

シクロヘキセンのマウスを用いた
吸入による 2 週間毒性試験報告書

試験番号：0359

APPENDIX

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APPENDIX A 1

CLINICAL OBSERVATION : SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0358
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day				
		1-2	1-4	1-7	2-3	2-7
		1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	control	0	0	0	0	0
	600ppm	0	0	0	0	0
	1200ppm	4	-	-	-	-
	2400ppm	0	-	-	-	-
	4800ppm	-	-	-	-	-
	9600ppm	-	-	-	-	-
CONVULSION	control	0	0	0	0	0
	600ppm	0	0	0	1	0
	1200ppm	0	-	-	-	-
	2400ppm	0	-	-	-	-
	4800ppm	-	-	-	-	-
	9600ppm	-	-	-	-	-
IRREGULAR BREATHING	control	0	0	0	0	0
	600ppm	0	0	0	0	0
	1200ppm	4	-	-	-	-
	2400ppm	0	-	-	-	-
	4800ppm	-	-	-	-	-
	9600ppm	-	-	-	-	-

APPENDIX A 2

CLINICAL OBSERVATION : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day				
		1-2	1-4	1-7	2-3	2-7
		1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	control	0	0	0	0	0
	600ppm	0	0	0	0	0
	1200ppm	0	0	-	-	-
	2400ppm	1	-	-	-	-
	4800ppm	0	-	-	-	-
	9600ppm	-	-	-	-	-
IRREGULAR BREATHING	control	0	0	0	0	0
	600ppm	0	0	0	0	0
	1200ppm	0	0	-	-	-
	2400ppm	1	-	-	-	-
	4800ppm	0	-	-	-	-
	9600ppm	-	-	-	-	-

(HAN180)

BAIS 3

APPENDIX B 1

BODY WEIGHT CHANGES :SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0359
 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	1-2	1-4	1-7	2-3	2-7
control	22.3± 0.9	23.0± 0.5	23.3± 0.6	23.9± 0.4	24.4± 0.5	25.2± 0.9
600ppm	22.4± 0.7	22.1± 0.6	20.6± 2.4	21.2± 2.7*	18.6± 0.8**	18.1± 2.1 ?
1200ppm	22.4± 0.7	19.8± 1.5**	-	-	-	-
2400ppm	22.4± 0.7	-	-	-	-	-
4800ppm	22.3± 0.9	-	-	-	-	-
9600ppm	22.3± 1.0	-	-	-	-	-

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

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

APPENDIX B 2

BODY WEIGHT CHANGES : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE C-rj:BDF1
 UNIT : g
 REPORT TYPE : A1 2
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

Group Name	Administration week-day					
	0-0	1-2	1-4	1-7	2-3	2-7
control	18.2± 0.5	18.1± 0.6	18.3± 0.5	18.9± 0.3	18.9± 0.9	20.2± 0.3
600ppm	18.1± 0.6	17.9± 1.2	18.7± 1.0	18.9± 1.1	19.7± 1.0	18.3± 1.2**
1200ppm	18.1± 0.7	17.3± 0.9	-	-	-	-
2400ppm	18.2± 0.4	16.0± 0.9**	-	-	-	-
4800ppm	18.2± 0.4	-	-	-	-	-
9600ppm	18.2± 0.6	-	-	-	-	-

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

Test of Dunnett

APPENDIX C 1

FOOD CONSUMPTION CHANGES : SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 2
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)	
	1-7(6)	2-7(7)
control	4.5± 0.4	4.4± 0.3
600ppm	3.5± 0.9	3.2± 0.2**
1200ppm	-	-
2400ppm	-	-
4800ppm	-	-
9600ppm	-	-

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

Test of t

APPENDIX C 2

FOOD CONSUMPTION CHANGES : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 2
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 2

Group Name	Administration week-day(effective)	
	1-7(6)	2-7(7)
control	3.5± 0.1	3.7± 0.2
600ppm	3.7± 0.2	3.4± 0.2*
1200ppm	-	-
2400ppm	-	-
4800ppm	-	-
9600ppm	-	-

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

APPENDIX D 1

HEMATOLOGY : SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (3W)

