

塩化メチルのラット及びマウスを用いた  
吸入によるがん原性予備試験報告書

## APPENDIX

(A1-1～A7-2)

2週間試験：ラット/0174；マウス/0175

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APPENDIX A 1-1

CLINICAL OBSERVATION : SUMMARY, MOSUE : MALE

(TOW-WEEK STUDY)

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day													
		0-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	2	0	-	-	-	-	-	-	-	-	-	-	-
PILOERECTION	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	1500 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	4	0	-	-	-	-	-	-	-	-	-	-	-
IRREGULAR BREATHING	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	2	0	-	-	-	-	-	-	-	-	-	-	-
ABNORMAL RESPIRATION	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	2	0	-	-	-	-	-	-	-	-	-	-	-

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 2

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Clinical sign	Group Name	Administration Week-day
		2-7
		1

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LOCOMOTOR MOVEMENT DECR	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-
PILOERECTOR	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	1
	1500 ppm	0
	3000 ppm	-
IRREGULAR BREATHING	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-
ABNORMAL RESPIRATION	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-

(HAN190)

BAIS 2

APPENDIX A 1-2

CLINICAL OBSERVATION : SUMMARY, MOSUE: FEMALE

(TOW-WEEK STUDY)

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

Clinical sign	Group Name	Administration Week-day													
		0-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	2	6	7	4	0	-	-	-	-	-	-	-
HUNCHBACK POSITION	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	1	0	-	-	-	-	-	-	-
PILOERECTON	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	1	3	6	4	0	-	-	-	-	-	-	-
IRREGULAR BREATHING	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	2	7	7	4	0	-	-	-	-	-	-	-
ABNORMAL RESPIRATION	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	2	7	7	4	0	-	-	-	-	-	-	-



STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 4

Clinical sign	Group Name	Administration Week-day
		2-7
		1
LOCOMOTOR MOVEMENT DECR	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	--
HUNCHBACK POSITION	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	--
PILOERECTION	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	--
IRREGULAR BREATHING	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	--
ABNORMAL RESPIRATION	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	--

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

Clinical sign	Group Name	Administration Week-day													
		0-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	2-1	2-2	2-3	2-4	2-5	2-6
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
BRADYPNEA	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	1	0	2	0	-	-	-	-	-	-	-
DEEP BREATHING	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	4	0	-	-	-	-	-	-	-
HEMATURIA	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	4	0	-	-	-	-	-	-	-
RED URINE	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	1	1	4	0	-	-	-	-	-	-	-
SUBNORMAL TEMP	0 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	190 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	380 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	4	0	-	-	-	-	-	-	-

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1 2

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 6

Clinical sign	Group Name	Administration Week-day
		2-7
		1
BRADYPNEA	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-
DEEP BREATHING	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-
HEMATURIA	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-
RED URINE	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-
SUBNORMAL TEMP	0 ppm	0
	190 ppm	0
	380 ppm	0
	750 ppm	0
	1500 ppm	0
	3000 ppm	-

APPENDIX A 2-1

BODY WEIGHT CHANGES :SUMMARY, RAT : MALE

(TOW-WEEK STUDY)

STUDY NO. : 0174  
 ANIMAL : RAT F344  
 UNIT : g  
 REPORT TYPE : A1 2  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

Group Name	Administration week-day			
	0-0	1-1	1-7	2-7
0 ppm	124± 6	127± 6	147± 9	168± 10
190 ppm	124± 6	126± 7	143± 9	166± 13
380 ppm	124± 6	126± 5	145± 8	167± 11
750 ppm	122± 6	125± 6	139± 8	158± 10
1500 ppm	124± 5	125± 6	140± 9	157± 10
3000 ppm	124± 5	123± 4	132± 4**	140± 6**

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

Test of Dunnett

APPENDIX A 2-2

BODY WEIGHT CHANGES : SUMMARY, RAT : FEMALE

(TOW-WEEK STUDY)

STUDY NO. : 0174  
 ANIMAL : RAT F344  
 UNIT : g  
 REPORT TYPE : A1 2  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

