2-メチル-1-プロパ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：0572

APPENDICES

APPENDICES

APPENDICES (CONTINUED)

APPENDIX A 1

IDENTITY AND IMPURITY OF 2-METHYL-1-PROPANOL IN THE 13-WEEK DRINKING WATER STUDY

IDENTITY AND IMPURITY OF 2-METHYL-1-PROPANOL IN THE 13-WEEK DRINKING WATER STUDY

Test Substance : 2-Methyl-1-propanol (Wako Pure Chemical Industries, Ltd.)

Lot No. : KLH5528

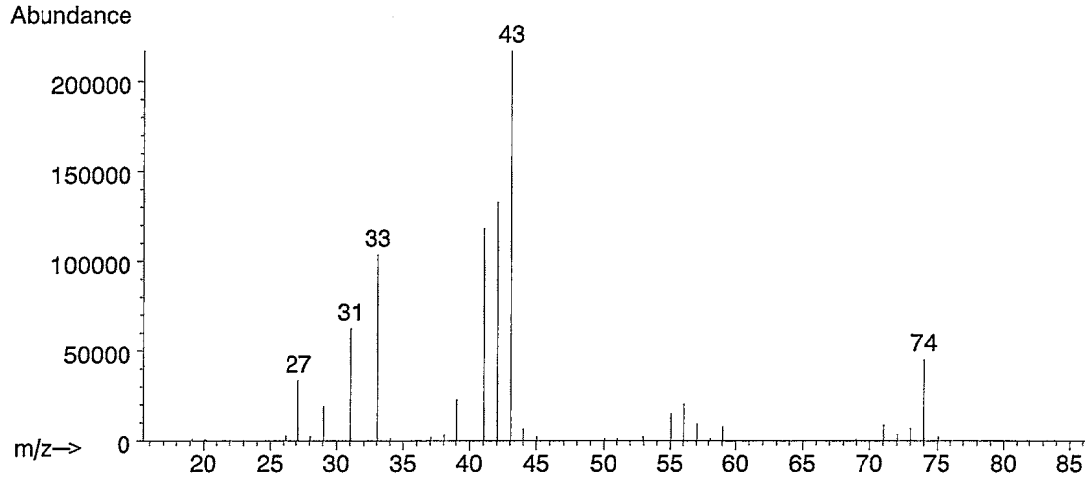
1. Spectral Data

Mass Spectrometry

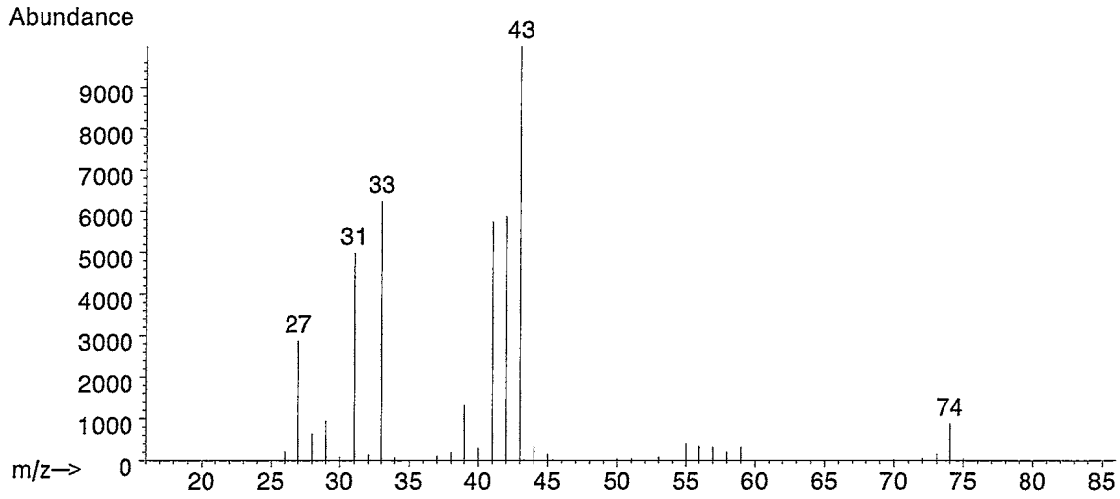
Instrument : Hewlett Packard 5989B Mass Spectrometer

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.

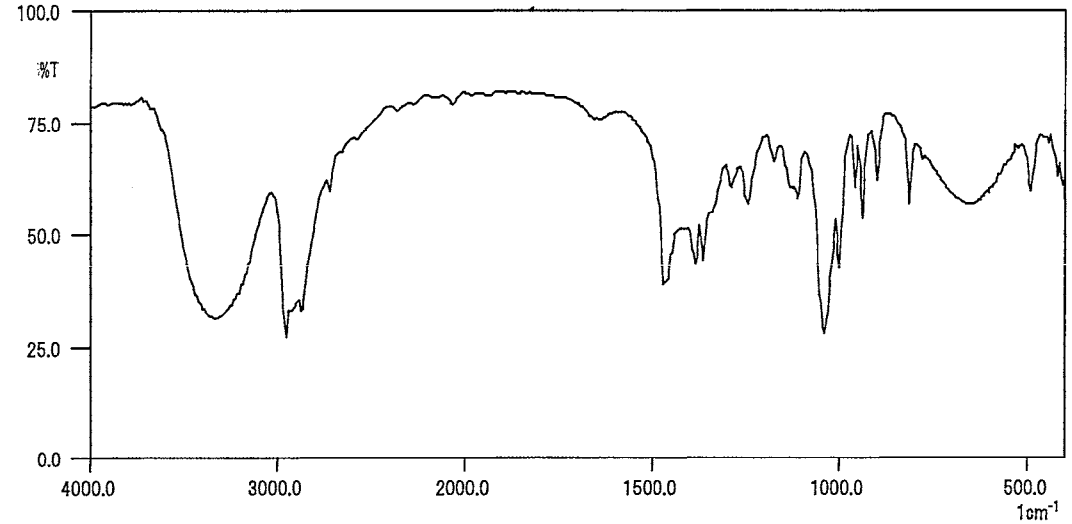
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY : John Wiley and Sons.)

