEMOGLOBIN g/dℓ	HEMATOCRIT %	MCV fℓ	MCH pg	MCHC g/dℓ	PLATELET $10^3/\mu\ell$
Control	10	10.62± 0.39	15.7± 0.5	47.8± 1.6	45.0± 0.7	14.8± 0.2	32.9± 0.5	1232± 91
1250 ppm	10	10.61± 0.24	15.8± 0.3	47.9± 0.9	45.2± 0.5	14.9± 0.1	33.1± 0.4	1216± 66
2500 ppm	10	10.55± 0.39	15.8± 0.6	47.7± 1.6	45.2± 0.7	15.0± 0.2	33.1± 0.5	1206± 71
5000 ppm	9	10.68± 0.40	15.8± 0.6	47.9± 1.4	44.8± 0.5	14.8± 0.1	33.1± 0.4	1282± 89
10000 ppm	5	10.89± 0.34	16.1± 0.3	47.9± 0.9	44.0± 1.7	14.8± 0.4	33.7± 0.6	1272± 63
20000 ppm	1	11.84 ?	17.2 ?	52.0 ?	43.9 ?	14.5 ?	33.0 ?	1316 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RETICULOCYTE %	
Control	10	2.1± 0.3	
1250 ppm	10	2.2± 0.2	
2500 ppm	10	2.1± 0.3	
5000 ppm	9	2.1± 0.2	
10000 ppm	5	2.0± 0.6	
20000 ppm	1	1.0	?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$	Differential WBC (%) N-BAND	N-SEG	EOSINO	BASO	MONO	LYMPHO	OTHER
Control	10	1.33± 0.85	0± 0	13± 3	1± 2	0± 0	3± 2	83± 4	0± 0
1250 ppm	10	1.32± 0.48	0± 1	13± 2	3± 2	0± 0	3± 1	81± 3	0± 0
2500 ppm	10	1.59± 0.93	1± 1	13± 2	2± 2	0± 0	3± 1	82± 2	0± 0
5000 ppm	9	1.33± 0.39	0± 0	13± 2	1± 1	0± 0	3± 2	82± 3	0± 0
10000 ppm	5	1.48± 0.74	0± 1	23± 11	1± 1	0± 0	1± 1	74± 12	0± 0
20000 ppm	1	0.78 ?	0 ?	44 ?	0 ?	0 ?	2 ?	54 ?	0 ?

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

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

APPENDIX G 2

HEMATOLOGY : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RED BLOOD CELL $10^6/\mu\ell$	HEMOGLOBIN g/dℓ	HEMATOCRIT %	MCV f ℓ	MCH p g	MCHC g/dℓ	PLATELET $10^3/\mu\ell$
Control	10	10.70± 0.37	16.2± 0.4	48.2± 1.5	45.1± 0.4	15.1± 0.2	33.6± 0.4	1159± 90
1250 ppm	10	10.64± 0.31	16.1± 0.4	47.9± 1.5	45.1± 0.4	15.1± 0.2	33.6± 0.4	1197± 80
2500 ppm	10	10.60± 0.28	16.1± 0.5	47.8± 1.2	45.1± 0.7	15.2± 0.2	33.7± 0.4	1190± 95
5000 ppm	9	10.56± 0.24	15.9± 0.3	47.4± 1.1	44.9± 0.4	15.1± 0.2	33.6± 0.3	1189± 68
10000 ppm	8	9.88± 0.84**	14.4± 1.6**	43.7± 4.1**	44.2± 1.2	14.6± 0.7*	32.9± 1.1	1237± 92
20000 ppm	1	9.84 ?	14.0 ?	45.0 ?	45.7 ?	14.3 ?	31.2 ?	1222 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	RETICULOCYTE %	
Control	10	2.2± 0.5	
1250 ppm	10	2.2± 0.4	
2500 ppm	10	2.0± 0.5	
5000 ppm	9	2.2± 0.4	
10000 ppm	8	2.5± 1.0	
20000 ppm	1	3.6	?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$	Differential WBC (%) N-BAND	N-SEG	EOSINO	BASO	MONO	LYMPHO	OTHER
Control	10	1.10± 0.64	0± 1	14± 4	1± 1	0± 0	2± 2	83± 5	0± 0
1250 ppm	10	0.93± 0.41	0± 0	18± 5	1± 1	0± 0	2± 1	79± 4	0± 0
2500 ppm	10	0.68± 0.31	0± 1	15± 6	1± 1	0± 0	1± 1	83± 6	0± 0
5000 ppm	9	0.64± 0.24	0± 1	13± 5	1± 2	0± 0	1± 2	85± 5	0± 0
10000 ppm	8	0.62± 0.31	1± 1	22± 12	0± 1	0± 0	1± 1	75± 13	0± 1
20000 ppm	1	1.54 ?	1 ?	12 ?	1 ?	0 ?	2 ?	84 ?	0 ?