Group Name	Administration week-day			
	0-0	1-1	1-7	2-7
0 ppm	102± 3	103± 4	111± 4	121± 5
190 ppm	102± 3	103± 3	110± 3	121± 5
380 ppm	103± 3	104± 3	111± 4	123± 5
750 ppm	102± 4	102± 4	108± 4	117± 4
1500 ppm	102± 3	102± 3	107± 4	115± 6
3000 ppm	102± 4	101± 5	105± 6*	110± 7**

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

APPENDIX A 2-3

BODY WEIGHT CHANGES :SUMMARY, MOSUE : MALE

(TOW-WEEK STUDY)



STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 UNIT : g  
 REPORT TYPE : A1 2  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

Group Name	Administration week-day			
	0-0	1-1	1-7	2-7
0 ppm	22.9± 1.0	23.6± 1.0	24.6± 0.9	25.2± 1.4
190 ppm	22.7± 1.4	22.5± 2.0	23.7± 1.6	24.9± 1.2
380 ppm	22.7± 1.0	23.1± 1.1	24.1± 1.0	24.9± 1.0
750 ppm	22.8± 1.1	22.7± 0.9	24.3± 1.2	24.8± 1.1
1500 ppm	22.9± 0.7	22.2± 0.8	23.2± 1.6	23.6± 1.3
3000 ppm	22.7± 0.9	20.9± 0.9**	-	-

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

APPENDIX A 2-4

BODY WEIGHT CHANGES : SUMMARY, MOSUE: FEMALE

(TOW-WEEK STUDY)

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 UNIT : g  
 REPORT TYPE : A1 2  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

Group Name	Administration week-day			
	0-0	1-1	1-7	2-7
0 ppm	18.9± 0.7	18.8± 0.8	19.6± 0.9	20.4± 0.7
190 ppm	19.0± 0.7	19.0± 0.7	19.7± 0.9	20.9± 0.9
380 ppm	19.0± 0.6	18.9± 0.8	19.2± 0.8	20.6± 0.5
750 ppm	18.7± 0.6	18.4± 0.5	19.4± 0.4	20.5± 0.6
1500 ppm	18.9± 0.4	18.4± 0.5	18.4± 0.6**	19.6± 0.7*
3000 ppm	18.6± 0.9	18.0± 0.9*	-	-

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

APPENDIX A 3-1

FOOD CONSUMPTION CHANGES : SUMMARY, RAT : MALE

(TOW-WEEK STUDY)

STUDY NO. : 0174  
ANIMAL : RAT F344  
UNIT : g  
REPORT TYPE : A1 2  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

Group Name	Administration week-day(effective)	
	1-7(7)	2-7(7)
0 ppm	14.1± 1.0	14.9± 1.0
190 ppm	14.3± 1.0	15.4± 1.3
380 ppm	14.2± 0.9	14.8± 1.0
750 ppm	14.0± 0.6	14.5± 1.1
1500 ppm	13.5± 0.8	14.2± 1.0
3000 ppm	12.9± 0.9*	13.8± 1.5

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

APPENDIX A 3-2

FOOD CONSUMPTION CHANGES : SUMMARY, RAT : FEMALE

(TOW-WEEK STUDY)

STUDY NO. : 0174  
ANIMAL : RAT F344  
UNIT : g  
REPORT TYPE : A1 2  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

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Group Name	Administration week-day(effective)	
	1-7(7)	2-7(7)
0 ppm	11.3± 0.4	11.5± 0.5
190 ppm	11.1± 1.0	11.7± 0.7
380 ppm	11.1± 0.5	11.4± 0.6
750 ppm	11.0± 0.7	10.9± 0.7
1500 ppm	10.5± 0.4	11.0± 0.7
3000 ppm	10.7± 0.6	10.5± 0.9*

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

Test of Dunnett

APPENDIX A 3-3

FOOD CONSUMPTION CHANGES : SUMMARY, MOSUE : MALE

(TOW-WEEK STUDY)



STUDY NO. : 0175  
ANIMAL : MOUSE 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(7)	2-7(7)
0 ppm	4.1± 0.2	4.2± 0.2
190 ppm	4.0± 0.3	4.0± 0.6
380 ppm	4.1± 0.3	4.2± 0.2
750 ppm	4.1± 0.2	4.4± 0.4
1500 ppm	3.5± 1.0	4.3± 0.4
3000 ppm	0.8± 0.3**	-

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

Test of Dunnett

(HAN260)

