

2-Amino-5-nitrobenzonitrile

(C9502-1/2)

[2-アミノ-5-ニトロベンゾニトリル]

Experimental Data without Metabolic Activation

Chemical Name; 2-Amino-5-nitrobenzonitrile

Synonym ; 2-Cyano-4-nitroaniline

5-Nitroanthranilonitrile

2-シアノ-4-ニトロアニリン

5-ニトロアンソラニロニトリル

Molecular Weight ; 163.14

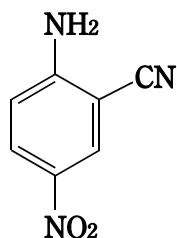
Melting Point ; 200 - 207 °C [Aldrich]

Boiling Point ; - °C

Flashing Point ; - °C

Molecular Formula; C₇H₅N₃O₂

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

Substance	Treatment		No. of Metaphase	Polyploid (%)	Judge-ment	Cell with Structural Chromosome Aberration (%)							
	Time (h)	Concentration (mg/ml)				Chromatid		Chromosome		Total		Judge-ment	
						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	24	0.00004	200	1.5	-	1.5	9.0	16.0	0.0	0.0	21.5	23.0	+
[MMC]	48	0.00004	200	1.0	-	1.0	8.0	26.5	0.0	0.5	31.5	32.5	+

Judgement for

Chromosomal Aberration in CHL ; **Positive**

IARC Evaluation

; not yet cited

Experimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid (%)	Judge- ment	Cell with Structural Chromosome Aberration (%)							Judge- ment
Substance	S9 mix	Concent- ration (mg/ml)				Chromatid		Chromosome		Total			
						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.