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl	HEMOGLOBIN g/dl	HEMATOCRIT %	MCV fl	MCH pg	MCHC g/dl	PLATELET 10 ³ /μl
control	5	10.81± 0.23	16.3± 0.5	52.6± 1.4	48.6± 0.6	15.1± 0.3	30.9± 0.4	1156± 105
600ppm	2	10.13± 0.30*	15.2± 0.8	46.7± 0.6**	46.2± 2.0*	15.0± 0.3	32.4± 2.0	1239± 90
1200ppm	0	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	WBC		Differential		WBC (%)		EOSINO	BASO	MONO	LYMPHO	OTHER					
		$10^3/\mu\ell$		N-BAND		N-SEG											
control	5	1.31±	0.66	2±	3	13±	6	2±	3	0±	0	4±	3	78±	8	0±	1
600ppm	2	0.24±	0.17	8±	0	50±	0	0±	0	0±	0	8±	0	33±	0	0±	0
1200ppm	0	-		-		-		-		-		-		-		-	
2400ppm	0	-		-		-		-		-		-		-		-	
4800ppm	0	-		-		-		-		-		-		-		-	
9600ppm	0	-		-		-		-		-		-		-		-	

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

Test of t

APPENDIX D 2

HEMATOLOGY : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (3W)

PAGE : 3

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl	HEMOGLOBIN g/dl	HEMATOCRIT %	MCV fl	MCH pg	MCHC g/dl	PLATELET 10 ³ /μl
control	4	10.88± 0.19	16.2± 0.3	51.5± 0.8	47.3± 0.3	14.9± 0.2	31.5± 0.2	1097± 40
600ppm	5	9.97± 0.22**	15.0± 0.3**	47.3± 1.4**	47.4± 0.5	15.0± 0.1	31.7± 0.3	1123± 113
1200ppm	0	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

Group Name	NO. of Animals	WBC		Differential		WBC (%)		EOSINO	BASO	MONO	LYMPHO	OTHER					
		$10^3/\mu l$		N-BAND		N-SEG											
control	4	0.83±	0.18	0±	0	18±	4	1±	1	0±	0	5±	5	78±	7	0±	0
600ppm	5	0.53±	0.34	0±	0	13±	4	2±	2	0±	0	3±	3	82±	7	0±	0
1200ppm	0	-		-		-		-		-		-		-		-	
2400ppm	0	-		-		-		-		-		-		-		-	
4800ppm	0	-		-		-		-		-		-		-		-	
9600ppm	0	-		-		-		-		-		-		-		-	

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

Test of t

APPENDIX E 1

BIOCHEMISTRY : SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3w)

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	TRIGLYCERIDE mg/dl
control	5	5.2± 0.2	2.9± 0.2	1.3± 0.2	0.14± 0.01	220± 27	79± 6	31± 3
600ppm	2	4.9± 0.1	3.0± 0.0	1.6± 0.1	0.14± 0.01	134± 129	72± 14	5± 1**
1200ppm	0	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID		GOT		GPT		LDH		ALP		G-GTP		CPK	
		mg/dl		I U/l		I U/l		I U/l		I U/l		I U/l		I U/l	
control	5	166±	18	51±	5	19±	6	261±	58	275±	16	1±	0	104±	53
600ppm	2	86±	26**	64±	18	30±	8	244±	93	240±	18*	0±	0	150±	141
1200ppm	0	-		-		-		-		-		-		-	
2400ppm	0	-		-		-		-		-		-		-	
4800ppm	0	-		-		-		-		-		-		-	
9600ppm	0	-		-		-		-		-		-		-	

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	UREA NITROGEN		SODIUM		POTASSIUM		CHLORIDE		CALCIUM		INORGANIC PHOSPHORUS	
		mg/dl		mEq/l		mEq/l		mEq/l		mg/dl		mg/dl	
control	5	29.6±	2.6	150±	0	4.3±	0.2	119±	1	8.7±	0.5	7.8±	0.9
600ppm	2	45.1±	18.0	150±	0	4.0±	0.2	116±	1*	8.7±	0.0	7.6±	0.3
1200ppm	0	-		-		-		-		-		-	
2400ppm	0	-		-		-		-		-		-	
4800ppm	0	-		-		-		-		-		-	
9600ppm	0	-		-		-		-		-		-	

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

Test of t

APPENDIX E 2

BIOCHEMISTRY : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

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		TRIGLYCERIDE mg/dℓ	
control	5	5.2±	0.2	3.1±	0.2	1.5±	0.2	0.14±	0.02	190±	10	62±	4	17±	4
600ppm	5	5.1±	0.0	3.0±	0.1	1.5±	0.1	0.14±	0.01	177±	20	82±	4**	14±	6
1200ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
control	5	130±	13	66±	10	33±	10	278±	53	362±	33	1±	1	106±	42
600ppm	5	133±	17	58±	14	33±	7	307±	87	255±	9**	1±	1	83±	46
1200ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (3W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	UREA NITROGEN mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
control	5	31.4±	1.4	150±	1	4.3±	0.3	119±	2	8.4±	0.4	7.1±	1.1
600ppm	5	22.2±	2.6**	149±	1	4.7±	0.1*	117±	2	8.6±	0.4	6.7±	0.8
1200ppm	0	-	-	-	-	-	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-	-	-	-	-	-

