

2-フェノキシエタノールのマウスを用いた経口投与
による2週間毒性試験（混水試験）報告書

試験番号： 0454

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APPENDICES

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APPENDIX A 1

CLINICAL OBSERVATION : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day			
		1-3	1-7	2-3	2-7
PILOERECTION	Control	0	0	0	0
	1600ppm	0	0	0	0
	4000ppm	0	0	0	0
	7000ppm	0	0	0	0
	10000ppm	0	0	0	0
	25000ppm	0	0	1	1
OLIGO-STOOL	Control	0	0	0	0
	1600ppm	0	0	0	0
	4000ppm	0	0	0	0
	7000ppm	0	0	0	0
	10000ppm	0	0	0	0
	25000ppm	2	2	2	1

(HAN190)

BATS 4

APPENDIX A 2

CLINICAL OBSERVATION : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BD71
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day			
		1-3	1-7	2-3	2-7
OLIGO-STOOL	Control	0	0	0	0
	1600ppm	1	0	1	0
	4000ppm	0	0	0	0
	7000ppm	0	0	0	0
	10000ppm	0	0	0	0
	25000ppm	4	5	5	2

(HAN190)

BAIS 4

APPENDIX B 1

BODY WEIGHT CHANGES : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day				
	0-0	1-3	1-7	2-3	2-7
Control	22.8± 0.7	23.5± 0.9	24.1± 0.8	25.1± 1.0	25.6± 1.0
1600ppm	22.8± 0.8	23.2± 0.4	23.8± 0.6	24.9± 0.6	25.5± 0.7
4000ppm	22.8± 0.8	23.0± 0.7	23.3± 0.8	24.6± 1.0	25.0± 1.0
7000ppm	22.8± 0.7	23.0± 0.8	23.9± 0.8	24.7± 1.0	25.4± 1.0
10000ppm	22.8± 0.7	22.3± 1.3	23.0± 1.1	23.6± 1.7	24.0± 1.2
25000ppm	22.7± 0.9	19.2± 1.7**	19.6± 4.0**	21.1± 3.5*	21.4± 4.8*

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

Test of Dunnett

APPENDIX B 2

BODY WEIGHT CHANGES : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week-day				
	0-0	1-3	1-7	2-3	2-7
Control	18.8± 0.8	18.7± 0.5	18.9± 0.7	19.8± 0.5	20.6± 0.6
1600ppm	18.8± 0.9	19.0± 1.4	19.1± 0.7	19.9± 0.8	20.9± 1.0
4000ppm	18.8± 0.9	19.0± 0.7	19.2± 0.9	19.9± 0.6	20.5± 0.6
7000ppm	18.8± 0.9	19.2± 0.9	19.6± 1.0	20.5± 0.6	20.7± 0.8
10000ppm	18.8± 1.0	18.6± 1.1	19.4± 1.4	20.2± 1.0	20.4± 0.9
25000ppm	18.9± 1.0	15.7± 0.3**	16.4± 0.7**	17.0± 0.9**	18.5± 0.7**

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

Test of Dunnett

APPENDIX C 1

WATER CONSUMPTION CHANGES : SUMMARY, MOUSE : MALE
(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)			
	1-3(3)	1-7(4)	2-3(3)	2-7(4)
Control	4.4± 0.4	4.0± 0.2	4.0± 0.4	4.1± 0.4
1600ppm	4.8± 0.8	4.7± 0.7	4.5± 0.6	4.8± 0.7
4000ppm	4.3± 0.5	4.3± 0.8	4.7± 1.6	4.2± 0.5
7000ppm	3.9± 0.8	4.3± 1.2	4.1± 1.2	4.5± 1.2
10000ppm	2.7± 0.4**	3.0± 0.5	3.0± 0.7	3.2± 0.5
25000ppm	1.0± 0.6**	2.3± 0.7**	2.3± 0.4*	2.3± 0.8**

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

Test of Dunnett

APPENDIX C 2

WATER CONSUMPTION CHANGES : SUMMARY, MOUSE : FEMALE
(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)			
	1-3(3)	1-7(4)	2-3(3)	2-7(4)
Control	4.1± 0.4	4.0± 0.4	4.3± 0.7	4.5± 0.6
1600ppm	3.9± 0.4	4.4± 1.0	4.5± 0.6	4.9± 0.7
4000ppm	3.7± 0.2	3.9± 0.6	3.8± 0.3	4.4± 0.5
7000ppm	3.1± 0.3**	3.0± 0.2	3.2± 0.1	3.7± 0.2*
10000ppm	2.6± 0.4**	2.9± 0.2	3.0± 0.4	3.3± 0.3**
25000ppm	1.1± 0.3**	2.1± 0.5**	1.6± 0.2**	2.3± 0.2**

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

Test of Dunnett

APPENDIX D 1

FOOD CONSUMPTION CHANGES : SUMMARY, MOUSE : MALE
(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)			
	1-3(3)	1-7(4)	2-3(3)	2-7(4)
Control	3.9± 0.1	4.0± 0.1	3.7± 0.2	4.1± 0.2
1600ppm	3.9± 0.2	4.1± 0.1	3.9± 0.2	4.1± 0.2
4000ppm	3.7± 0.4	4.0± 0.2	3.7± 0.4	4.1± 0.3
7000ppm	3.9± 0.3	4.1± 0.3	3.9± 0.3	4.1± 0.4
10000ppm	3.0± 0.4**	3.8± 0.3	3.5± 0.3	3.8± 0.2
25000ppm	2.1± 0.4**	3.0± 1.0*	3.3± 0.7	3.4± 0.8

