Chemical Name;Methyl chloride
Synonym ;Chloromethane
クロロメタン

Molecular Weight ; 50.49
Melting Point ; - 97.7 ℃ [CHCD]
- 97 ℃ [Aldrich,Merck]
Boiling Point ; - 23.7 ℃ [CHCD,Merck]
- 24.2 ℃ [Aldrich]
Flashing Point ; - 50 ℃ [CHCD]
Molecular Formula; CH_3Cl

Chemical Structure

CH_3Cl

CAS No. ; 74-87-3
MITI No. ; (2)-35
ML No. ; —
Specified Chemical Substances; —

Source of Substance; Sumitomo Seika Co.,Ltd.
Lot No. ; 1XL53181
Purity ; 100 %

Vehicle ; Filtrated Air
Exposure Condition; 37 ℃ , 24 Hr
Culture Condition ; 37 ℃ , 24 Hr

Mutagenicity in Bacterial Test ; **Positive**

IARC Evaluation ; not yet cited

(continue to next page)

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
Air	(149)	(119)	(20)	(17)	(38)	(43)	(16)	(22)	(16)	(21)
	159	143	39	14	36	39	18	17	17	14
	174	145	45	17	53	47	22	22	9	15
0.1	(167)	(144)	(42)	(16)	(45)	(43)	(20)	(20)	(13)	(15)
	230	163	41	21	33	54	17	17	17	22
	184	188	43	11	34	40	20	17	21	33
0.5	(207)	(176)	(42)	(16)	(34)	(47)	(19)	(17)	(19)	(28)
	278	256	45	9	42	52	26	16	29	21
	242	276	49	16	32	59	13	22	24	16
1	(260)	(266)	(47)	(13)	(37)	(56)	(20)	(19)	(27)	(19)
	688	729	75	71	69	71	20	13	21	18
	721	673	67	101	54	72	15	15	17	32
5	(705)	(701)	(71)	(86)	(62)	(72)	(18)	(14)	(19)	(25)
	944	1359	303	590	108	131	15	14	25	17
	1046	1313	306	599	99	115	25	22	20	28
10	(995)	(1336)	(305)	(595)	(104)	(123)	(20)	(18)	(23)	(23)
	528	1013	1510	1294	139	546	2	5*	22	7
	539	928	1447	1241	126	544	3	6*	21	7
50	(534)	(971)	(1479)	(1268)	(133)	(545)	(3)	(6*)	(22)	(7)
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
100	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	+	+	+	+	+	+	−	−	−	−
Positive Minimum Concentration	**5 %**	**1 %**	**0.1%**	**5 %**	**10 %**	**10 %**				
Positive Control	AF-2 (831)	2-AA (1634)	NaN_3 (465)	2-AA (394)	AF-2 (224)	2-AA (1341)	AF-2 (532)	2-AA (367)	9-AA (1164)	2-AA (323)

Experimental Data - 1

(continue from previous page)

Conc. %	Number of Revertants/plate Base-substitution WP2*uvrA*/pKM101 S9−	S9+
Air	(69)	(105)
	64	124
	71	122
0.1	(68)	(123)
	92	172
	96	164
0.5	(94)	(168)
	139	187
	130	200
1	(135)	(194)
	301	477
	313	446
5	(307)	(462)
	511	787
	498	786
10	(505)	(787)
	3	1334
	8	1471
50	(6)	(1403)
	0*	0*
	0*	0*
100	(0*)	(0*)
Judgement	+	+
Positive Minimum Concentration	**5 %**	**5 %**
Positive Control	AF-2 (979)	2-AA (1222)

Experimental Data - 2

Conc. %	Number of Revertants/plate											
	Base-substitution								Frame-shift			
	TA100		TA1535		WP2*uvrA*		WP2*uvrA*/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
Air	(144)	(134)	(22)	(13)	(32)	(36)	(52)	(80)	(17)	(26)	(8)	(14)
	156	143	49	10	25	51	45	81				
	134	143	37	16	37	40	61	75				
0.01	(145)	(143)	(43)	(13)	(31)	(46)	(53)	(78)				
	146	134	38	16	45	46	63	99				
	160	126	47	15	43	53	69	107				
0.05	(153)	(130)	(43)	(16)	(44)	(50)	(66)	(103)				
	160	151	55	10	30	48	68	133	18	36	10	13
	153	146	53	15	36	39	71	82	21	16	8	18
0.1	(157)	(149)	(54)	(13)	(33)	(44)	(70)	(108)	(20)	(26)	(9)	(16)
	207	204	50	14	44	44	91	144	16	31	8	13
	207	204	49	22	38	51	101	124	15	22	6	9
0.5	(207)	(204)	(50)	(18)	(41)	(48)	(96)	(134)	(16)	(27)	(7)	(11)
	278	279	41	21	45	48	142	198	22	20	6	9
	272	297	50	18	39	41	126	194	10	23	6	9
1	(275)	(288)	(46)	(20)	(42)	(45)	(134)	(196)	(16)	(22)	(6)	(9)
	682	847	45	116	56	54	358	486	16	23	10	8
	724	707	52	113	56	71	316	526	15	29	8	7
5	(703)	(777)	(49)	(115)	(56)	(63)	(337)	(506)	(16)	(26)	(9)	(8)
	1024	1108	334	547	92	117	607	759	15	36	6	7
	1060	1131	332	551	108	111	558	728	26	30	6	9
10	(1042)	(1120)	(333)	(549)	(100)	(114)	(583)	(744)	(21)	(33)	(6)	(8)
									7	3*	5	5
									5	6*	8	3
50									(6)	(5*)	(7)	(4)
									0*	0*	0*	0*
									0*	0*	0*	0*
100									(0*)	(0*)	(0*)	(0*)
Judgement	+	+	+	+	+	+	+	+	−	−	−	−
Positive Minimum Concentration	**5 %**	**1 %**	**0.1%**	**5 %**	**10 %**	**10 %**	**1 %**	**1 %**				
Positive Control	AF-2 (782)	2-AA (1920)	NaN_3 (395)	2-AA (434)	AF-2 (215)	2-AA (1395)	AF-2 (1336)	2-AA (1247)	AF-2 (584)	2-AA (366)	9-AA (1192)	2-AA (353)