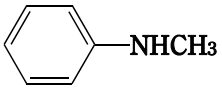
Chemical Name; N-Methylaniline
Synonym ; N-Methybenzenamine
N-Phenylmethylamine
Anilinomethane
N-メチルベンゼナミン
N-フェニルメチルアミン
アニリノメタン

Molecular Weight ; 107.16
Melting Point ; - 57 ℃ [Aldrich;Merck]
Boiling Point ; 196.1℃,79.2℃(10mmHg) [CHCD]
196 ℃ [Aldrich]
194 - 196 ℃ [Merck]
Flashing Point ; 85 ℃ [CHCD]
78 ℃ [Aldrich]
Molecular Formula; C_7H_9N

Chemical Structure



CAS No. ; 100-61-8
MITI No. ; (3)-106
ML No. ; —
Specified Chemical Substances; —

Source of Substance; Tokyo Kasei Kogyo Co.,Ltd.
Lot No. ; JD01
Purity ; ≧ 99 %

Vehicle ; DMSO

Mutagenicity in Bacterial Test ; **Negative**

IARC Evaluation ; not yet cited

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*		TA98		TA1537	
	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋
DMSO	(118)	(147)	(7)	(11)	(28)	(32)	(18)	(30)	(6)	(6)
	109	120	14	8	23	28	13	22	7	5
	85	108	8	10	24	30	11	32	5	5
0.0763	(97)	(114)	(11)	(9)	(24)	(29)	(12)	(27)	(6)	(5)
	81	124	13	13	21	25	20	40	2	2
	112	148	11	11	24	31	21	29	5	6
0.305	(97)	(136)	(12)	(12)	(23)	(28)	(21)	(35)	(4)	(4)
	126	150	2	10	23	29	21	40	7	3
	98	124	10	5	16	32	17	34	3	5
1.22	(112)	(137)	(6)	(8)	(20)	(31)	(19)	(37)	(5)	(4)
	101	152	9	13	26	26	24	29	7	5
	121	123	17	13	29	32	23	28	5	2
4.88	(111)	(138)	(13)	(13)	(28)	(29)	(24)	(29)	(6)	(4)
	86	122	14	7	37	40	17	29	10	10
	109	146	9	8	31	26	36	37	5	5
19.5	(98)	(134)	(12)	(8)	(34)	(33)	(27)	(33)	(8)	(8)
	117	155	10	9	16	30	21	47	9	8
	102	134	9	10	32	38	23	40	7	3
78.1	(110)	(145)	(10)	(10)	(24)	(34)	(22)	(44)	(8)	(6)
	98	188	6	6	24	38	15	40	8	6
	107	170	6	7	30	38	21	59	2	7
313	(103)	(179)	(6)	(7)	(27)	(38)	(18)	(50)	(5)	(7)
	97*	167	7	6	21	40	22	44	1	9
	105*	157	9	5	37	34	21	56	8	10
1250	(101*)	(162)	(8)	(6)	(29)	(37)	(22)	(50)	(5)	(10)
	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*)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF-2 (723)	2-AA (2834)	NaN_3 (353)	2-AA (538)	AF-2 (225)	2-AA (1398)	AF-2 (493)	2-AA (942)	9-AA (944)	2-AA (601)

※ Ham.S9 : Hamster S9

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*		TA98		TA1537	
	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋
DMSO	(100)	(133)	(6)	(10)	(25)	(29)	(11)	(24)	(4)	(4)
	91									
	96									
19.5	(94)									
	98									
	97									
39.1	(98)									
	107	131	11	6	20	25	16	25	3	1
	90	150	3	7	23	29	20	16	3	7
78.1	(99)	(141)	(7)	(7)	(22)	(27)	(18)	(21)	(3)	(4)
	86	151	3	9	25	34	8	31	2	2
	119	157	11	8	24	21	22	22	3	2
156	(103)	(154)	(7)	(9)	(25)	(28)	(15)	(27)	(3)	(2)
	98	153	5	3	23	31	13	43	2	7
	93	165	5	11	24	33	13	41	6	5
313	(96)	(159)	(5)	(7)	(24)	(32)	(13)	(42)	(4)	(6)
	106	178	6	7	23	29	9	60	5	3
	97	184	7	6	23	26	13	48	6	2
625	(102)	(181)	(7)	(7)	(23)	(28)	(11)	(54)	(6)	(3)
	106*	197	3	6	25	29	9	51	3	5
	77*	167	5	11	15	25	9	51	3	6
1250	(92*)	(182)	(4)	(9)	(20)	(27)	(9)	(51)	(3)	(6)
		0*	0*	0*	0*	0*	0*	0*	0*	0*
		0*	0*	0*	0*	0*	0*	0*	0*	0*
2500		(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*)
Judgement	－	－	－	－	－	－	－	－	－	－
Specific Mutagenicity										
Positive Control	AF-2 (791)	2-AA (2743)	NaN_3 (339)	2-AA (474)	AF-2 (269)	2-AA (1363)	AF-2 (414)	2-AA (426)	9-AA (600)	2-AA (738)

