Sodium hydroxymethanesulfinate dihydrate
(ヒドロキシメタンスルフィン酸ナトリウム二水和物)

Experimental Data-1

(B9622-1/3)

Chemical Name ; Sodium hydroxymethane sulfinate dihydrate

Synonym ; Sodium formaldehyde-sulfoxylate
Rongalite
ソジウムホルムアルデヒドスルホキシレート

Molecular Weight ; 118.09+aq
Melting Point ; 63-64℃(dihydrate)[CHCD]
Boiling Point ; −
Flashing Point ; −
Molecular Formula ; $CH_3NaO_3S+2H_2O$

Chemical Structure

$HOCH_2SO_2Na \cdot 2H_2O$

CAS No. ; 149-44-0
MITI No. ; (2)-499, (2)-1663
ML No. ; −
Specified Chemical Substances ; −

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; GD01
Purity ; 98.9%

Vehicle ; H_2O

Mutagenicity in Bacterial Test ; Negative

IARC Evaluation ; not yet cited

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
H_2O	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
	(161)	(175)	(7)	(12)	(28)	(29)	(12)	(20)	(8)	(11)
	164	186	9	13	16	34	14	30	8	7
	146	144	10	8	17	40	18	31	7	8
1 .22	(155)	(165)	(10)	(11)	(17)	(37)	(16)	(31)	(8)	(8)
	176	151	6	14	26	23	13	23	8	11
	162	150	5	8	22	21	10	20	6	13
4 .88	(169)	(151)	(6)	(11)	(24)	(22)	(12)	(22)	(7)	(12)
	146	162	11	6	22	32	21	17	5	9
	173	145	7	13	15	29	7	20	6	9
19 .5	(160)	(154)	(9)	(10)	(19)	(31)	(14)	(19)	(6)	(9)
	174	178	6	13	32	24	10	16	5	14
	139	157	6	14	22	22	13	28	3	20
78 .1	(157)	(168)	(6)	(14)	(27)	(23)	(12)	(22)	(4)	(17)
	149	146	11	5	25	37	18	17	7	17
	160	162	7	7	28	26	10	15	7	17
313	(155)	(154)	(9)	(6)	(27)	(32)	(14)	(16)	(7)	(17)
	133	128	8	9	31	25	7	21	5	6
	126	131	7	9	31	20	10	20	5	8
1250	(130)	(130)	(8)	(9)	(31)	(23)	(9)	(21)	(5)	(7)
	77 *	107	6 *	6	25	17	15 *	17	3 *	8
	81 *	115	7 *	6	29	24	11 *	21	3 *	8
5000	(79 *)	(111)	(7 *)	(6)	(27)	(21)	(13 *)	(19)	(3 *)	(8)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (636)	2-AA (1145)	NaN_3 (291)	2-AA (266)	AF-2 (267)	2-AA (1161)	AF-2 (374)	2-AA (408)	9-AA (731)	2-AA (149)

* Growth inhibitation was observed.

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
H_2O	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
	(169)	(171)	(7)	(7)	(24)	(24)	(11)	(24)	(6)	(10)
	152		9				18		6	
	162		7				20		6	
156	(157)		(8)				(19)		(6)	
	145	149	10	9	15	26	15	29	2	13
	146	180	7	10	18	30	20	17	3	8
313	(146)	(165)	(9)	(10)	(17)	(28)	(18)	(23)	(3)	(11)
	139	162	6	11	17	23	10	26	7	7
	116	155	14	10	21	31	23	15	8	6
625	(128)	(159)	(10)	(11)	(19)	(27)	(17)	(21)	(8)	(7)
	137	133	5	9	25	18	20	25	3	10
	133	139	8	5	15	17	11	23	7	5
1250	(135)	(136)	(7)	(7)	(20)	(18)	(16)	(24)	(5)	(8)
	130	111	5	7	25	21	16	33	7	8
	114	138	6	5	28	20	14	28	2	6
2500	(122)	(125)	(6)	(6)	(27)	(21)	(15)	(31)	(5)	(7)
	124 *	122	13 *	6	23	23	15 *	31	6 *	5
	128 *	126	10 *	10	37	22	11 *	28	6 *	11
5000	(126 *)	(124)	(12 *)	(8)	(30)	(23)	(13 *)	(30)	(6 *)	(8)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (691)	2-AA (1129)	NaN_3 (366)	2-AA (249)	AF-2 (234)	2-AA (1235)	AF-2 (355)	2-AA (417)	9-AA (748)	2-AA (152)

Experimental Data-3

Conc. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2*uvr*A/pKM101	
H_2O	S9−	S9+	S9−	S9+	S9−	S9+
	(275)	(361)	(320)	(328)	(38)	(84)
	238	368	334	310	48	72
	272	350	323	329	44	78
4 .88	(255)	(359)	(329)	(320)	(46)	(75)
	291	344	324	328	34	81
	279	336	341	355	53	71
19 .5	(285)	(340)	(333)	(342)	(44)	(76)
	275	318	310	314	67	83
	255	322	295	317	44	75
78 .1	(265)	(320)	(303)	(316)	(56)	(79)
	319	396	317	292	48	70
	281	365	291	326	60	81
313	(300)	(381)	(304)	(309)	(54)	(76)
	317	332	230	234	46	68
	287	338	229	272	45	66
1250	(302)	(335)	(230)	(253)	(46)	(67)
	303	329	216	221	46	66
	259	313	202	219	37	48
5000	(281)	(321)	(209)	(220)	(42)	(57)
Judgement	−	−	−	−	−	−
Specific Mutagenicity						
Positive Control	BLM (673)	2-AA (1261)	PA (1488)	2-AA (1390)	AF-2 (961)	2-AA (1032)

Experimental Data-4 (B9622-3/3)

Conc. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2*uvr*A/pKM101	
H_2O	S9−	S9+	S9−	S9+	S9−	S9+
	(212)	(264)	(288)	(263)	(46)	(67)
	233	287	246	254	30	64
	214	266	275	213	34	60
313	(224)	(277)	(261)	(234)	(32)	(62)
	215	243	229	254	53	74
	188	291	226	267	53	76
625	(202)	(267)	(228)	(261)	(53)	(75)
	218	267	215	245	43	84
	236	278	215	215	51	56
1250	(227)	(273)	(215)	(230)	(47)	(70)
	236	265	193	195	47	114
	246	250	213	222	41	82
2500	(241)	(258)	(203)	(209)	(44)	(98)
	218	253	160	177	48	66
	233	249	163	156	49	43
5000	(226)	(251)	(162)	(167)	(49)	(55)
Judgement	−	−	−	−	−	−
Specific Mutagenicity						
Positive Control	BLM (606)	2-AA (1260)	PA (2185)	2-AA (1418)	AF-2 (1208)	2-AA (867)