アセト酢酸メチ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：　０４２０

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APPENDIX A 1

CLINICAL OBSERVATION : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 1-3	1-7	2-3	2-7
OLIGO-STOOL	Control	0	0	0	0
	2500 ppm	0	0	1	0
	5000 ppm	0	0	0	0
	10000 ppm	0	0	0	0
	20000 ppm	0	0	0	0
	40000 ppm	0	0	0	0

APPENDIX A 2

CLINICAL OBSERVATION : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

Clinical sign	Group Name	Administration Week-day 1-3	1-7	2-3	2-7
PILOERECTION	Control	0	0	0	0
	2500 ppm	0	0	0	0
	5000 ppm	0	0	0	0
	10000 ppm	0	0	0	0
	20000 ppm	0	0	0	0
	40000 ppm	0	1	0	0
SMALL STOOL	Control	0	0	0	0
	2500 ppm	0	0	0	0
	5000 ppm	0	0	0	0
	10000 ppm	0	0	0	0
	20000 ppm	0	0	0	0
	40000 ppm	1	1	1	1
OLIGO-STOOL	Control	0	0	0	0
	2500 ppm	0	0	1	0
	5000 ppm	0	0	1	0
	10000 ppm	0	0	0	0
	20000 ppm	0	0	0	0
	40000 ppm	0	1	1	0

APPENDIX B 1

BODY WEIGHT CHANGES : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	23.1± 0.9	22.9± 1.2	23.7± 1.3	23.9± 1.3	25.3± 2.1
2500 ppm	23.0± 1.2	22.4± 0.8	22.8± 0.9	23.0± 1.3	24.7± 1.1
5000 ppm	23.0± 1.0	22.7± 1.0	23.5± 0.6	23.8± 0.7	25.3± 1.0
10000 ppm	23.1± 1.1	22.9± 1.2	23.3± 1.8	23.6± 1.6	25.3± 1.4
20000 ppm	23.0± 0.9	23.0± 0.4	23.4± 0.7	23.9± 0.8	25.2± 1.1
40000 ppm	23.0± 1.0	23.0± 0.9	23.5± 0.4	23.7± 0.4	24.8± 0.9

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

APPENDIX B 2

BODY WEIGHT CHANGES : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week-day 0-0	1-3	1-7	2-3	2-7
Control	18.4± 0.8	18.1± 1.0	18.6± 1.1	18.8± 0.6	20.1± 1.0
2500 ppm	18.4± 0.7	18.6± 0.6	18.3± 0.7	18.7± 0.3	19.4± 1.1
5000 ppm	18.4± 0.8	18.6± 0.9	18.8± 0.8	18.8± 0.4	19.8± 0.4
10000 ppm	18.4± 0.9	18.8± 1.2	18.9± 1.3	19.1± 0.9	20.4± 0.8
20000 ppm	18.4± 0.8	18.2± 1.2	18.9± 1.1	19.0± 1.1	20.1± 1.2
40000 ppm	18.3± 0.9	17.5± 2.2	17.7± 2.8	18.1± 3.0	19.8± 2.5

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

APPENDIX C 1

WATER CONSUMPTION CHANGES : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	4.6± 0.9	4.9± 0.6	4.4± 0.8	4.5± 0.8
2500 ppm	5.4± 1.3	4.7± 0.5	5.1± 2.0	5.0± 1.2
5000 ppm	4.6± 0.5	4.7± 0.7	4.9± 1.0	5.1± 1.3
10000 ppm	4.5± 0.7	4.2± 1.4	4.6± 2.0	4.6± 1.4
20000 ppm	4.7± 0.7	4.5± 0.9	4.4± 1.2	4.3± 1.0
40000 ppm	3.9± 0.3	4.2± 0.5	4.1± 0.6	3.8± 0.8

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

APPENDIX C 2

WATER CONSUMPTION CHANGES : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	4.5± 0.5	4.2± 0.4	4.5± 0.4
2500 ppm	4.1± 0.2	3.8± 0.8	4.4± 1.2	4.2± 0.4
5000 ppm	4.2± 0.3	4.9± 0.4	4.9± 0.8	5.0± 1.0
10000 ppm	4.4± 0.4	4.6± 0.4	4.4± 0.5	4.5± 0.6
20000 ppm	3.9± 0.3	4.3± 0.5	3.8± 0.3	4.1± 0.3
40000 ppm	3.3± 1.1	3.5± 1.5	3.5± 1.4	3.7± 1.1

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

APPENDIX D 1

FOOD CONSUMPTION CHANGES : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	3.3± 0.4	4.0± 0.2	3.3± 0.2	3.5± 0.5
2500 ppm	3.2± 0.3	4.0± 0.3	3.3± 0.7	3.8± 0.3
5000 ppm	3.4± 0.3	3.9± 0.2	3.4± 0.3	3.8± 0.3
10000 ppm	3.5± 0.4	4.0± 0.7	3.2± 0.5	3.8± 0.3
20000 ppm	3.3± 0.3	3.8± 0.5	3.3± 0.4	3.7± 0.4
40000 ppm	3.2± 0.3	3.8± 0.5	3.2± 0.2	3.5± 0.2

