

[硫化ナトリウム・九水和物]

Chemical Name; Sodium sulfide enneahydrate
 Synonym ; Sodium sulfide nonahydrate

Molecular Weight ; 240.18
 Melting Point ; ~ 50 °C [Merck]
 Boiling Point ; - °C
 Flashing Point ; - °C
 Molecular Formula; Na₂S·9H₂O

Chemical Structure



CAS No. ; 1313-84-4
 MITI No. ; (1)-514
 ML No. ; -

Specified Chemical Substances; -

Source of Substance; Wako Junyaku Kogyo Co., Ltd.
 Lot No. ; PTE3808
 Purity ; 98 %

Vehicle ; Dehydrated DMSO

Mutagenicity in Bacterial Test : Positive

IARC Evaluation ; not yet cited

Conc. 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	(131)	(153)	(20)	(17)	(28)	(34)	(18)	(23)	(8)	(11)
	153	138	20	23	31	43	17	26	5	9
	151	151	22	6	37	32	23	24	13	11
0.0763	(152)	(145)	(21)	(15)	(34)	(38)	(20)	(25)	(9)	(10)
	122	130	30	20	33	34	18	18	7	10
	143	146	19	18	36	40	22	20	5	14
0.305	(133)	(138)	(25)	(19)	(35)	(37)	(20)	(19)	(6)	(12)
	136	159	31	15	39	34	13	24	9	11
	163	165	26	15	38	34	17	-	11	16
1.22	(150)	(162)	(29)	(15)	(39)	(34)	(15)	(24)	(10)	(14)
	184	155	28	15	31	49	16	26	11	16
	155	143	28	20	26	44	13	26	6	11
4.88	(170)	(149)	(28)	(18)	(29)	(47)	(15)	(26)	(9)	(14)
	131	167	24	17	29	37	18	18	8	16
	150	153	30	17	33	31	13	23	5	16
19.5	(141)	(160)	(27)	(17)	(31)	(34)	(16)	(21)	(7)	(16)
	116	149	25	7	48	22	15	23	10	11
	123	134	22	11	36	31	17	21	9	13
78.1	(120)	(142)	(24)	(9)	(42)	(27)	(16)	(22)	(10)	(12)
	139	146	25	21	25	38	20	30	5	16
	153	136	30	11	28	34	15	34	7	13
313	(146)	(141)	(28)	(16)	(27)	(36)	(18)	(32)	(6)	(15)
	146	130*	24	17*	18	48*	26	23*	9	9*
	173	102*	20	18*	43	29*	26	39*	7	9*
1250	(160)	(116*)	(22)	(18*)	(31)	(39*)	(26)	(31*)	(8)	(9*)
	0*	0*	0*	0*	38*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	53*	0*	0*	0*	0*	0*
5000	(0*)	(0*)	(0*)	(0*)	(46*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (903)	2-AA (1309)	NaN ₃ (444)	2-AA (343)	AF-2 (304)	2-AA (1180)	AF-2 (404)	2-AA (345)	9-AA (787)	2-AA (213)

Experimental Data - 2

Conc. µg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 _{uvrA}		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(113)	(113)	(21)	(17)	(23)	(32)	(13)	(21)	(5)	(9)
	97	108	25	7	18	29	13	15	5	6
	102	124	23	16	25	28	18	9	5	10
39.1	(100)	(116)	(24)	(12)	(22)	(29)	(16)	(12)	(5)	(8)
	106	99	23	18	22	29	9	21	2	10
	102	116	24	22	21	36	18	17	7	11
78.1	(104)	(108)	(24)	(20)	(22)	(33)	(14)	(19)	(5)	(11)
	100	122	29	14	13	24	16	20	10	8
	114	84	18	17	29	28	15	18	2	6
156	(107)	(103)	(24)	(16)	(21)	(26)	(16)	(19)	(6)	(7)
	97	115	18	23	20	30	15	26	6	11
	114	101	30	24	28	33	17	23	10	9
313	(106)	(108)	(24)	(24)	(24)	(32)	(16)	(25)	(8)	(10)
	112	124*	24	16	26	14	18	10*	8	7
	113	94*	23	21	22	23	11	18*	6	6
625	(113)	(109*)	(24)	(19)	(24)	(19)	(15)	(14*)	(7)	(7)
	119	109*	16	17*	17	22*	13*	24*	6	11*
	106	119*	30	18*	16	23*	14*	16*	9	10*
1250	(113)	(114*)	(23)	(18*)	(17)	(23*)	(14*)	(20*)	(8)	(11*)
	113*	0*	9*	0*	36	0*	16*	0*	11*	0*
	122*	0*	20*	0*	17	0*	24*	0*	8*	0*
2500	(118*)	(0*)	(15*)	(0*)	(27)	(0*)	(20*)	(0*)	(10*)	(0*)
	0*	0*	0*	0*	14*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	15*	0*	0*	0*	0*	0*
5000	(0*)	(0*)	(0*)	(0*)	(15*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF-2 (565)	2-AA (1250)	NaN ₃ (342)	2-AA (288)	AF-2 (311)	2-AA (1109)	AF-2 (392)	2-AA (400)	9-AA (893)	2-AA (216)

Experimental Data - 3 (B9411-2/4)

