2-Chloroethanol (2-クロロエタノール)

Experimental Data

Chemical Name: 2-Chloroethanol
Synonym: Ethylene chlorohydrin
Ethanol, 2-chloro-
Molecular weight: 80.52
Boiling point: 127~131℃
Melting point: -89℃
Flashing point: 60℃

Chemical Structure

CH_2ClCH_2OH

CAS No : 107-07-3
MITI No: (2)-2002

Source of Substance: Wako Pure Chem. Ind., Ltd.
Lot.No.: AWH5040
Purity: 99.2 %
Vehicle: DMSO

Mutagenicity
in Bacterial test: Positive

IARC Evaluation: not yet cited

Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(142)	(152)	(22)	(17)	(43)	(47)	(17)	(25)	(4)	(7)
	158	160	15	14	42	61	14	33	10	5
	154	163	26	18	45	48	11	31	2	7
50	(156)	(162)	(21)	(16)	(44)	(55)	(13)	(32)	(6)	(6)
	154	157	16	13	34	33	16	19	6	3
	142	170	17	15	32	42	16	30	10	7
100	(148)	(164)	(17)	(14)	(33)	(38)	(16)	(25)	(8)	(5)
	146	171	9	15	44	59	20	31	5	4
	155	161	13	12	46	44	22	29	6	11
200	(151)	(166)	(11)	(14)	(45)	(52)	(21)	(30)	(6)	(8)
	150	178	17	11	35	44	18	44	2	4
	145	165	18	11	44	55	16	40	5	4
500	(148)	(172)	(18)	(11)	(40)	(50)	(17)	(42)	(4)	(4)
	130	170	13	13	31	69	8	31	5	2
	146	165	26	17	47	46	14	35	6	6
1000	(138)	(168)	(20)	(15)	(39)	(58)	(11)	(33)	(6)	(4)
	157	138	26	15	70	70	26	42	2	3
	159	147	14	14	59	58	15	33	9	6
2000	(158)	(143)	(20)	(15)	(65)	(64)	(21)	(38)	(6)	(5)
	184	178	28	23	175	80	27	31	5	4
	211	163	29	27	196	78	21	34	8	9
5000	(198)	(171)	(29)	(25)	(186)	(79)	(24)	(33)	(7)	(7)
Judgement	−	−	−	−	+	−	−	−	−	−
Specific Mutagenicity					28.6					
Positive Control	AF2 (635)	2AA (1455)	NaN_3 (315)	2AA (510)	AF2 (553)	2AA (1022)	AF2 (448)	2AA (479)	9AA (600)	2AA (354)

Experimental Data

Con. μg/plate	Number of Revertants/plate Base-substitution WP2uvrA S9-	S9+
DMSO	47	43
	43	35
	(50)	(52)
200	45	39
	50	44
	46	47
	(48)	(46)
500	52	65
	48	55
	(50)	(60)
1000	52	71
	68	57
	(60)	(64)
2000	92	85
	87	74
	(90)	(80)
3000	122	83
	105	78
	(114)	(81)
4000	123	112
	102	73
	(113)	(93)
5000		
Judgement	+	−
Specific Mutagenicity	16.0	
Positive Control	AF2 (413)	2AA (918)