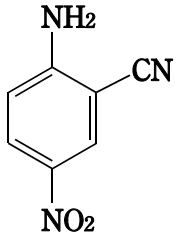
2-Amino-5-nitrobenzonitrile
【2-アミノ-5-ニトロベンゾニトリル】

Chemical Name;2-Amino-5-nitrobenzonitrile
Synonym ;2-Cyano-4-nitoaniline
5-Nitroanthranilonitrile
2-シアノ-4-ニトロアニリン
5-ニトロアンスラニロニトリル

Molecular Weight ; 163.14
Melting Point ; 200 - 207 ℃ [Aldrich]
Boiling Point ; — ℃
Flashing Point ; — ℃
Molecular Formula; $C_7H_5N_3O_2$

Chemical Structure



CAS No. ; 17420-30-3
MITI No. ; (3)-1806
ML No. ; —
Specified Chemical Substances; —

Source of Substance; Aldrich Chemical Co.,Inc.
Lot No. ; 12122TZ
Purity ; 97 %

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	1.0 %	200	2.5	−	0.0	0.5	0.5	0.0	0.5	1.5	1.5	−
	48	1.0 %	200	1.0	−	0.0	0.0	0.0	0.0	0.5	0.5	0.5	−
Test Chemical	24	0.02	200	1.0	−	0.5	0.0	0.0	0.0	0.0	0.0	0.5	−
		0.04	200	2.0	−	0.5	3.0	2.5	0.0	0.0	5.5	6.0	±
		0.08	200	2.0	−	1.5	7.5	2.0	0.0	0.5	9.5	11.0	+
		0.12	159	1.3	−	0.6	3.1	2.5	0.0	0.0	5.7	6.3	±
		0.16	159	1.9	−	0.6	3.1	0.6	0.0	0.0	3.8	3.8	−
	48	0.0013	200	1.0	−	0.0	1.0	0.5	0.0	0.0	1.0	1.0	−
		0.0025	200	2.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.005	200	1.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.01	200	1.0	−	0.0	0.5	0.5	0.0	0.0	1.0	1.0	−
		0.02	164	1.2	−	0.0	1.2	1.2	0.0	0.0	2.4	2.4	−
Positive Control [MMC]	24	0.00004	200	1.5	−	1.5	9.0	16.0	0.0	0.0	21.5	23.0	+
	48	0.00004	200	1.0	−	1.0	8.0	26.5	0.0	0.5	31.5	32.5	+

Exprimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid (%)	Judge-ment	Cell with Structural Chromosome Aberration (%)							
Substance	S9 mix	Concent-ration (mg/ml)					Chromatid		Chromosome		Total		Judge-ment
						Gap	CTB	CTE	CSB	CSE	−G	+G	
DMSO	−	1.0 %	200	1.0	−	0.5	0.5	0.0	0.0	0.0	0.5	1.0	−
	+	1.0 %	200	1.5	−	0.0	0.5	0.0	0.0	0.0	0.5	0.5	−
Test Chemical	−	0.25 *	200	0.5	−	0.5	1.0	1.5	0.0	0.0	2.5	3.0	−
		0.5 *	172	0.0	−	0.0	2.9	1.2	0.0	0.0	4.1	4.1	−
		1.0 *	113	0.0	−	0.0	1.8	0.0	0.0	0.0	1.8	1.8	−
		2.0 *				No observation for metaphase							
		4.0 *				No observation for metaphase							
	+	0.25 *	200	1.5	−	0.0	1.0	2.0	0.0	0.0	3.0	3.0	−
		0.5 *	200	0.5	−	0.5	1.0	0.5	0.0	0.0	1.5	2.0	−
		1.0 *	200	2.0	−	0.0	1.0	0.5	0.0	0.5	2.0	2.0	−
		2.0 *	200	1.0	−	0.0	1.0	1.5	0.0	0.0	2.5	2.5	−
		4.0 *	200	0.0	−	0.5	1.5	0.0	0.0	0.0	1.5	2.0	−
Positive Control (B(a)P)	−	0.01	200	1.5	−	0.0	1.0	0.0	0.0	0.0	1.0	1.0	−
	+	0.01	200	1.5	−	1.0	2.5	20.5	0.0	0.0	21.0	21.0	+

* Test chemical was precipitated.