Conc. µg/plate	Number of Revertants/plate	
	Frame-shift	
	S9-	S9+
DMSO	(7)	(10)
		14
		11
39.1		(13)
		11
		10
78.1		(11)
	7	7
	8	11
156	(8)	(9)
	7	9
	7	13
313	(7)	(11)
	5	10*
	9	7*
625	(7)	(9*)
	10	15*
	14	10*
1250	(12)	(13*)
	9	8*
	8	10*
2000	(9)	(9*)
	0*	
	0*	
2500	(0*)	
	0*	
	0*	
3000	(0*)	
Judgement	—	—
Specific Mutagenicity		
Positive Control	9-AA (779)	2-AA (188)

Experimental Data - 4

Conc. µg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(331)	(424)	(359)	(471)	(75)	(123)
	279	401	322	419	48	86
	280	378	316	394	57	87
0.0763	(280)	(390)	(319)	(407)	(53)	(87)
	317	338	307	404	61	69
	303	370	319	334	63	71
0.305	(310)	(354)	(313)	(369)	(62)	(70)
	285	390	305	368	52	98
	304	433	328	364	66	78
1.22	(295)	(412)	(317)	(366)	(59)	(88)
	300	390	291	353	72	77
	322	370	307	376	62	69
4.88	(311)	(380)	(299)	(365)	(67)	(73)
	320	396	331	389	53	90
	288	370	287	366	60	74
19.5	(304)	(383)	(309)	(378)	(57)	(82)
	288	385	316	370	57	77
	297	394	293	404	67	72
78.1	(293)	(390)	(305)	(387)	(62)	(75)
	330	478	278	350	54	81
	343	434	282	360	57	68
313	(337)	(456)	(280)	(355)	(56)	(75)
	462*	760*	377	388*	51	89*
	504	763*	397	380*	64	77*
1250	(483*)	(762*)	(387)	(384*)	(58)	(83*)
	0*	538*	0*	380*	0*	104*
	0*	424*	0*	324*	0*	92*
5000	(0*)	(481*)	(0*)	(352*)	(0*)	(98*)
Judgement	-	-	-	-	-	-
Specific Mutagenicity						
Positive Control	BLM (1058)	2-AA (2645)	PA (2421)	2-AA (1474)	AF-2 (1806)	2-AA (1305)

Experimental Data - 5

(B9411-3/4)

Conc. µg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(312)	(416)	(298)	(373)	(54)	(86)
	305	400	252	352	46	84
	312	435	282	354	69	82
39.1	(309)	(418)	(267)	(353)	(58)	(83)
	318	378	262	378	41	104
	312	401	301	371	44	99
78.1	(315)	(390)	(282)	(375)	(43)	(102)
	337	376	268	344	55	78
	319	412	293	322	52	72
156	(328)	(394)	(281)	(333)	(54)	(75)
	328	430	311	349	46	72
	352	416	299	358	45	68
313	(340)	(423)	(305)	(354)	(46)	(70)
	337	522*	299	346*	28	78
	348	576*	313	355*	60	93
625	(343)	(549*)	(306)	(351*)	(44)	(86)
	454	687*	395	394*	67	77*
	498	678*	407	330*	62	89*
1250	(476)	(683*)	(401)	(362*)	(65)	(83*)
	653*	778*	496	347*	89	119*
	632*	774*	436	342*	81	115*
2500	(643*)	(776*)	(466)	(345*)	(85)	(117*)
	0*	463*	0*	325*	0*	101*
	0*	481*	0*	306*	0*	100*
5000	(0*)	(472*)	(0*)	(316*)	(0*)	(101*)
Judgement	+	-	-	-	-	-
Specific Mutagenicity	132					
Positive Control	BLM (800)	2-AA (1647)	PA (3301)	2-AA (1434)	AF-2 (1287)	2-AA (1092)

Experimental Data - 6

Conc. µg/plate	Number of Revertants/plate	
	Base-substitution	
	TA102	
	S9-	S9+
DMSO	(312)	(402)
		353
		421
39.1		(387)
		410
		455
78.1		(433)
	341	481
	433	443
156	(387)	(462)
	367	499
	374	476
313	(371)	(488)
	378	
	370	
625	(374)	
	440	
	444	
1250	(442)	
	465	661*
	447	702*
2000	(456)	(682*)
	476*	827*
	477*	854*
2500	(477*)	(841*)
	379*	630*
	405*	684*
3000	(392*)	(657*)
Judgement	—	+
Specific Mutagenicity		176
Positive Control	BLM (960)	2-AA (2641)

Experimental Data - 7

Conc. µg/plate	Number of Revertants/plate	
	Base-substitution	
	TA102	
	S9-	S9+
DMSO	(250)	(278)
		343
		364
39.1		(354)
		367
		368
78.1		(368)
	260	353
	256	372
156	(258)	(363)
	261	337
	255	383
313	(258)	(360)
	306	
	275	
625	(291)	
	324	
	354	
1250	(339)	
	346	503
	336	498
2000	(341)	(501)
	573*	614*
	445*	609*
2500	(509*)	(612*)
	484*	526*
	378*	537*
3000	(431*)	(532*)
Judgement	+	+
Specific Mutagenicity	104	134
Positive Control	BLM (800)	2-AA (2067)