BAIS 2

APPENDIX A 3-4

FOOD CONSUMPTION CHANGES : SUMMARY, MOSUE : FEMALE

(TOW-WEEK STUDY)

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
UNIT : g  
REPORT TYPE : A1 2  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

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Group Name	Administration week-day(effective)	
	1-7(7)	2-7(7)
0 ppm	3.2± 0.2	3.9± 0.2
190 ppm	3.4± 0.2	4.0± 0.3
380 ppm	3.2± 0.4	3.9± 0.3
750 ppm	3.2± 0.3	3.8± 0.2
1500 ppm	3.1± 0.2	3.7± 0.4
3000 ppm	1.0± 0.3**	-

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

Test of Dunnett

APPENDIX A 4-1

GROSS FINDINGS : SUMMARY, MOSUE : MALE : DEAD AND MORIBUND ANIMALS  
(TOW-WEEK STUDY)

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1  
SEX : MALE

GROSS FINDINGS (SUMMARY)  
DEAD AND MORIBUND ANIMALS (0- 2W)

---

Organ	Findings	Group Name NO. of Animals	0 ppm	190 ppm	380 ppm	750 ppm
			0 (%)	0 (%)	0 (%)	0 (%)
lung	red		- ( - )	- ( - )	- ( - )	- ( - )
	red zone		- ( - )	- ( - )	- ( - )	- ( - )
spleen	black zone		- ( - )	- ( - )	- ( - )	- ( - )

---

(HPT080)

BAIS2

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1  
SEX : MALE

GROSS FINDINGS (SUMMARY)  
DEAD AND MORIBUND ANIMALS (0- 2W)

---

Organ	Findings	Group Name NO. of Animals	1500 ppm 1 (%)	3000 ppm 10 (%)
lung	red		0 ( 0)	3 ( 30)
	red zone		0 ( 0)	1 ( 10)
spleen	black zone		1 (100)	0 ( 0)

---

(HPT080)

BAIS 2

APPENDIX A 4-2

GROSS FINDINGS : SUMMARY, MOSUE : MALE : SACRIFICED ANIMALS

(TOW-WEEK STUDY)

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1  
SEX : MALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS ( 20)

Organ	Findings	Group Name NO. of Animals	0 ppm 9 (%)	190 ppm 10 (%)	380 ppm 10 (%)	750 ppm 10 (%)
spleen	black zone		1 ( 11)	1 ( 10)	0 ( 0)	0 ( 0)
liver			0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
kidney	hydronephrosis		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)



STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1  
SEX : MALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS ( 2W)

PAGE : 2

---

Organ	Findings	Group Name NO. of Animals	1500 ppm 9 (%)	3000 ppm 0 (%)
spleen	black zone		0 ( 0)	- ( -)
liver			3 ( 33)	- ( -)
	white zone		1 ( 11)	- ( -)
kidney	hydronephrosis		0 ( 0)	- ( -)

---

(HPT080)

BAIS 2

APPENDIX A 4-3

GROSS FINDINGS : SUMMARY, MOSUE : FEMALE : SACRIFICED ANIMALS

(TOW-WEEK STUDY)

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1  
SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS ( 2w)

---

Organ	Findings	Group Name NO. of Animals	0 ppm 10 (%)	190 ppm 10 (%)	380 ppm 10 (%)	750 ppm 10 (%)
spleen	black zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)

---

STUDY NO. : 0175  
ANIMAL : MOUSE BDF1  
REPORT TYPE : A1  
SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS ( 2W)

PAGE : 4

---

Organ	Findings	Group Name		
		1500 ppm	3000 ppm	
		NO. of Animals	10 (%)	0 (%)
spleen	black zone		1 ( 10)	- ( -)

---

(HPT080)

BAIS2

APPENDIX A 5-1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : SACRIFICED ANIMALS

(TOW-WEEK STUDY)

STUDY NO. : 0174  
 ANIMAL : RAT F344  
 REPORT TYPE : A1  
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals				0 ppm 2				190 ppm 2				380 ppm 2				750 ppm 2			
		<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)				
[Endocrine system]																					
thyroid	ultimibranchial body remanet	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)	1 ( 50)			
[Reproductive system]																					
epididymis	cytolysis:epithelium	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)	0 ( 0)			
	cell debris	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)			
	hypospermia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)			