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

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

APPENDIX H 1

BIOCHEMISTRY : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	TOTAL PROTEIN g/dl	ALBUMIN g/dl	A/G RATIO	T-BILIRUBIN mg/dl	GLUCOSE mg/dl	T-CHOLESTEROL mg/dl	TRIGLYCERIDE mg/dl
Control	10	5.1± 0.2	2.9± 0.1	1.3± 0.1	0.13± 0.03	207± 31	81± 8	27± 7
1250 ppm	10	5.1± 0.1	2.9± 0.1	1.3± 0.1	0.12± 0.01	211± 28	80± 6	32± 13
2500 ppm	10	5.0± 0.2	2.9± 0.1	1.3± 0.1	0.13± 0.01	189± 30	77± 10	31± 10
5000 ppm	9	5.1± 0.1	2.9± 0.1	1.3± 0.1	0.12± 0.01	205± 17	76± 6	32± 12
10000 ppm	5	5.2± 0.1	2.9± 0.1	1.3± 0.0	0.13± 0.02	220± 36	91± 18	19± 4
20000 ppm	1	5.2 ?	2.9 ?	1.3 ?	0.14 ?	171 ?	93 ?	5 ?

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

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

(HCL074)

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	PHOSPHOLIPID mg/dℓ	AST IU/ℓ	ALT IU/ℓ	LDH IU/ℓ	ALP IU/ℓ	G-GTP IU/ℓ	CK IU/ℓ
Control	10	162± 14	44± 11	15± 2	178± 68	138± 9	1± 1	45± 14
1250 ppm	10	161± 9	45± 7	16± 1	165± 9	136± 9	1± 0	49± 15
2500 ppm	10	158± 16	45± 6	18± 4	175± 23	143± 9	1± 0	50± 12
5000 ppm	9	158± 10	44± 6	17± 2	167± 14	137± 6	1± 1	50± 13
10000 ppm	5	176± 18	52± 17	17± 4	198± 85	145± 16	1± 0	72± 53
20000 ppm	1	131 ?	171 ?	78 ?	392 ?	156 ?	1 ?	241 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	UREA NITROGEN mg/dℓ	SODIUM mEq/ℓ	POTASSIUM mEq/ℓ	CHLORIDE mEq/ℓ	CALCIUM mg/dℓ	INORGANIC PHOSPHORUS mg/dℓ
Control	10	23.5± 3.8	152± 1	4.4± 0.2	121± 2	8.7± 0.2	6.5± 0.8
1250 ppm	10	24.9± 3.4	151± 1	4.3± 0.2	121± 2	8.6± 0.3	6.8± 0.9
2500 ppm	10	23.3± 3.2	152± 1	4.5± 0.5	121± 1	8.7± 0.2	6.7± 1.5
5000 ppm	9	25.6± 4.2	151± 1	4.4± 0.2	121± 1	8.5± 0.3	6.2± 0.6
10000 ppm	5	41.4± 25.6	151± 1	4.0± 0.3	118± 5	8.8± 0.6	6.7± 1.4
20000 ppm	1	50.3 ?	156 ?	4.0 ?	126 ?	8.5 ?	5.0 ?

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

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

APPENDIX H 2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	TOTAL PROTEIN g/dl	ALBUMIN g/dl	A/G RATIO	T-BILIRUBIN mg/dl	GLUCOSE mg/dl	T-CHOLESTEROL mg/dl	TRIGLYCERIDE mg/dl
Control	10	5.2± 0.1	3.2± 0.1	1.6± 0.1	0.13± 0.01	187± 25	75± 10	14± 4
1250 ppm	10	5.2± 0.2	3.2± 0.1	1.6± 0.1	0.12± 0.01	168± 23	67± 11	14± 7
2500 ppm	10	5.2± 0.2	3.2± 0.1	1.6± 0.1	0.13± 0.01	148± 20*	60± 8*	14± 5
5000 ppm	10	5.1± 0.3	3.1± 0.2	1.6± 0.1	0.13± 0.02	144± 36**	58± 11**	12± 5
10000 ppm	8	5.1± 0.2	3.1± 0.1	1.5± 0.1	0.21± 0.21	150± 37*	81± 16	12± 6
20000 ppm	1	5.2 ?	3.0 ?	1.4 ?	0.23 ?	150 ?	78 ?	21 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	PHOSPHOLIPID mg/dℓ	AST IU/ℓ	ALT IU/ℓ	LDH IU/ℓ	ALP IU/ℓ	G-GTP IU/ℓ	CK IU/ℓ
Control	10	144± 18	54± 8	18± 3	208± 37	221± 23	1± 0	62± 28
1250 ppm	10	130± 21	55± 11	19± 4	203± 39	232± 24	1± 0	62± 22
2500 ppm	10	121± 21	75± 33	23± 8	266± 108	241± 24	1± 1	98± 55
5000 ppm	10	115± 23*	70± 29	24± 8	248± 110	222± 18	1± 1	83± 42
10000 ppm	8	143± 29	79± 21*	25± 10	432± 317*	233± 58	1± 1	189± 183*
20000 ppm	1	169 ?	49 ?	16 ?	367 ?	256 ?	0 ?	65 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (14W)