Infrared Spectrometry

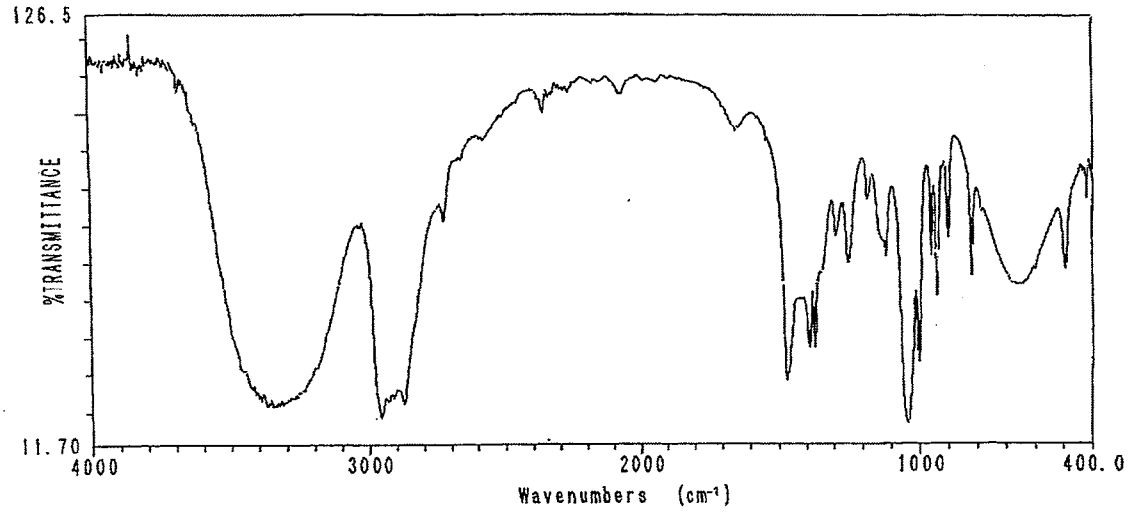
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

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. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : INNOWAX (0.2 mmϕ × 50 m)

Column Temperature : 80 °C (1 min) → (10 °C/min) → 200 °C

Flow Rate : 1 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μL

Sample Name	Peak No.	Area (%)	Peak Name
	1	0.026	Diisobutyl ether
Test Substance	2	99.935	2-Methyl-1-propanol
	3	0.039	1-Butanol

Result: Gas chromatography indicated one major peak (peak No.2) and two impurities. Those impurities (peak No.1 and peak No.3) were identified as diisobutyl ether and 1-butanol by comparing GC-MS with the standard samples. The amount in the test substance was 0.026% (The quantity value by the standard sample was 0.025%.) for diisobutyl ether and 0.039% (The quantity value by the standard sample was 0.039%.) for 1-butanol with a gas chromatograph.

3. Conclusion: The test substance was identified as 2-methyl-1-propanol by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak (2-methyl-1-propanol) and two impurities. Those impurities were diisobutyl ether and 1-butanol in the test substance.

APPENDIX A 2

STABILITY OF 2-METHYL-1-PROPANOL IN THE 13-WEEK DRINKING WATER STUDY

STABILITY OF 2-METHYL-1-PROPANOL IN THE 13-WEEK DRINKING WATER STUDY

Test Substance : 2-Methyl-1-propanol (Wako Pure Chemical Industries, Ltd.)

Lot No. : KLH5528

1. Sample : This lot was used from 2005.1.24 to 2005.4.27. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : INNOWAX (0.2 mmϕ × 50 m)

Column Temperature : 80 °C (1 min) → (10 °C/min) → 200 °C

Flow Rate : 1 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μL

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2005.01.13	1	3.743	0.026
	2	5.229	99.935
	3	5.559	0.039
2005.05.11	1	3.743	0.026
	2	5.232	99.935
	3	5.560	0.039

Result: Gas chromatography indicated one major peak (peak No.2) and two impurities (peak No.1 and No.3 < 0.1% of total area) analyzed on 2005.1.13 and one major peak (peak No.2) and two impurities (peak No.1 and No.3 < 0.1% of total area) analyzed on 2005.5.11. No new trace impurity peak in the test substance analyzed on 2005.5.11 was detected.

3. Conclusion: The test substance was stable for about 4 months in a dark place at room temperature.

APPENDIX A 3

CONCENTRATION OF 2-METHYL-1-PROPANOL IN FORMULATED WATER IN THE 13-WEEK DRINKING WATER STUDY

CONCENTRATION OF 2-METHYL-1-PROPANOL IN FORMULATED WATER IN THE 13-WEEK DRINKING WATER STUDY

	Target Concentration				
Date Analyzed	2500[a]	5000	10000	20000	40000
2005.01.24	2470 (98.8)[b]	4880 (97.6)	9910 (99.1)	19900 (99.5)	40000 (100)

[a] ppm
[b] %

Analytical method : The samples were analyzed by gas chromatography.

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : INNOWAX (0.2 mmϕ × 50 m)
Column Temperature : 80 °C (1 min) → (10 °C/min) → 200 °C
Flow Rate : 1 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μL

APPENDIX A 4

STABILITY OF 2-METHYL-1-PROPANOL IN FORMULATED WATER

STABILITY OF 2-METHYL-1-PROPANOL IN FORMULATED WATER

		Target Concentration	
Date Prepared	Date Analyzed	2500[a]	40000
2004.08.12	2004.08.12	2450 (100)[b]	40800 (100)
	2004.08.16[c]	2280 (93.1)	38800 (95.1)

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

Analytical method : The samples were analyzed by gas chromatography.

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : INNOWAX (0.2 mmϕ × 50 m)
Column Temperature : 80 °C (1 min) → (10 °C/min) → 200 °C
Flow Rate : 1 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μL

APPENDIX B 1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0572
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
PILOERECTION	Control	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	0	0	0	0	0	0	0	0
	40000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	1	1	1	1	1
	2500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	5000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1
	10000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2
	20000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1
	40000 ppm	0	0	0	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
	2500 ppm	0	0	1	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	2	1	0	0	0	0	0	0	0	0	0
	20000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	40000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	9	9	9	9	9
	2500 ppm	10	10	9	10	10	10	10	10	10	10	10	10	10
	5000 ppm	10	10	10	10	9	9	9	9	9	9	9	9	9
	10000 ppm	10	10	8	9	10	10	10	10	10	10	10	10	8
	20000 ppm	10	10	10	10	10	10	10	10	10	10	9	9	9
	40000 ppm	9	10	10	10	10	10	10	10	10	10	10	10	10

APPENDIX B 2

CLINICAL OBSERVATION : 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	1	1	1
	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	1	0	0	0	0	0	0	0	0	0
	40000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	10	10	10	10	10	10	10	10	10	10	9	9	9
	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	10	10	10	10	10	10	10	10	10	10	10	10	10
	20000 ppm	10	10	10	9	10	10	10	10	10	10	10	10	10
	40000 ppm	10	10	10	10	10	10	10	10	10	10	10	10	10