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

Test of t

APPENDIX F 1

GROSS FINDINGS : SUMMARY, MOUES : MALE

DEAD AND MORIBUND ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Group Name			
			control 0 (%)	600ppm 3 (%)	1200ppm 5 (%)	2400ppm 5 (%)
thymus	atrophic		- (-)	1 (33)	0 (0)	0 (0)
spleen	pale		- (-)	0 (0)	5 (100)	0 (0)
	black zone		- (-)	0 (0)	1 (20)	0 (0)

(HPT080)

BATS 3

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	4800ppm 5 (%)	9600ppm 5 (%)
thymus	atrophic		0 (0)	0 (0)
spleen	pale		0 (0)	0 (0)
	black zone		0 (0)	0 (0)

(IPT080)

BATS3

APPENDIX F 2

GROSS FINDINGS : SUMMARY, MOUES : MALE : SACRIFICED ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	control 5 (%)	600ppm 2 (%)	1200ppm 0 (%)	2400ppm 0 (%)
thymus	atrophic		0 (0)	1 (50)	- (-)	- (-)

(HPT080)

BAIS 3

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (3W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	4800ppm 0 (%)	9600ppm 0 (%)
thymus	atrophic		- (-)	- (-)

(HPT080)

BAIS 3

APPENDIX F 3

GROSS FINDINGS : SUMMARY, MOUES : FEMALE

DEAD AND MORIBUND ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3w)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	control		600ppm		1200ppm		2400ppm	
			0	(%)	0	(%)	5	(%)	5	(%)
spleen	pale		-	(-)	-	(-)	5	(100)	0	(0)
	black zone		-	(-)	-	(-)	1	(20)	0	(0)

(HPT080)

BAIS3

STUDY NO. : 0359
ANIMAL : MOUSE Crl:BDF1
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0- 3W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	4800ppm 5 (%)	9600ppm 5 (%)
spleen	pale		0 (0)	0 (0)
	black zone		0 (0)	0 (0)

(HPT080)

BAIS 3

APPENDIX F 4

GROSS FINDINGS : SUMMARY, MOUES : FEMALE : SACRIFICED ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDf1
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (0- 3w)

PAGE : 1

Organ	Findings	Group Name	Control	600ppm	1200ppm	2400ppm	4800ppm	9600ppm
		No. of Animals	5 (%)	5 (%)	0 (%)	0 (%)	0 (%)	0 (%)

Non Remarkable

APPENDIX G 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	TESTES	HEART	LUNGS
control	5	21.0± 0.7	0.050± 0.007	0.010± 0.001	0.181± 0.020	0.135± 0.009	0.143± 0.006
600ppm	2	15.4± 1.3**	0.008± 0.005**	0.009± 0.000	0.151± 0.000*	0.104± 0.013*	0.128± 0.006*
1200ppm	0	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (3W)

PAGE : 2

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
control	5	0.322±	0.018	0.048±	0.009	0.975±	0.041	0.432±	0.020
600ppm	2	0.276±	0.046	0.020±	0.004**	0.690±	0.087**	0.410±	0.004
1200ppm	0	-	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-	-

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

APPENDIX G 2

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
control	5	16.4± 0.6	0.063± 0.004	0.012± 0.001	0.025± 0.010	0.113± 0.009	0.135± 0.010
600ppm	5	15.2± 0.9*	0.034± 0.007**	0.010± 0.001*	0.015± 0.004	0.103± 0.006	0.127± 0.007
1200ppm	0	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-

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

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	KIDNEYS		SPLEEN		LIVER		BRAIN	
control	5	0.224±	0.006	0.042±	0.005	0.761±	0.023	0.441±	0.007
600ppm	5	0.217±	0.010	0.029±	0.003**	0.699±	0.062	0.404±	0.016**
1200ppm	0	-	-	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-	-	-

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

Test of t

APPENDIX H 1

ORGAN WEIGHT, RELATIVE : SUMMARY, MOUES : MALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
 SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	TESTES	HEART	LUNGS
control	5	21.0± 0.7	0.236± 0.028	0.050± 0.008	0.862± 0.110	0.645± 0.030	0.681± 0.037
600ppm	2	15.4± 1.3**	0.048± 0.028**	0.059± 0.006	0.988± 0.087	0.677± 0.023	0.836± 0.115*
1200ppm	0	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (3W)