Group Name	NO. of Animals	UREA NITOROGEN mg/dl	SODIUM mEq/l	POTASSIUM mEq/l	CHLORIDE mEq/l	CALCIUM mg/dl	INORGANIC PHOSPHORUS mg/dl
Control	10	22.1± 2.4	151± 2	4.3± 0.2	121± 1	8.6± 0.2	5.7± 0.7
1250 ppm	10	21.5± 1.9	151± 1	4.4± 0.3	121± 1	8.6± 0.2	5.7± 1.2
2500 ppm	10	22.8± 4.2	152± 1	4.3± 0.1	122± 2	8.5± 0.3	6.0± 1.0
5000 ppm	10	22.9± 5.7	152± 1	4.2± 0.2	122± 2	8.4± 0.2	6.7± 1.0
10000 ppm	8	51.1± 31.2**	154± 2**	4.1± 0.5	123± 4	8.9± 0.5	7.4± 1.3**
20000 ppm	1	34.2 ?	151 ?	4.4 ?	119 ?	8.8 ?	9.5 ?

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

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

APPENDIX I 1

URINALYSIS : MALE

STUDY NO. : 0603 URINALYSIS
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

Group Name	NO. of Animals	pH 5.0	6.0	6.5	7.0	7.5	8.0	8.5	CHI	Protein −	±	+	2+	3+	4+	CHI	Glucose −	±	+	2+	3+	4+	CHI	Ketone body −	±	+	2+	3+	4+	CHI	Occult blood −	±	+	2+	3+	CHI
Control	10	0	0	0	0	0	7	3		0	0	9	1	0	0		10	0	0	0	0	0		3	3	4	0	0	0		10	0	0	0	0	
1250 ppm	10	0	0	0	0	0	2	8	*	0	0	9	1	0	0		10	0	0	0	0	0		2	5	3	0	0	0		10	0	0	0	0	
2500 ppm	10	0	0	0	0	1	2	7		0	1	8	1	0	0		10	0	0	0	0	0		2	7	1	0	0	0		10	0	0	0	0	
5000 ppm	9	0	0	0	0	0	5	4		0	1	7	1	0	0		9	0	0	0	0	0		0	3	4	2	0	0		9	0	0	0	0	
10000 ppm	5	0	1	0	0	2	1	1		0	0	1	4	0	0	**	5	0	0	0	0	0		1	0	3	0	1	0		5	0	0	0	0	
20000 ppm	1	0	0	0	0	0	1	0	?	0	0	0	1	0	0	?	1	0	0	0	0	0	?	0	0	0	1	0	0	?	0	1	0	0	0	?

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

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

STUDY NO. : 0603 URINALYSIS
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1 PAGE : 2

Group Name	NO. of Animals	Urobilinogen ±	+	2+	3+	4+	CHI
Control	10	10	0	0	0	0	
1250 ppm	10	10	0	0	0	0	
2500 ppm	10	10	0	0	0	0	
5000 ppm	9	9	0	0	0	0	
10000 ppm	5	5	0	0	0	0	
20000 ppm	1	1	0	0	0	0	?

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

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

APPENDIX I 2

URINALYSIS : FEMALE

STUDY NO. : 0603 URINALYSIS
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

Group Name	NO. of Animals	pH 5.0	6.0	6.5	7.0	7.5	8.0	8.5	CHI	Protein −	±	+	2+	3+	4+	CHI	Glucose −	±	+	2+	3+	4+	CHI	Ketone body −	±	+	2+	3+	4+	CHI	Occult blood −	±	+	2+	3+	CHI
Control	10	0	0	0	1	3	6	0		0	4	4	2	0	0		10	0	0	0	0	0		0	9	1	0	0	0		10	0	0	0	0	
1250 ppm	10	0	0	1	1	1	6	1		0	0	7	3	0	0		10	0	0	0	0	0		0	9	1	0	0	0		10	0	0	0	0	
2500 ppm	10	0	0	1	1	2	5	1		0	1	7	2	0	0		10	0	0	0	0	0		0	8	2	0	0	0		10	0	0	0	0	
5000 ppm	10	0	1	1	4	0	3	1		0	0	5	5	0	0		10	0	0	0	0	0		0	7	2	1	0	0		10	0	0	0	0	
10000 ppm	8	0	2	2	2	1	1	0		0	0	3	5	0	0		8	0	0	0	0	0		2	4	2	0	0	0		5	3	0	0	0	*
20000 ppm	1	0	0	0	0	0	0	1	?	0	0	0	1	0	0	?	1	0	0	0	0	0	?	0	1	0	0	0	0	?	1	0	0	0	0	?

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

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

STUDY NO. : 0603 URINALYSIS
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

Group Name	NO. of Animals	Urobilinogen ±	+	2+	3+	4+	CHI
Control	10	10	0	0	0	0	
1250 ppm	10	10	0	0	0	0	
2500 ppm	10	10	0	0	0	0	
5000 ppm	10	10	0	0	0	0	
10000 ppm	8	8	0	0	0	0	
20000 ppm	1	1	0	0	0	0	?