APPENDIX C 1

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0572
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	24.0± 0.7	24.4± 0.8	25.1± 1.1	26.2± 1.1	26.8± 1.2	27.7± 1.3	28.3± 1.4
2500 ppm	23.9± 0.8	24.3± 0.8	25.3± 1.1	25.8± 2.4	26.9± 1.3	27.7± 1.2	28.6± 1.0
5000 ppm	23.9± 0.8	24.1± 0.9	25.3± 1.1	25.9± 1.2	27.0± 0.9	27.6± 1.1	28.4± 1.2
10000 ppm	23.9± 0.7	24.6± 0.7	25.8± 0.7	25.7± 2.3	26.8± 1.2	28.0± 0.9	29.0± 1.0
20000 ppm	23.9± 0.8	24.4± 0.8	25.1± 0.7	25.8± 0.7	26.8± 0.8	27.5± 0.7	27.9± 1.2
40000 ppm	23.9± 0.8	23.8± 0.7	24.5± 1.2	25.3± 1.2	26.2± 1.2	26.8± 1.3	27.4± 1.2

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

STUDY NO. : 0572
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	28.6± 1.6	30.0± 1.6	29.8± 1.5	30.7± 1.8	31.1± 1.5	32.1± 1.8	32.6± 1.6
2500 ppm	28.8± 1.2	30.5± 1.3	30.4± 1.4	31.4± 1.2	32.1± 1.5	32.9± 1.6	33.5± 1.5
5000 ppm	28.7± 1.3	30.7± 1.5	30.1± 1.5	30.9± 1.4	31.6± 1.6	32.5± 1.7	32.7± 1.8
10000 ppm	29.1± 1.0	30.5± 1.5	30.1± 1.4	30.9± 1.8	31.5± 1.8	32.4± 2.0	32.2± 2.0
20000 ppm	28.5± 0.9	29.9± 1.1	29.9± 1.2	30.4± 1.1	30.9± 1.3	31.8± 1.3	32.3± 1.2
40000 ppm	27.6± 1.5	29.0± 1.5	28.6± 1.3	29.2± 1.6	30.1± 2.0	30.6± 1.8	30.9± 1.8

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

APPENDIX C 2

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0572
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	19.4± 0.7	19.2± 1.0	20.3± 0.8	21.2± 0.8	21.0± 1.0	21.9± 0.9	22.1± 1.1
2500 ppm	19.4± 0.7	19.3± 0.6	20.2± 0.7	20.5± 0.7	21.0± 0.5	21.4± 0.6	22.4± 0.7
5000 ppm	19.4± 0.7	19.4± 0.6	20.5± 0.7	20.6± 0.7	21.4± 0.7	21.7± 0.7	21.9± 0.7
10000 ppm	19.4± 0.7	19.2± 0.7	19.9± 0.7	20.4± 0.5	20.8± 0.8	21.2± 0.6	21.7± 1.1
20000 ppm	19.4± 0.7	19.4± 0.6	20.5± 0.6	20.5± 0.7	20.9± 0.6	21.5± 0.6	21.9± 1.0
40000 ppm	19.4± 0.7	19.1± 0.6	20.0± 0.5	20.5± 0.8	21.0± 0.8	21.3± 0.9	21.9± 0.7

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

STUDY NO. : 0572
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	22.7± 1.1	23.7± 1.3	23.0± 0.9	23.3± 1.1	23.2± 1.3	23.6± 1.9	23.6± 2.0
2500 ppm	22.5± 0.8	23.3± 1.0	23.2± 0.7	23.4± 0.8	23.5± 0.9	24.0± 1.4	24.1± 0.7
5000 ppm	22.7± 1.1	22.9± 0.7	22.8± 0.6	23.0± 0.9	23.5± 1.2	23.0± 1.2	23.7± 1.0
10000 ppm	22.3± 0.7	23.5± 0.9	22.9± 0.7	22.9± 1.1	23.3± 0.8	23.6± 0.7	23.5± 0.8
20000 ppm	22.7± 1.3	23.2± 0.8	23.2± 0.9	23.4± 0.9	23.7± 1.1	23.8± 1.0	23.8± 1.0
40000 ppm	22.3± 1.0	23.1± 0.7	23.0± 1.3	23.3± 0.8	23.7± 1.7	24.0± 0.9	24.0± 1.3

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

APPENDIX D 1

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0572
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	4.1± 0.3	4.1± 0.2	4.1± 0.2	4.1± 0.2	4.1± 0.2	4.1± 0.2
2500 ppm	4.1± 0.2	4.1± 0.2	4.0± 0.5	4.1± 0.2	4.1± 0.2	4.2± 0.2	4.1± 0.2
5000 ppm	4.1± 0.1	4.0± 0.3	4.0± 0.2	4.0± 0.2	4.0± 0.3	4.1± 0.2	4.0± 0.2
10000 ppm	4.2± 0.3	4.2± 0.3	3.8± 0.7	4.0± 0.4	4.1± 0.4	4.1± 0.3	4.1± 0.3
20000 ppm	3.9± 0.1*	3.9± 0.3	3.9± 0.3	3.9± 0.1	3.9± 0.1	3.9± 0.2	3.9± 0.1
40000 ppm	3.6± 0.2**	3.7± 0.2*	3.9± 0.4	3.7± 0.2**	3.8± 0.2*	3.7± 0.1**	3.6± 0.2**

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

STUDY NO. : 0572
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	4.1± 0.2	4.2± 0.2	4.3± 0.3	4.3± 0.3	4.4± 0.3	4.3± 0.3
2500 ppm	4.2± 0.2	4.3± 0.2	4.3± 0.2	4.4± 0.2	4.4± 0.2	4.3± 0.2
5000 ppm	4.1± 0.2	4.2± 0.2	4.2± 0.2	4.2± 0.2	4.4± 0.2	4.2± 0.2
10000 ppm	4.2± 0.4	4.2± 0.3	4.2± 0.4	4.2± 0.4	4.3± 0.4	4.2± 0.4
20000 ppm	3.9± 0.2	4.1± 0.1	4.0± 0.1	4.1± 0.3	4.2± 0.2	4.1± 0.1
40000 ppm	3.7± 0.2**	3.7± 0.2**	3.9± 0.3*	3.9± 0.2**	3.9± 0.2**	3.8± 0.2**