PAGE : 2

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
control	5	1.535 ± 0.086	0.227 ± 0.042	4.647 ± 0.163	2.059 ± 0.106
600ppm	2	1.789 ± 0.143*	0.130 ± 0.016*	4.484 ± 0.174	2.680 ± 0.206**
1200ppm	0	-	-	-	-
2400ppm	0	-	-	-	-
4800ppm	0	-	-	-	-
9600ppm	0	-	-	-	-

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

APPENDIX H 2

ORGAN WEIGHT, RELATIVE : SUMMARY, MOUES : FEMALE

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
 SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	Body Weight (g)	THYMUS	ADRENALS	OVARIES	HEART	LUNGS
control	5	16.4± 0.6	0.384± 0.020	0.073± 0.007	0.154± 0.058	0.694± 0.078	0.823± 0.043
600ppm	5	15.2± 0.9*	0.221± 0.038**	0.065± 0.004*	0.100± 0.028	0.679± 0.033	0.841± 0.082
1200ppm	0	-	-	-	-	-	-
2400ppm	0	-	-	-	-	-	-
4800ppm	0	-	-	-	-	-	-
9600ppm	0	-	-	-	-	-	-

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

Test of t

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
 SURVIVAL ANIMALS (3W)

Group Name	NO. of Animals	KIDNEYS	SPLEEN	LIVER	BRAIN
control	5	1.369± 0.046	0.254± 0.026	4.655± 0.129	2.700± 0.122
600ppm	5	1.437± 0.076	0.191± 0.013**	4.604± 0.154	2.673± 0.228
1200ppm	0	-	-	-	-
2400ppm	0	-	-	-	-
4800ppm	0	-	-	-	-
9600ppm	0	-	-	-	-

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

APPENDIX I 1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUES : MALE : DEAD AND MORIBUND ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0- 3W)

Organ	Findings	control 0				600ppm 3				1200ppm 5				2400ppm 5			
		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]																	
Lung	congestion	< 0>				< 3>				< 5>				< 5>			
		-	-	-	-	1	1	0	0	0	5	0	0	2	2	0	0
		(-)	(-)	(-)	(-)	(33)	(33)	(0)	(0)	(0)	(100)	(0)	(0)	(40)	(40)	(0)	(0)
Lung	hemorrhage	< 0>				< 3>				< 5>				< 5>			
		-	-	-	-	1	1	0	0	1	0	0	0	1	0	0	0
		(-)	(-)	(-)	(-)	(33)	(33)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
Lung	edema:perivascular	< 0>				< 3>				< 5>				< 5>			
		-	-	-	-	1	0	0	0	5	0	0	0	2	0	0	0
		(-)	(-)	(-)	(-)	(33)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
[Hematopoietic system]																	
thymus	atrophy	< 0>				< 2>				< 5>				< 5>			
		-	-	-	-	0	0	2	0	0	1	0	0	0	0	0	0
		(-)	(-)	(-)	(-)	(0)	(0)	(100)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)
thymus	karyorrhexis	< 0>				< 2>				< 5>				< 5>			
		-	-	-	-	0	0	0	0	0	0	4	0	0	0	0	0
		(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(0)	(0)
spleen	deposit of melanin	< 0>				< 3>				< 5>				< 5>			
		-	-	-	-	0	0	0	0	1	0	0	0	0	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

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0- 3W)

Organ	Findings	Group Name No. of Animals on Study Grade	4800ppm 5				9600ppm 5			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]										
Lung			< 5>				< 5>			
	congestion		1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hemorrhage		3 (60)	1 (20)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)
	edema:perivascular		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Hematopoietic system]										
thymus			< 5>				< 5>			
	atrophy		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	karyorrhexis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
spleen			< 5>				< 5>			
	deposit of melanin		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

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0- 3W)

Organ	Findings	Group Name control No. of Animals on Study 0				600ppm 3				1200ppm 5				2400ppm 5			
		Grade 1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Reproductive system]

epididymis	spermatogenic granuloma	< 0 >				< 3 >				< 5 >				< 5 >			
		-	-	-	-	1	0	0	0	0	0	0	0	0	0	0	0
		(-)	(-)	(-)	(-)	(33)	(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. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0- 3W)