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

STUDY NO. : 0174  
 ANIMAL : RAT F344  
 REPORT TYPE : A1  
 SEX : MALE

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

Organ	Findings	Group Name 1500 ppm No. of Animals				3000 ppm 2			
		<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Endocrine system]									
thyroid	ultimibranchial body remanet	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
[Reproductive system]									
epididymis	cytolysis:epithelium	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)
	cell debris	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)	0 ( 0)	0 ( 0)	0 ( 0)
	hypospermia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)	0 ( 0)	0 ( 0)	0 ( 0)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

APENDIX A 5-2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : SACRIFICED ANIMALS

(TOW-WEEK STUDY)



STUDY NO. : 0174  
 ANIMAL : RAT F344  
 REPORT TYPE : A1  
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals	0 ppm				190 ppm				380 ppm				750 ppm			
			<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Urinary system]																		
kidney	mineralization:cortico-medullary junction		1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)	0 ( 0)	0 ( 0)	0 ( 0)
[Endocrine system]																		
thyroid	ultimibranhial body remanet		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)
adrenal	fatty change		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)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

STUDY NO. : 0174  
 ANIMAL : RAT F344  
 REPORT TYPE : A1  
 SEX : FEMALE

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

Organ	Findings	Group Name 1500 ppm No. of Animals				3000 ppm 2			
		<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Urinary system]									
kidney	mineralization:cortico-medullary junction	1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)
[Endocrine system]									
thyroid	ultimibranchial body remanet	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
adrenal	fatty change	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)	0 ( 0)	0 ( 0)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

APPENDIX A 5-3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUSE: MALE : DEAD AND MORIBUND ANIMALS

(TOW-WEEK STUDY)

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)  
 DEAD AND MORIBUND ANIMALS (0- 2W)

Organ	Findings	Group Name No. of Animals	0 ppm 0				180 ppm 0				380 ppm 0				750 ppm 0			
			<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Hematopoietic system]																		
thymus	atrophy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
	karyorrhexis		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
[Circulatory system]																		
heart	necrosis		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
[Digestive system]																		
salivary gl	swelling		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
stomach	hemorrhase		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
liver	necrosis:central		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)  
 DEAD AND MORIBUND ANIMALS (0- 2W)

Organ	Findings	Group Name No. of Animals	1500 ppm 1				3000 ppm 2			
			<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Hematopoietic system]										
thymus	atrophy		0 ( 0)	1 (100)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 50)	0 ( 0)	0 ( 0)
	karyorrhexis		0 ( 0)	1 (100)	0 ( 0)	0 ( 0)	1 ( 50)	1 ( 50)	0 ( 0)	0 ( 0)
[Circulatory system]										
heart	necrosis		1 (100)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
[Digestive system]										
salivary gl	swelling		0 ( 0)	0 ( 0)	1 (100)	0 ( 0)	0 ( 0)	1 ( 50)	1 ( 50)	0 ( 0)
stomach	hemorrhage		1 (100)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
Liver	necrosis:central		0 ( 0)	0 ( 0)	0 ( 0)	1 (100)	0 ( 0)	0 ( 0)	0 ( 0)	2 (100)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

APPENDIX A 5-4

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOUSE: FEMALE : DEAD AND MORIBUND ANIMALS

(TOW-WEEK STUDY)

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)  
 DEAD AND MORIBUND ANIMALS (0- 2W)

Organ	Findings	Group Name No. of Animals	0 ppm				190 ppm				380 ppm				750 ppm			
			<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Respiratory system]																		
lung	edema		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
[Hematopoietic system]																		
thymus	atrophy		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
spleen	atrophy		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
[Digestive system]																		
salivary gl	swelling		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
stomach	erosion:forestomach		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
liver	necrosis:central		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
[Urinary system]																		
kidney	tubular necrosis		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
[Endocrine system]																		
adrenal	cytolysis:X zone		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)  
 DEAD AND MORIBUND ANIMALS (0- 2W)

