

Experimental Data-1

(B0004-1/4)

Chloroform (クロロホルム)

Chemical Name : Chloroform
 Synonym : Trichloromethane
FLON-20

Molecular Weight : 119.38
 Melting Point : -63.2°C[CHCD]
 Boiling Point : 61.3°C[CHCD]
 Flashing Point : -
 Molecular Formular: CHCl₃

Chemical Structure:

$$\begin{array}{c} \text{Cl} \\ | \\ \text{Cl}-\text{C}-\text{Cl} \\ | \\ \text{H} \end{array}$$

CAS No. : 67-66-3
 METI No. : (2)-37
 MHLW No. : -
 Specified Chemical Substances: -

Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
 Lot No. : GG01
 Purity : >99.0%

Vehicle : Air
 Exposure Condition : 37°C, 24hr
 Culture Condition : 37°C, 24hr

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA/pKM101		TA98		TA1537	
Air	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
		(105)	(106)	(11)	(11)	(73)	(86)	(14)	(25)	(10)
0 .005	101	136	3	7	82	101	10	18	15	7
	108	94	9	13	82	128	11	24	8	6
	(105)	(115)	(6)	(10)	(82)	(115)	(11)	(21)	(12)	(7)
0 .01	116	91	15	10	77	96	18	20	13	15
	91	109	10	9	62	114	11	22	6	3
	(104)	(100)	(13)	(10)	(70)	(105)	(15)	(21)	(10)	(9)
0 .05	114	102	8	17	82	134	17	24	6	11
	120	120	15	11	74	136	18	26	9	11
	(117)	(111)	(12)	(14)	(78)	(135)	(18)	(25)	(8)	(11)
0 .1	87	93	7	6	76	145	11	23	8	11
	116	111	16	6	78	122	13	31	5	10
	(102)	(102)	(12)	(6)	(77)	(134)	(12)	(27)	(7)	(11)
0 .5	99	109	10	16	75	128	16	21	9	15
	106	99	13	13	89	124	14	20	11	8
	(103)	(104)	(12)	(15)	(82)	(126)	(15)	(21)	(10)	(12)
1	100	96	10	14	72	107	14	32	6	7
	87	100	13	10	68	126	16	28	13	13
	(94)	(98)	(12)	(12)	(70)	(117)	(15)	(30)	(10)	(10)
5	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 *)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (499)	2-AA (1532)	NaN ₃ (386)	2-AA (274)	AF-2 (755)	2-AA (1415)	AF-2 (592)	2-AA (354)	9-AA (505)	2-AA (287)

Mutagenicity in Bacterial Test: Negative

IARC Evaluation : Group 2B

* Growth inhibition was observed.

Experimental Data-2

(B0004-2/4)

Conc. %	Number of Revertants/plate				
	Base-substitution			Frame-shift	
	TA100	TA1535	WP2 <i>uvrA</i> /pKM101	TA98	TA1537
Air	S9+ with glutathion	S9+ with glutathion	S9+ with glutathion	S9+ with glutathion	S9+ with glutathion
	(103)	(9)	(93)	(22)	(10)
0 .005	105 109 (107)	10 16 (13)	97 106 (102)	21 26 (24)	10 3 (7)
	101 108 (105)	13 9 (11)	113 111 (112)	18 28 (23)	7 2 (5)
0 .05	98 106 (102)	5 10 (8)	100 105 (103)	28 29 (29)	6 5 (6)
	113 101 (107)	8 2 (5)	121 120 (121)	25 25 (25)	8 7 (8)
0 .5	85 116 (101)	9 13 (11)	141 142 (142)	24 25 (25)	11 8 (10)
	89 84 (87)	13 9 (11)	130 131 (131)	23 33 (28)	7 10 (9)
5	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)
	Judgement	—	—	—	—
Specific Mutagenicity					
Positive Control	()	()	()	()	()

* Growth inhibition was observed.

Experimental Data-3

(B0004-3/4)

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 _{uvrA} /pKM101		TA98		TA1537	
Air	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	(102)	(106)	(12)	(11)	(81)	(94)	(21)	(27)	(7)	(9)
0.05	113	112	17	10	72	108	23	30	10	10
	84	111	17	17	84	109	21	41	6	8
	(99)	(112)	(17)	(14)	(78)	(109)	(22)	(36)	(8)	(9)
0.1	119	106	15	10	71	90	22	24	9	13
	115	104	10	6	76	112	20	32	6	10
	(117)	(105)	(13)	(8)	(74)	(101)	(21)	(28)	(8)	(12)
0.2	102	108	20	9	71	108	15	24	9	11
	104	101	14	9	67	101	21	37	6	13
	(103)	(105)	(17)	(9)	(69)	(105)	(18)	(31)	(8)	(12)
0.5	87	94	9	14	60	106	21	32	7	6
	87	111	13	13	81	114	20	32	7	14
	(87)	(103)	(11)	(14)	(71)	(110)	(21)	(32)	(7)	(10)
1	76	102	15	7	54	111	13	33	8	7
	93	100	14	15	94	91	16	36	9	13
	(85)	(101)	(15)	(11)	(74)	(101)	(15)	(35)	(9)	(10)
2	81	92	13	11	53	101	11	31	9	11
	77	75	10	10	61	120	18	37	6	10
	(79)	(84)	(12)	(11)	(57)	(111)	(15)	(34)	(8)	(11)
5	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 *)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF-2 (531)	2-AA (1240)	NaN ₃ (440)	2-AA (286)	AF-2 (692)	2-AA (1396)	AF-2 (583)	2-AA (371)	9-AA (383)	2-AA (219)

* Growth inhibition was observed.

Experimental Data-4

(B0004-4/4)

Conc. %	Number of Revertants/plate				
	Base-substitution			Frame-shift	
	TA100	TA1535	WP2 <i>uvrA</i> /pKM101	TA98	TA1537
Air	S9+ with glutathion	S9+ with glutathion	S9+ with glutathion	S9+ with glutathion	S9+ with glutathion
	(112)	(11)	(93)	(25)	(10)
0 .05	124	8	100	39	10
	87 (106)	7 (8)	101 (101)	34 (37)	7 (9)
0 .1	92	8	135	38	6
	101 (97)	11 (10)	109 (122)	29 (34)	7 (7)
0 .2	101	13	120	20	10
	117 (109)	5 (9)	119 (120)	33 (27)	16 (13)
0 .5	104	11	167	22	15
	112 (108)	9 (10)	152 (160)	33 (28)	9 (12)
1	85	11	155	36	11
	105 (95)	14 (13)	153 (154)	45 (41)	17 (14)
2	63	10	124	38	13 *
	64 (64)	10 (10)	142 (133)	25 (32)	11 * (12 *)
5	0 *	0 *	0 *	0 *	0 *
	0 * (0 *)	0 * (0 *)	0 * (0 *)	0 * (0 *)	0 * (0 *)
Judgement	—	—	—	—	—
Specific Mutagenicity					
Positive Control	()	()	()	()	()

* Growth inhibition was observed.