Organ	Findings	Group Name				Group Name					
		4800ppm				9600ppm					
		No. of Animals on Study				No. of Animals on Study					
		5				5					
		Grade	1	2	3	4	Grade	1	2	3	4
			(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)

[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 : Number of animals with lesion
 (c) c : b / a * 100

APPENDIX I 2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUES : MALE: SACRIFICED ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
SACRIFICED ANIMALS (0- 3w)

Organ	Findings	Group Name No. of Animals	Control 5 (%)	600ppm 2 (%)	1200ppm 0 (%)	2400ppm 0 (%)	4800ppm 0 (%)	9600ppm 0 (%)
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Non Remarkable

APPENDIX I 3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUES : FEMALE : DEAD AND MORIBUND ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0- 3W)

Organ	Findings	Group Name No. of Animals on Study Grade	control 0				600ppm 0				1200ppm 5				2400ppm 5			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]																		
lung	congestion		< 0>				< 0>				< 5>				< 5>			
			-	-	-	-	-	-	-	-	1	4	0	0	1	4	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(20)	(80)	(0)	(0)	(20)	(80)	(0)	(0)
	hemorrhage		-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	edema:perivascular		-	-	-	-	-	-	-	-	3	0	0	0	3	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(60)	(0)	(0)	(0)	(60)	(0)	(0)	(0)
[Hematopoietic system]																		
thymus	karyorrhexis		< 0>				< 0>				< 5>				< 5>			
			-	-	-	-	-	-	-	-	0	1	4	0	1	0	3	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(0)	(20)	(80)	(0)	(20)	(0)	(60)	(0)
spleen	deposit of melanin		< 0>				< 0>				< 5>				< 5>			
			-	-	-	-	-	-	-	-	1	0	0	0	0	0	0	0
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Digestive system]																		
stomach	ulcer:forestomach		< 0>				< 0>				< 5>				< 5>			
			-	-	-	-	-	-	-	-	1	0	0	0	1	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 : Number of animals with lesion
 (c) c : b / a * 100

STUDY NO. : 0359
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0- 3W)

Organ	Findings	4800ppm				9600ppm			
		1	2	3	4	1	2	3	4
		Grade				Grade			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]									
Lung	congestion	< 5>				< 5>			
		1	4	0	0	0	0	0	0
		(20)	(80)	(0)	(0)	(0)	(0)	(0)	(0)
	hemorrhage	0	0	0	0	1	2	0	0
		(0)	(0)	(0)	(0)	(20)	(40)	(0)	(0)
	edema:perivascular	4	0	0	0	0	0	0	0
		(80)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Hematopoietic system]									
thymus	karyorrhexis	< 5>				< 5>			
		0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(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]									
stomach	ulcer:forestomach	< 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 I 4

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUES : FEMALE : SACRIFICED ANIMALS

(2-WEEK STUDY)

STUDY NO. : 0359
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
SACRIFICED ANIMALS (0- 3w)

Organ	Findings	Group Name No. of Animals	Control 5 (%)	600ppm 5 (%)	1200ppm 0 (%)	2400ppm 0 (%)	4800ppm 0 (%)	9600ppm 0 (%)
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Non Remarkable

APPENDIX J 2

STABILITY OF CYCLOHEXENE IN THE 2-WEEK INHALATION STUDY

STABILITY OF CYCLOHEXENE IN THE 2-WEEK INHALATION STUDY

Test Substance : Cyclohexene (Wako Pure Chemical Industries, LTD.)

Lot No. : ACM4092

1. Sample : This lot was used from 1998.6.10 to 1998.6.23. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 6890 Gas Chromatograph

Column : Methyl Silicone (0.53 mm ϕ \times 60 m)

Column Temperature : 60° C

Flow Rate : 15 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1998.05.25	1	7.78	0.04
	2	8.91	99.87
	3	9.89	0.09
1998.06.25	1	7.80	0.04
	2	8.92	99.87
	3	9.90	0.09

Results: Gas chromatography indicated one major peak (peak No. 2) and two impurities (peak No. 1, 3 < 0.2% of total area) analyzed at 1998.5.25 and one major peak (peak No. 2) and two impurities (peak No. 1, 3 < 0.2% of total area) analyzed at 1998.6.25. No new trace impurity peak in the test substance analyzed at 1998.6.25 was detected.

3. Conclusions: The test substance was stable for about 1 month in a dark place at room temperature.

APPENDIX J 1

IDENTITY OF CYCLOHEXENE IN THE 2-WEEK INHALATION STUDY

IDENTITY AND IMPURITY OF CYCLOHEXENE IN THE 2-WEEK INHALATION STUDY

Test Substance : Cyclohexene (Wako Pure Chemical Industries, LTD.)

