Chemical Name ; Dibenzoyl peroxide

Synonym ; Peroxide, dibenzoyl
Benzoyl peroxide
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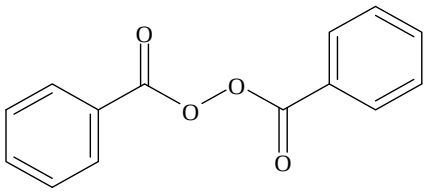
Molecular Weight ; 242.23
Melting Point ; 104-106℃[Aldrich]
Boiling Point ; －
Flashing Point ; －
Molecular Formula ; $C_{14}H_{10}O_4$

Chemical Structure



CAS No. ; 94-36-0
MITI No. ; (3)-1349
ML No. ; －
Specified Chemical Substances ; －

Source of Substance; Aldrich
Lot No. ; 11124AG
Purity ; 70%

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	(114)	(114)	(12)	(13)	(59)	(76)	(15)	(22)	(6)	(8)
	129	112	16	20	49	81	17	18	6	9
	112	127	13	13	64	89	11	21	6	9
1 .22	(121)	(120)	(15)	(17)	(57)	(85)	(14)	(20)	(6)	(9)
	180	102	14	13	61	78	14	17	9	9
	160	128	10	8	56	97	11	17	8	8
4 .88	(170)	(115)	(12)	(11)	(59)	(88)	(13)	(17)	(9)	(9)
	0 *	115	0 *	18	43 *	102	0 *	25	0 *	9
	0 *	105	0 *	14	60 *	89	0 *	23	0 *	7
19 .5	(0 *)	(110)	(0 *)	(16)	(52 *)	(96)	(0 *)	(24)	(0 *)	(8)
	0 *	116	0 *	18	0 *	112	0 *	26	0 *	6
	0 *	121	0 *	10	0 *	112	0 *	22	0 *	10
78 .1	(0 *)	(119)	(0 *)	(14)	(0 *)	(112)	(0 *)	(24)	(0 *)	(8)
	0 *	101 *	0 *	9 *	0 *	89 *	0 *	17 *	0 *	3 *
	0 *	112 *	0 *	8 *	0 *	62 *	0 *	14 *	0 *	9 *
313	(0 *)	(107 *)	(0 *)	(9 *)	(0 *)	(76 *)	(0 *)	(16 *)	(0 *)	(6 *)
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
1250 †	(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 *
5000 †	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)
Judgement	－	－	－	－	－	－	－	－	－	－
Specific Mutagenicity										
Positive Control	AF-2 (575)	2-AA (1239)	NaN_3 (419)	2-AA (278)	AF-2 (693)	2-AA (717)	AF-2 (440)	2-AA (473)	9-AA (377)	2-AA (153)

* Growth inhibitation was observed.
† Test chemical was precipitated 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	(131)	(127)	(8)	(7)	(53)	(75)	(18)	(21)	(6)	(7)
	111	121	6	10	68	86	16	11	5	6
	129	127	8	7	78	81	21	18	5	7
0 .305	(120)	(124)	(7)	(9)	(73)	(84)	(19)	(15)	(5)	(7)
	137	115	9	9	63	82	14	20	6	7
	137	138	8	5	46	91	20	29	11	10
0 .610	(137)	(127)	(9)	(7)	(55)	(87)	(17)	(25)	(9)	(9)
	124	143	10	9	53	99	13	15	6	11
	99	136	13	11	54	87	11	14	2	5
1 .22	(112)	(140)	(12)	(10)	(54)	(93)	(12)	(15)	(4)	(8)
	123	128	7	10	57	89	15	25	6	9
	152	144	7	7	70	106	13	14	7	9
2 .44	(138)	(136)	(7)	(9)	(64)	(98)	(14)	(20)	(7)	(9)
	149	128	7	6	49	81	15	15	3	9
	122	150	5	3	46	82	8	20	7	7
4 .88	(136)	(139)	(6)	(5)	(48)	(84)	(12)	(18)	(5)	(8)
	137	117	11	10	56	74	23	14	10	9
	139	109	3	11	60	100	16	16	9	10
9 .77	(138)	(113)	(7)	(11)	(58)	(77)	(20)	(15)	(10)	(10)
	0 *	124 *	0 *	9 *	81 *	82 *	0 *	21 *	0 *	14 *
	0 *	138 *	0 *	8 *	45 *	72 *	0 *	25 *	0 *	6 *
19 .5	(0 *)	(131 *)	(0 *)	(9 *)	(63 *)	(87 *)	(0 *)	(23 *)	(0 *)	(10 *)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (590)	2-AA (1134)	NaN_3 (428)	2-AA (247)	AF-2 (594)	2-AA (667)	AF-2 (508)	2-AA (466)	9-AA (416)	2-AA (145)

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A/pKM101		TA98		TA1537	
	S9−		S9−		S9−		S9−		S9−	
DMSO	(135)		(10)		(58)		(16)		(9)	
	156		13		33		15		7	
	135		10		53		10		7	
1 .22	(146)		(12)		(43)		(13)		(7)	
	159		8		62		18		6	
	142		6		52		14		6	
2 .44	(151)		(7)		(57)		(16)		(6)	
	158		11		56		22		13	
	163		9		56		17		7	
4 .88	(161)		(10)		(56)		(20)		(10)	
	195		8		59		14		10	
	178		10		69		21		9	
9 .77	(187)		(9)		(64)		(18)		(10)	
	64	*	9	*	53	*	16	*	7	*
	151	*	9	*	57	*	22	*	3	*
19 .5	(108	*)	(9	*)	(55	*)	(19	*)	(5	*)
Judgement	−		−		−		−		−	
Specific Mutagenicity										
Positive Control	AF-2 (623)		NaN_3 (445)		AF-2 (847)		AF-2 (508)		9-AA (419)	