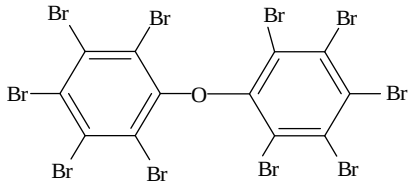
Chemical Name ; Decabromodiphenyl ether

Synonym ; Bis(pentabromophenyl) ether
1,1'-Oxybis[2,3,4,5,6-pentabromobenzene]
1,1'-オキシビス[2,3,4,5,6-ペンタブロモベンゼン]

Molecular Weight ; 959.17
Melting Point ; >300℃[Aldrich]
Boiling Point ; −
Flashing Point ; −
Molecular Formula ; $C_{12}Br_{10}O$

Chemical Structure



CAS No. ; 1163-19-5
MITI No. ; (3)-2846
ML No. ; −
Specified Chemical Substances ; −

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; AX01
Purity ; >98%

Vehicle ; DMSO

Mutagenicity in Bacterial Test ; Negative

IARC Evaluation ; Group 3

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(128)	(140)	(10)	(10)	(49)	(62)	(15)	(26)	(8)	(9)
	142	151	11	10	37	68	15	16	6	13
	135	155	13	14	54	71	15	24	6	16
0 .610	(139)	(153)	(12)	(12)	(46)	(70)	(15)	(20)	(6)	(15)
	117	160	6	14	41	61	14	22	3	11
	130	146	10	15	49	77	11	23	2	10
2 .44	(124)	(153)	(8)	(15)	(45)	(69)	(13)	(23)	(3)	(11)
	138	141	6	15	48	68	18	14	6	13
	104	121	11	13	53	101	11	17	5	13
9 .77	(121)	(131)	(9)	(14)	(51)	(85)	(15)	(16)	(6)	(13)
	135	157	6	9	57	75	17	18	5	7
	123	148	8	9	37	94	14	22	6	8
39 .1	(129)	(153)	(7)	(9)	(47)	(85)	(16)	(20)	(6)	(8)
	135	139	10	11	68	81	24	17	9	11
	131	149	11	14	68	75	14	25	7	14
156	(133)	(144)	(11)	(13)	(68)	(78)	(19)	(21)	(8)	(13)
	131	135	8	16	48	72	13	21	8	10
	118	144	6	12	55	75	13	25	6	6
625 †	(125)	(140)	(7)	(14)	(52)	(74)	(13)	(23)	(7)	(8)
	130	151	7	8	60	88	13	29	4	4
	115	154	8	15	53	64	6	19	8	11
2500 †	(123)	(153)	(8)	(12)	(57)	(76)	(10)	(24)	(6)	(8)
	139	160	6	13	50	74	14	26	5	11
	117	145	7	7	57	74	17	20	12	7
10000 †	(128)	(153)	(7)	(10)	(54)	(74)	(16)	(23)	(9)	(9)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (747)	2-AA (1447)	NaN_3 (452)	2-AA (308)	AF-2 (1244)	2-AA (967)	AF-2 (462)	2-AA (434)	9-AA (498)	2-AA (219)

† Test chemical was precipitated with and without S9mix.

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(118)	(145)	(8)	(10)	(38)	(55)	(19)	(23)	(8)	(9)
	151	133	6	8	31	54	18	21	5	7
	128	145	5	14	34	60	11	30	3	11
156	(140)	(139)	(6)	(11)	(33)	(57)	(15)	(26)	(4)	(9)
	117	151	11	10	34	54	13	13	5	11
	137	156	8	11	36	47	16	21	5	10
313	(127)	(154)	(10)	(11)	(35)	(51)	(15)	(17)	(5)	(11)
	152	169	5	10	32	43	11	30	4	9
	120	146	4	15	36	37	15	24	4	9
625 †	(136)	(158)	(5)	(13)	(34)	(40)	(13)	(27)	(4)	(9)
	130	143	4	12	35	38	12	20	3	9
	147	160	8	9	25	42	10	17	4	8
1250 †	(139)	(152)	(6)	(11)	(30)	(40)	(11)	(19)	(4)	(9)
	122	166	5	13	29	52	12	18	8	10
	141	132	10	11	36	43	10	24	3	5
2500 †	(132)	(149)	(8)	(12)	(33)	(48)	(11)	(21)	(6)	(8)
	112	148	8	8	31	47	9	17	5	4
	125	143	6	11	36	49	22	19	3	7
5000 †	(119)	(146)	(7)	(10)	(34)	(48)	(16)	(18)	(4)	(6)
	139	143	3	7	34	45	17	25	4	8
	133	147	9	11	23	51	14	20	5	6
10000 †	(136)	(145)	(6)	(9)	(29)	(48)	(16)	(23)	(5)	(7)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (688)	2-AA (1484)	NaN_3 (394)	2-AA (309)	AF-2 (861)	2-AA (737)	AF-2 (375)	2-AA (442)	9-AA (584)	2-AA (188)