Lot No. : ACM4092

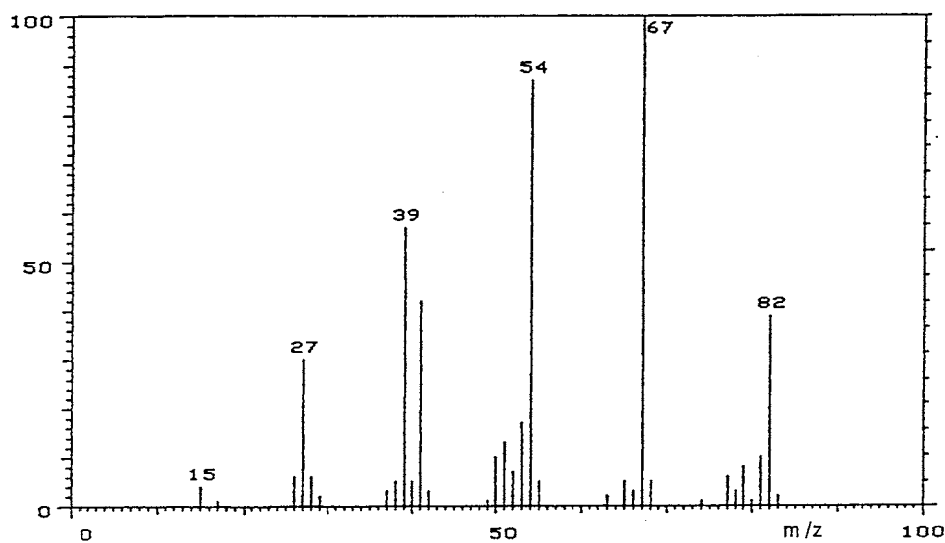
1. Spectral data

Mass Spectrometry

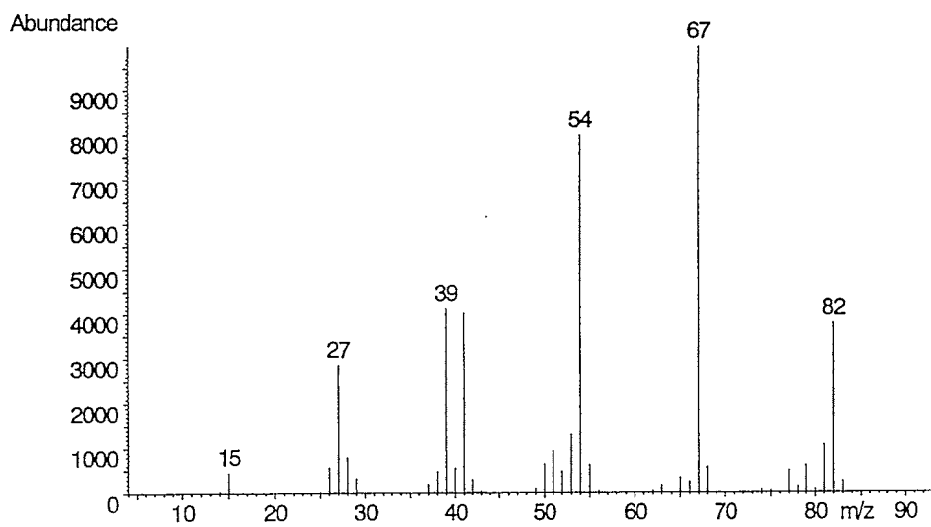
Instrument : Hitachi M-80B Mass Spectrometer

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.

