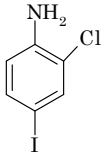
2-Chloro-4-iodoaniline (2-ｸﾛﾛ-4-ﾖｰﾄﾞｱﾆﾘﾝ)

Chemical Name ; 2-Chloro-4-iodoaniline
Synoym ; CIA
2-Chloro-4-iodobenzenamine

Molecular Weight ; 253.47
Melting Point ; 73℃[CHCD]
Boiling Point ; －
Flashing Point ; －
Molecular Formular; C_6H_5ClIN

Chemical Structure;



CAS No. ; 42016-93-3
METI No. ; －
MHLW No. ; 4-(12)-781
Specified Chemical Substances;－

Source of Substance; Nippoh Chemicals Co., Ltd.
Lot No. ; N0040
Purity ; 99.8%

Vehicle ; DMSO

Mutagenicity in Bacterial Test; Positive

IARC Evaluation ; not yet cited

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(105)	(126)	(8)	(7)	(80)	(116)	(21)	(23)	(6)	(11)
	127	142	14	10	75	117	21	31	3	17
	119	142	3	8	75	111	25	32	3	9
1 .22	(123)	(142)	(9)	(9)	(75)	(114)	(23)	(32)	(3)	(13)
	94	167	7	9	69	117	21	34	6	14
	126	153	7	7	87	108	22	39	6	9
4 .88	(110)	(160)	(7)	(8)	(78)	(113)	(22)	(37)	(6)	(12)
	115	190	7	10	84	146	16	32	7	15
	98	200	5	14	74	108	23	31	5	13
19 .5	(107)	(195)	(6)	(12)	(79)	(127)	(20)	(32)	(6)	(14)
	89	226	8	9	72	116	10	36	5	11
	129	209	9	13	63	114	18	31	2	5
78 .1	(109)	(218)	(9)	(11)	(68)	(115)	(14)	(34)	(4)	(8)
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
313	(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 *
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 *)
Judgement	－	－	－	－	－	－	－	－	－	－
Specific Mutagenicity										
Positive Control	AF-2 (678)	2-AA (1298)	NaN_3 (362)	2-AA (236)	AF-2 (1675)	2-AA (857)	AF-2 (431)	2-AA (446)	9-AA (482)	2-AA (216)

* Growth inhibition was observed.
† Test chemical was precipitated without S9mix.

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(105)	(111)	(8)	(9)	(73)	(124)	(15)	(28)	(7)	(10)
	108	163	8	11	61	108	21	36	9	10
	97	149	5	5	75	109	18	22	9	9
4 .88	(103)	(156)	(7)	(8)	(68)	(109)	(20)	(29)	(9)	(10)
	100	174	7	16	66	100	10	23	5	5
	85	178	5	10	72	104	17	30	7	9
9 .77	(93)	(176)	(6)	(13)	(69)	(102)	(14)	(27)	(6)	(7)
	111	191	11	14	67	111	15	26	6	8
	113	191	8	9	62	109	10	34	6	11
19 .5	(112)	(191)	(10)	(12)	(65)	(110)	(13)	(30)	(6)	(10)
	96	194	5	13	72	116	17	34	5	6
	113	205	7	7	74	99	18	33	5	11
39 .1	(105)	(200)	(6)	(10)	(73)	(108)	(18)	(34)	(5)	(9)
	108	219	6	8	54	106	15	33	6	10
	108	243	6	11	61	114	22	26	6	18
78 .1	(108)	(231)	(6)	(10)	(58)	(110)	(19)	(30)	(6)	(14)
	0 *	184	0 *	8	68	98	0 *	33	0 *	7
	0 *	197	0 *	10	62	136	0 *	38	0 *	17
156	(0 *)	(191)	(0 *)	(9)	(65)	(117)	(0 *)	(36)	(0 *)	(12)
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
313	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)
Judgement	−	+	−	−	−	−	−	−	−	−
Specific Mutagenicity		1540								
Positive Control	AF-2 (640)	2-AA (1324)	NaN_3 (370)	2-AA (232)	AF-2 (1377)	2-AA (785)	AF-2 (444)	2-AA (432)	9-AA (386)	2-AA (193)

* Growth inhibition was observed.

Experimental Data-3

Conc. μg/plate	Number of Revertants/plate Base-substitution
	TA100
	S9+
DMSO	(128)
4 .88	156 143 (150)
9 .77	192 146 (169)
19 .5	183 200 (192)
39 .1	200 195 (198)
78 .1	243 207 (225)
156	194 205 (200)
313	0 * 0 * (0 *)
Judgement	−
Specific Mutagenicity	
Positive Control	2-AA (1356)

* Growth inhibition was observed.

Experimental Data-4 (B0202-3/4)

Conc. μg/plate	Number of Revertants/plate Base-substitution
	TA100
	S9+
DMSO	(115)
25	108 142 (125)
50	115 162 (139)
75	173 172 (173)
100	180 187 (184)
125	207 222 (215)
150	218 204 (211)
175	171 * 191 * (181 *)
Judgement	−
Specific Mutagenicity	
Positive Control	2-AA (1211)

* Growth inhibition was observed.

Experimental Data-5

Conc. μg/plate	Number of Revertants/plate Base-substitution
	TA100
	30% S9+
DMSO	(153)
2 .44	171 186 (179)
4 .88	196 176 (186)
9 .77	212 204 (208)
19 .5	207 226 (217)
39 .1	253 316 (285)
78 .1	285 300 (293)
156	280 304 (292)
313	247 246 (247)
625	0 * 0 * (0 *)
1250	0 * 0 * (0 *)
2500	0 * 0 * (0 *)
5000	0 * 0 * (0 *)
Judgement	−
Specific Mutagenicity	
Positive Control	2-AA (375)

* Growth inhibition was observed.

Experimental Data-6

Conc. μg/plate	Number of Revertants/plate Base-substitution
	TA100
	30% S9+
DMSO	(127)
50	219 276 (248)
100	303 311 (307)
150	290 337 (314)
200	287 286 (287)
250	267 261 (264)
300	292 * 262 * (277 *)
350	265 * 265 * (265 *)
Judgement	+
Specific Mutagenicity	1800
Positive Control	2-AA (393)

* Growth inhibition was observed.

Experimental Data-7 (B0202-4/4)

Conc. μg/plate	Number of Revertants/plate Base-substitution
	TA100
	30% S9+
DMSO	(119)
25	185 213 (199)
50	263 256 (260)
100	227 233 (230)
150	262 273 (268)
200	259 236 (248)
250	225 221 (223)
300	241 * 222 * (232 *)
350	205 * 163 * (184 *)
Judgement	+
Specific Mutagenicity	2820
Positive Control	2-AA (332)

* Growth inhibition was observed.