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

Test of Dunnett

APPENDIX D 2

FOOD CONSUMPTION CHANGES : SUMMARY, MOUSE : FEMALE
(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day(effective)			
	1-3(3)	1-7(4)	2-3(3)	2-7(4)
Control	3.0± 0.3	3.3± 0.1	3.2± 0.3	3.5± 0.3
1600ppm	3.3± 0.4	3.6± 0.3	3.2± 0.1	4.0± 0.7
4000ppm	3.1± 0.2	3.4± 0.3	3.0± 0.2	3.5± 0.2
7000ppm	3.2± 0.3	3.3± 0.1	3.1± 0.2	3.6± 0.2
10000ppm	2.6± 0.3	3.4± 0.3	3.0± 0.3	3.4± 0.3
25000ppm	1.8± 0.3**	2.6± 0.5**	2.4± 0.2**	3.2± 0.2

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

Test of Dunnett

APPENDIX E 1

CHEMICAL INTAKE CHANGES : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
UNIT : g/kg/day
REPORT TYPE : A1 2
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

Group Name	Administration (Week-Day)			
	1-3	1-7	2-3	2-7
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
1600ppm	0.331± 0.057	0.315± 0.051	0.292± 0.038	0.302± 0.045
4000ppm	0.744± 0.076	0.739± 0.130	0.769± 0.243	0.681± 0.075
7000ppm	1.199± 0.211	1.247± 0.338	1.165± 0.305	1.225± 0.290
10000ppm	1.186± 0.129	1.283± 0.163	1.247± 0.215	1.345± 0.192
25000ppm	1.263± 0.686	2.911± 0.361	2.774± 0.295	2.578± 0.500

APPENDIX E 2

CHEMICAL INTAKE CHANGES : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g/kg/day
 REPORT TYPE : A1 2
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration (Week-Day)			
	1-3	1-7	2-3	2-7
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
1600ppm	0.332± 0.025	0.373± 0.088	0.361± 0.050	0.372± 0.043
4000ppm	0.784± 0.031	0.806± 0.098	0.758± 0.059	0.857± 0.079
7000ppm	1.119± 0.045	1.072± 0.045	1.089± 0.067	1.249± 0.091
10000ppm	1.372± 0.144	1.510± 0.121	1.469± 0.232	1.633± 0.205
25000ppm	1.720± 0.535	3.218± 0.709	2.295± 0.275	3.048± 0.250

APPENDIX F 1

HEMATOLOGY : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μℓ		HEMOGLOBIN g/dℓ		HEMATOCRIT %		MCV fℓ		MCH p g		MCHC g/dℓ		PLATELET 10 ³ /μℓ	
Control	5	10.28±	0.40	15.5±	0.6	48.0±	1.5	46.7±	0.5	15.1±	0.1	32.4±	0.4	1256±	47
1600ppm	5	10.28±	0.34	15.5±	0.5	48.0±	1.3	46.7±	0.3	15.1±	0.1	32.4±	0.2	1206±	83
4000ppm	5	10.22±	0.33	15.4±	0.5	47.5±	1.2	46.5±	0.4	15.1±	0.1	32.5±	0.2	1237±	109
7000ppm	5	10.08±	0.30	15.2±	0.5	46.8±	1.4	46.5±	0.2	15.1±	0.1	32.6±	0.2	1113±	202
10000ppm	5	10.21±	0.39	15.3±	0.7	47.2±	1.5	46.2±	0.5	15.0±	0.3	32.4±	0.6	1201±	51
25000ppm	5	10.50±	0.58	16.0±	0.9	49.4±	2.9	47.0±	0.7	15.2±	0.1	32.3±	0.4	1265±	95

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

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STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	WBC		Differential		WBC (%)		EOSINO	BASO	MONO	LYMPHO	OTHER					
		1	0 ³ /μl	N-BAND		N-SEG											
Control	5	2.36±	0.50	0±	0	10±	1	0±	0	0±	0	3±	1	87±	2	0±	0
1600ppm	5	2.07±	0.97	1±	1	9±	2	1±	1	0±	0	2±	2	87±	2	0±	0
4000ppm	5	2.28±	1.14	0±	1	11±	3	1±	1	0±	0	2±	1	85±	4	0±	0
7000ppm	5	2.23±	0.99	1±	1	10±	3	1±	1	0±	0	2±	1	86±	4	0±	0
10000ppm	5	2.46±	0.64	0±	0	9±	2	1±	1	0±	0	2±	2	88±	2	0±	0
25000ppm	5	2.52±	1.41	0±	0	13±	8	1±	2	0±	0	2±	1	83±	6	0±	0

Significant difference ; * : P ≤ 0.05

** : P ≤ 0.01

Test of Dunnett

APPENDIX F 2

HEMATOLOGY : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μℓ		HEMOGLOBIN g/dℓ		HEMATOCRIT %		MCV f ℓ		MCH p g		MCHC g/dℓ		PLATELET 10 ³ /μℓ	
Control	5	9.88±	0.33	15.0±	0.4	45.4±	0.9	45.9±	0.8	15.2±	0.2	33.1±	0.5	1069±	65
1600ppm	5	9.82±	0.34	15.0±	0.5	45.9±	1.3	46.7±	0.7	15.3±	0.2	32.8±	0.3	1049±	31
4000ppm	5	9.81±	0.36	14.9±	0.7	45.3±	1.9	46.2±	0.4	15.2±	0.2	32.8±	0.4	1046±	36
7000ppm	4	9.85±	0.43	15.0±	0.4	45.4±	1.3	46.1±	0.7	15.2±	0.3	32.9±	0.1	976±	125
10000ppm	5	9.62±	0.26	14.7±	0.5	44.6±	1.2	46.3±	0.2	15.2±	0.2	33.0±	0.3	1028±	34
25000ppm	4	9.93±	0.36	15.2±	0.6	47.1±	0.8	47.5±	1.3*	15.2±	0.1	32.0±	1.0	1111±	86