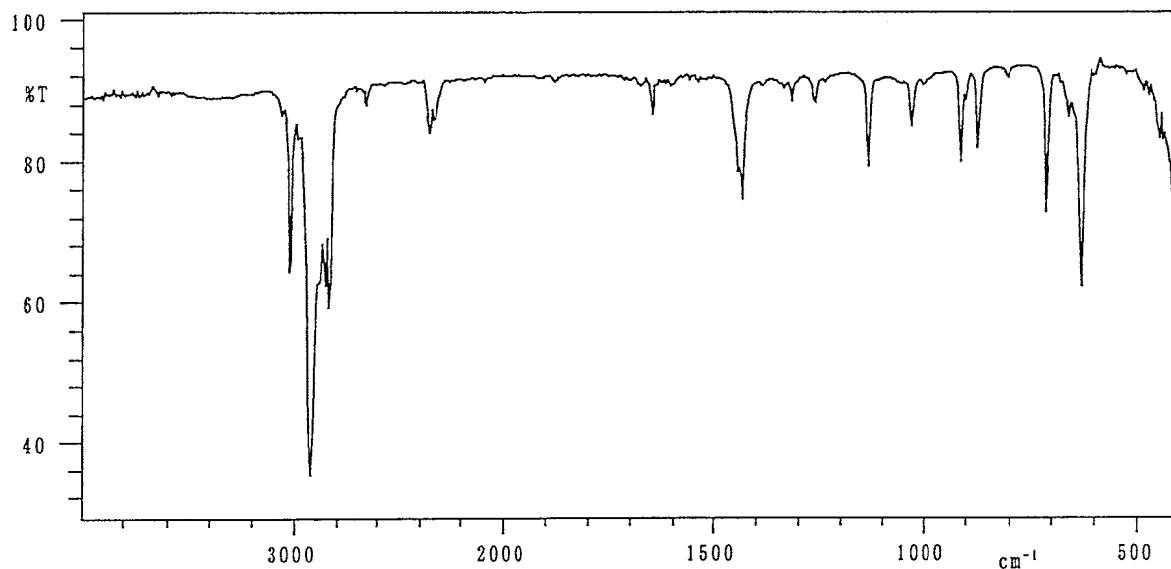
(*Fred W. McLafferty (1994) Wiley registry of mass spectral data, 6th edition.
John Wiley and Sons Inc. (U.S.), Entry Number 2466)

Infrared Spectrometry

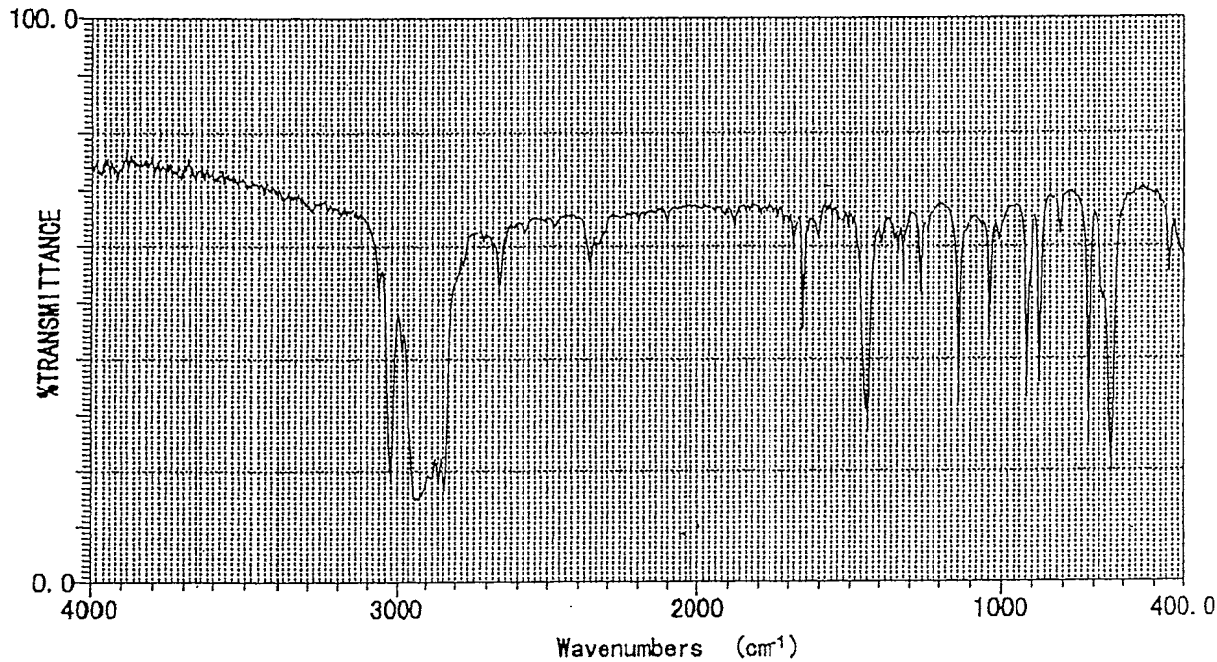
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Results: The infrared spectrum was consistent with literature spectrum.

(*Performed by the Wako Pure Chemical Industries, LTD.)