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

APPENDIX D 2

FOOD CONSUMPTION CHANGES : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	2.8± 0.5	3.5± 0.4	3.0± 0.3	3.7± 0.2
2500 ppm	2.9± 0.1	3.1± 0.3	3.0± 0.4	3.2± 0.3*
5000 ppm	2.8± 0.4	3.3± 0.1	2.9± 0.2	3.4± 0.2
10000 ppm	3.1± 0.3	3.4± 0.2	2.9± 0.4	3.4± 0.2
20000 ppm	2.7± 0.4	3.2± 0.4	2.7± 0.3	3.2± 0.1*
40000 ppm	2.7± 0.5	2.9± 1.0	2.7± 0.6	3.2± 0.3*

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

APPENDIX E 1

CHEMICAL INTAKE CHANGES : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
UNIT : g／kg／d a y
REPORT TYPE : A1 2
SEX : MALE

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
2500 ppm	0.596± 0.131	0.522± 0.050	0.542± 0.173	0.509± 0.099
5000 ppm	1.024± 0.135	1.010± 0.138	1.021± 0.209	1.019± 0.255
10000 ppm	1.983± 0.333	1.788± 0.585	1.972± 0.899	1.813± 0.576
20000 ppm	4.077± 0.619	3.809± 0.673	3.652± 0.891	3.439± 0.699
40000 ppm	6.776± 0.466	7.092± 0.763	6.840± 1.004	6.096± 1.228

APPENDIX E 2

CHEMICAL INTAKE CHANGES : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
UNIT : g／kg／d a y
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
2500 ppm	0.559± 0.048	0.514± 0.115	0.587± 0.150	0.531± 0.043
5000 ppm	1.142± 0.063	1.288± 0.083	1.291± 0.219	1.257± 0.250
10000 ppm	2.314± 0.141	2.417± 0.182	2.280± 0.255	2.213± 0.282
20000 ppm	4.269± 0.345	4.532± 0.456	4.052± 0.314	4.108± 0.424
40000 ppm	7.487± 1.971	7.645± 2.675	7.452± 2.408	7.289± 1.793

APPENDIX F 1

HEMATOLOGY : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (2W)

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	5	10.02± 0.26	15.2± 0.5	46.3± 1.1	46.2± 0.5	15.1± 0.2	32.7± 0.6	1228± 90
2500 ppm	4	10.22± 0.41	15.7± 0.4	47.7± 0.9	46.7± 1.2	15.3± 0.3	32.8± 0.6	1268± 277
5000 ppm	3	10.11± 0.11	15.5± 0.3	47.2± 0.6	46.7± 0.4	15.3± 0.2	32.7± 0.3	1199± 41
10000 ppm	4	10.30± 0.35	15.7± 0.5	47.9± 1.5	46.5± 0.5	15.2± 0.2	32.7± 0.2	1180± 108
20000 ppm	4	10.18± 0.26	15.5± 0.5	47.5± 1.7	46.7± 0.5	15.3± 0.2	32.7± 0.4	1217± 43
40000 ppm	5	10.08± 0.24	15.5± 0.2	46.6± 1.6	46.2± 0.5	15.4± 0.2	33.3± 0.7	1247± 53

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (2W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$	Differential WBC (%) N-BAND	N-SEG	EOSINO	BASO	MONO	LYMPHO	OTHER
Control	5	1.82± 0.82	0± 0	13± 3	2± 2	0± 0	2± 1	83± 4	0± 0
2500 ppm	4	2.20± 0.76	1± 1	16± 9	1± 1	0± 0	2± 1	80± 11	0± 0
5000 ppm	3	2.04± 0.56	0± 1	10± 1	1± 1	0± 0	1± 0	88± 1	0± 0
10000 ppm	4	2.49± 1.00	1± 1	12± 6	1± 1	0± 0	2± 1	85± 6	0± 0
20000 ppm	4	1.82± 1.05	1± 1	11± 4	2± 1	0± 0	2± 1	84± 6	0± 1
40000 ppm	5	2.07± 1.01	0± 1	12± 3	2± 1	0± 0	3± 1	83± 4	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. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (2W)

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	3	10.10± 0.50	15.5± 0.9	47.0± 2.2	46.6± 0.1	15.4± 0.2	33.0± 0.6	1050± 61
2500 ppm	4	9.96± 0.39	15.1± 0.5	46.0± 1.5	46.3± 0.4	15.2± 0.1	32.8± 0.4	1072± 68
5000 ppm	4	10.20± 0.15	15.7± 0.3	47.8± 0.8	46.9± 0.5	15.4± 0.2	32.8± 0.3	1088± 84
10000 ppm	3	9.97± 0.31	15.4± 0.7	46.9± 1.8	47.0± 0.5	15.4± 0.3	32.9± 0.2	1061± 28
20000 ppm	3	9.84± 0.28	15.1± 0.6	45.6± 1.5	46.4± 0.8	15.4± 0.3	33.2± 0.5	1090± 149
40000 ppm	4	10.11± 0.43	15.4± 0.7	46.7± 2.2	46.2± 0.5	15.2± 0.1	32.9± 0.3	1125± 127