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

APPENDIX D 2

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0572
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± 0.3	3.6± 0.2	3.7± 0.2	3.5± 0.3	3.7± 0.2	3.7± 0.2	3.8± 0.1
2500 ppm	3.3± 0.3	3.6± 0.2	3.6± 0.2	3.6± 0.2	3.8± 0.2	3.8± 0.2	3.8± 0.3
5000 ppm	3.4± 0.2	3.6± 0.1	3.5± 0.2	3.6± 0.2	3.6± 0.2	3.7± 0.2	3.8± 0.2
10000 ppm	3.2± 0.2	3.3± 0.2**	3.4± 0.2*	3.4± 0.3	3.5± 0.2	3.6± 0.3	3.6± 0.2
20000 ppm	3.1± 0.1*	3.3± 0.2**	3.3± 0.2**	3.4± 0.3	3.5± 0.2	3.5± 0.3*	3.6± 0.3
40000 ppm	2.9± 0.2**	3.1± 0.1**	3.2± 0.2**	3.3± 0.2*	3.3± 0.2**	3.3± 0.1**	3.4± 0.2**

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

STUDY NO. : 0572
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	4.0± 0.2	4.1± 0.2	4.0± 0.2	3.8± 0.4	4.0± 0.4	4.0± 0.3
2500 ppm	3.9± 0.2	4.1± 0.2	4.0± 0.2	3.9± 0.2	4.0± 0.3	4.0± 0.2
5000 ppm	3.7± 0.3	3.9± 0.2	3.9± 0.3	3.9± 0.3	3.8± 0.2	3.9± 0.2
10000 ppm	3.8± 0.3	3.8± 0.2	3.7± 0.3	3.8± 0.2	3.9± 0.2	3.7± 0.3
20000 ppm	3.6± 0.2**	3.8± 0.2*	3.7± 0.3	3.8± 0.2	3.8± 0.2	3.7± 0.2
40000 ppm	3.4± 0.2**	3.6± 0.3**	3.6± 0.2**	3.6± 0.3	3.7± 0.2	3.6± 0.3*

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

APPENDIX E 1

WATER CONSUMPTION CHANGES : MALE

STUDY NO. : 0572
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	4.6± 0.6	4.5± 0.5	4.4± 0.7	4.1± 0.6	4.2± 0.6	4.1± 0.5	4.2± 0.6
2500 ppm	4.6± 0.6	4.6± 0.6	4.0± 1.3	4.4± 0.7	4.2± 0.6	4.1± 0.5	4.0± 0.5
5000 ppm	4.6± 0.8	4.5± 1.1	4.3± 0.7	4.4± 1.0	4.2± 0.8	4.3± 0.7	4.1± 0.7
10000 ppm	4.3± 1.1	4.1± 1.0	3.8± 1.1	3.9± 0.9	3.8± 0.9	3.8± 0.8	3.7± 0.6
20000 ppm	3.6± 0.4**	3.5± 0.5*	3.2± 0.5**	3.3± 0.3*	3.2± 0.2**	3.1± 0.3**	3.2± 0.2**
40000 ppm	3.0± 0.3**	2.7± 0.5**	2.9± 0.5**	2.9± 0.3**	3.0± 0.2**	2.9± 0.3**	3.0± 0.2**

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

STUDY NO. : 0572
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	4.2± 0.6	4.2± 0.6	4.0± 0.5	4.0± 0.7	4.0± 0.6	3.8± 0.6
2500 ppm	4.2± 0.4	3.8± 0.2	3.9± 0.3	3.8± 0.4	3.8± 0.4	3.4± 0.3
5000 ppm	4.2± 0.6	3.9± 0.7	3.9± 0.5	3.8± 0.5	3.8± 0.5	3.5± 0.5
10000 ppm	3.7± 0.6	3.5± 0.7*	3.7± 0.7	3.5± 0.5	3.4± 0.5	3.3± 0.6
20000 ppm	3.2± 0.2**	3.1± 0.3**	3.2± 0.2**	3.2± 0.3**	3.1± 0.2**	3.1± 0.2*
40000 ppm	2.9± 0.2**	2.9± 0.3**	2.9± 0.3**	3.0± 0.2**	2.7± 0.3**	2.7± 0.3**

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

APPENDIX E 2

WATER CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0572
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	4.5± 0.4	4.4± 0.4	4.3± 0.4	4.2± 0.6	4.2± 0.4	4.2± 0.4	4.3± 0.4
2500 ppm	3.9± 0.3**	4.2± 0.6	4.0± 0.3	4.1± 0.3	4.0± 0.2	4.1± 0.4	4.4± 0.4
5000 ppm	3.8± 0.2**	4.1± 0.4	3.8± 0.4*	4.0± 0.4	3.9± 0.4	3.9± 0.4	4.1± 0.4
10000 ppm	3.7± 0.4**	3.8± 0.5*	4.0± 0.6	4.0± 0.5	3.9± 0.4	3.9± 0.5	3.9± 0.4
20000 ppm	3.6± 0.5**	3.8± 0.6*	3.7± 0.4*	3.8± 0.5	3.8± 0.4*	3.7± 0.5*	3.9± 0.4
40000 ppm	2.8± 0.3**	2.9± 0.4**	3.0± 0.5**	3.0± 0.3**	3.0± 0.3**	3.1± 0.2**	3.3± 0.3**

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

STUDY NO. : 0572
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	4.5± 0.4	4.4± 0.4	4.4± 0.4	4.2± 0.7	4.1± 0.7	4.0± 0.7
2500 ppm	4.3± 0.4	4.3± 0.2	4.4± 0.3	4.1± 0.4	4.4± 0.5	4.2± 0.3
5000 ppm	4.0± 0.5*	4.1± 0.5	4.1± 0.5	4.0± 0.4	3.9± 0.5	3.9± 0.4
10000 ppm	4.0± 0.6	3.9± 0.4*	4.1± 0.4	4.0± 0.4	4.1± 0.4	4.0± 0.6
20000 ppm	3.8± 0.3**	4.1± 0.4	4.1± 0.4	3.9± 0.5	3.9± 0.5	3.9± 0.6
40000 ppm	3.3± 0.3**	3.3± 0.3**	3.3± 0.3**	3.4± 0.4**	3.2± 0.3**	3.4± 0.4

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

APPENDIX F 1

CHEMICAL INTAKE CHANGES : MALE

STUDY NO. : 0572
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g／kg／d a y
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 1	2	3	4	5	6	7
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
2500 ppm	0.478± 0.064	0.456± 0.062	0.376± 0.116	0.409± 0.064	0.381± 0.045	0.362± 0.036	0.350± 0.037
5000 ppm	0.955± 0.197	0.895± 0.230	0.837± 0.155	0.814± 0.178	0.768± 0.157	0.752± 0.121	0.711± 0.127
10000 ppm	1.738± 0.452	1.574± 0.410	1.424± 0.407	1.454± 0.346	1.352± 0.283	1.301± 0.269	1.287± 0.214
20000 ppm	2.987± 0.285	2.780± 0.350	2.494± 0.347	2.453± 0.202	2.318± 0.171	2.217± 0.199	2.251± 0.143
40000 ppm	5.104± 0.431	4.456± 0.721	4.581± 0.642	4.408± 0.428	4.428± 0.320	4.250± 0.343	4.356± 0.392