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

Group Name	NO. of Animals	WBC		Differential		WBC (%)		EOSINO	BASO	MONO	LYMPHO	OTHER					
		$10^3/\mu\ell$		N-BAND		N-SEG											
Control	5	2.52±	0.95	1±	1	14±	9	2±	1	0±	0	3±	2	81±	9	0±	0
1600ppm	5	2.36±	0.91	0±	0	11±	4	3±	2	0±	0	3±	1	83±	5	0±	0
4000ppm	5	2.92±	2.07	1±	1	9±	2	2±	1	0±	0	3±	1	86±	2	0±	0
7000ppm	4	2.82±	0.92	2±	1	9±	2	3±	1	0±	0	3±	1	84±	1	0±	0
10000ppm	5	2.68±	0.93	0±	0	9±	2	4±	2	0±	0	2±	1	86±	2	0±	0
25000ppm	4	3.44±	1.35	1±	1	15±	5	1±	1	0±	0	2±	1	81±	6	0±	0

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

APPENDIX G 1

BIOCHEMISTRY : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		PHOSPHOLIPID mg/dl	
Control	5	5.1±	0.1	3.1±	0.1	1.5±	0.1	0.16±	0.01	320±	22	94±	9	209±	14
1600ppm	5	5.0±	0.1	2.9±	0.2	1.4±	0.2	0.16±	0.03	307±	27	93±	6	206±	10
4000ppm	5	5.0±	0.1	3.0±	0.1	1.6±	0.1	0.14±	0.01	315±	27	89±	2	194±	4
7000ppm	5	4.8±	0.1	2.8±	0.2	1.4±	0.2	0.16±	0.02	307±	29	85±	8	192±	17
10000ppm	5	4.9±	0.1	3.0±	0.1	1.6±	0.1	0.14±	0.01	318±	29	84±	5	181±	8*
25000ppm	5	4.9±	0.2	3.2±	0.4	2.0±	0.5	0.18±	0.04	285±	52	95±	15	193±	23

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	GOT		GPT		LDH		G-GTP		CPK		UREA NITROGEN		SODIUM	
		I U/ℓ		I U/ℓ		I U/ℓ		I U/ℓ		I U/ℓ		mg/dℓ		mEq/ℓ	
Control	5	31±	3	23±	3	203±	43	2±	1	82±	24	22.9±	6.7	150±	1
1600ppm	5	33±	5	25±	6	218±	83	2±	1	69±	18	25.5±	6.7	149±	1
4000ppm	5	30±	0	22±	2	191±	42	1±	1	94±	86	24.1±	7.2	150±	1
7000ppm	5	34±	4	24±	3	225±	37	2±	1	105±	44	25.7±	5.2	149±	1
10000ppm	5	31±	2	24±	4	200±	40	2±	0	73±	18	23.3±	6.3	149±	2
25000ppm	5	43±	17	26±	2	302±	155	2±	1	78±	19	30.0±	8.2	152±	6

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (2W)

PAGE : 3

Group Name	NO. of Animals	POTASSIUM mEq/ℓ		CHLORIDE mEq/ℓ		CALCIUM mg/dℓ		INORGANIC PHOSPHORUS mg/dℓ	
Control	5	4.5±	0.3	117±	2	9.3±	0.1	7.7±	1.3
1600ppm	5	4.7±	0.3	116±	2	9.2±	0.2	7.7±	0.7
4000ppm	5	4.5±	0.5	118±	1	9.1±	0.2	7.5±	1.4
7000ppm	5	4.8±	0.5	118±	3	9.2±	0.2	8.1±	1.6
10000ppm	5	4.8±	0.2	115±	1	9.1±	0.2	8.0±	1.4
25000ppm	5	5.0±	0.3	118±	6	9.2±	0.2	8.0±	1.4

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

Test of Dunnett

APPENDIX G 2

BIOCHEMISTRY : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	TOTAL PROTEIN g/dℓ		ALBUMIN g/dℓ		A/G RATIO		T-BILIRUBIN mg/dℓ		GLUCOSE mg/dℓ		T-CHOLESTEROL mg/dℓ		PHOSPHOLIPID mg/dℓ	
Control	5	4.8±	0.1	3.3±	0.1	2.2±	0.2	0.16±	0.04	279±	15	84±	11	175±	15
1600ppm	5	4.9±	0.3	3.3±	0.2	2.1±	0.4	0.17±	0.05	272±	14	84±	10	179±	18
4000ppm	5	4.8±	0.3	3.3±	0.1	2.3±	0.5	0.17±	0.03	277±	16	84±	7	172±	14
7000ppm	4	4.8±	0.2	3.2±	0.3	2.0±	0.5	0.16±	0.02	275±	16	88±	14	175±	19
10000ppm	5	4.8±	0.1	3.1±	0.1	1.9±	0.1	0.14±	0.02	275±	20	78±	8	158±	13
25000ppm	4	4.8±	0.2	3.2±	0.3	2.1±	0.4	0.15±	0.03	266±	9	96±	5	179±	13

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	GOT		GPT		LDH		G-GTP		CPK		UREA NITROGEN		SODIUM	
		I U/ℓ		I U/ℓ		I U/ℓ		I U/ℓ		I U/ℓ		mg/dℓ		mEq/ℓ	
Control	5	38±	6	23±	3	248±	98	2±	1	85±	40	23.7±	4.7	149±	1
1600ppm	5	36±	5	23±	4	234±	72	2±	1	88±	20	23.0±	4.3	149±	3
4000ppm	5	36±	3	23±	3	226±	51	2±	1	90±	28	25.4±	8.7	148±	2
7000ppm	4	40±	9	28±	5	255±	89	2±	1	83±	30	22.6±	6.4	147±	2
10000ppm	5	38±	5	23±	3	201±	24	2±	1	56±	15	22.2±	3.3	148±	1
25000ppm	4	44±	5	27±	4	268±	60	3±	1	65±	28	36.2±	2.7*	152±	4

