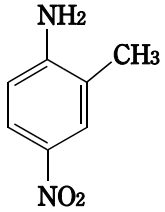
Chemical Name;2-Methyl-4-nitroaniline
Synonym ;4-Nitro-*o*-toluidine
C.I. 37100
2-Methyl-4-nitrobenzenamine
4-ニトロ-*o*-トルイジン
アゾイック DC 34
2-メチル-4-ニトロベンゼナミン

Molecular Weight ; 152.15
Melting Point ; 129 ℃ [CHCD]
131 - 133 ℃ [Aldrich]
Boiling Point ; — ℃
Flashing Point ; — ℃
Molecular Formula; $C_7H_8N_2O_2$

Chemical Structure



CAS No. ; 99-52-5
MITI No. ; (3)-4015 , (5)-2319
ML No. ; —
Specified Chemical Substances; —

Source of Substance; Wako Junyaku Kogyo Co.,Ltd.
Lot No. ; TWE4552
Purity ; 98.2 %

Vehicle ; DMSO

Judgement for
Chromosomal Aberration in CHL ; **Positive**

IARC Evaluation ; not yet cited

Exprimental Data without Metabolic Activation

Treatment						Cell with Structural Chromosome Aberration (%)							
Substance	Time (h)	Concent-ration (mg/ml)	No. of Metaphase	Polyploid (%)	**Judge-ment**		Chromatid		Chromosome		Total		**Judge-ment**
						Gap	CTB	CTE	CSB	CSE	−G	+G	
DMSO	24		200	0.5	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
	48		200	0.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
Test Chemical	24	0.05	200	2.5	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
		0.1	200	10.5	+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.2	200	0.5	−	0.0	0.0	1.5	0.0	0.0	1.5	1.5	−
		0.4				No observation for metaphase							
	48	0.05	200	2.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.1	200	14.0	+	0.0	0.5	0.5	0.0	0.0	1.0	1.0	−
		0.2	177	35.6	+	0.6	0.0	0.6	0.0	0.0	0.6	1.1	−
		0.4				No observation for metaphase							
Positive Control [MMC]	24	0.00004	200	0.0	−	1.5	9.0	33.5	0.0	0.0	38.0	38.0	+
	48	0.00004	200	0.0	−	2.0	8.0	61.0	0.0	0.5	63.0	63.0	+

Exprimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid (%)	Judge-ment	Cell with Structural Chromosome Aberration (%)							
							Chromatid		Chromosome		Total		
Substance	S9 mix	Concent-ration (mg/ml)				Gap	CTB	CTE	CSB	CSE	−G	+G	Judge-ment
DMSO	−		200	0.0	−	0.0	0.5	0.5	0.0	0.0	1.0	1.0	−
	+		200	0.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
Test	−	0.25	200	9.5	±	0.0	0.5	0.0	0.0	0.5	1.0	1.0	−
Chemical		0.5 *	200	2.0	−	0.5	1.5	3.0	0.0	0.0	4.5	5.0	±
		1.0 *	200	0.5	−	1.0	2.0	4.5	0.0	0.0	6.0	7.0	±
		2.0 *	200	0.0	−	0.0	2.0	1.0	0.0	0.0	2.5	2.5	−
		3.0 *	200	0.0	−	0.0	1.0	1.5	0.0	0.0	2.5	2.5	−
	+	0.25	200	2.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.5 *	200	2.5	−	0.0	1.0	4.0	0.0	0.0	4.0	4.0	−
		1.0 *	200	1.5	−	0.0	0.0	2.5	0.0	0.0	2.5	2.5	−
		2.0 *	200	0.0	−	0.0	0.5	3.5	0.0	0.0	4.0	4.0	−
		3.0 *	200	1.0	−	0.0	1.0	0.5	0.0	0.0	1.5	1.5	−
Positive	−	0.01	200	1.0	−	0.5	0.5	0.0	0.0	0.0	0.5	1.0	−
Control [B(a)P]	+	0.01	200	0.5	−	1.5	7.0	43.5	0.0	0.0	45.0	46.0	+

* Test chemical was precipitated.

※ There was no observation of cytotoxicity and chromosomal abnormality with treatment by 5.0 mg/ml.