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

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

APPENDIX J 1

GROSS FINDINGS : MALE :

DEAD AND MORIBUND ANIMALS

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 14W)

Organ	Findings	Group Name / NO. of Animals	Control 0 (%)	1250 ppm 0 (%)	2500 ppm 0 (%)	5000 ppm 1 (%)
lung	red		- (-)	- (-)	- (-)	0 (0)
thymus	atrophic		- (-)	- (-)	- (-)	1 (100)
spleen	black zone		- (-)	- (-)	- (-)	0 (0)
kidney	small		- (-)	- (-)	- (-)	0 (0)
	hydronephrosis		- (-)	- (-)	- (-)	0 (0)
thoracic ca	pleural fluid		- (-)	- (-)	- (-)	0 (0)

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 14W)

Organ	Findings	Group Name / NO. of Animals	10000 ppm 5 (%)	20000 ppm 9 (%)
lung	red		1 (20)	0 (0)
thymus	atrophic		5 (100)	9 (100)
spleen	black zone		0 (0)	1 (11)
kidney	small		1 (20)	0 (0)
	hydronephrosis		3 (60)	0 (0)
thoracic ca	pleural fluid		1 (20)	0 (0)

APPENDIX J 2

GROSS FINDINGS : MALE :

SACRIFICED ANIMALS

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (14W)

Organ	Findings	Group Name / NO. of Animals	Control 10 (%)	1250 ppm 10 (%)	2500 ppm 10 (%)	5000 ppm 9 (%)
thymus	atrophic		1 (10)	0 (0)	0 (0)	0 (0)
spleen	black zone		0 (0)	0 (0)	2 (20)	1 (11)
kidney	hydronephrosis		0 (0)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (14W)

Organ	Findings	Group Name NO. of Animals	10000 ppm 5 (%)	20000 ppm 1 (%)
thymus	atrophic		1 (20)	1 (100)
spleen	black zone		1 (20)	0 (0)
kidney	hydronephrosis		3 (60)	1 (100)

APPENDIX J 3

GROSS FINDINGS : FEMALE :

DEAD AND MORIBUND ANIMALS

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 14W)

Organ	Findings	Group Name NO. of Animals	Control 0 (%)	1250 ppm 0 (%)	2500 ppm 0 (%)	5000 ppm 0 (%)
thymus	atrophic		- (-)	- (-)	- (-)	- (-)
kidney	hydronephrosis		- (-)	- (-)	- (-)	- (-)

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 14W)

Organ	Findings	Group Name	10000 ppm	20000 ppm
		NO. of Animals	2 (%)	9 (%)
thymus	atrophic		1 (50)	9 (100)
kidney	hydronephrosis		2 (100)	0 (0)

APPENDIX J 4

GROSS FINDINGS : FEMALE :

SACRIFICED ANIMALS

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (14W)

Organ	Findings	Group Name / NO. of Animals	Control 10 (%)	1250 ppm 10 (%)	2500 ppm 10 (%)	5000 ppm 10 (%)
thymus	atrophic		0 (0)	0 (0)	0 (0)	0 (0)
spleen	black zone		0 (0)	0 (0)	0 (0)	1 (10)
gl stomach	black zone		0 (0)	0 (0)	0 (0)	0 (0)
kidney	hydronephrosis		1 (10)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (14W)

Organ	Findings	Group Name	10000 ppm	20000 ppm
		NO. of Animals	8 (%)	1 (%)
thymus	atrophic		3 (38)	0 (0)
spleen	black zone		0 (0)	0 (0)
gl stomach	black zone		1 (13)	0 (0)
kidney	hydronephrosis		8 (100)	1 (100)

APPENDIX K 1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	10	29.3± 2.6	0.032± 0.007	0.012± 0.002	0.224± 0.028	0.150± 0.010	0.154± 0.008
1250 ppm	10	29.3± 1.6	0.035± 0.004	0.011± 0.002	0.214± 0.029	0.150± 0.011	0.145± 0.008
2500 ppm	10	30.7± 2.1	0.037± 0.006	0.013± 0.002	0.228± 0.021	0.155± 0.012	0.148± 0.009
5000 ppm	9	29.0± 2.5	0.033± 0.006	0.012± 0.001	0.227± 0.035	0.151± 0.010	0.143± 0.007
10000 ppm	5	26.0± 2.8*	0.027± 0.010	0.012± 0.001	0.213± 0.027	0.141± 0.014	0.144± 0.011
20000 ppm	1	19.1 ?	0.010 ?	0.011 ?	0.163 ?	0.125 ?	0.127 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
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	0.432± 0.030	0.051± 0.005	1.120± 0.064	0.445± 0.019
1250 ppm	10	0.425± 0.016	0.053± 0.007	1.111± 0.043	0.450± 0.015
2500 ppm	10	0.439± 0.025	0.055± 0.006	1.154± 0.076	0.450± 0.015
5000 ppm	9	0.438± 0.029	0.050± 0.005	1.129± 0.067	0.447± 0.012
10000 ppm	5	0.719± 0.406*	0.054± 0.014	0.992± 0.157	0.443± 0.009
20000 ppm	1	1.270 ?	0.038 ?	0.663 ?	0.401 ?