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (2W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$	Differential WBC (%) N-BAND	N-SEG	EOSINO	BASO	MONO	LYMPHO	OTHER
Control	3	1.98± 0.68	1± 1	10± 2	2± 1	0± 0	1± 1	86± 2	0± 1
2500 ppm	4	2.55± 1.22	1± 1	10± 3	3± 1	0± 0	1± 1	86± 3	0± 0
5000 ppm	4	2.14± 0.72	1± 1	10± 3	2± 1	0± 0	2± 1	86± 4	0± 0
10000 ppm	3	2.14± 1.32	1± 0	9± 3	2± 1	0± 0	2± 2	85± 2	0± 1
20000 ppm	3	2.44± 1.32	0± 0	14± 5	3± 2	0± 0	3± 2	81± 5	0± 0
40000 ppm	4	2.54± 1.53	1± 1	10± 2	2± 1	0± 0	3± 1	85± 3	0± 0

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

APPENDIX G 1

BIOCHEMISTRY : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (2W)

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±	0.2	3.0±	0.1	1.5±	0.1	0.16±	0.02	260±	28	96±	10	212±	16
2500 ppm	4	5.0±	0.5	3.0±	0.1	1.5±	0.2	0.16±	0.01	255±	37	90±	18	202±	24
5000 ppm	5	5.0±	0.2	3.1±	0.2	1.6±	0.2	0.17±	0.03	294±	35	92±	3	216±	8
10000 ppm	5	5.0±	0.3	3.0±	0.1	1.5±	0.1	0.15±	0.01	267±	26	93±	14	212±	25
20000 ppm	5	4.8±	0.1	3.0±	0.1	1.6±	0.1	0.15±	0.01	292±	23	84±	9	190±	17
40000 ppm	5	4.9±	0.1	2.9±	0.0	1.5±	0.1	0.14±	0.02	261±	21	98±	20	208±	35

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (2W)

Group Name	NO. of Animals	GOT IU/ℓ	GPT IU/ℓ	LDH IU/ℓ	G-GTP IU/ℓ	CPK IU/ℓ	UREA NITROGEN mg/dℓ	SODIUM mEq/ℓ
Control	5	30± 4	18± 5	204± 50	0± 1	76± 24	27.4± 5.2	148± 2
2500 ppm	4	34± 4	20± 4	255± 95	2± 1	68± 21	22.2± 2.8	147± 1
5000 ppm	5	32± 3	20± 4	258± 103	1± 0	106± 79	29.0± 8.5	148± 1
10000 ppm	5	33± 7	20± 4	260± 137	1± 1	91± 42	23.1± 2.2	148± 1
20000 ppm	5	34± 5	21± 4	242± 120	1± 1	158± 126	25.3± 9.6	147± 1
40000 ppm	5	39± 15	39± 43	206± 30	1± 1	75± 40	23.0± 4.7	148± 1

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (2W)

Group Name	NO. of Animals	POTASSIUM mEq／ℓ	CHLORIDE mEq／ℓ	CALCIUM mg／dℓ	INORGANIC PHOSPHORUS mg／dℓ
Control	5	4.6± 0.6	116± 1	9.3± 0.3	7.3± 0.3
2500 ppm	4	4.1± 0.5	115± 4	9.4± 0.6	8.6± 1.0
5000 ppm	5	4.9± 1.0	117± 2	9.6± 0.4	8.9± 1.8
10000 ppm	5	5.1± 0.6	116± 2	9.5± 0.4	7.6± 0.4
20000 ppm	5	4.4± 0.7	117± 1	9.1± 0.2	7.3± 0.7
40000 ppm	5	4.0± 0.4	116± 2	9.1± 0.2	8.0± 1.6

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

APPENDIX G 2

BIOCHEMISTRY : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (2W)

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	4.9±	0.1	3.3±	0.1	2.0±	0.2	0.17±	0.02	248±	21	77±	3	167±	6
2500 ppm	5	5.0±	0.2	3.3±	0.2	2.0±	0.4	0.17±	0.03	250±	11	76±	6	173±	6
5000 ppm	5	5.1±	0.1	3.3±	0.2	1.9±	0.3	0.18±	0.03	249±	20	79±	9	167±	7
10000 ppm	5	4.9±	0.2	3.2±	0.1	1.9±	0.4	0.19±	0.04	274±	33	77±	4	172±	7
20000 ppm	4	4.8±	0.2	3.3±	0.2	2.3±	0.4	0.18±	0.02	251±	11	76±	4	168±	7
40000 ppm	4	4.7±	0.2	3.1±	0.1	1.9±	0.0	0.17±	0.02	262±	19	79±	4	169±	7

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (2W)

