

Methylene chloride

[塩化メレン]

Experimental Data - 1

(B9414-1/3)

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Chemical Name;	Methylene chloride
Synonym	; Dichloromethane
	<u>Methane dichloride</u>
	<u>シクロメタン</u>
	<u>メタンシクロリド</u>
	<u>メチレンクロライド</u>
Molecular Weight	; 84.93
Melting Point	; - 97 °C [Aldrich]
	- 95 °C [Merck]
Boiling Point	; 40.1 °C [CHCD]
	40 °C [Aldrich]
	39.75 °C [Merck]
Flashing Point	; - °C
Molecular Formula;	CH ₂ Cl ₂
Chemical Structure	
	CH₂Cl₂
CAS No.	; 75-09-2
MITI No.	; (2)-36
ML No.	; -
Specified Chemical Substances;	-
Source of Substance;	Tokyo Kasei Kogyo Co., Ltd.
Lot No.	; FGB01
Purity	; 99.5 %
Vehicle	; Filtrated Air
Exposure Condition;	37 °C , 24 Hr
Culture Condition	; 37 °C , 24 Hr

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
Air	(150)	(146)	(12)	(12)	(35)	(40)	(13)	(25)	(14)	(16)
	142	157	14	11	25	48	11	26	9	22
	179	163	11	14	33	53	23	18	11	20
0.05	(161)	(160)	(13)	(13)	(29)	(51)	(17)	(22)	(10)	(21)
	184	206	11	10	29	54	15	24	14	13
	174	235	13	11	43	38	16	31	18	22
0.1	(179)	(221)	(12)	(11)	(36)	(46)	(16)	(28)	(16)	(18)
	202	169	17	15	43	41	14	31	11	15
	213	195	13	21	34	44	14	21	13	17
0.5	(208)	(182)	(15)	(18)	(39)	(43)	(14)	(26)	(12)	(16)
	471	444	23	21	63	46	59	79	20	29
	449	497	16	14	48	56	75	70	20	25
1	(460)	(471)	(20)	(18)	(56)	(51)	(67)	(75)	(20)	(27)
	1439	1598	46	51	69	90	531	581	13	24
	1407	1742	47	40	61	93	451	636	10	28
5	(1423)	(1670)	(47)	(46)	(65)	(92)	(491)	(609)	(12)	(26)
	1641	1930	59	40	108	96	1133	743	21	20
	1595	2094	59	57	97	109	1046	807	17	25
10	(1618)	(2012)	(59)	(49)	(103)	(103)	(1090)	(775)	(19)	(23)
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
50	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	+	+	+	+	+	+	+	+	-	-
Positive Minimum Concentration	1 %	1 %	5 %	5 %	10 %	5 %	1 %	1 %		
Positive Control	AF-2 (770)	2-AA (1405)	NaN ₃ (409)	2-AA (405)	AF-2 (242)	2-AA (1139)	AF-2 (493)	2-AA (323)	9-AA (1250)	2-AA (342)

Mutagenicity in Bacterial Test ; **Positive**

IARC Evaluation ; Group 2B

Experimental Data - 1

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Conc. %	Number of Revertants/plate	
	Base-substitution	
	WP2uvrA/pKM101	
	S9-	S9+
Air	(54)	(90)
	45	100
	54	105
0.05	(50)	(103)
	53	94
	60	77
0.1	(57)	(86)
	56	68
	57	75
0.5	(57)	(72)
	75	97
	94	93
1	(85)	(95)
	329	354
	312	311
5	(321)	(333)
	324	471
	260	391
10	(292)	(431)
	0*	0*
	0*	0*
50	(0*)	(0*)
Judgement	+	+
Positive Minimum Concentration	5 %	5 %
Positive Control	AF-2 (802)	2-AA (887)

Conc. %	Number of Revertants/plate											
	Base-substitution								Frame-shift			
	TA100		TA1535		WP2 <i>uvrA</i>		WP2 <i>uvrA</i> /pKM101		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
Air	(111)	(111)	(17)	(14)	(25)	(31)	(46)	(80)	(17)	(26)	(14)	(13)
	138	158	21	17	26	30	59	86	20	34		
	144	146	20	14	20	31	37	104	21	31		
0.2	(141)	(152)	(21)	(16)	(23)	(31)	(48)	(95)	(21)	(33)		
	183	180	17	16	36	34	41	101	22	30		
	206	179	16	16	29	43	62	102	28	44		
0.5	(195)	(180)	(17)	(16)	(33)	(39)	(52)	(102)	(25)	(37)		
	473	466	21	23	44	36	76	116	79	72	8	14
	454	476	23	26	29	30	92	102	77	79	15	17
1	(464)	(471)	(22)	(25)	(37)	(33)	(84)	(109)	(78)	(76)	(12)	(16)
	933	844	25	40	32	46	113	136	176	183	18	23
	903	836	29	30	54	37	98	139	164	200	16	32
2	(918)	(840)	(27)	(35)	(43)	(42)	(106)	(138)	(170)	(192)	(17)	(28)
	2673	2127	71	54	99	54	561	355	1434	598	22	22
	2821	2184	55	70	92	57	488	299	1620	771	17	20
5	(2747)	(2156)	(63)	(62)	(96)	(56)	(525)	(327)	(1527)	(685)	(20)	(21)
	1864	3067	43	49	66	74	401	690	644	1295	24	13
	1751	3307	46	67	61	87	325	518	680	1307	13	24
10	(1808)	(3187)	(45)	(58)	(64)	(81)	(363)	(604)	(662)	(1301)	(19)	(19)
											6*	1*
											6*	2*
20											(6*)	(2*)
											0*	0*
											0*	0*
50											(0*)	(0*)
Judgement	+	+	+	+	+	+	+	+	+	+	-	-
Positive Minimum Concentration	1 %	1 %	5 %	2 %	5 %	10 %	2 %	5 %	1 %	1 %		
Positive Control	AF-2 (730)	2-AA (1485)	NaN ₃ (453)	2-AA (364)	AF-2 (200)	2-AA (1301)	AF-2 (798)	2-AA (1175)	AF-2 (522)	2-AA (335)	9-AA (1844)	2-AA (304)