STUDY NO. : 0572
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g／kg／d a y
REPORT TYPE : A1 13
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks) 8	9	10	11	12	13
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
2500 ppm	0.340± 0.030	0.312± 0.019	0.307± 0.023	0.296± 0.029	0.286± 0.030	0.257± 0.023
5000 ppm	0.692± 0.107	0.652± 0.121	0.630± 0.088	0.607± 0.079	0.578± 0.079	0.530± 0.078
10000 ppm	1.215± 0.188	1.157± 0.203	1.201± 0.199	1.110± 0.143	1.043± 0.130	1.022± 0.179
20000 ppm	2.133± 0.133	2.103± 0.144	2.074± 0.134	2.070± 0.137	1.922± 0.122	1.910± 0.142
40000 ppm	4.050± 0.243	3.996± 0.453	4.031± 0.356	3.925± 0.299	3.487± 0.371	3.538± 0.384

APPENDIX F 2

CHEMICAL INTAKE CHANGES : FEMALE

STUDY NO. : 0572
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g／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	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
2500 ppm	0.508± 0.044	0.513± 0.067	0.489± 0.032	0.487± 0.037	0.466± 0.013	0.462± 0.043	0.483± 0.040
5000 ppm	0.980± 0.059	0.992± 0.094	0.924± 0.084	0.925± 0.081	0.906± 0.091	0.898± 0.102	0.896± 0.107
10000 ppm	1.925± 0.223	1.920± 0.211	1.949± 0.283	1.916± 0.224	1.825± 0.170	1.812± 0.183	1.751± 0.191
20000 ppm	3.689± 0.460	3.719± 0.538	3.641± 0.446	3.628± 0.582	3.508± 0.489	3.361± 0.449	3.433± 0.370
40000 ppm	5.837± 0.542	5.710± 0.821	5.770± 0.862	5.729± 0.463	5.679± 0.545	5.734± 0.436	5.878± 0.643

STUDY NO. : 0572
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
UNIT : g／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	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
2500 ppm	0.461± 0.039	0.462± 0.033	0.468± 0.031	0.441± 0.041	0.457± 0.059	0.435± 0.035
5000 ppm	0.863± 0.107	0.892± 0.103	0.884± 0.106	0.852± 0.094	0.854± 0.122	0.825± 0.098
10000 ppm	1.706± 0.208	1.725± 0.168	1.775± 0.183	1.694± 0.161	1.727± 0.156	1.703± 0.228
20000 ppm	3.251± 0.322	3.514± 0.425	3.483± 0.302	3.311± 0.352	3.295± 0.359	3.243± 0.477
40000 ppm	5.669± 0.615	5.793± 0.619	5.641± 0.558	5.714± 0.517	5.410± 0.553	5.691± 0.588

APPENDIX G 1

HEMATOLOGY : MALE

STUDY NO. : 0572
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	9	10.60± 0.23	15.6± 0.3	49.6± 1.2	46.8± 0.8	14.7± 0.2	31.4± 0.3	1341± 93
2500 ppm	10	10.78± 0.34	15.8± 0.5	50.4± 1.4	46.8± 0.5	14.6± 0.1	31.3± 0.3	1327± 107
5000 ppm	10	10.62± 0.40	15.5± 0.4	49.5± 1.5	46.7± 1.0	14.6± 0.3	31.3± 0.4	1323± 87
10000 ppm	10	10.87± 0.46	15.8± 0.5	50.4± 1.6	46.4± 1.0	14.6± 0.3	31.4± 0.3	1379± 116
20000 ppm	10	10.73± 0.20	15.7± 0.4	50.3± 1.4	46.8± 0.6	14.6± 0.2	31.2± 0.3	1365± 46
40000 ppm	10	10.84± 0.17	15.8± 0.3	50.9± 1.0	47.0± 0.6	14.6± 0.2	31.1± 0.4	1390± 75

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

Group Name	NO. of Animals	RETICULOCYTE %
Control	9	2.1± 0.2
2500 ppm	10	2.3± 0.1
5000 ppm	10	2.1± 0.2
10000 ppm	10	2.1± 0.3
20000 ppm	10	2.2± 0.2
40000 ppm	10	2.3± 0.2

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

STUDY NO. : 0572
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	9	1.86± 1.21	1± 1	15± 4	1± 1	0± 0	2± 2	81± 5	0± 0
2500 ppm	10	1.60± 0.59	1± 1	14± 3	1± 1	0± 0	2± 1	82± 4	0± 0
5000 ppm	10	1.71± 0.80	1± 1	15± 7	2± 1	0± 0	2± 1	80± 7	0± 0
10000 ppm	10	1.96± 1.04	0± 0	17± 5	2± 1	0± 0	3± 2	78± 5	0± 0
20000 ppm	10	2.18± 0.92	0± 1	14± 3	2± 1	0± 0	3± 2	82± 4	0± 0
40000 ppm	10	1.99± 0.92	1± 1	13± 4	2± 1	0± 0	2± 2	82± 3	0± 0

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

APPENDIX G 2

HEMATOLOGY : FEMALE

STUDY NO. : 0572
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	10.61± 0.43	15.7± 1.0	49.2± 2.8	46.4± 1.0	14.7± 0.5	31.8± 0.6	1237± 71
2500 ppm	10	10.69± 0.24	15.9± 0.5	50.3± 1.2	47.0± 0.4	14.9± 0.1	31.8± 0.4	1219± 94
5000 ppm	10	10.78± 0.38	16.0± 0.5	50.8± 1.7	47.1± 0.4	14.9± 0.1	31.6± 0.5	1234± 53
10000 ppm	9	10.72± 0.23	15.9± 0.3	50.2± 1.2	46.8± 0.5	14.8± 0.2	31.7± 0.5	1275± 38
20000 ppm	10	10.78± 0.21	16.0± 0.4	50.8± 1.0	47.1± 0.7	14.9± 0.1	31.6± 0.6	1249± 78
40000 ppm	10	10.70± 0.35	15.9± 0.6	50.7± 1.4	47.4± 0.6	14.9± 0.1	31.4± 0.5	1155± 95