Group Name	NO. of Animals	GOT IU/ℓ		GPT IU/ℓ		LDH IU/ℓ		G-GTP IU/ℓ		CPK IU/ℓ		UREA NITROGEN mg/dℓ		SODIUM mEq/ℓ	
Control	5	40±	4	18±	2	279±	46	1±	1	86±	32	24.6±	3.5	148±	2
2500 ppm	5	49±	17	24±	8	298±	179	0±	1	131±	118	26.5±	10.0	148±	2
5000 ppm	5	40±	4	22±	7	260±	123	1±	1	93±	61	23.8±	7.5	147±	1
10000 ppm	5	49±	24	27±	17	377±	271	1±	1	195±	140	26.8±	6.3	149±	0
20000 ppm	4	42±	2	24±	4	315±	98	1±	1	135±	63	24.6±	2.9	148±	2
40000 ppm	4	43±	5	23±	5	251±	23	2±	1	114±	36	19.3±	2.1	148±	1

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (2W)

Group Name	NO. of Animals	POTASSIUM mEq／ℓ	CHLORIDE mEq／ℓ	CALCIUM mg／dℓ	INORGANIC PHOSPHORUS mg／dℓ
Control	5	4.4± 0.4	118± 2	9.1± 0.1	8.0± 1.3
2500 ppm	5	4.5± 0.8	117± 2	9.0± 0.3	7.4± 1.1
5000 ppm	5	4.5± 0.4	117± 3	9.1± 0.3	7.4± 1.3
10000 ppm	5	4.5± 0.6	119± 3	9.3± 0.2	8.7± 1.6
20000 ppm	4	4.4± 0.2	120± 2	9.2± 0.2	7.6± 1.2
40000 ppm	4	4.3± 0.3	120± 2	9.1± 0.2	8.6± 1.9

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

APPENDIX H 1

GROSS FINDINGS : SUMMARY, MOUSE : MALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / NO. of Animals	Control 5 (%)	2500 ppm 5 (%)	5000 ppm 5 (%)	10000 ppm 5 (%)
kidney	hydronephrosis		0 (0)	1 (20)	0 (0)	1 (20)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	20000 ppm 5 (%)	40000 ppm 5 (%)
kidney	hydronephrosis		0 (0)	1 (20)

APPENDIX H 2

GROSS FINDINGS : SUMMARY, MOUSE : FEMALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name NO. of Animals	Control 5 (%)	2500 ppm 5 (%)	5000 ppm 5 (%)	10000 ppm 5 (%)
spleen	black zone		1 (20)	0 (0)	0 (0)	0 (0)
kidney	hydronephrosis		0 (0)	0 (0)	0 (0)	0 (0)
ovary	cyst		0 (0)	0 (0)	0 (0)	0 (0)

Organ	Findings	Group Name NO. of Animals	20000 ppm 5 (%)	40000 ppm 5 (%)
spleen	black zone		0 (0)	0 (0)
kidney	hydronephrosis		0 (0)	1 (20)
ovary	cyst		1 (20)	0 (0)

APPENDIX I 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	25.3± 2.1	0.050± 0.007	0.009± 0.004	0.194± 0.014	0.136± 0.010	0.161± 0.019
2500 ppm	5	24.7± 1.1	0.048± 0.006	0.008± 0.002	0.166± 0.016	0.138± 0.007	0.149± 0.010
5000 ppm	5	25.3± 1.0	0.061± 0.007	0.010± 0.002	0.178± 0.019	0.134± 0.013	0.154± 0.006
10000 ppm	5	25.3± 1.4	0.056± 0.010	0.009± 0.003	0.180± 0.029	0.137± 0.010	0.157± 0.021
20000 ppm	5	25.2± 1.1	0.057± 0.004	0.009± 0.003	0.196± 0.021	0.130± 0.011	0.149± 0.004
40000 ppm	5	24.8± 0.9	0.056± 0.004	0.010± 0.004	0.189± 0.016	0.135± 0.007	0.152± 0.015

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

STUDY NO. : 0420
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	0.417± 0.062	0.052± 0.007	1.323± 0.197	0.438± 0.030
2500 ppm	5	0.448± 0.158	0.053± 0.015	1.296± 0.138	0.439± 0.006
5000 ppm	5	0.365± 0.054	0.051± 0.006	1.385± 0.136	0.456± 0.008
10000 ppm	5	0.484± 0.183	0.058± 0.016	1.331± 0.105	0.423± 0.026
20000 ppm	5	0.372± 0.053	0.048± 0.007	1.292± 0.159	0.440± 0.027
40000 ppm	5	0.397± 0.066	0.051± 0.008	1.288± 0.128	0.445± 0.014

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

APPENDIX I 2

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	20.1± 1.0	0.064± 0.003	0.011± 0.005	0.020± 0.007	0.116± 0.009	0.142± 0.008
2500 ppm	5	19.4± 1.1	0.069± 0.007	0.009± 0.002	0.018± 0.006	0.108± 0.006	0.144± 0.018
5000 ppm	5	19.8± 0.4	0.070± 0.009	0.011± 0.002	0.016± 0.005	0.107± 0.004	0.143± 0.020
10000 ppm	5	20.4± 0.8	0.067± 0.005	0.010± 0.001	0.017± 0.006	0.114± 0.013	0.142± 0.014
20000 ppm	5	20.1± 1.2	0.066± 0.010	0.011± 0.002	0.019± 0.009	0.116± 0.010	0.143± 0.025
40000 ppm	5	19.8± 2.5	0.063± 0.026	0.011± 0.001	0.018± 0.005	0.104± 0.017	0.141± 0.013