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (2W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	POTASSIUM mEq/ℓ		CHLORIDE mEq/ℓ		CALCIUM mg/dℓ		INORGANIC PHOSPHORUS mg/dℓ	
Control	5	4.6±	0.2	119±	2	9.1±	0.2	7.6±	1.7
1600ppm	5	4.8±	0.7	119±	3	9.2±	0.2	7.7±	1.6
4000ppm	5	4.5±	0.4	118±	4	9.2±	0.3	8.0±	1.3
7000ppm	4	5.0±	0.3	118±	3	9.1±	0.2	7.5±	0.9
10000ppm	5	4.5±	0.6	117±	2	9.0±	0.2	6.7±	1.4
25000ppm	4	4.6±	0.3	119±	3	9.5±	0.3	6.4±	1.3

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

Test of Dunnett

APPENDIX H 1

URINALYSIS : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	pH							Protein					Glucose					Ketone body					Occult blood								
		5.0	6.0	6.5	7.0	7.5	8.0	8.5	-	±	+	2+	3+	4+	-	±	+	2+	3+	4+	-	±	+	2+	3+	4+						
Control	5	0	0	0	0	0	4	1	0	0	4	1	0	0	5	0	0	0	0	0	0	0	4	1	0	0	0	5	0	0	0	0
1600ppm	5	0	0	0	0	0	4	1	0	0	5	0	0	0	5	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	0	0
4000ppm	5	0	0	0	0	0	4	1	0	0	4	1	0	0	5	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0
7000ppm	5	0	0	0	0	1	3	1	0	0	1	4	0	0	5	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0
10000ppm	5	0	0	0	0	0	5	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	2	2	1	0	0	5	0	0	0	0
25000ppm	5	0	0	3	1	1	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	2	3	0	0	0	5	0	0	0	0

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Urobilinogen ± + 2+ 3+ 4+
Control	5	5 0 0 0 0
1600ppm	5	5 0 0 0 0
4000ppm	5	5 0 0 0 0
7000ppm	5	5 0 0 0 0
10000ppm	5	5 0 0 0 0
25000ppm	5	5 0 0 0 0

APPENDIX H 2

URINALYSIS : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	pH							Protein					Glucose					Ketone body					Occult blood								
		5.0	6.0	6.5	7.0	7.5	8.0	8.5	-	±	+	2+	3+	4+	-	±	+	2+	3+	4+	-	±	+	2+	3+	4+						
Control	5	0	0	1	0	1	3	0	0	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	
1600ppm	5	0	0	0	0	3	1	1	0	1	2	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0
4000ppm	5	0	0	0	0	1	4	0	0	1	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0
7000ppm	5	0	0	1	0	3	1	0	0	0	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0
10000ppm	5	0	0	1	1	3	0	0	0	0	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0
25000ppm	5	0	1	3	1	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDf1
MEASURE. TIME : 1
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Urobilinogen				
		±	1	2	3	4
Control	5	5	0	0	0	0
1600ppm	5	5	0	0	0	0
4000ppm	5	5	0	0	0	0
7000ppm	5	5	0	0	0	0
10000ppm	5	5	0	0	0	0
25000ppm	5	5	0	0	0	0

(ICL101)

BAIS 4

APPENDIX I 1

GROSS FINDINGS : SUMMARY, MOUSE : MALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 2W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control			
			5	1600ppm	4000ppm	7000ppm
			(%)	(%)	(%)	(%)
thymus	atrophic		0 (0)	0 (0)	0 (0)	0 (0)
spleen	black zone		1 (20)	0 (0)	0 (0)	0 (0)

(HPT080)

BAIS 4

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 2W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	10000ppm		25000ppm	
			5	(%)	5	(%)
thymus	atrophic		0	(0)	1	(20)
spleen	black zone		0	(0)	0	(0)

(HPT080)

BAIS 4

APPENDIX I 2

GROSS FINDINGS : SUMMARY, MOUSE : FEMALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDf1
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 2W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control			
			5 (%)	1600ppm 5 (%)	4000ppm 5 (%)	7000ppm 5 (%)
spleen	black zone		0 (0)	0 (0)	0 (0)	1 (20)

(HPT080)

BAIS 4

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
ALL ANIMALS (0- 2W)

PAGE : 4

Organ	Findings	Group Name	10000ppm	25000ppm
		NO. of Animals	5 (%)	5 (%)
spleen	black zone		1 (20)	0 (0)

(HPT080)

BAIS 4

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	25.6± 1.0	0.064± 0.009	0.008± 0.003	0.195± 0.015	0.144± 0.010	0.150± 0.015
1600ppm	5	25.5± 0.7	0.057± 0.009	0.008± 0.001	0.157± 0.035	0.140± 0.008	0.150± 0.009
4000ppm	5	25.0± 1.0	0.054± 0.003	0.008± 0.002	0.186± 0.017	0.142± 0.014	0.156± 0.010
7000ppm	5	25.4± 1.0	0.054± 0.011	0.009± 0.002	0.187± 0.009	0.142± 0.009	0.150± 0.016
10000ppm	5	24.0± 1.2	0.051± 0.002	0.008± 0.003	0.193± 0.024	0.127± 0.014	0.144± 0.015
25000ppm	5	21.4± 4.8*	0.040± 0.020	0.009± 0.003	0.199± 0.022	0.114± 0.022**	0.144± 0.024

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	5	0.374±	0.027	0.053±	0.005	1.422±	0.167	0.428±	0.004
1600ppm	5	0.375±	0.027	0.056±	0.004	1.421±	0.132	0.435±	0.008
4000ppm	5	0.377±	0.029	0.052±	0.006	1.362±	0.145	0.429±	0.018
7000ppm	5	0.408±	0.031	0.056±	0.006	1.435±	0.086	0.426±	0.020
10000ppm	5	0.387±	0.025	0.051±	0.005	1.314±	0.140	0.431±	0.013
25000ppm	5	0.354±	0.064	0.043±	0.019	1.162±	0.347	0.419±	0.022

