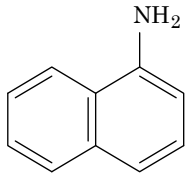
Chemical Name ; 1-Naphthylamine

Synonym ; α-Naphthylamine
1-Naphthaleneamine
1-Aminonaphthalene
α−ナフチルアミン
1−ナフタレンアミン

Molecular Weight ; 143.19
Melting Point ; 50℃[CHCD]
Boiling Point ; 301℃[Aldrich]
Flashing Point ; 156℃[CHCD]
Molecular Formula ; $C_{10}H_9N$

Chemical Structure



CAS No. ; 134-32-7
MITI No. ; (4)-321
ML No. ; −
Specified Chemical Substances ; G1

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; FHC01
Purity ; 99.8%

Vehicle ; DMSO

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(129)	(133)	(7)	(8)	(18)	(20)	(10)	(19)	(7)	(8)
1 .22	124 135 (130)	201 197 (199)	7 3 (5)	7 14 (11)	14 18 (16)	21 24 (23)	7 7 (7)	31 21 (26)	8 5 (7)	7 15 (11)
4 .88	130 131 (131)	235 229 (232)	5 7 (6)	9 11 (10)	17 20 (19)	20 20 (20)	10 8 (9)	21 25 (23)	7 2 (5)	7 10 (9)
19 .5	135 152 (144)	325 319 (322)	5 7 (6)	13 13 (13)	14 17 (16)	31 20 (26)	11 13 (12)	36 47 (42)	5 7 (6)	17 11 (14)
78 .1	150 141 (146)	377 349 (363)	7 7 (7)	8 9 (9)	24 15 (20)	25 29 (27)	14 11 (13)	41 38 (40)	9 6 (8)	13 14 (14)
313	180 188 (184)	318 320 (319)	5 6 (6)	8 6 (7)	20 17 (19)	26 15 (21)	13 16 (15)	43 62 (53)	6 5 (6)	13 13 (13)
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 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)	0 * 0 * (0 *)
Judgement	−	+	−	−	−	−	−	+	−	−
Specific Mutagenicity		9690						1180		
Positive Control	AF-2 (713)	2-AA (1230)	NaN_3 (201)	2-AA (225)	AF-2 (251)	2-AA (881)	AF-2 (304)	2-AA (422)	9-AA (651)	2-AA (159)

Mutagenicity in Bacterial Test ; Positive

IARC Evaluation ; Group 3

* Growth inhibitation was observed.

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(133)	(117)	(8)	(7)	(14)	(30)	(12)	(20)	(7)	(9)
		191						20		
		223						16		
2 .44		(207)						(18)		
		245						28		
		214						25		
4 .8		(230)						(27)		
		261						29		
		325						31		
9 .77		(293)						(30)		
		328						24		
		272						31		
19 .5		(300)						(28)		
	153	340	3	9	29	20	5	37	3	11
	112	319	3	5	15	23	8	37	7	8
39 .1	(133)	(330)	(3)	(7)	(22)	(22)	(7)	(37)	(5)	(10)
	136	286	6	6	20	24	10	41	10	9
	130	347	5	11	29	22	14	51	3	7
78 .1	(133)	(317)	(6)	(9)	(25)	(23)	(12)	(46)	(7)	(8)
	131		7	9	22	25	11		3	10
	120		10	5	18	23	9		3	13
156	(126)		(9)	(7)	(20)	(24)	(10)		(3)	(12)
	152		5	3	15	21	18		6	14
	135		6	8	26	17	14		5	16
313	(144)		(6)	(6)	(21)	(19)	(16)		(6)	(15)
	98 *		5 *	8 *	16	16	3 *		1 *	13 *
	104 *		6 *	3 *	22	22	11 *		6 *	13 *
625	(101 *)		(6 *)	(6 *)	(19)	(19)	(7 *)		(4 *)	(13 *)
	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 *)
Judgement	−	+	−	−	−	−	−	+	−	−
Specific Mutagenicity		18000						333		
Positive Control	AF-2 (586)	2-AA (1124)	NaN_3 (353)	2-AA (214)	AF-2 (256)	2-AA (990)	AF-2 (383)	2-AA (382)	9-AA (628)	2-AA (153)