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

STUDY NO. : 0420
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	0.263± 0.026	0.049± 0.006	0.998± 0.101	0.435± 0.017
2500 ppm	5	0.258± 0.016	0.048± 0.003	0.959± 0.101	0.443± 0.011
5000 ppm	5	0.253± 0.012	0.052± 0.007	0.970± 0.066	0.443± 0.015
10000 ppm	5	0.263± 0.022	0.050± 0.006	1.026± 0.068	0.449± 0.010
20000 ppm	5	0.267± 0.019	0.047± 0.003	0.997± 0.077	0.444± 0.025
40000 ppm	5	0.335± 0.130	0.054± 0.006	0.992± 0.170	0.437± 0.014

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

APPENDIX J 1

ORGAN WEIGHT, RELATIVE : SUMMARY, MOUSE : MALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	25.3± 2.1	0.199± 0.012	0.035± 0.014	0.772± 0.110	0.539± 0.014	0.641± 0.108
2500 ppm	5	24.7± 1.1	0.195± 0.022	0.031± 0.009	0.674± 0.055	0.559± 0.018	0.604± 0.033
5000 ppm	5	25.3± 1.0	0.243± 0.026*	0.038± 0.008	0.708± 0.084	0.532± 0.047	0.612± 0.016
10000 ppm	5	25.3± 1.4	0.220± 0.038	0.036± 0.012	0.716± 0.129	0.544± 0.036	0.624± 0.096
20000 ppm	5	25.2± 1.1	0.228± 0.014	0.037± 0.011	0.781± 0.091	0.517± 0.039	0.595± 0.034
40000 ppm	5	24.8± 0.9	0.226± 0.017	0.039± 0.016	0.762± 0.055	0.544± 0.024	0.613± 0.066

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

STUDY NO. : 0420
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	1.660± 0.323	0.208± 0.031	5.207± 0.368	1.734± 0.129
2500 ppm	5	1.832± 0.703	0.214± 0.066	5.251± 0.443	1.782± 0.059
5000 ppm	5	1.449± 0.230	0.203± 0.024	5.480± 0.446	1.805± 0.057
10000 ppm	5	1.934± 0.807	0.233± 0.073	5.270± 0.357	1.678± 0.096
20000 ppm	5	1.477± 0.185	0.190± 0.021	5.124± 0.444	1.750± 0.125
40000 ppm	5	1.607± 0.335	0.205± 0.028	5.177± 0.372	1.794± 0.112

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

APPENDIX J 2

ORGAN WEIGHT, RELATIVE : SUMMARY, MOUSE : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0420
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	20.1± 1.0	0.318± 0.013	0.055± 0.027	0.097± 0.034	0.580± 0.038	0.711± 0.045
2500 ppm	5	19.4± 1.1	0.354± 0.029	0.047± 0.011	0.094± 0.036	0.555± 0.027	0.740± 0.064
5000 ppm	5	19.8± 0.4	0.352± 0.047	0.054± 0.010	0.083± 0.026	0.539± 0.023	0.724± 0.101
10000 ppm	5	20.4± 0.8	0.328± 0.032	0.049± 0.007	0.084± 0.032	0.556± 0.054	0.693± 0.072
20000 ppm	5	20.1± 1.2	0.326± 0.047	0.056± 0.010	0.093± 0.046	0.575± 0.036	0.710± 0.090
40000 ppm	5	19.8± 2.5	0.306± 0.108	0.054± 0.006	0.088± 0.017	0.524± 0.053	0.718± 0.083

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

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
Control	5	1.311± 0.104	0.244± 0.024	4.967± 0.265	2.175± 0.133
2500 ppm	5	1.333± 0.096	0.247± 0.016	4.935± 0.340	2.287± 0.114
5000 ppm	5	1.279± 0.073	0.263± 0.029	4.900± 0.326	2.236± 0.067
10000 ppm	5	1.287± 0.079	0.243± 0.027	5.018± 0.178	2.200± 0.049
20000 ppm	5	1.328± 0.083	0.233± 0.014	4.952± 0.233	2.209± 0.125
40000 ppm	5	1.767± 0.957	0.273± 0.023	4.983± 0.342	2.226± 0.225

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

APPENDIX K 1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUSE : MALE : ALL ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0420
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name	Control				2500 ppm				5000 ppm				10000 ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
heart			< 5>				< 5>				< 5>				< 5>			
	myocardial fibrosis		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Digestive system}																		
liver			< 5>				< 5>				< 5>				< 5>			
	necrosis:focal		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation		2	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			(40)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	swelling:central		0	0	0	0	0	0	0	0	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			< 5>				< 5>				< 5>				< 5>			
	hydronephrosis		1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(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

