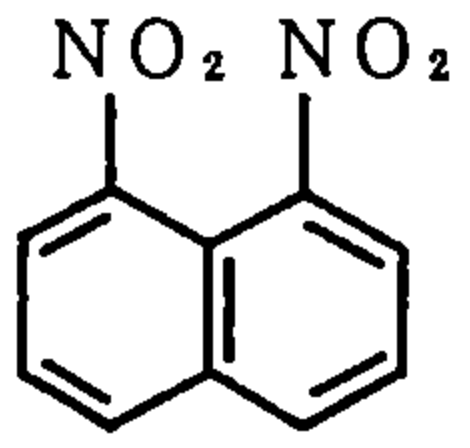


1,8-Dinitronaphthalene (1,8-ジニトロナフタレン)

Chemical Name: 1,8-Dinitronaphthalene
 Synonym
 Molecular weight: 218.17
 Melting point: 173~173.5°C
 Boiling point: °C
 Chemical Structure

 CAS No: 602-38-0
 MITI No: (4)-325
 Source of Substance: Tokyo Kasei Kogyo Co. Ltd
 Lot. No.: AG01
 Purity: chemical grade
 Vehicle: DMSO

Mutagenicity
 in Bacterial Test: Positive
 IARC Evaluation: not yet cited

Judgement
 Specific Mutagenicity
 Positive
 Control

Con. μg/ plate	Experimental Data											
	Number of Revertants/plate											
	Base-substitution						Frame-shift					
	TA100		TA1535		WP2uvrA		TA98		TA1537		TA1538	
S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	
DNSO	(114)	(105)	(16)	(14)	()	()	(13)	(27)	()	(17)	(10)	(21)
	124	113	14	13			32	38		16	37	27
	130	142	18	10			36	45		16	34	41
2	(127)	(128)	(16)	(12)	()	()	(34)	(42)	()	(16)	(36)	(34)
	173	176	17	21			78	64		19	96	56
	162	169	22	13			63	61		18	83	62
5	(168)	(173)	(20)	(17)	()	()	(71)	(63)	()	(17)	(90)	(59)
	235	247	21	12			129	154		18	147	93
	232	248	20	13			119	131		19	160	99
10	(234)	(248)	(21)	(13)	()	()	(124)	(143)	()	(19)	(154)	(96)
	287	508	15	16			236	327		32	295	205
	281	576	25	18			242	328		33	233	188
20	(284)	(542)	(20)	(17)	()	()	(239)	(328)	()	(33)	(264)	(197)
	534	1135	21	19			425	813		43	568	439
	572	1241	14	19			445	823		64	524	427
50	(553)	(1188)	(18)	(19)	()	()	(435)	(818)	()	(54)	(546)	(433)
	812	1787	12	12			674	1386		70	645	349
	852	1898	19	15			645	1763		65	681	286
100	(832)	(1843)	(16)	(14)	()	()	(660)	(1575)	()	(68)	(663)	(318)
	1285	1325	18	11*			980	1940		0*	1025	0*
	1173	1256	15	3*			963	1986		0*	1003	0*
200	(1229)	(1291)	(17)	(7*)	()	()	(972)	(1963)	()	(0*)	(1014)	(0*)
	1041*	0*	0*	0*			1389*	1950*		0*	0*	0*
	987*	0*	0*	0*			1438*	2045*		0*	0*	0*
500	(1014*)	(0*)	(0*)	(0*)	()	()	(1414*)	(1998*)	()	(0*)	(0*)	(0*)
	+	+	-	-			+	+		+	+	+
	12000	21900					11600	15800		740	16000	8800
	AF2	2AA 0.5	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA	2NF	2AA
	(387)	(322)	(139)	(190)	()	()	(356)	(339)	()	(327)	(317)	(412)

Experimental Data

Con. μg/ plate	Number of Revertants/plate											
	Base-substitution						Frame-shift					
	TA100		TA1535		WP2uvrA		TA98		TA1537		TA1538	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DNSO	()	()	()	()	(35)	(37)	()	()	(9)	()	()	()
					50	31			14			
					33	39			15			
5	()	()	()	()	(42)	(35)	()	()	(15)	()	()	()
					31	44			17			
					30	46			21			
10	()	()	()	()	(31)	(45)	()	()	(19)	()	()	()
					31	50			35			
					27	55			28			
20	()	()	()	()	(29)	(53)	()	()	(32)	()	()	()
					26	62			49			
					38	72			53			
50	()	()	()	()	(32)	(67)	()	()	(51)	()	()	()
					35	70			93			
					36	72			72			
100	()	()	()	()	(36)	(71)	()	()	(83)	()	()	()
					25	66			116			
					38	84			108			
200	()	()	()	()	(32)	(75)	()	()	(112)	()	()	()
					35	72			134			
					37	73			138			
500	()	()	()	()	(36)	(73)	()	()	(136)	()	()	()
					0*	86*			0*			
					0*	92*			0*			
1000	()	()	()	()	(0*)	(89*)	()	()	(0*)	()	()	()
					-	+			+			
Judgement						52.0			1150			
Specific Mutagenicity												
Positive	AF2	2AA 0.5	NaN ₃	2AA	AF2	2AA	AF2	2AA	9AA	2AA	2NF	2AA
Control	()	()	()	()	(226)	(880)	()	()	(857)	()	()	()