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

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

APPENDIX K 2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
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	20.6± 0.9	0.041± 0.006	0.015± 0.001	0.027± 0.002	0.117± 0.006	0.141± 0.009
1250 ppm	10	21.0± 0.6	0.039± 0.003	0.015± 0.002	0.027± 0.003	0.121± 0.005	0.136± 0.008
2500 ppm	10	20.6± 1.1	0.037± 0.003	0.015± 0.001	0.026± 0.003	0.117± 0.006	0.139± 0.005
5000 ppm	10	20.4± 0.9	0.038± 0.005	0.015± 0.002	0.025± 0.002	0.119± 0.010	0.132± 0.008
10000 ppm	8	18.5± 2.2	0.030± 0.017	0.014± 0.001	0.024± 0.007	0.108± 0.013	0.129± 0.013*
20000 ppm	1	19.4 ?	0.050 ?	0.012 ?	0.017 ?	0.100 ?	0.115 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	0.289± 0.015	0.055± 0.005	0.852± 0.053	0.456± 0.013
1250 ppm	10	0.297± 0.014	0.053± 0.005	0.847± 0.040	0.458± 0.018
2500 ppm	10	0.295± 0.010	0.052± 0.005	0.859± 0.043	0.459± 0.009
5000 ppm	10	0.293± 0.013	0.052± 0.007	0.827± 0.045	0.450± 0.013
10000 ppm	8	0.561± 0.153**	0.051± 0.014	0.753± 0.126	0.434± 0.021*
20000 ppm	1	0.918 ?	0.059 ?	0.773 ?	0.413 ?

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

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

APPENDIX L 1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
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	29.3± 2.6	0.110± 0.029	0.041± 0.006	0.770± 0.138	0.513± 0.040	0.527± 0.040
1250 ppm	10	29.3± 1.6	0.117± 0.011	0.038± 0.007	0.729± 0.095	0.512± 0.029	0.494± 0.034
2500 ppm	10	30.7± 2.1	0.121± 0.016	0.043± 0.009	0.745± 0.089	0.507± 0.037	0.483± 0.050
5000 ppm	9	29.0± 2.5	0.114± 0.013	0.042± 0.005	0.785± 0.106	0.523± 0.047	0.496± 0.041
10000 ppm	5	26.0± 2.8*	0.101± 0.031	0.047± 0.008	0.827± 0.120	0.545± 0.034	0.556± 0.046
20000 ppm	1	19.1 ?	0.052 ?	0.058 ?	0.853 ?	0.654 ?	0.665 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	1.478± 0.078	0.173± 0.013	3.828± 0.162	1.529± 0.150
1250 ppm	10	1.453± 0.065	0.181± 0.024	3.792± 0.126	1.539± 0.099
2500 ppm	10	1.432± 0.111	0.179± 0.020	3.766± 0.284	1.471± 0.101
5000 ppm	9	1.514± 0.097	0.173± 0.010	3.907± 0.241	1.551± 0.138
10000 ppm	5	2.793± 1.575*	0.208± 0.054	3.801± 0.268	1.719± 0.178*
20000 ppm	1	6.649 ?	0.199 ?	3.471 ?	2.099 ?

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

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

APPENDIX L 2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	10	20.6± 0.9	0.197± 0.024	0.073± 0.008	0.129± 0.009	0.570± 0.036	0.686± 0.035
1250 ppm	10	21.0± 0.6	0.186± 0.016	0.070± 0.008	0.128± 0.012	0.578± 0.019	0.651± 0.040
2500 ppm	10	20.6± 1.1	0.179± 0.015	0.070± 0.004	0.124± 0.015	0.571± 0.047	0.677± 0.027
5000 ppm	10	20.4± 0.9	0.188± 0.022	0.073± 0.008	0.122± 0.008	0.587± 0.060	0.650± 0.051
10000 ppm	8	18.5± 2.2	0.155± 0.078	0.076± 0.010	0.127± 0.025	0.582± 0.021	0.698± 0.056
20000 ppm	1	19.4 ?	0.258 ?	0.062 ?	0.088 ?	0.515 ?	0.593 ?

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

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

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	10	1.408± 0.063	0.265± 0.021	4.143± 0.169	2.220± 0.101
1250 ppm	10	1.419± 0.075	0.250± 0.021	4.041± 0.172	2.184± 0.097
2500 ppm	10	1.432± 0.083	0.252± 0.021	4.169± 0.172	2.231± 0.107
5000 ppm	10	1.436± 0.058	0.256± 0.030	4.057± 0.109	2.208± 0.098
10000 ppm	8	3.079± 0.983**	0.274± 0.050	4.058± 0.398	2.362± 0.184
20000 ppm	1	4.732 ?	0.304 ?	3.985 ?	2.129 ?