Organ	Findings	Group Name No. of Animals	1500 ppm				3000 ppm			
			<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)
[Respiratory system]										
lung	edema		- (-)	- (-)	- (-)	- (-)	0 (0)	1 (50)	0 (0)	0 (0)
[Hematopoietic system]										
thymus	atrophy		- (-)	- (-)	- (-)	- (-)	0 (0)	0 (0)	2 (100)	0 (0)
spleen	atrophy		- (-)	- (-)	- (-)	- (-)	0 (0)	2 (100)	0 (0)	0 (0)
[Digestive system]										
salivary gl	swelling		- (-)	- (-)	- (-)	- (-)	0 (0)	0 (0)	2 (100)	0 (0)
stomach	erosion:forestomach		- (-)	- (-)	- (-)	- (-)	0 (0)	2 (100)	0 (0)	0 (0)
liver	necrosis:central		- (-)	- (-)	- (-)	- (-)	0 (0)	1 (50)	0 (0)	0 (0)
[Urinary system]										
kidney	tubular necrosis		- (-)	- (-)	- (-)	- (-)	0 (0)	0 (0)	1 (50)	1 (50)
[Endocrine system]										
adrenal	cytolysis:X zone		- (-)	- (-)	- (-)	- (-)	0 (0)	2 (100)	0 (0)	0 (0)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe



APPENDIX A 5-5

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOSUE : MALE : SACRIFICED ANIMALS

(TOW-WEEK STUDY)

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

Organ	Findings	Group Name No. of Animals	0 ppm 2				190 ppm 2				380 ppm 2				750 ppm 2			
			<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)

[Digestive system]

liver	necrosis: single cell		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	basophilic change		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)
--------	-------------------	--	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)  
 SACRIFICED ANIMALS ( 2w)

Organ	Findings	1500 ppm				3000 ppm			
		No. of Animals				No. of Animals			
		<1>	<2>	<3>	<4>	<1>	<2>	<3>	<4>
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Digestive system]

Liver	necrosis: single cell	0	2	0	0	-	-	-	-
		( 0)	(100)	( 0)	( 0)	( -)	( -)	( -)	( -)

[Urinary system]

kidney	basophilic change	0	1	0	0	-	-	-	-
		( 0)	( 50)	( 0)	( 0)	( -)	( -)	( -)	( -)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

APPENDIX A 5-6

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

MOSUE : FEMALE : SACRIFICED ANIMALS

(TOW-WEEK STUDY))

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

Organ	Findings	Group Name No. of Animals				0 ppm 2				190 ppm 2				380 ppm 2				750 ppm 2			
		<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)	<1> (%)	<2> (%)	<3> (%)	<4> (%)				

[Urinary system]

kidney	basophilic change	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)
--------	-------------------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

STUDY NO. : 0175  
 ANIMAL : MOUSE BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

Organ	Findings	1500 ppm				3000 ppm			
		No. of Animals				0			
		<1>	<2>	<3>	<4>	<1>	<2>	<3>	<4>
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Urinary system]

kidney	basophilic change	0	1	0	0	-	-	-	-
		( 0)	( 50)	( 0)	( 0)	( -)	( -)	( -)	( -)

<1>:Slight      <2>:Moderate      <3>:Marked      <4>:Severe

APPENDIX A 6-1

IDENTITY AND PURITY OF METHYL CHLORIDE  
PERFORMED AT THE JAPAN BIOASSAY LABORATORY  
(TOW-WEEK STUDY)

IDENTITY AND PURITY OF METHYL CHLORIDE PERFORMED AT THE JAPANBIOASSAY LABORATORY  
(TWO-WEEK STUDIES)

Lot no.P91031

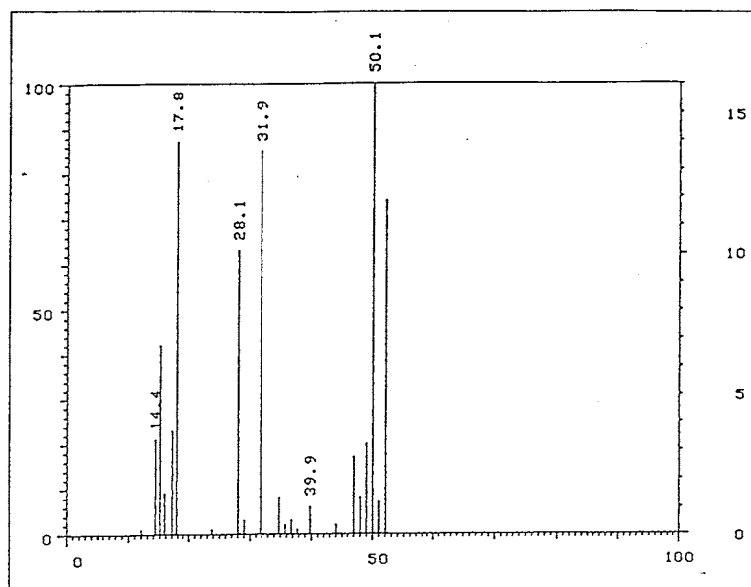
1. Spectral data

(1) Mass Spectrometry

Instrument: Hitachi M-80B

Ionization: EI(Electron Ionization)