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

Test of Dunnett

APPENDIX J 2

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	20.6± 0.6	0.073± 0.004	0.011± 0.002	0.023± 0.005	0.119± 0.008	0.146± 0.006
1600ppm	5	20.9± 1.0	0.075± 0.005	0.009± 0.001	0.023± 0.004	0.116± 0.008	0.138± 0.008
4000ppm	5	20.5± 0.6	0.069± 0.007	0.010± 0.002	0.028± 0.011	0.110± 0.006	0.139± 0.009
7000ppm	5	20.7± 0.8	0.073± 0.012	0.009± 0.002	0.022± 0.002	0.115± 0.005	0.143± 0.009
10000ppm	5	20.4± 0.9	0.073± 0.010	0.009± 0.001	0.021± 0.006	0.119± 0.006	0.142± 0.005
25000ppm	5	18.5± 0.7**	0.049± 0.016**	0.007± 0.002**	0.018± 0.002	0.096± 0.009**	0.133± 0.007

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

Test of Dunnett

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
Control	5	0.256±	0.012	0.055±	0.006	1.043±	0.076	0.436±	0.008
1600ppm	5	0.257±	0.010	0.061±	0.009	1.119±	0.061	0.433±	0.014
4000ppm	5	0.259±	0.012	0.058±	0.008	1.038±	0.086	0.433±	0.017
7000ppm	5	0.280±	0.006**	0.055±	0.005	1.083±	0.083	0.435±	0.012
10000ppm	5	0.281±	0.007**	0.057±	0.004	1.052±	0.055	0.434±	0.014
25000ppm	5	0.277±	0.009**	0.042±	0.008*	1.039±	0.071	0.419±	0.019

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

Test of Dunnett

APPENDIX K 1

ORGAN WEIGHT, RELATIVE : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
 SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
Control	5	25.6± 1.0	0.252± 0.037	0.031± 0.010	0.761± 0.084	0.561± 0.028	0.586± 0.051
1600ppm	5	25.5± 0.7	0.224± 0.029	0.032± 0.005	0.619± 0.144	0.547± 0.023	0.590± 0.048
4000ppm	5	25.0± 1.0	0.217± 0.006	0.032± 0.007	0.746± 0.060	0.570± 0.051	0.623± 0.022
7000ppm	5	25.4± 1.0	0.214± 0.046	0.034± 0.007	0.739± 0.024	0.560± 0.019	0.591± 0.044
10000ppm	5	24.0± 1.2	0.212± 0.016	0.033± 0.013	0.803± 0.093	0.526± 0.045	0.598± 0.041
25000ppm	5	21.4± 4.8*	0.172± 0.078	0.044± 0.010	0.969± 0.211	0.538± 0.040	0.691± 0.113

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

Test of Dunnett

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	1.459 ± 0.074	0.206 ± 0.014	5.536 ± 0.473	1.671 ± 0.080
1600ppm	5	1.471 ± 0.082	0.218 ± 0.013	5.571 ± 0.416	1.710 ± 0.048
4000ppm	5	1.506 ± 0.070	0.209 ± 0.017	5.438 ± 0.401	1.721 ± 0.124
7000ppm	5	1.608 ± 0.077*	0.220 ± 0.018	5.659 ± 0.221	1.680 ± 0.092
10000ppm	5	1.609 ± 0.057*	0.211 ± 0.019	5.460 ± 0.440	1.795 ± 0.061
25000ppm	5	1.682 ± 0.135**	0.188 ± 0.069	5.336 ± 0.632	2.062 ± 0.559*

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

Test of Dunnett

APPENDIX K 2

ORGAN WEIGHT, RELATIVE : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
 SURVIVAL ANIMALS (2W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
Control	5	20.6± 0.6	0.354± 0.029	0.053± 0.010	0.113± 0.027	0.578± 0.041	0.710± 0.026
1600ppm	5	20.9± 1.0	0.362± 0.021	0.043± 0.003	0.109± 0.021	0.556± 0.032	0.661± 0.041
4000ppm	5	20.5± 0.6	0.338± 0.045	0.047± 0.010	0.135± 0.052	0.535± 0.026	0.680± 0.055
7000ppm	5	20.7± 0.8	0.356± 0.061	0.046± 0.009	0.106± 0.014	0.556± 0.035	0.694± 0.068
10000ppm	5	20.4± 0.9	0.360± 0.058	0.046± 0.004	0.101± 0.026	0.582± 0.016	0.698± 0.037
25000ppm	5	18.5± 0.7**	0.265± 0.083	0.040± 0.008	0.097± 0.007	0.522± 0.031*	0.723± 0.058

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

Test of Dunnett

STUDY NO. : 0454
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (2W)

PAGE : 4

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	1.245 ± 0.041	0.267 ± 0.020	5.068 ± 0.284	2.118 ± 0.086
1600ppm	5	1.232 ± 0.052	0.293 ± 0.032	5.366 ± 0.383	2.076 ± 0.113
4000ppm	5	1.265 ± 0.052	0.285 ± 0.038	5.061 ± 0.347	2.115 ± 0.092
7000ppm	5	1.357 ± 0.044**	0.268 ± 0.027	5.248 ± 0.449	2.109 ± 0.077
10000ppm	5	1.380 ± 0.035**	0.278 ± 0.016	5.157 ± 0.163	2.131 ± 0.080
25000ppm	5	1.503 ± 0.071**	0.229 ± 0.045	5.635 ± 0.407	2.274 ± 0.166

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

Test of Dunnett

(HCL042)

BAIS 4

APPENDIX L 1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUSE : MALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 2W)

Organ	Findings	Group Name No. of Animals on Study Grade	Control				1600ppm				4000ppm				7000ppm			
			5				5				5				5			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)				(%)				(%)				(%)				
(Hematopoietic system)																		
thymus	atrophy		< 5>				< 5>				< 5>				< 5>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen	deposit of melanin		< 5>				< 5>				< 5>				< 5>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Digestive system)																		
liver	inflammatory cell nest		< 5>				< 5>				< 5>				< 5>			
			0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 2W)

