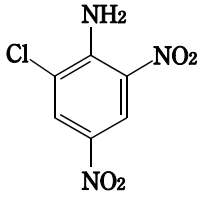
Chemical Name;2,4-Dinitro-6-chloroaniline
Synonym ;2-Chloro-4,6-dinitroaniline
6-Chloro-2,4-dinitroaniline
2-Chloro-4,6-dinitrobenzenamine
2-ｸﾛﾛ-4,6-ｼﾞﾆﾄﾛｱﾆﾘﾝ
6-ｸﾛﾛ-2,4-ｼﾞﾆﾄﾛｱﾆﾘﾝ
2-ｸﾛﾛ-4,6-ｼﾞﾆﾄﾛﾍﾞﾝｾﾞﾅﾐﾝ

Molecular Weight ; 217.57
Melting Point ; 157 ℃ [CHCD]
157 - 159 ℃ [Aldrich]
Boiling Point ; — ℃
Flashing Point ; — ℃
Molecular Formula; $C_6H_4ClN_3O_4$

Chemical Structure



CAS No. ; 3531-19-9
MITI No. ; (3)-422
ML No. ; —
Specified Chemical Substances; —

Source of Substance; Tokyo Kasei Kogyo Co.,Ltd.
Lot No. ; FBI01
Purity ; — %

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	1.0	−	0.0	1.0	0.0	0.0	0.0	1.0	1.0	−
	48		200	0.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
Test Chemical	24	0.013	200	3.5	−	0.0	0.5	0.5	0.0	0.0	1.0	1.0	−
		0.025	200	2.5	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
		0.05	200	0.5	−	0.0	0.5	0.5	0.0	0.0	1.0	1.0	−
		0.075	146	1.4	−	0.0	2.1	2.1	0.0	0.0	4.1	4.1	−
		0.10				No observation for metaphase							
	48	0.013	200	1.5	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.025	200	8.0	±	0.0	0.5	1.5	0.0	0.0	1.5	1.5	−
		0.05	154	7.1	±	0.0	1.9	0.6	0.0	0.0	2.6	2.6	−
		0.075				No observation for metaphase							
		0.10				No observation for metaphase							
Positive Control [MMC]	24	0.00004	200	1.0	−	1.0	7.5	17.5	0.0	0.0	22.5	23.0	+
	48	0.00004	200	1.5	−	1.0	11.5	30.0	0.0	0.0	36.5	37.0	+

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	1.0	−	1.0	0.5	0.0	0.0	0.0	0.5	1.5	−
	+		200	2.5	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
Test Chemical	−	0.05	200	3.5	−	0.0	0.5	1.0	0.0	0.0	1.5	1.5	−
		0.1	200	5.5	±	0.0	0.5	1.5	0.0	0.0	2.0	2.0	−
		0.2	200	1.5	−	0.5	6.5	2.5	0.0	0.0	3.5	4.0	−
		0.3 *	171	2.9	−	0.0	0.6	1.2	0.0	0.0	1.8	1.8	−
		0.4 *				No observation for metaphase							
	+	0.05	200	2.5	−	0.5	0.5	0.0	0.0	0.0	0.5	1.0	−
		0.1	200	3.0	−	0.5	0.5	0.5	0.0	0.0	1.0	1.5	−
		0.2	200	7.5	±	0.0	1.0	5.5	0.0	0.0	6.0	6.0	±
		0.3 *	167	3.0	−	1.2	7.8	25.7	0.0	0.0	29.9	29.9	+
		0.4 *				No observation for metaphase							
Positive Control [B(a)P]	−	0.01	200	2.5	−	0.0	1.0	1.5	0.0	0.0	2.0	2.0	−
	+	0.01	200	1.5	−	1.0	4.0	16.0	0.0	0.0	19.0	20.0	+

* Test chemical was precipitated.