Organ	Findings	Group Name	20000 ppm				40000 ppm			
		No. of Animals on Study	5				5			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}										
heart			< 5>				< 5>			
	myocardial fibrosis		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}										
liver			< 5>				< 5>			
	necrosis:focal		0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	granulation		1	0	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	swelling:central		0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
{Urinary system}										
kidney			< 5>				< 5>			
	hydronephrosis		0	0	0	0	1	0	0	0
			(0)	(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

Organ	Findings	Group Name	Control				2500 ppm				5000 ppm				10000 ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
thyroid			< 5>				< 5>				< 5>				< 5>			
	ultimobranchial body remanet		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)
{Reproductive system}																		
epididymis			< 5>				< 5>				< 5>				< 5>			
	spermatogenic granuloma		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)

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	20000 ppm				40000 ppm			
		No. of Animals on Study	5				5			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}										
thyroid			< 5>				< 5>			
	ultimobranchial body remanet		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Reproductive system}										
epididymis			< 5>				< 5>			
	spermatogenic granuloma		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

APPENDIX K 2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUSE : FEMALE : ALL ANIMALS

(2-WEEK STUDY)

Organ	Findings	Group Name	Control				2500 ppm				5000 ppm				10000 ppm			
		No. of Animals on Study	5				5				5				5			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
spleen			< 5>				< 5>				< 5>				< 5>			
	deposit of melanin		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			< 5>				< 5>				< 5>				< 5>			
	granulation		2	0	0	0	4	0	0	0	3	0	0	0	3	0	0	0
			(40)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
{Urinary system}																		
kidney			< 5>				< 5>				< 5>				< 5>			
	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)
{Reproductive system}																		
ovary			< 5>				< 5>				< 5>				< 5>			
	cyst		0	0	0	0	0	0	0	0	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

Organ	Findings	Group Name	20000 ppm				40000 ppm			
		No. of Animals on Study	5				5			
		Grade	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}										
spleen			< 5>				< 5>			
	deposit of melanin		0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}										
liver			< 5>				< 5>			
	granulation		3	0	0	0	3	0	0	0
			(60)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
{Urinary system}										
kidney			< 5>				< 5>			
	hydronephrosis		0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Reproductive system}										
ovary			< 5>				< 5>			
	cyst		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 L 1

IDENTITY OF METHYL ACETOACETATE

IN THE 2-WEEK DRINKING WATER STUDY

IDENTITY OF METHYL ACETOACETATE IN THE 2-WEEK DRINKING WATER STUDY

Test Substance : Methyl Acetoacetate (Tokyo Kasei Kogyo Co., Ltd.)