Organ	Findings	Group Name				Group Name					
		10000ppm				25000ppm					
		No. of Animals on Study				No. of Animals on Study					
		5				5					
		Grade	1	2	3	4	Grade	1	2	3	4
			(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)
(Hematopoietic system)											
thymus	atrophy		< 5>					< 5>			
			0	0	0	0		0	0	1	0
			(0)	(0)	(0)	(0)		(0)	(0)	(20)	(0)
spleen	deposit of melanin		< 5>					< 5>			
			0	0	0	0		0	0	0	0
			(0)	(0)	(0)	(0)		(0)	(0)	(0)	(0)
(Digestive system)											
liver	inflammatory cell nest		< 5>					< 5>			
			0	0	0	0		0	0	0	0
			(0)	(0)	(0)	(0)		(0)	(0)	(0)	(0)

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

APPENDIX L 2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUSE : FEMALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 2W)

Organ	Findings	Control				1600ppm				4000ppm				7000ppm			
		No. of Animals on Study				5				5				5			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Grade		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Hematopoietic system)																	
spleen	deposit of melanin	< 5>				< 5>				< 5>				< 5>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Digestive system)																	
liver	inflammatory cell nest	< 5>				< 5>				< 5>				< 5>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0454
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0- 2W)

Organ	Findings	10000ppm				25000ppm				
		No. of Animals on Study				No. of Animals on Study				
		1	2	3	4	1	2	3	4	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Hematopoietic system)										
spleen	deposit of melanin	< 5>				< 5>				
		1	0	0	0	0	0	0	0	
		(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
(Digestive system)										
liver	inflammatory cell nest	< 5>				< 5>				
		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 : Number of animals with lesion
 (c) c : b / a * 100

APPENDIX M 1

IDENTITY OF 2-PHENOXYETHANOL
IN THE 2-WEEK DRINKING WATER STUDY

IDENTITY OF 2-PHENOXYETHANOL IN THE 2-WEEK DRINKING WATER STUDY

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

Lot No. : WAR5157

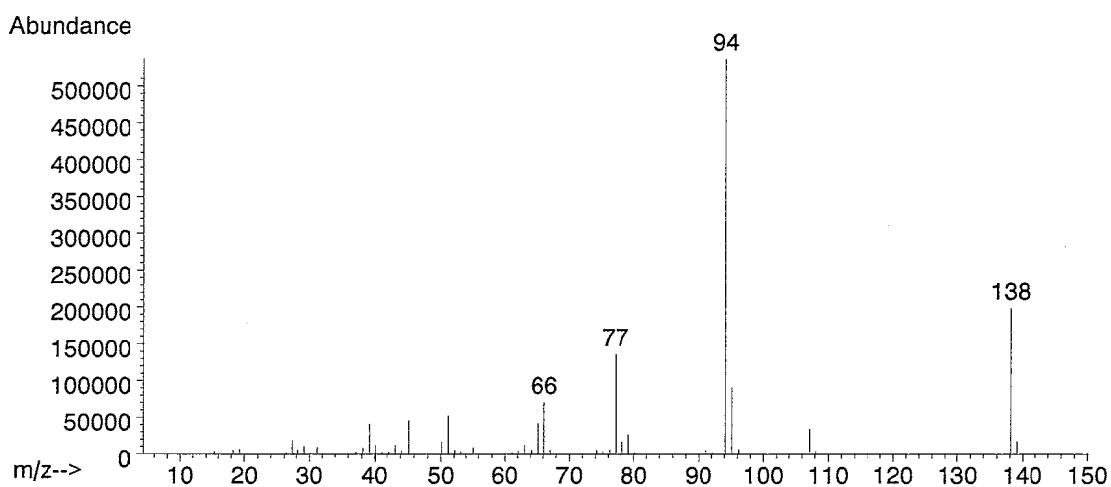
1. Spectral Data

Mass Spectrometry

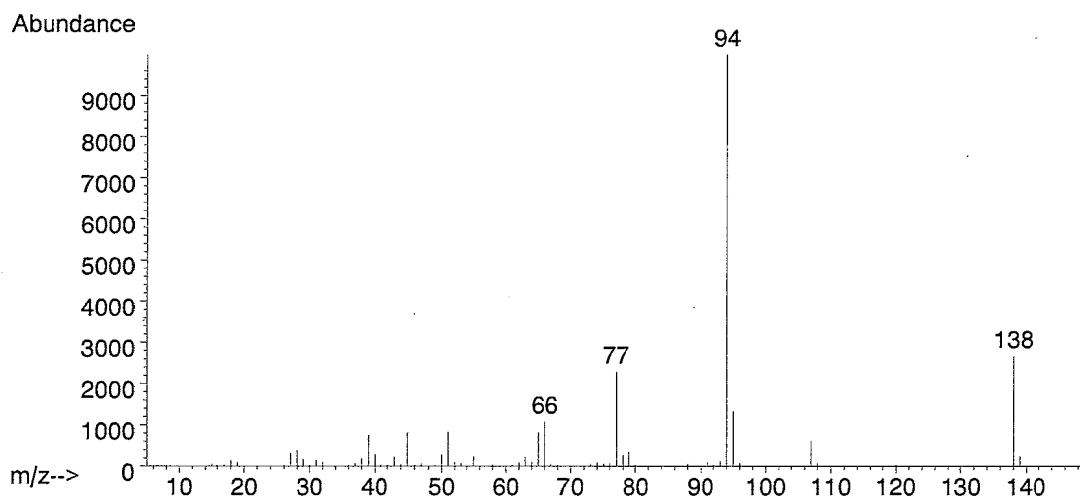
Instrument : Hewlett Packard 5989B Mass Spectrometer

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, F.W. (1994)