※ Ham.S9 : Hamster S9

Experimental Data - 3

Conc. μg/plate	Number of Revertants/plate Base-substitution TA98 S9－	Ham.S9＋
DMSO	(16)	(26)
	17	18
	15	20
78.1	(16)	(19)
	15	30
	10	34
156	(13)	(32)
	15	26
	13	38
313	(14)	(32)
	11	45
	11	44
625	(11)	(45)
	13	52
	16	39
1250	(15)	(46)
	0*	0*
	0*	0*
2500	(0*)	(0*)
Judgement	－	－
Specific Mutagenicity		
Positive Control	AF-2 (567)	2-AA (953)

※ Ham.S9 : Hamster S9

Experimental Data - 4

Conc. μg/plate	Number of Revertants/plate Base-substitution TA102 S9－	Ham.S9＋	TA104 S9－	Ham.S9＋	WP2*uvrA*/pKM101 S9－	Ham.S9＋
DMSO	(263)	(366)	(342)	(446)	(40)	(72)
	266	359	352	397	37	74
	258	342	334	439	41	97
0.0763	(262)	(351)	(343)	(418)	(39)	(86)
	246	353	307	402	48	102
	254	350	344	376	45	85
0.305	(250)	(352)	(326)	(389)	(47)	(94)
	236	350	306	362	38	104
	242	332	323	425	52	94
1.22	(239)	(341)	(315)	(394)	(45)	(99)
	281	336	352	432	57	89
	229	365	380	410	53	102
4.88	(255)	(351)	(366)	(421)	(55)	(96)
	253	361	335	463	53	91
	252	353	342	410	60	98
19.5	(253)	(357)	(339)	(437)	(57)	(95)
	227	383	350	457	60	114
	256	368	300	406	36	93
78.1	(242)	(378)	(325)	(432)	(48)	(104)
	239	380	294	585	57	94
	259	394	354	531	41	93
313	(249)	(387)	(324)	(558)	(49)	(94)
	232	347	298	522	38	74
	245	359	323	557	41	75
1250	(239)	(353)	(311)	(540)	(40)	(75)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	－	－	－	－	－	－
Specific Mutagenicity						
Positive Control	BLM (801)	2-AA (1655)	PA (1480)	2-AA (1866)	AF-2 (995)	2-AA (1470)

※ Ham.S9 : Hamster S9

Experimental Data - 5

Conc. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2*uvrA*/pKM101	
	S9－	Ham.S9＋	S9－	Ham.S9＋	S9－	Ham.S9＋
DMSO	(264)	(352)	(310)	(362)	(41)	(64)
	248	356	269	387	21	69
	262	358	297	354	28	71
78.1	(255)	(357)	(283)	(371)	(25)	(70)
	243	344	303	445	36	66
	278	343	279	366	37	66
156	(261)	(344)	(291)	(406)	(37)	(66)
	263	347	260	472	38	72
	229	317	286	516	32	85
313	(246)	(332)	(273)	(494)	(35)	(79)
	204	325	290	507	44	93
	242	338	269	526	37	76
625	(223)	(332)	(280)	(517)	(41)	(85)
	246	354	284	475	43	79
	222	330	259	473	43	69
1250	(234)	(342)	(272)	(474)	(43)	(74)
	66*	0*	0*	0*	0*	0*
	76*	0*	0*	0*	0*	0*
2500	(71*)	(0*)	(0*)	(0*)	(0*)	(0*)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	－	－	－	－	－	－
Specific Mutagenicity						
Positive Control	BLM (801)	2-AA (1525)	PA (1458)	2-AA (1943)	AF-2 (1461)	2-AA (1668)

※ Ham.S9 : Hamster S9