

Diethyl sulfate (硫酸エチル)

Experimental Data

Chemical Name: Diethyl sulfate
 Synonym: Ethyl sulfate
 Sulfuric acid diethyl ether
 Molecular weight: 154.19
 Melting point: -24.5°C
 Boiling point: 208°C(760mmHg)
 Flashing point: 78°C
 Chemical Structure
 (C₂H₅O)₂SO₂
 CAS No : 64-67-5
 MITI No: (2)-1673
 Source of Substance:Tokyo Kasei Kogyo Co.Ltd
 Lot.No. : FAZ01
 Purity: 98 %
 Vehicle: DMSO

Con. 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+
DSMO	(185)	(172)	(21)	(15)	(33)	(30)	(19)	(16)	(8)	(8)
	197	187	24	20	22	18	11	29	10	14
	187	201	18	14	25	26	15	25	9	14
0.0763	(192)	(194)	(21)	(17)	(24)	(22)	(13)	(27)	(10)	(14)
	225	183	13	11	32	26	18	21	10	10
	209	202	17	22	25	29	22	20	6	8
0.305	(217)	(193)	(15)	(17)	(29)	(28)	(20)	(21)	(8)	(9)
	191	178	25	20	29	26	13	25	11	8
	200	186	16	17	17	31	16	17	10	9
1.22	(196)	(182)	(21)	(19)	(23)	(29)	(15)	(21)	(11)	(9)
	178	194	16	23	18	24	21	26	7	2
	207	171	15	13	22	18	22	22	7	9
4.88	(193)	(183)	(16)	(18)	(20)	(21)	(22)	(24)	(7)	(6)
	190	171	17	10	32	30	21	17	7	11
	193	187	15	14	28	26	16	26	13	11
19.5	(192)	(179)	(16)	(12)	(30)	(28)	(19)	(22)	(10)	(11)
	213	201	15	20	43	33	20	21	15	14
	197	215	22	16	36	32	9	17	10	8
78.1	(205)	(208)	(19)	(18)	(40)	(33)	(15)	(19)	(13)	(11)
	471	690	141	194	82	101	24	22	11	8
	463	638	148	185	98	99	20	25	5	13
313	(467)	(664)	(145)	(190)	(90)	(100)	(22)	(24)	(8)	(11)
	9186	9365	9133	7696	309	468	54*	41	153	222
	9086	9389	9762	9420	316	483	41*	36	141	228
1250	(9136)	(9377)	(9448)	(8558)	(313)	(476)	(48*)	(39)	(147)	(225)
	886*	1620*	0*	3626*	1823	1632	0*	0*	0*	57*
	1145*	2075*	0*	3956*	2063	1681	0*	0*	0*	63*
5000	(1016*)	(1848*)	(0*)	(3791*)	(1943)	(1657)	(0*)	(0*)	(0*)	(60*)
Judgement	+	+	+	+	+	+	+	+	+	+
Specific mutagenicity	7160	7360	7540	6830	382	357	23.2	18.4	111	174
Positive	AF2	2AA	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA
Control	(1435)	(1128)	(329)	(223)	(268)	(1514)	(454)	(333)	(314)	(189)

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	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(157)	(152)	(10)	(8)	(15)	(15)	(16)	(16)	(7)	(7)
	144	160	12	16			20	21	2	9
	166	167	13	10			16	13	8	10
39.1	(155)	(164)	(13)	(13)			(18)	(17)	(5)	(10)
	170	200	21	14	31	40	17	30	9	8
	148	166	18	20	28	45	28	15	5	9
78.1	(159)	(183)	(20)	(17)	(30)	(43)	(23)	(23)	(7)	(9)
	197	234	35	89	44	81	14	13	8	7
	227	238	44	91	55	62	24	9	5	8
156	(212)	(236)	(40)	(90)	(50)	(72)	(19)	(11)	(7)	(8)
	445	649	620	807	183	280	21	25	14	13
	497	590	228	785	160	306	30	20	13	12
313	(471)	(620)	(424)	(796)	(172)	(293)	(26)	(23)	(14)	(13)
	3877	5606	1926	1516	354	578	43	24	94	139
	4920	6744	1991	1610	309	509	32	26	75	141
625	(4399)	(6175)	(1959)	(1563)	(332)	(544)	(38)	(25)	(85)	(140)
	8858	9535	2564	1273	444	623	7*	34	148*	230
	9335	9492	2734	1114	513	553	40*	33	98*	274
1250	(9097)	(9514)	(2649)	(1194)	(479)	(588)	(24*)	(34)	(123*)	(252)
					885	1012	0*	29		
					796	1008	0*	40		
2500					(841)	(1010)	(0*)	(35)		
					786	1057				
					885	1143				
5000					(836)	(1100)				
Judgement	+	+	+	+	+	+	+	+	+	+
Specific mutagenicity	7150	9640	3120	2520	507	888	35.2	14.4	125	213
Positive	AF2	2AA	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA
Control	(1147)	(1102)	(126)	(182)	(417)	(838)	(393)	(366)	(162)	(177)