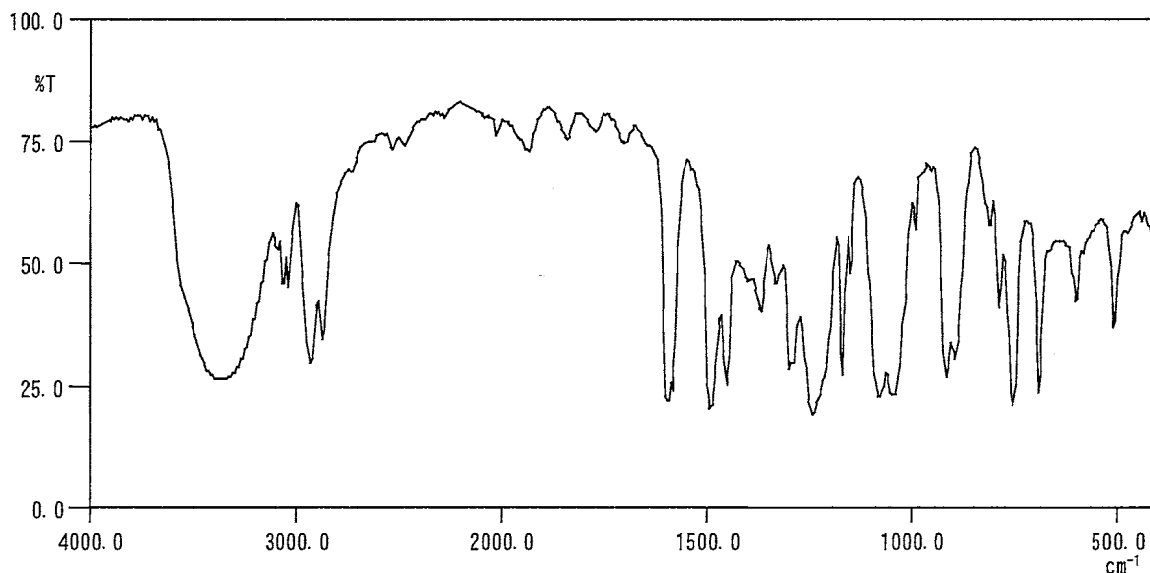
Wiley Registry of Mass Spectral Data, 6th edition. Entry Number 25888
John Wiley and Sons, Inc. New York)

Infrared Spectrometry

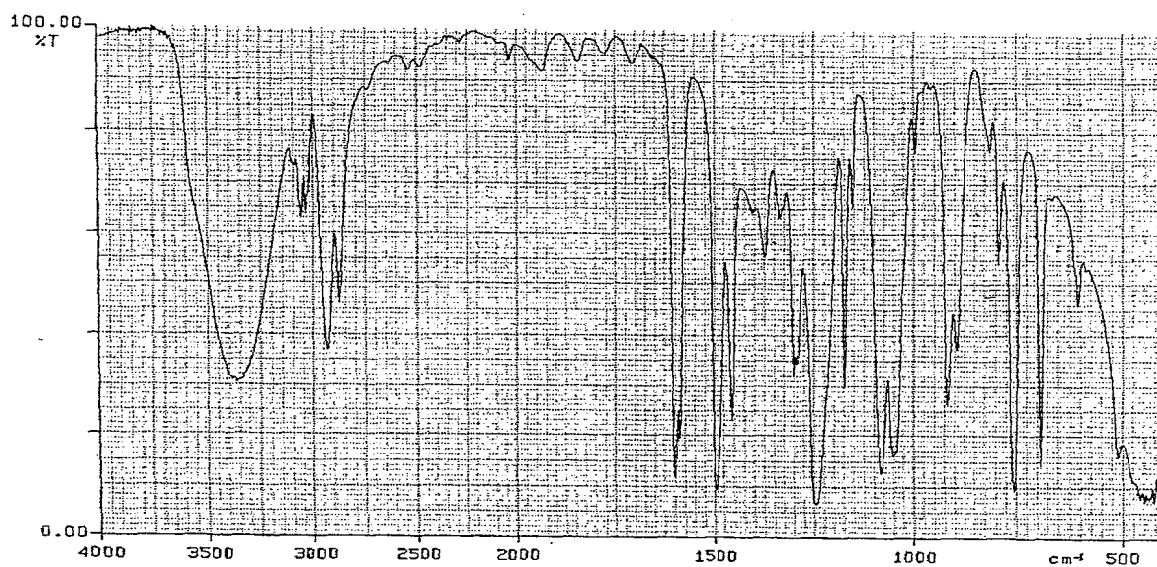
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

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-phenoxyethanol by mass spectrum and infrared spectrum.

APPENDIX M 2

STABILITY OF 2-PHENOXYETHANOL
IN THE 2-WEEK DRINKING WATER STUDY

STABILITY OF 2-PHENOXYETHANOL IN THE 2-WEEK DRINKING WATER STUDY

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

Lot No. : WAR5157

1. Sample : This lot was used from 2002.7.2 to 2002.7.16. Test substance was stored in a dark place at room temperature.

2. High Performance Liquid Chromatography

Instrument : Shimadzu LC-10 High Performance Liquid Chromatograph

Column : TSK GEL ODS-80TM (4.6 mm ϕ \times 15 cm)

Column Temperature : 40 °C

Flow Rate : 1 mL/min

Mobile Phase : Acetonitrile : Distilled Water = 4 : 6

Detector : UV (271 nm)

Injection Volume : 10 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2002.05.21	1	3.571	100
2002.07.18	1	3.601	100

Result: High performance liquid chromatography indicated one major peak (peak No.1) analyzed on 2002.5.21 and one major peak (peak No.1) analyzed on 2002.7.18. No new trace impurity peak in the test substance analyzed on 2002.7.18 was detected.