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

STUDY NO. : 0572
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	2.5± 1.1
2500 ppm	10	2.3± 0.5
5000 ppm	10	2.4± 0.2
10000 ppm	9	2.1± 0.6
20000 ppm	10	2.3± 0.5
40000 ppm	10	2.7± 0.8

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

STUDY NO. : 0572
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	2.13±	1.03	0±	1	17±	6	1±	1	0±	0	2±	1	80±	7	0±	0
2500 ppm	10	1.69±	0.78	0±	0	14±	5	1±	1	0±	0	1±	1	83±	6	0±	0
5000 ppm	10	1.59±	0.78	0±	1	13±	5	2±	1	0±	0	1±	1	84±	5	0±	0
10000 ppm	9	1.39±	0.70	1±	1	13±	7	1±	1	0±	0	1±	1	84±	7	0±	0
20000 ppm	10	1.36±	0.71	0±	0	12±	4	2±	1	0±	0	2±	1	84±	5	0±	0
40000 ppm	10	1.32±	0.71	0±	1	16±	3	2±	2	0±	0	2±	1	80±	4	0±	0

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

APPENDIX H 1

BIOCHEMISTRY : MALE

STUDY NO. : 0572
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	5.2± 0.2	2.9± 0.2	1.3± 0.1	0.15± 0.03	194± 45	89± 9	33± 10
2500 ppm	10	5.1± 0.1	2.9± 0.1	1.3± 0.1	0.14± 0.02	226± 39	92± 11	41± 15
5000 ppm	10	5.2± 0.2	2.9± 0.1	1.3± 0.1	0.14± 0.01	197± 32	89± 11	36± 18
10000 ppm	10	5.3± 0.3	2.9± 0.1	1.3± 0.1	0.14± 0.02	218± 36	93± 29	32± 12
20000 ppm	10	5.0± 0.1	2.8± 0.1	1.2± 0.1	0.13± 0.01	229± 28	88± 10	40± 11
40000 ppm	10	5.2± 0.1	2.9± 0.1	1.3± 0.1	0.14± 0.01	243± 37*	85± 10	32± 11

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

STUDY NO. : 0572
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	179± 16	50± 8	16± 2	228± 72	136± 8	1± 1	66± 40
2500 ppm	10	177± 15	45± 9	15± 2	187± 27	132± 11	1± 0	50± 15
5000 ppm	10	179± 19	45± 10	15± 2	189± 24	137± 11	1± 1	55± 22
10000 ppm	10	181± 45	46± 13	16± 2	199± 46	132± 12	1± 1	56± 18
20000 ppm	10	176± 16	43± 7	15± 1	178± 27	131± 5	1± 1	57± 20
40000 ppm	10	170± 15	40± 6	14± 2	180± 28	145± 12	1± 0	68± 36

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

STUDY NO. : 0572
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 NITOROGEN mg/dℓ	SODIUM mEq/ℓ	POTASSIUM mEq/ℓ	CHLORIDE mEq/ℓ	CALCIUM mg/dℓ	INORGANIC PHOSPHORUS mg/dℓ
Control	10	26.7± 3.6	151± 2	4.4± 0.3	120± 2	8.6± 0.4	6.3± 0.9
2500 ppm	10	24.0± 3.6	151± 1	4.4± 0.3	120± 2	8.6± 0.2	6.4± 0.6
5000 ppm	10	27.5± 5.8	152± 1	4.5± 0.3	121± 1	8.7± 0.3	6.3± 0.8
10000 ppm	10	26.1± 4.6	150± 2	4.4± 0.3	119± 4	8.8± 0.5	5.7± 1.1
20000 ppm	10	23.5± 4.7	151± 1	4.5± 0.3	120± 2	8.6± 0.2	6.0± 1.0
40000 ppm	10	23.8± 3.3	150± 1	4.5± 0.4	119± 2	8.7± 0.3	5.8± 1.0

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

APPENDIX H 2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0572
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± 0.2	3.2± 0.1	1.6± 0.2	0.13± 0.01	157± 28	71± 9	18± 7
2500 ppm	10	5.3± 0.3	3.2± 0.1	1.6± 0.1	0.13± 0.02	164± 24	74± 10	20± 7
5000 ppm	10	5.2± 0.2	3.2± 0.1	1.7± 0.1	0.13± 0.01	165± 20	71± 10	13± 4
10000 ppm	10	5.2± 0.2	3.2± 0.1	1.6± 0.1	0.12± 0.01	173± 22	74± 10	18± 6
20000 ppm	10	5.2± 0.1	3.2± 0.1	1.6± 0.1	0.13± 0.01	181± 30	72± 9	17± 4
40000 ppm	10	5.1± 0.1	3.1± 0.1	1.6± 0.1	0.12± 0.01	182± 37	77± 17	23± 14

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

STUDY NO. : 0572
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	139± 14	51± 7	19± 3	189± 33	194± 35	1± 0	86± 57
2500 ppm	10	146± 17	51± 8	17± 3	196± 59	206± 16	1± 1	78± 53
5000 ppm	10	136± 13	49± 11	17± 3	175± 35	210± 16	1± 0	60± 20
10000 ppm	10	146± 18	53± 14	19± 5	201± 73	204± 16	1± 1	89± 91
20000 ppm	10	144± 16	51± 14	16± 2	176± 34	197± 17	1± 0	89± 71
40000 ppm	10	152± 29	44± 7	16± 3	167± 31	187± 29	1± 0	66± 23

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

STUDY NO. : 0572
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	20.1± 2.8	150± 1	4.5± 0.1	120± 2	8.6± 0.3	5.6± 0.8
2500 ppm	10	20.6± 2.9	151± 1	4.5± 0.3	121± 2	8.6± 0.1	5.8± 0.7
5000 ppm	10	20.2± 2.0	151± 2	4.5± 0.2	121± 2	8.5± 0.2	5.5± 0.8
10000 ppm	10	19.1± 3.3	150± 2	4.5± 0.3	120± 2	8.5± 0.2	5.8± 0.7
20000 ppm	10	18.0± 2.4	152± 1	4.3± 0.2	121± 2	8.6± 0.2	5.6± 1.0
40000 ppm	10	16.3± 3.4*	151± 2	4.4± 0.2	122± 2	8.5± 0.2	5.7± 1.1