Lot No. : GI01

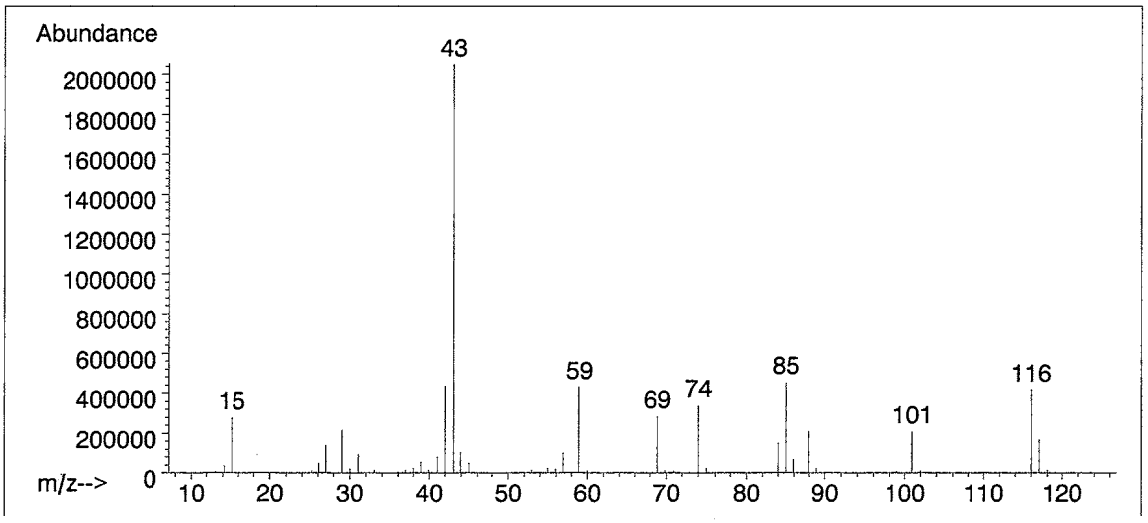
1. Spectral Data

Mass Spectrometry

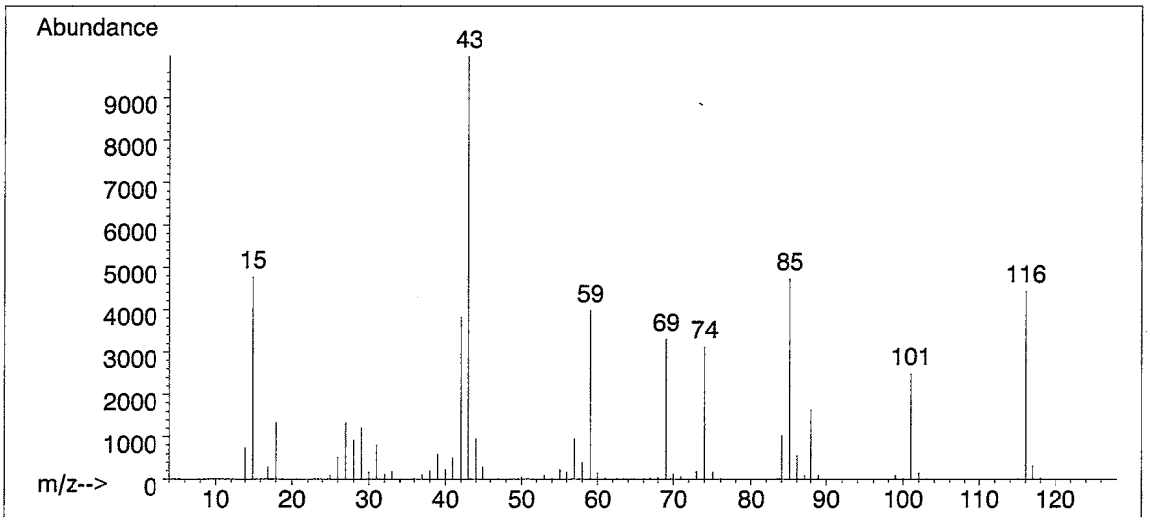
Instrument : Hewlett Packard 5989B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Results: The mass spectrum was consistent with literature spectrum.

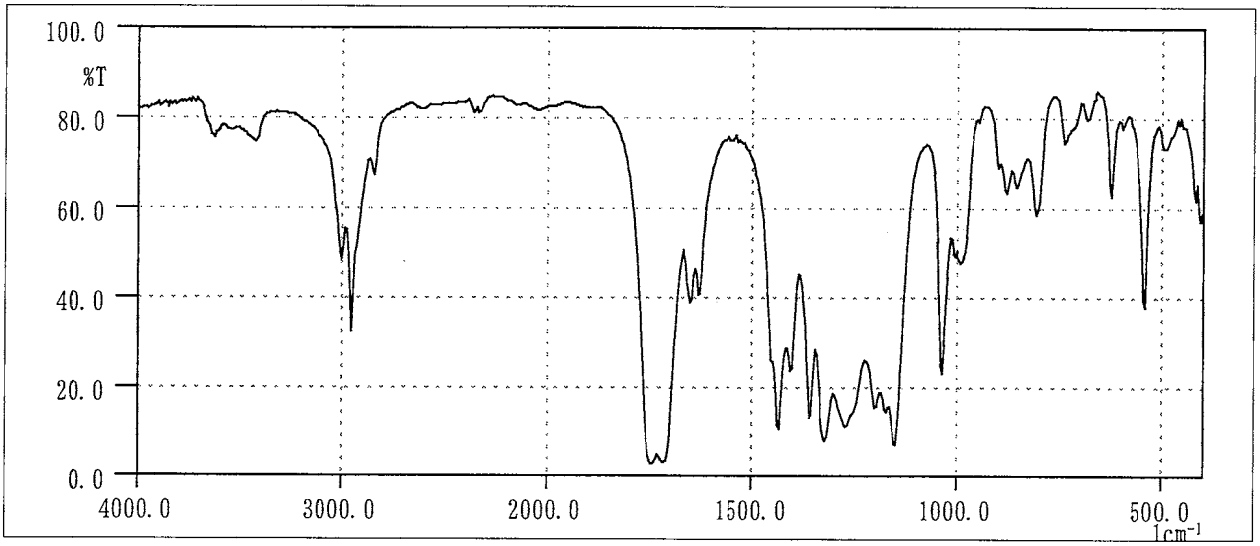
(*Fred W. McLafferty (1994) Wiley Registry of Mass Spectral Data, 6th edition. John Wiley and Sons, Inc. (U.S.), Entry Number 12752)