2. Impurity

Instrument : Hewlett Packard 6890 Gas Chromatograph
Column : Methyl Silicone (0.53 mm ϕ \times 60 m)
Column Temperature : 60° C
Flow Rate : 15 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.04	1,3-Cyclodiene
	2	99.87	Cyclohexene
	3	0.09	1,4-Cyclodiene

Results: Gas chromatography indicated one major peak (peak No. 2) and two impurities. It was identified only by comparing its gas chromatograph with that of 1,3-Cyclodiene (peak No. 1) and 1,4-Cyclodiene (peak No. 3) in the Cyclohexene, the amount in the test substance were 0.04% and 0.09%.

3. Conclusions: The test substance was identified as Cyclohexene, by the mass spectrum and the infrared spectrum. Gas chromatography indicated one major peak (peak No. 2) and two impurities. It was identified only by comparing its gas chromatograph with that of 1,3-Cyclodiene and 1,4-Cyclodiene, the amount in the test substance were 0.04% and 0.09%.

APPENDIX K 1

CONCENTRATION OF GLYCIDL IN THE INHALATION CHAMBER
OF THE 2-WEEK INHALATION STUDY

CONCENTRATION OF CYCLOHEXENE IN THE INHALATION CHAMBER OF THE 2-WEEK INHALATION STUDY

Group Name	Concentration(ppm) Mean \pm S.D.
0ppm(Control)	0.0 \pm 0.0
600ppm	590.8 \pm 3.6
1200ppm	1194.6 \pm 2.4
2400ppm	2415.0 \pm 13.4
4800ppm	4783.2 \pm 0.0
9600ppm	9644.3 \pm 0.0

APPENDIX K 2

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE
2-WEEK INHALATION STUDY OF CYCLOHEXENE

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-WEEK INHALATION STUDY OF CYCLOHEXENE

Group Name	Temperature(°C) Mean ± S.D.	Humidity(%) Mean ± S.D.	Ventilation Rate(L/min) Mean ± S.D.	Air Change(time/h) Mean
0ppm(Control)	21.9 ± 0.1	55.7 ± 0.2	104.1 ± 0.1	12.0
600ppm	22.0 ± 0.1	50.7 ± 0.2	103.9 ± 0.3	12.0
1200ppm	21.5 ± 0.2	52.8 ± 0.6	104.5 ± 0.2	12.1
2400ppm	21.3 ± 0.3	50.4 ± 0.6	103.9 ± 0.4	12.0
4800ppm	21.4 ± 0.3	51.0 ± 1.3	104.0 ± 0.1	12.0
9600ppm	21.6 ± 0.0	48.0 ± 0.0	104.5 ± 0.0	12.1

APPENDIX L 1

METHODS FOR HEMATOLOGY AND BIOCHEMISTRY IN THE
2-WEEK INHALATION STUDY OF CYCLOHEXENE

METHODS FOR HEMATOLOGY AND BIOCHEMISTRY IN THE
2-WEEK INHALATION STUDY OF CYCLOHEXENE

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⁾ (May-Grunwald-Giemsa 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	Enzymatic method (GLK·G-6-PDH) ³⁾
T-cholesterol	Enzymatic method (CE·COD·POD) ³⁾
Triglyceride	Enzymatic method (LPL·GK·GPO·POD) ³⁾
Phospholipid	Enzymatic method (PLD·COD·POD) ³⁾
Glutamic oxaloacetic transaminase (GOT)	UV·Rate method ³⁾
Glutamic pyruvic transaminase (GPT)	UV·Rate method ³⁾
Lactate dehydrogenase (LDH)	UV·Rate method ³⁾
Alkaline phosphatase (ALP)	p-Nitrophenylphosphate method ³⁾
γ -Glutamyl transpeptidase (γ -GTP)	L- γ -Glutamyl-p-nitroanilide method ³⁾
Creatine phosphokinase (CPK)	UV·Rate method ³⁾
Urea nitrogen	Enzymatic method (Urease·GLDH) 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	Enzymatic method (PNP·XOD·POD) ³⁾

1) Automatic blood cell analyzer (Technicon H·1 : Technicon Instruments Corporation,USA)

2) Automatic blood cell differential analyzer (Hitachi 8200 : Hitachi,Ltd.,Japan)

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

APPENDIX L 2

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE
2-WEEK INHALATION STUDY OF CYCLOHEXENE

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-WEEK INHALATION STUDY OF CYCLOHEXENE

Item	Unit	Decimal place
Hematology		
Red blood cell (RBC)	$\times 10^6 / \mu\text{L}$	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	$\times 10^3 / \mu\text{L}$	0
White blood cell (WBC)	$\times 10^3 / \mu\text{L}$	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
Triglyceride	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
Alkaline phosphatase (ALP)	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