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

APPENDIX I 1

URINALYSIS : MALE

STUDY NO. : 0572 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	1	6	3		0	0	4	6	0	0		10	0	0	0	0	0		1	3	4	2	0	0		10	0	0	0	0	
2500 ppm	10	0	0	0	0	1	8	1		0	0	4	6	0	0		10	0	0	0	0	0		0	4	6	0	0	0		10	0	0	0	0	
5000 ppm	10	0	0	0	0	0	9	1		0	0	6	3	1	0		10	0	0	0	0	0		0	4	6	0	0	0		10	0	0	0	0	
10000 ppm	10	0	0	0	1	2	7	0		0	1	4	4	1	0		10	0	0	0	0	0		0	2	7	1	0	0		10	0	0	0	0	
20000 ppm	10	0	0	0	0	2	8	0		0	0	1	9	0	0		10	0	0	0	0	0		0	0	8	2	0	0		10	0	0	0	0	
40000 ppm	10	0	0	1	0	2	7	0		0	0	1	8	1	0		10	0	0	0	0	0		0	0	5	5	0	0		10	0	0	0	0	

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

Group Name	NO. of Animals	Urobilinogen ±	+	2+	3+	4+	CHI
Control	10	10	0	0	0	0	
2500 ppm	10	10	0	0	0	0	
5000 ppm	10	10	0	0	0	0	
10000 ppm	10	10	0	0	0	0	
20000 ppm	10	10	0	0	0	0	
40000 ppm	10	10	0	0	0	0	

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

APPENDIX I 2

URINALYSIS : FEMALE

STUDY NO. : 0572 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	2	4		0	0	8	2	0	0		10	0	0	0	0	0		3	3	3	1	0	0		10	0	0	0	0	
2500 ppm	10	0	0	0	1	5	4	0		0	0	7	3	0	0		10	0	0	0	0	0		1	5	3	1	0	0		10	0	0	0	0	
5000 ppm	10	0	0	3	1	4	2	0		0	0	8	2	0	0		10	0	0	0	0	0		4	2	4	0	0	0		10	0	0	0	0	
10000 ppm	10	0	0	1	1	4	4	0		0	0	7	3	0	0		10	0	0	0	0	0		0	6	3	1	0	0		10	0	0	0	0	
20000 ppm	10	0	0	1	4	1	2	2		0	0	4	6	0	0		10	0	0	0	0	0		1	4	4	1	0	0		10	0	0	0	0	
40000 ppm	10	0	0	3	2	4	1	0		0	0	3	7	0	0	*	10	0	0	0	0	0		0	0	9	1	0	0	*	10	0	0	0	0	

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

STUDY NO. : 0572 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	
2500 ppm	10	10	0	0	0	0	
5000 ppm	10	10	0	0	0	0	
10000 ppm	10	10	0	0	0	0	
20000 ppm	10	10	0	0	0	0	
40000 ppm	10	10	0	0	0	0	

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

APPENDIX J 1

GROSS FINDINGS : MALE

STUDY NO. : 0572
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / NO. of Animals	Control 10 (%)	2500 ppm 10 (%)	5000 ppm 10 (%)	10000 ppm 10 (%)
spleen	black zone		0 (0)	0 (0)	0 (0)	0 (0)
kidney	white zone		0 (0)	0 (0)	0 (0)	1 (10)
	hydronephrosis		1 (10)	1 (10)	1 (10)	2 (20)

Organ	Findings	Group Name NO. of Animals	20000 ppm 10 (%)	40000 ppm 10 (%)
spleen	black zone		1 (10)	1 (10)
kidney	white zone		0 (0)	0 (0)
	hydronephrosis		1 (10)	1 (10)

APPENDIX J 2

GROSS FINDINGS : FEMALE

Organ	Findings	Group Name / NO. of Animals	Control 10 (%)	2500 ppm 10 (%)	5000 ppm 10 (%)	10000 ppm 10 (%)
spleen	black zone		1 (10)	1 (10)	0 (0)	0 (0)

Organ	Findings	Group Name	20000 ppm	40000 ppm
		NO. of Animals	10 (%)	10 (%)
spleen	black zone		2 (20)	1 (10)

APPENDIX K 1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0572
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	29.5± 1.7	0.033± 0.002	0.012± 0.002	0.225± 0.029	0.160± 0.013	0.149± 0.008
2500 ppm	10	30.7± 1.3	0.034± 0.003	0.012± 0.002	0.216± 0.027	0.165± 0.009	0.146± 0.006
5000 ppm	10	30.0± 1.6	0.032± 0.004	0.013± 0.003	0.225± 0.042	0.163± 0.011	0.146± 0.011
10000 ppm	10	29.6± 2.0	0.033± 0.004	0.012± 0.003	0.234± 0.021	0.163± 0.011	0.150± 0.009
20000 ppm	10	29.7± 1.4	0.033± 0.003	0.013± 0.003	0.228± 0.022	0.158± 0.010	0.145± 0.011
40000 ppm	10	28.4± 1.9	0.033± 0.004	0.012± 0.002	0.227± 0.018	0.158± 0.014	0.140± 0.007

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

STUDY NO. : 0572
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	0.508± 0.198	0.054± 0.010	1.130± 0.035	0.432± 0.011
2500 ppm	10	0.490± 0.133	0.052± 0.007	1.137± 0.050	0.436± 0.010
5000 ppm	10	0.641± 0.604	0.054± 0.010	1.138± 0.070	0.437± 0.015
10000 ppm	10	0.689± 0.490	0.058± 0.016	1.135± 0.065	0.431± 0.012
20000 ppm	10	0.506± 0.140	0.058± 0.011	1.175± 0.063	0.431± 0.011
40000 ppm	10	0.467± 0.029	0.052± 0.008	1.131± 0.077	0.431± 0.016

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

APPENDIX K 2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0572
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	21.0± 1.9	0.039± 0.011	0.015± 0.002	0.030± 0.005	0.128± 0.007	0.136± 0.011
2500 ppm	10	21.4± 0.9	0.039± 0.007	0.015± 0.002	0.032± 0.004	0.128± 0.007	0.136± 0.006
5000 ppm	10	21.0± 0.6	0.041± 0.005	0.015± 0.002	0.029± 0.002	0.124± 0.007	0.135± 0.006
10000 ppm	10	21.2± 0.8	0.039± 0.006	0.015± 0.003	0.029± 0.004	0.128± 0.012	0.136± 0.010
20000 ppm	10	21.3± 1.0	0.038± 0.004	0.015± 0.002	0.032± 0.005	0.131± 0.006	0.138± 0.009
40000 ppm	10	21.9± 0.9	0.038± 0.005	0.014± 0.002	0.030± 0.004	0.129± 0.009	0.136± 0.010