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

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

APPENDIX M 1

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : MALE :

DEAD AND MORIBUND ANIMALS

STUDY NO. : 0603
ANIMAL : MCUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 14W)

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	0				0				0				1			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Hematopoietic system}																		
bone marrow			< 0>				< 0>				< 0>				< 1>			
	congestion		-	-	-	-	-	-	-	-	-	-	-	-	1	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(100)	(0)	(0)	(0)
lymph node			< 0>				< 0>				< 0>				< 1>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(100)	(0)	(0)
thymus			< 0>				< 0>				< 0>				< 1>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	0	0	1	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(100)	(0)
spleen			< 0>				< 0>				< 0>				< 1>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(100)	(0)	(0)
	deposit of melanin		-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)
{Circulatory system}																		
heart			< 0>				< 0>				< 0>				< 1>			
	mineralization		-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	10000 ppm				20000 ppm			
		No. of Animals on Study	5				9			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}										
bone marrow			< 5>				< 9>			
	congestion		2	0	0	0	9	0	0	0
			(40)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
lymph node			< 5>				< 9>			
	atrophy		0	4	1	0	3	6	0	0
			(0)	(80)	(20)	(0)	(33)	(67)	(0)	(0)
thymus			< 5>				< 9>			
	atrophy		0	0	5	0	0	0	9	0
			(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
spleen			< 5>				< 9>			
	atrophy		0	5	0	0	0	9	0	0
			(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)
	deposit of melanin		0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
{Circulatory system}										
heart			< 5>				< 9>			
	mineralization		1	0	0	0	2	0	0	0
			(20)	(0)	(0)	(0)	(22)	(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

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	0				0				0				1			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Digestive system}																		
stomach			<0>				<0>				<0>				<1>			
	hyperplasia:glandular stomach		-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney			<0>				<0>				<0>				<1>			
	inflammatory polyp		-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)
	hydronephrosis		-	-	-	-	-	-	-	-	-	-	-	-	1	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(100)	(0)	(0)	(0)
{Endocrine system}																		
adrenal			<0>				<0>				<0>				<1>			
	spindle-cell hyperplasia		-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)
{Musculoskeletal system}																		
muscle			<0>				<0>				<0>				<1>			
	mineralization		-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	10000 ppm				20000 ppm			
		No. of Animals on Study	5				9			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}										
stomach			< 5>				< 9>			
	hyperplasia:glandular stomach		2	0	0	0	0	0	0	0
			(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}										
kidney			< 5>				< 9>			
	inflammatory polyp		3	2	0	0	1	1	0	0
			(60)	(40)	(0)	(0)	(11)	(11)	(0)	(0)
	hydronephrosis		0	5	0	0	7	2	0	0
			(0)	(100)	(0)	(0)	(78)	(22)	(0)	(0)
{Endocrine system}										
adrenal			< 5>				< 9>			
	spindle-cell hyperplasia		2	0	0	0	1	0	0	0
			(40)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
{Musculoskeletal system}										
muscle			< 5>				< 9>			
	mineralization		1	0	0	0	0	0	0	0
			(20)	(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

APPENDIX M 2

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : MALE :

SACRIFICED ANIMALS

STUDY NO. : 0603
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	10				10				10				9			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<10>				<10>				<10>				< 9>			
	eosinophilic change:respiratory epithelium		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																		
thymus			<10>				<10>				<10>				< 9>			
	atrophy		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen			<10>				<10>				<10>				< 9>			
	deposit of melanin		0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
{Circulatory system}																		
heart			<10>				<10>				<10>				< 9>			
	degeneration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}																		
stomach			<10>				<10>				<10>				< 9>			
	hyperplasia:glandular stomach		5	0	0	0	4	0	0	0	6	0	0	0	4	0	0	0
			(50)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(44)	(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

Organ	Findings	Group Name	10000 ppm				20000 ppm				
		No. of Animals on Study	5				1				
		Grade	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}											
nasal cavit			< 5>				< 1>				
	eosinophilic change:respiratory epithelium		0	0	0	0	1	0	0	0	?
			(0)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
{Hematopoietic system}											
thymus			< 5>				< 1>				
	atrophy		0	1	0	0	0	0	1	0	?
			(0)	(20)	(0)	(0)	(0)	(0)	(100)	(0)	
spleen			< 5>				< 1>				
	deposit of melanin		1	0	0	0	0	0	0	0	?
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Circulatory system}											
heart			< 5>				< 1>				
	degeneration		1	0	0	0	0	0	0	0	?
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Digestive system}											
stomach			< 5>				< 1>				
	hyperplasia:glandular stomach		1	0	0	0	0	0	0	0	?
			(20)	(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
? : Significant test is not applied, because No. of data in this group is less than 3.