3. Conclusion: The test substance was stable for about 2 months in a dark place at room temperature.

APPENDIX M 3

CONCENTRATION OF 2-PHENOXYETHANOL IN FORMULATED WATER
IN THE 2-WEEK DRINKING WATER STUDY

CONCENTRATION OF 2-PHENOXYETHANOL IN FORMULATED WATER IN THE 2-WEEK DRINKING WATER STUDY

Date Analyzed	Target Concentration				
	1600 ^a	4000	7000	10000	25000
2002.07.02	1620 (101) ^b	4030 (101)	7180 (103)	10200 (102)	25600 (102)

^a ppm

^b %

Analytical Method : The samples were analyzed by high performance liquid chromatography.

Instrument : Shimadzu LC-10 High Performance Liquid Chromatograph

Column : TSK GEL ODS-80TM (4.6 mm ϕ \times 15 cm)

Column Temperature : 40 °C

Flow Rate : 1 mL/min

Mobile Phase : Acetonitrile : Distilled Water = 4 : 6

Detector : UV (271 nm)

Injection Volume : 10 μ L

APPENDIX M 4

STABILITY OF 2-PHENOXYETHANOL IN FORMULATED WATER
IN THE 2-WEEK DRINKING WATER STUDY

STABILITY OF 2-PHENOXYETHANOL IN FORMULATED WATER IN THE
2-WEEK DRINKING WATER STUDY

Date Prepared	Date Analyzed	Target Concentration	
		100 ^a	25000
2002.05.15	2002.05.15	97.3 (100) ^b	24600 (100)
	2002.05.20 ^c	93.2 (95.8)	25500 (104)

^a ppm

^b % (Percentage was based on the concentration on date of preparation.)

^c Animal room samples

Analytical Method : The samples were analyzed by high performance liquid chromatography.

Instrument : Shimadzu LC-10 High Performance Liquid Chromatograph
 Column : TSK GEL ODS-80TM (4.6 mm ϕ \times 15 cm)
 Column Temperature : 40 °C
 Flow Rate : 1 mL/min
 Mobile Phase : Acetonitrile : Distilled Water = 4 : 6
 Detector : UV (271 nm)
 Injection Volume : 10 μ L

APPENDIX N 1

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS
IN THE 2-WEEK DRINKING WATER STUDY OF 2-PHENOXYETHANOL

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS
IN THE 2-WEEK DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Item	Method
Hematology	
Red blood cell (RBC)	Light scattering method ¹⁾
Hemoglobin (Hgb)	Cyanmethemoglobin method ¹⁾
Hematocrit (Hct)	Calculated as $RBC \times MCV / 10$ ¹⁾
Mean corpuscular volume (MCV)	Light scattering method ¹⁾
Mean corpuscular hemoglobin (MCH)	Calculated as $Hgb / RBC \times 10$ ¹⁾
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as $Hgb / Hct \times 100$ ¹⁾
Platelet	Light scattering method ¹⁾
White blood cell (WBC)	Light scattering method ¹⁾
Differential WBC	Pattern recognition method ²⁾ (Wright staining)
Biochemistry	
Total protein (TP)	Biuret method ³⁾
Albumin (Alb)	BCG method ³⁾
A/G ratio	Calculated as $Alb / (TP - Alb)$ ³⁾
T-bilirubin	Alkaline azobilirubin method ³⁾
Glucose	GlcK · G-6-PDH method ³⁾
T-cholesterol	CE · COD · POD method ³⁾
Phospholipid	PLD · ChOD · POD method ³⁾
Glutamic oxaloacetic transaminase (GOT)	JSCC method ³⁾
Glutamic pyruvic transaminase (GPT)	JSCC method ³⁾
Lactate dehydrogenase (LDH)	SFBC method ³⁾
γ -Glutamyl transpeptidase (γ -GTP)	γ -Glutamyl-p-nitroanilide method ³⁾
Creatine phosphokinase (CPK)	JSCC method ³⁾
Urea nitrogen	Urease · GLDH method ³⁾
Sodium	Ion selective electrode method ³⁾
Potassium	Ion selective electrode method ³⁾
Chloride	Ion selective electrode method ³⁾
Calcium	OCPC method ³⁾
Inorganic phosphorus	PNP · XOD · POD method ³⁾
Urinalysis	
pH, Protein, Glucose, Ketone body, Occult Blood, Urobilinogen	Urinalysis reagent paper method ⁴⁾

1) Automatic blood cell analyzer (ADVIA120 : Bayer Corporation)

2) Automatic blood cell differential analyzer (MICROX HEG-120NA : OMRON Corporation)

3) Automatic analyzer (Hitachi 7070 : Hitachi, Ltd.)

4) Ames reagent strips for urinalysis (Uro-Labstix : Bayer Corporation)

APPENDIX O 1

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-WEEK DRINKING WATER STUDY OF 2-PHENOXYETHANOL

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-WEEK DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Item	Unit	Decimal Place
Hematology		
Red blood cell (RBC)	$\times 10^6 / \mu\text{L}$	2
Hemoglobin (Hgb)	g/dL	1
Hematocrit (Hct)	%	1
Mean corpuscular volume (MCV)	fL	1
Mean corpuscular hemoglobin (MCH)	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	g/dL	1
Platelet	$\times 10^3 / \mu\text{L}$	0
White blood cell (WBC)	$\times 10^3 / \mu\text{L}$	2
Differential WBC	%	0
Biochemistry		
Total protein (TP)	g/dL	1
Albumin (Alb)	g/dL	1
A/G ratio	-	1
T-bilirubin	mg/dL	2
Glucose	mg/dL	0
T-cholesterol	mg/dL	0
Phospholipid	mg/dL	0
Glutamic oxaloacetic transaminase (GOT)	IU/L	0
Glutamic pyruvic transaminase (GPT)	IU/L	0
Lactate dehydrogenase (LDH)	IU/L	0
γ -Glutamyl transpeptidase (γ -GTP)	IU/L	0
Creatine phosphokinase (CPK)	IU/L	0
Urea nitrogen	mg/dL	1
Sodium	mEq/L	0
Potassium	mEq/L	1
Chloride	mEq/L	0
Calcium	mg/dL	1
Inorganic phosphorus	mg/dL	1