Ionization Voltage: 70eV



Mass Spectrum of METHYL CHLORIDE

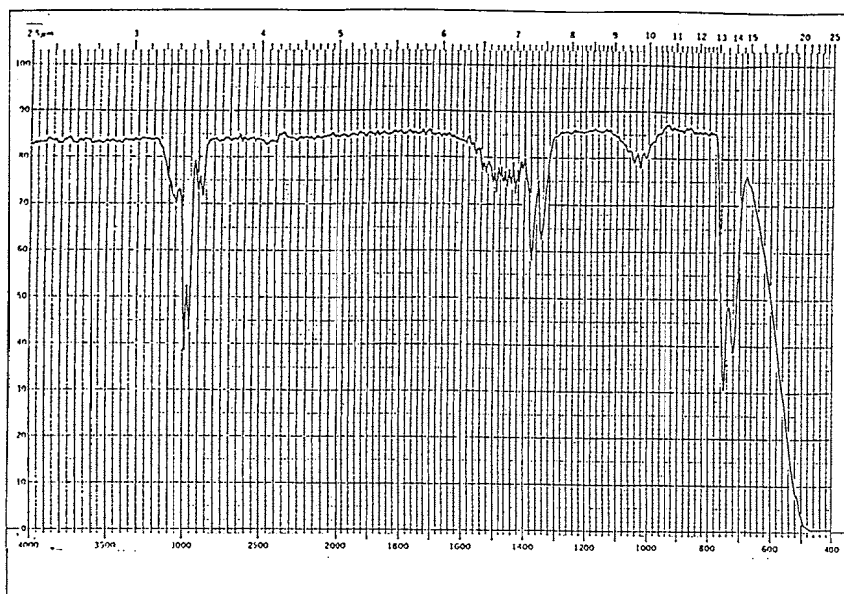
Result:

	<u>Molecule Weight</u>
Theoretical Value	49.99(Calculated)
Determined	50.1



(2) Infrared Spectrometry

Instrument : Hitachi 270-30  
Cell : KBr(Liquid Cell)  
Slit : Medium



Infrared Spectrum of METHYL CHLORIDE

Results

Determines  
: Wave Number  
(CM<sup>-1</sup>)

Literature Values

700 ~ 780  
960 ~ 1100  
1300 ~ 1400  
1420 ~ 1580  
2900 ~ 3100

680 ~ 780  
960 ~ 1080  
1300 ~ 1400  
1420 ~ 1580  
2900 ~ 3100

(Sadtler Handbook  
by Sadtler Research  
Laboratories, Inc.)

## 2. Gas Chromatography

Instrument: Hewlett Packard 5890A  
Column: Methyl Silicone(0.2mm $\phi$   $\times$  50m)  
Column Temperature: 80°C  
Flow Rate: 1 ml/min  
Detector: FID(Hydrogen Flame Ionization)  
Injection Volume: 1  $\mu$ l

Results: Only major peak

Peak No.	Retention Time(min)	Retention Time Relative to Major Peak	AREA (percent of major peak)
1	2.095	1.00	100

3. Conclusions: The result of the mass spectrum agreed with the theoretical value and the infrared spectrum agreed with the literature values. Gas chromatography indicated only the major peak.

