

Epoxy resin intermediate (reaction product of methylenebisphenol and chloromethyloxirane)
(メチレンビスフェノール型エポキシ樹脂中間体)

Chemical Name:	Epoxy resin intermediate (reaction product of methylenebisphenol and chloromethyloxirane)
Molecular weight:	number average 330 (n=0:312)
Melting point:	°C
Boiling point:	°C
Chemical Structure	
CAS No :	(58421-55-9)
MITI No :	((7)-1285, n=0)
Source of Substance:	
Lot. No. :	
Purity:	%
Vehicle:	DMSO

Mutagenicity
in Bacterial Test : Positive

IARC Evaluation : not yet cited

Con. μg/ plate	Experimental Data									
	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(128)	(97)	(12)	(13)	(18)	(20)	(12)	(21)	(7)	(9)
	117	96	20	18	15	20	14	22	8	13
	109	102	15	22	9	25	12	21	6	6
0.305	(113)	(99)	(18)	(20)	(12)	(23)	(13)	(22)	(7)	(10)
	119	89	14	7	15	21	20	27	6	6
	117	105	9	12	18	25	10	31	7	9
1.22	(118)	(97)	(12)	(10)	(17)	(23)	(15)	(29)	(7)	(8)
	146	105	20	22	27	20	17	16	6	7
	101	117	7	21	16	23	14	15	9	13
4.88	(124)	(111)	(14)	(22)	(22)	(22)	(16)	(16)	(8)	(10)
	221	113	30	18	34	22	18	28	9	7
	200	97	25	29	27	15	15	14	8	14
19.5	(211)	(105)	(28)	(24)	(31)	(19)	(17)	(21)	(9)	(11)
	397	166	18	39	54	29	24	27	10	14
	436	165	44	58	44	18	15	27	6	8
78.1	(417)	(166)	(31)	(49)	(49)	(24)	(20)	(27)	(8)	(11)
	677	513	35	148	140	42	21	23	8	7
	661	513	38	131	127	38	16	32	6	8
313	(669)	(513)	(37)	(140)	(134)	(40)	(19)	(28)	(7)	(8)
	994	748	64	363	187	53	22	44	7	10
	981	750	61	312	146	73	20	27	9	3
1250	(988)	(749)	(63)	(338)	(167)	(63)	(21)	(36)	(8)	(7)
	980	1463	58	554	164	266	21	42	7	16
	1088	1514	62	525	160	271	23	30	13	15
5000	(1034)	(1489)	(60)	(540)	(162)	(269)	(22)	(36)	(10)	(16)
	912	2496	75	456	212	204	18	37	6	8
	1248	2904	72	410	156	216	25	33	4	7
10000*	(1080)	(2700)	(74)	(433)	(184)	(210)	(22)	(35)	(5)	(8)
Judgement	+	+	+	+	+	+	-	-	-	-
Specific mutagenicity	3700	1330	821	461	397	49.8				
Positive	AF2	2AA	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA
Control	(807)	(973)	(317)	(249)	(188)	(727)	(420)	(302)	(352)	(155)

* : Substances in this concentration were markedly precipitated.

Experimental Data										
Con. μ g/ plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(93)	(123)	(11)	(9)	(19)	(24)	(8)	(11)	(5)	(9)
			6							
			10							
4.88			(8)							
	132		8	15	35					
	125		9	12	38					
9.77	(129)		(9)	(14)	(37)					
	199		8	30	39					
	185		10	17	42					
19.5	(192)		(9)	(24)	(41)					
	229	116	20	15	58	30				
	255	149	18	32	51	30				
39.1	(242)	(133)	(19)	(24)	(55)	(30)				
	268	154	30	16	80	25				
	275	172	23	25	74	25				
78.1	(272)	(163)	(27)	(21)	(77)	(25)				
	373	264	18	47	95	31	10	15	8	5
	332	251	14	53	106	25	5	18	5	12
156	(353)	(258)	(16)	(50)	(101)	(28)	(8)	(17)	(7)	(9)
	450	361	32	101	150	50	12	12	8	6
	477	370	20	121	166	44	9	25	5	7
313	(464)	(366)	(26)	(111)	(158)	(47)	(11)	(19)	(7)	(7)
	581	525	15	210	172	51	8	24	5	12
	538	531	27	217	183	65	9	20	8	12
625	(560)	(528)	(21)	(214)	(178)	(58)	(9)	(22)	(7)	(12)
	660	705		332	197	72	16	18	2	3
	679	610		275	193	84	8	21	9	14
1250	(670)	(658)		(304)	(195)	(78)	(12)	(20)	(6)	(9)
		1077				136	14	14	7	2
		1138				187	13	18	6	12
2500		(1108)				(162)	(14)	(16)	(7)	(7)

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		Experimental Data									
Con.		Number of Revertants/plate									
$\mu\text{g/plate}$		Base-substitution						Frame-shift			
		TA100		TA1535		WP2uvrA		TA98		TA1537	
		S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
			1329				341	15	13	6	14
			1156				321	28	22	5	22
	5000		(1243)				(331)	(22)	(18)	(6)	(18)
								10*	13	4	6
								15*	18	4	14
	10000*							(13*)	(16)	(4)	(10)
Judgement		+	+	+	+	+	+	+	-	-	-
Specific mutagenicity		5080	865	47.9	769	1130	61.4	2.80			
Positive		AF2	2AA	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA
Control		(807)	(973)	(317)	(249)	(188)	(727)	(420)	(302)	(352)	(155)

* : Substances in this concentration were markedly precipitated.

Experimental Data

Con. μ g/ plate	Number of Revertants/plate			
	Base- substitution		Frame-shift	
	TA1535		TA98	
	S9-	S9+	S9-	S9+
<u>DSMO</u>	(14)	(18)	(17)	(28)
	17	28		
	12	24		
<u>9.77</u>	(15)	(26)		
	27	32		
	21	28		
<u>19.5</u>	(24)	(30)		
	24	39		
	22	50		
<u>39.1</u>	(23)	(45)		
	36	82		
	29	72		
<u>78.1</u>	(33)	(77)		
	52	163	34	39
	55	175	29	45
<u>156</u>	(54)	(169)	(32)	(42)
	52	294	25	43
	75	312	28	46
<u>313</u>	(64)	(303)	(27)	(45)
	60	497	31	37
	96	470	32	38
<u>625</u>	(78)	(484)	(32)	(38)
	104	615	61	27
	94	681	50	39
<u>1250</u>	(99)	(648)	(56)	(33)
			47	43
			40	27
<u>2500</u>			(44)	(35)

Experimental Data

Con. μ g/ plate	Number of Revertants/plate			
	Base- substitution		Frame-shift	
	TA1535		TA98	
	S9-	S9+	S9-	S9+
<u>DSMO</u>	(14)	(18)	(17)	(28)
			39	54
			22	52
<u>5000</u>			(31)	(53)
			32	35
			23	21
<u>10000*</u>			(28)	(28)
Judgement	+	+	+	-
	256	968	3.12	
Specific mutagenicity				
Positive	NaN ₃	2AA	AF2	2AA
Control	(518)	(406)	(282)	(315)

* : Substances in this concentration were markedly precipitated.