Infrared Spectrometry

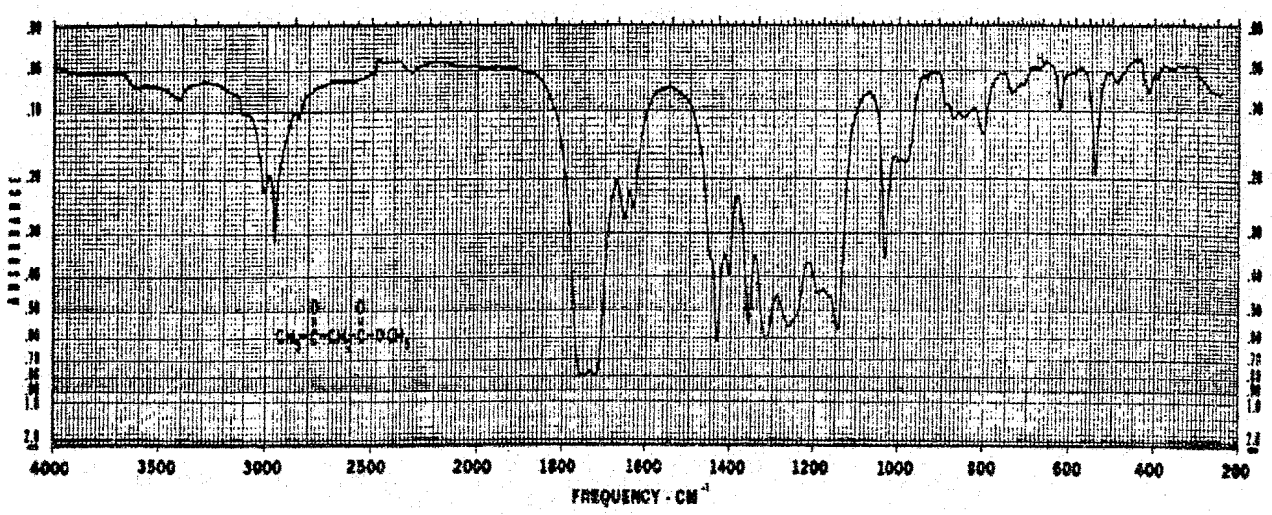
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Results: The infrared spectrum was consistent with literature spectrum.
(*William W. Simons (1978) The Sadtler Handbook of Infrared Spectra. Sadtler Research Laboratories, Inc. (U.K.), p.766)

2. Conclusions: The test substance was identified as methyl acetoacetate, by the mass spectrum and the infrared spectrum.

APPENDIX L 2

STABILITY OF METHYL ACETOACETATE

IN THE 2-WEEK DRINKING WATER STUDY

STABILITY OF METHYL ACETOACETATE IN THE 2-WEEK DRINKING WATER STUDY

Test Substance : Methyl Acetoacetate (Tokyo Kasei Kogyo Co., Ltd.)

Lot No. : GI01

1. Sample : This lot was used from 2000.10.31 to 2000.11.14. 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 : 100 °C (1 min) → (10 ℃/min) → 190 °C

Flow Rate : 1 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μL

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2000.10.04	1	6.853	100
2000.11.22	1	6.819	100

Results: Gas chromatography indicated one major peak (peak No.1) analyzed at 2000.10.4 and one major peak (peak No.1) analyzed at 2000.11.22. No new trace impurity peak in the test substance analyzed at 2000.11.22 was detected.

3. Conclusions: The test substance was stable for about 7 weeks in a dark place at room temperature.

APPENDIX L 3

CONCENTRATION OF METHYL ACETOACETATE IN FORMULATED WATER IN THE 2-WEEK DRINKING WATER STUDY

CONCENTRATION OF METHYL ACETOACETATE IN FORMULATED WATER IN THE 2-WEEK DRINKING WATER STUDY

	Target Concentration				
Date Analyzed	2500[a]	5000	10000	20000	40000
2000.10.31	2520 (101)[b]	5050 (101)	9900 (99.0)	19800 (99.0)	39900 (99.8)

[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 : 100 °C (1 min) → (10 ℃/min) → 190 °C
Flow Rate : 1 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μL

APPENDIX L 4

STABILITY OF METHYL ACETOACETATE IN FORMULATED WATER IN THE 2-WEEK DRINKING WATER STUDY

STABILITY OF METHYL ACETOACETATE IN FORMULATED WATER IN THE 2-WEEK DRINKING WATER STUDY

		Target Concentration	
Date Prepared	Date Analyzed	2500[a]	40000
2000.10.02	2000.10.02	2590 (100)[b]	39000 (100)
	2000.10.06[c]	2590 (100)	39800 (102)
	2000.10.12[c]	2770 (107)	39300 (101)

[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 : 100 °C (1 min) → (10 ℃/min) → 190 °C
Flow Rate : 1 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μL

APPENDIX M 1

METHODS FOR HEMATOLOGY AND BIOCHEMISTRY

IN THE 2-WEEK DRINKING WATER STUDY OF METHYL ACETOACETATE

METHODS FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-WEEK DRINKING WATER STUDY OF METHYL ACETOACETATE

Item	Method
Hematology	
Red blood cell (RBC)	Light scattering method [1]
Hemoglobin (Hgb)	Cyanmethemoglobin method [1]
Hematocrit (Hct)	Calculated as RBC×MCV/10 [1]
Mean corpuscular volume (MCV)	Light scattering method [1]
Mean corpuscular hemoglobin (MCH)	Calculated as Hgb/RBC×10 [1]
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as Hgb/Hct×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)	L-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]

1) Automatic blood cell analyzer (Technicon H·1 : Bayer Corporation)

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

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

APPENDIX N 1

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

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

Item	Unit	Decimal place
Hematology		
Red blood cell (RBC)	$\times 10^6/\mu L$	2
Hemoglobin	g/dL	1
Hematocrit	%	1
Mean corpuscular volume (MCV)	fL	1
Mean corpuscular hemoglobin (MCH)	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	g/dL	1
Platelet	$\times 10^3/\mu L$	0
White blood cell (WBC)	$\times 10^3/\mu L$	2
Differential WBC	%	0
Biochemistry		
Total protein	g/dL	1
Albumin	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 transminase (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