APPENDIX A 6-2

STABILITY OF METHYL CHLORIDE AT THE JAPAN BIOASSAY LABORATORY

(TOW-WEEK STUDY)

STABILITY OF METHYL CHLORIDE AT THE JAPAN BIOASSAY LABORATORY(TWO-WEEK STUDIES)

Lot no.P91031

1. Sample storage: Methyl Chloride was stored for about 2 weeks at 5°C.

2. Infrared Spectrometry

Instrument : Hitachi 270-30  
 Cell : KBr(Liquid Cell)  
 Slit : Medium

Results	<u>07/19/91</u>	<u>08/08/91</u>
	: Wave Number (CM <sup>-1</sup> )	
	700~ 780	700~ 780
	960~ 1100	960~ 1100
	1300~ 1400	1300~ 1400
	1420~ 1580	1420~ 1580
	2900~ 3100	2900~ 3100

3. Gas Chromatography

Instrument: Hewlett Packard 5890A  
 Column: Methyl Silicone(0.2mmφ × 50m)  
 Column Temperature: 80°C  
 Flow Rate: 1 ml/min  
 Detector: FID(Hydrogen Flame Ionization)  
 Injection Volume: 1 μl

Results: Only major peak

Date	Retention Time(min)	Retention Time Relative to Major Peak	Area (percent of Major peak)
07/19/91	2.095	1.00	100
08/08/91	2.1	1.00	100

3. Conclusions: The results of the infrared spectrum agreed with the previous determine of test values. Gas chromatography indicates only the major peak. Consequently, Methyl Chloride was stable as the chemical when stored for about 2 weeks at 5°C.

APPENDIX A 7-1

CONCENTRATION OF METHYL CHLORIDE IN INHALATION CHAMBER

(TOW-WEEK STUDY)

CONCENTRATION OF METHYL CHLORIDE IN INHALATION CHAMBER  
(RAT : TWO-WEEK STUDY)

Group Name	Concentration (ppm)		
	Mean	±	S. D.
Control	0.0	±	0.0
190ppm	189.6	±	1.9
380ppm	381.8	±	5.1
750ppm	753.0	±	7.0
1500ppm	1506.0	±	9.7
3000ppm	2999.4	±	27.0

CONCENTRATION OF METHYL CHLORIDE IN INHALATION CHAMBER  
(MOUSE : TWO-WEEK STUDY)

Group Name	Concentration (ppm)		
	Mean	±	S. D.
Control	0.0	±	0.0
190ppm	188.6	±	3.0
380ppm	380.4	±	2.7
750ppm	750.5	±	7.1
1500ppm	1501.3	±	8.6
3000ppm	3040.6	±	48.1

APPENDIX A 7-2

ENVIRONMENT OF INHALATION CHAMBER

(TOW-WEEK STUDY)

ENVIRONMENT OF INHALATION CHAMBER

(RAT : TWO-WEEK STUDY)

Group Name	TEMPERATURE (°C)			HUMIDITY (%)			VENTILATION RATE (ℓ /min)			ROOM AIR CHANGE (time/h)
	MEAN	±	S. D.	MEAN	±	S. D.	MEAN	±	S. D.	MEAN
Control	22.8	±	0.1	58.5	±	1.0	212.2	±	1.1	12.0
190ppm	23.1	±	0.1	58.8	±	1.0	211.9	±	0.9	12.0
380ppm	22.8	±	0.1	56.2	±	0.7	212.2	±	0.5	12.0
750ppm	22.7	±	0.1	56.8	±	0.9	211.9	±	0.6	12.0
1500ppm	22.8	±	0.1	52.1	±	0.8	212.4	±	1.0	12.0
3000ppm	22.8	±	0.1	57.1	±	1.1	212.7	±	0.6	12.0

ENVIRONMENT OF INHALATION CHAMBER

(MOUSE : TWO-WEEK STUDY)

Group Name	TEMPERATURE (°C)			HUMIDITY (%)			VENTILATION RATE (ℓ /min)			ROOM AIR CHANGE (time/h)
	MEAN	±	S. D.	MEAN	±	S. D.	MEAN	±	S. D.	MEAN
Control	22.0	±	0.1	58.3	±	0.8	103.6	±	0.4	12.0
190ppm	22.1	±	0.1	57.7	±	0.7	104.8	±	0.3	12.1
380ppm	21.9	±	0.1	61.0	±	0.7	104.6	±	0.5	12.1
750ppm	22.0	±	0.1	54.3	±	0.5	104.1	±	0.4	12.0
1500ppm	22.2	±	0.1	53.6	±	0.6	103.9	±	0.5	12.0
3000ppm	21.0	±	0.3	54.2	±	0.9	104.1	±	1.0	12.0