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	10				10				10				9			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Urinary system}																		
kidney			<10>				<10>				<10>				< 9>			
	inflammatory polyp		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	vacuolization of proximal tubule		4	4	0	0	9	1	0	0	7	0	0	0	5	1	0	0
			(40)	(40)	(0)	(0)	(90)	(10)	(0)	(0)	(70)	(0)	(0)	(0)	(56)	(11)	(0)	(0)
	hydronephrosis		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Endocrine system}																		
adrenal			<10>				<10>				<10>				< 9>			
	spindle-cell hyperplasia		3	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0
			(30)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
{Reproductive system}																		
testis			<10>				<10>				<10>				< 9>			
	germ cell necrosis		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 b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square

Organ	Findings	Group Name	10000 ppm				20000 ppm			
		No. of Animals on Study	5				1			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}										
kidney			< 5>				< 1>			
	inflammatory polyp		0	3	0	0 *	1	0	0	0 ?
			(0)	(60)	(0)	(0)	(100)	(0)	(0)	(0)
	vacuolization of proximal tubule		0	0	0	0 *	0	0	0	0 ?
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hydronephrosis		0	0	3	0 *	0	0	1	0 ?
			(0)	(0)	(60)	(0)	(0)	(0)	(100)	(0)
{Endocrine system}										
adrenal			< 5>				< 1>			
	spindle-cell hyperplasia		1	0	0	0	0	0	0	0 ?
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Reproductive system}										
testis			< 5>				< 1>			
	germ cell necrosis		0	0	0	0	0	0	0	0 ?
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square
? : Significant test is not applied, because No. of data in this group is less than 3.

APPENDIX M 3

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : FEMALE :

DEAD AND MORIBUND ANIMALS

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	0				0				0				0			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Hematopoietic system}																		
bone marrow			< 0>				< 0>				< 0>				< 0>			
	congestion		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
lymph node			< 0>				< 0>				< 0>				< 0>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
thymus			< 0>				< 0>				< 0>				< 0>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
spleen			< 0>				< 0>				< 0>				< 0>			
	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Digestive system}																		
stomach			< 0>				< 0>				< 0>				< 0>			
	hyperplasia:glandular stomach		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Urinary system}																		
kidney			< 0>				< 0>				< 0>				< 0>			
	inflammatory polyp		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

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

Organ	Findings	Group Name	10000 ppm				20000 ppm			
		No. of Animals on Study	2				9			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematcpoietic system}										
bone marrow			< 2>				< 9>			
	congestion		0	0	0	0	8	0	0	0
			(0)	(0)	(0)	(0)	(89)	(0)	(0)	(0)
lymph node			< 2>				< 9>			
	atrophy		1	1	0	0	0	8	1	0
			(50)	(50)	(0)	(0)	(0)	(89)	(11)	(0)
thymus			< 2>				< 9>			
	atrophy		0	0	2	0	0	0	9	0
			(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)
spleen			< 2>				< 8>			
	atrophy		1	1	0	0	0	7	1	0
			(50)	(50)	(0)	(0)	(0)	(88)	(13)	(0)
{Digestive system}										
stomach			< 2>				< 8>			
	hyperplasia:glandular stomach		1	0	0	0	0	0	0	0
			(50)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}										
kidney			< 2>				< 9>			
	inflammatory polyp		0	1	0	0	1	1	0	0
			(0)	(50)	(0)	(0)	(11)	(11)	(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

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	0				0				0				0			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			< 0>				< 0>				< 0>				< 0>			
	hydronephrosis		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
{Musculoskeletal system}																		
muscle			< 0>				< 0>				< 0>				< 0>			
	mineralization		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

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

Organ	Findings	Group Name	10000 ppm				20000 ppm			
		No. of Animals on Study	2				9			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}										
kidney			< 2>				< 9>			
	hydronephrosis		0	1	1	0	4	3	0	0
			(0)	(50)	(50)	(0)	(44)	(33)	(0)	(0)
{Musculoskeletal system}										
muscle			< 2>				< 9>			
	mineralization		0	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(33)	(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

APPENDIX M 4

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : FEMALE :

SACRIFICED ANIMALS

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
thymus			<10>				<10>				<10>				<10>			
	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)
spleen			<10>				<10>				<10>				<10>			
	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)
	deposit of melanin		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)
{Digestive system}																		
stomach			<10>				<10>				<10>				<10>			
	erosion:glandular stomach		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:glandular stomach		8	0	0	0	5	1	0	0	7	0	0	0	7	1	0	0
			(80)	(0)	(0)	(0)	(50)	(10)	(0)	(0)	(70)	(0)	(0)	(0)	(70)	(10)	(0)	(0)
liver			<10>				<10>				<10>				<10>			
	granulation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	10000 ppm				20000 ppm				
		No. of Animals on Study	8				1				
		Grade	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Hematopoietic system}											
thymus			< 8>				< 1>				
	atrophy		0	3	0	0	0	0	0	0	?
			(0)	(38)	(0)	(0)	(0)	(0)	(0)	(0)	
spleen			< 8>				< 1>				
	atrophy		1	0	0	0	0	0	0	0	?
			(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	deposit of melanin		0	0	0	0	0	0	0	0	?
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Digestive system}											
stomach			< 8>				< 1>				
	erosion:glandular stomach		1	0	0	0	0	0	0	0	?
			(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	hyperplasia:glandular stomach		4	0	0	0	1	0	0	0	?
			(50)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	
liver			< 8>				< 1>				
	granulation		1	0	0	0	0	0	0	0	?
			(13)	(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
? : Significant test is not applied,because No. of data in this group is less than 3.