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

STUDY NO. : 0572
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	0.290± 0.013	0.063± 0.021	0.872± 0.058	0.440± 0.011
2500 ppm	10	0.309± 0.008*	0.060± 0.005	0.898± 0.044	0.448± 0.017
5000 ppm	10	0.293± 0.014	0.057± 0.005	0.846± 0.040	0.443± 0.016
10000 ppm	10	0.298± 0.018	0.059± 0.004	0.874± 0.060	0.442± 0.015
20000 ppm	10	0.306± 0.011	0.056± 0.006	0.874± 0.062	0.435± 0.012
40000 ppm	10	0.322± 0.017**	0.063± 0.007	0.938± 0.085	0.433± 0.013

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

APPENDIX L 1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0572
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	29.5± 1.7	0.114± 0.010	0.040± 0.006	0.763± 0.096	0.545± 0.049	0.505± 0.035
2500 ppm	10	30.7± 1.3	0.112± 0.008	0.040± 0.008	0.705± 0.089	0.537± 0.036	0.474± 0.021
5000 ppm	10	30.0± 1.6	0.108± 0.012	0.042± 0.009	0.749± 0.141	0.543± 0.039	0.487± 0.049
10000 ppm	10	29.6± 2.0	0.111± 0.013	0.042± 0.008	0.794± 0.079	0.553± 0.036	0.508± 0.053
20000 ppm	10	29.7± 1.4	0.110± 0.010	0.043± 0.009	0.767± 0.074	0.532± 0.024	0.487± 0.026
40000 ppm	10	28.4± 1.9	0.116± 0.011	0.043± 0.009	0.804± 0.084	0.557± 0.049	0.494± 0.038

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

STUDY NO. : 0572
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	1.720± 0.654	0.182± 0.032	3.837± 0.165	1.468± 0.076
2500 ppm	10	1.600± 0.458	0.169± 0.023	3.701± 0.082	1.423± 0.078
5000 ppm	10	2.151± 2.065	0.179± 0.033	3.797± 0.224	1.459± 0.084
10000 ppm	10	2.339± 1.661	0.197± 0.051	3.840± 0.139	1.462± 0.101
20000 ppm	10	1.695± 0.414	0.194± 0.031	3.953± 0.143	1.451± 0.069
40000 ppm	10	1.651± 0.142	0.186± 0.032	3.988± 0.177	1.524± 0.097

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

APPENDIX L 2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0572
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	21.0± 1.9	0.184± 0.043	0.072± 0.012	0.141± 0.020	0.611± 0.036	0.653± 0.051
2500 ppm	10	21.4± 0.9	0.181± 0.028	0.072± 0.008	0.148± 0.015	0.598± 0.030	0.637± 0.041
5000 ppm	10	21.0± 0.6	0.195± 0.024	0.071± 0.009	0.137± 0.013	0.590± 0.042	0.644± 0.031
10000 ppm	10	21.2± 0.8	0.182± 0.027	0.069± 0.012	0.137± 0.019	0.606± 0.059	0.643± 0.051
20000 ppm	10	21.3± 1.0	0.177± 0.020	0.070± 0.009	0.149± 0.022	0.617± 0.040	0.647± 0.030
40000 ppm	10	21.9± 0.9	0.173± 0.020	0.065± 0.010	0.135± 0.018	0.588± 0.038	0.622± 0.040

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

STUDY NO. : 0572
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	1.394± 0.117	0.307± 0.142	4.193± 0.517	2.114± 0.174
2500 ppm	10	1.446± 0.064	0.282± 0.022	4.201± 0.198	2.097± 0.108
5000 ppm	10	1.392± 0.071	0.272± 0.021	4.023± 0.213	2.107± 0.104
10000 ppm	10	1.410± 0.105	0.276± 0.015	4.125± 0.259	2.089± 0.083
20000 ppm	10	1.436± 0.052	0.265± 0.025	4.100± 0.173	2.047± 0.094
40000 ppm	10	1.470± 0.069	0.286± 0.025	4.270± 0.240	1.975± 0.090

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

APPENDIX M 1

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : MALE

Organ	Findings	Group Name	Control				2500 ppm				5000 ppm				10000 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}																		
spleen			<10>				<10>				<10>				<10>			
	deposit of melanin		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney			<10>				<10>				<10>				<10>			
	inflammatory polyp		0	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)
	hydronephrosis		0	0	1	0	0	0	1	0	0	0	1	0	0	0	2	0
			(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(0)
	degeneration: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)
urin bladd			<10>				<10>				<10>				<10>			
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)
{Endocrine system}																		
adrenal			<10>				<10>				<10>				<10>			
	spindle-cell hyperplasia		1	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(10)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b 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	20000 ppm				40000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}										
spleen			<10>				<10>			
	deposit of melanin		1	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
{Urinary system}										
kidney			<10>				<10>			
	inflammatory polyp		0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)
	hydronephrosis		0	0	1	0	0	0	1	0
			(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)
	degeneration:proximal tubule		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
urin bladd			<10>				<10>			
	inflammatory infiltration		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Endocrine system}										
adrenal			<10>				<10>			
	spindle-cell hyperplasia		2	0	0	0	2	0	0	0
			(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)

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

APPENDIX M 2

HISTOPATHOLOGICAL FINDINGS :

NON-NEOPLASTIC LESIONS : FEMALE

Organ	Findings	Group Name	Control				2500 ppm				5000 ppm				10000 ppm			
		No. of Animals on Study	10				10				10				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<10>				<10>				<10>				<10>			
	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}																		
spleen			<10>				<10>				<10>				<10>			
	deposit of melanin		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis		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)
{Circulatory system}																		
heart			<10>				<10>				<10>				<10>			
	inflammatory infiltration		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)
{Digestive system}																		
liver			<10>				<10>				<10>				<10>			
	granulation		2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)

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

Organ	Findings	Group Name	20000 ppm				40000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}										
nasal cavit			<10>				<10>			
	eosinophilic change:respiratory epithelium		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}										
spleen			<10>				<10>			
	deposit of melanin		2	0	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	extramedullary hematopoiesis		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Circulatory system}										
heart			<10>				<10>			
	inflammatory infiltration		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}										
liver			<10>				<10>			
	granulation		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	Control				2500 ppm				5000 ppm				10000 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal			<10>				<10>				<10>				<10>			
	spindle-cell hyperplasia		9	0	0	0	10	0	0	0	10	0	0	0	9	0	0	0
			(90)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(90)	(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	20000 ppm				40000 ppm			
		No. of Animals on Study	10				10			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}										
adrenal			<10>				<10>			
	spindle-cell hyperplasia		8	0	0	0	8	0	0	0
			(80)	(0)	(0)	(0)	(80)	(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

APPENDIX N

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 13-WEEK DRINKING WATER STUDY OF 2-METHYL-1-PROPANOL

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 13- WEEK DRINKING WATER STUDY OF 2-METHYL-1-PROPANOL

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.)