


2, 4, 6-Trinitrophenol (2, 4, 6-トリニトロフェノール(ピクリン酸))

Experimental Data

Chemical Name: 2, 4, 6-Trinitrophenol Synonym: Picric acid Phenol, 2, 4, 6-trinitro-	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+
Molecular weight: 229.11 Melting point: 121-123°C Boiling point: 267°C	DMSO	(111)	(106)	(10)	(12)	(27)	(33)	(16)	(26)	(8)	(10)
Chemical Structure 	0.0763	108	136	9	14	16	45	16	24	10	14
		100	120	13	13	23	28	15	31	7	15
	0.305	(104)	(128)	(10)	(14)	(20)	(37)	(16)	(28)	(9)	(15)
		115	99	7	9	20	45	14	20	13	7
		98	104	8	10	33	28	14	26	5	13
	1.22	(107)	(102)	(8)	(10)	(27)	(37)	(14)	(23)	(9)	(10)
		113	114	11	9	13	31	22	25	8	9
		106	123	8	7	30	41	7	22	7	13
	4.88	(110)	(119)	(10)	(8)	(22)	(36)	(15)	(24)	(8)	(11)
		120	102	13	6	25	33	11	24	6	8
		123	134	9	17	25	23	17	16	7	14
	19.5	(122)	(118)	(11)	(12)	(25)	(28)	(14)	(20)	(7)	(12)
		119	116	2	18	18	25	14	17	3	16
		102	141	5	16	28	39	25	37	6	8
	78.1	(111)	(129)	(4)	(17)	(23)	(32)	(20)	(27)	(5)	(12)
		109	141	7	16	20	31	13	24	7	17
		109	115	13	8	26	34	21	26	8	16
	313	(109)	(128)	(10)	(12)	(23)	(33)	(17)	(25)	(8)	(17)
		126	200	9	22	21	39	18	46	13	31
		94	233	9	24	24	28	22	68	10	47
	1250	(110)	(217)	(9)	(23)	(23)	(34)	(20)	(57)	(12)	(39)
		126	473	9	38	29	45	30	205	40	187
		152	553	18	46	22	46	52	190	41	176
	5000	(139)	(513)	(14)	(42)	(26)	(46)	(41)	(198)	(41)	(182)
		317	1168	28	76	21	71	184	441	258	494
		326	1221	26	64	32	68	166	452	222	537
		(322)	(1195)	(27)	(70)	(27)	(70)	(175)	(447)	(240)	(516)
Judgement		+	+	+	+	-	+	+	+	+	+
Specific Mutagenicity		42.2	355	3.40	24.0		7.40	31.8	138	46.4	138
Positive		AF2	2AA	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA
Control		(830)	(1075)	(335)	(290)	(303)	(902)	(432)	(250)	(348)	(159)

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Con. μg/ plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98	TA1537		
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+		
DMSO	(105)	(124)	(10)	(9)	(18)	(30)	(17)	(27)	(9)	(9)
		146		6				30		16
		158		14				34		20
78.1	()	(152)	()	(10)	()	()	()	(32)	()	(18)
	102	170	5	15	11	28	15	43	13	26
	109	162	9	16	16	48	10	46	15	44
156	(106)	(166)	(7)	(16)	(14)	(38)	(13)	(45)	(14)	(35)
	99	215	16	14	26	28	17	79	11	46
	108	219	7	16	20	26	24	62	13	45
313	(104)	(217)	(12)	(15)	(23)	(27)	(21)	(71)	(12)	(46)
	119	285	8	20	16	29	26	100	22	107
	94	275	11	21	24	45	23	121	20	76
625	(107)	(280)	(10)	(21)	(20)	(37)	(25)	(111)	(21)	(92)
	144	412	15	32	24	37	29	220	41	198
	124	455	14	28	18	51	39	207	46	228
1250	(134)	(434)	(15)	(30)	(21)	(44)	(34)	(214)	(44)	(213)
	213	769	16	53	26	51	78	443	104	436
	179	725	18	46	26	53	76	484	115	445
2500	(196)	(747)	(17)	(50)	(26)	(52)	(77)	(464)	(110)	(441)
	239	1136	28	67	26	57	169	563	228	649
	227	1333	25	100	30	69	184	616	240	677
5000	(233)	(1235)	(27)	(84)	(28)	(63)	(177)	(590)	(234)	(663)
Judgement	+	+	+	+	-	+	+	+	+	+
Specific Mutagenicity	25.6	250	3.40	19.2		6.60	32.0	175	45.0	173
Positive	AF2	2AA	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA
Control	(766)	(1043)	(368)	(255)	(318)	(920)	(522)	(326)	(526)	(153)