Organ	Findings	Group Name	Control				1250 ppm				2500 ppm				5000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<10>				<10>				<10>				<10>			
	inflammatory cell nest		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)
{Urinary system}																		
kidney			<10>				<10>				<10>				<10>			
	inflammatory polyp		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hydronephrosis		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)	(0)	(0)
{Endocrine system}																		
pituitary			<10>				<10>				<10>				<10>			
	Rathke pouch		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)
adrenal			<10>				<10>				<10>				<10>			
	spindle-cell hyperplasia		6	0	0	0	7	0	0	0	8	0	0	0	7	0	0	0
			(60)	(0)	(0)	(0)	(70)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(70)	(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

Organ	Findings	Group Name	10000 ppm				20000 ppm				
		No. of Animals on Study	8				1				
		Grade	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Digestive system}											
liver			< 8>				< 1>				
	inflammatory cell nest		0	0	0	0	0	0	0	0	?
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Urinary system}											
kidney			< 8>				< 1>				
	inflammatory polyp		2	4	0	0 *	0	0	0	0	?
			(25)	(50)	(0)	(0)	(0)	(0)	(0)	(0)	
	hydronephrosis		0	1	7	0 **	0	0	1	0	?
			(0)	(13)	(88)	(0)	(0)	(0)	(100)	(0)	
{Endocrine system}											
pituitary			< 8>				< 1>				
	Rathke pouch		0	0	0	0	0	0	0	0	?
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
adrenal			< 8>				< 1>				
	spindle-cell hyperplasia		4	0	0	0	0	0	0	0	?
			(50)	(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
? : Significant test is not applied, because No. of data in this group is less than 3.

APPENDIX N

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 13-WEEK DRINKING WATER STUDY OF 2-AMINOETHANOL

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 13- WEEK DRINKING WATER STUDY OF 2-AMINOETHANOL

Item	Method	Unit	Decimal place
Hematology			
Red blood cell (RBC)	Light scattering method[1)]	$\times 10^6/\mu L$	2
Hemoglobin(Hgb)	Cyanmethemoglobin method [1)]	g/dL	1
Hematocrit(Hct)	Calculated as RBC×MCV/10 [1)]	%	1
Mean corpuscular volume(MCV)	Light scattering method [1)]	fL	1
Mean corpuscular hemoglobin(MCH)	Calculated as Hgb/RBC×10 [1)]	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as Hgb/Hct×100 [1)]	g/dL	1
Platelet	Light scattering method [1)]	$\times 10^3/\mu L$	0
Reticulocyte	Light scattering method [1)]	%	1
White blood cell(WBC)	Light scattering method [1)]	$\times 10^3/\mu L$	2
Differential WBC	Pattern recognition method [2)] (Wright staining)	%	0
Biochemistry			
Total protein(TP)	Biuret method [3)]	g/dL	1
Albumin (Alb)	BCG method [3)]	g/dL	1
A/G ratio	Calculated as Alb/(TP−Alb) [3)]	−	1
T-bilirubin	Alkaline azobilirubin method [3)]	mg/dL	2
Glucose	GlcK·G-6-PDH method [3)]	mg/dL	0
T-cholesterol	CE·COD·POD method [3)]	mg/dL	0
Triglyceride	LPL·GK·GPO·POD method [3)]	mg/dL	0
Phospholipid	PLD·ChOD·POD method [3)]	mg/dL	0
Aspartate aminotransferase (AST)	JSCC method [3)]	IU/L	0
Alanine aminotransferase (ALT)	JSCC method [3)]	IU/L	0
Lactate dehydrogenase (LDH)	SFBC method [3)]	IU/L	0
Alkaline phosphatase (ALP)	GSCC method [3)]	IU/L	0
γ-Glutamyl transpeptidase (γ-GTP)	JSCC method [3)]	IU/L	0
Creatine kinase (CK)	JSCC method [3)]	IU/L	0
Urea nitrogen	Urease·GLDH method [3)]	mg/dL	1
Sodium	Ion selective electrode method [3)]	mEq/L	0
Potassium	Ion selective electrode method [3)]	mEq/L	1
Chloride	Ion selective electrode method [3)]	mEq/L	0
Calcium	OCPC method [3)]	mg/dL	1
Inorganic phosphorus	PNP·XOD·POD method [3)]	mg/dL	1

1) Automatic blood cell analyzer (ADVIA120 : Bayer Corporation)
2) Automatic blood cell differential analyzer (MICROX HEG-120NA : OMRON Corporation)
3) Automatic analyzer (Hitachi 7080 : Hitachi,Ltd.)