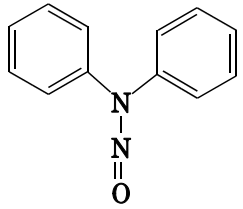
Chemical Name; N,N-Diphenylnitrosoamine
Synonym ; N-Nitrosodiphenylamine
N-Nitroso-N-phenylbenzenamine
N-Nitroso-N-phenylaniline
N-ニトロソジフェニルアミン
N-ニトロソ-N-フェニルベンゼナミン
N-ニトロソ-N-フェニルアニリン

Molecular Weight ; 198.22
Melting Point ; 66.5 ℃ [CHCD]
Boiling Point ; — ℃
Flashing Point ; — ℃
Molecular Formula; $C_{12}H_{10}N_2O$

Chemical Structure



CAS No. ; 86-30-6
MITI No. ; (3)-431
ML No. ; —
Specified Chemical Substances; —

Source of Substance; Wako Junyaku Kogyo Co.,Ltd.
Lot No. ; WDP1301
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	0.5	0.0	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	0.01	200	0.0	−	0.0	0.0	1.0	0.0	0.0	1.0	1.0	−
		0.02	200	1.0	−	0.0	0.5	0.0	0.0	0.0	0.5	0.5	−
		0.04	200	0.0	−	0.0	1.5	1.5	0.0	0.0	3.0	3.0	−
		0.08	200	0.0	−	0.5	0.5	0.5	0.0	0.0	1.0	1.0	−
		0.12	200	0.5	−	0.5	2.5	2.0	0.0	0.0	4.0	4.0	−
	48	0.01	200	0.5	−	0.0	0.0	1.0	0.0	0.0	1.0	0.0	−
		0.02	200	0.0	−	0.0	0.0	0.0	0.0	0.0	0.0	2.0	−
		0.04	200	1.0	−	0.0	0.0	0.0	0.0	0.0	0.0	5.4	−
		0.08	200	2.5	−	0.0	0.5	0.5	0.0	0.0	1.0	1.0	−
		0.12	200	0.0	−	0.0	0.5	2.0	0.0	0.0	2.5	2.5	−
Positive Control [MMC]	24	0.00004	200	2.0	−	1.5	8.0	48.0	0.0	0.5	51.0	51.0	+
	48	0.00004	200	1.0	−	2.5	14.5	71.0	0.0	0.0	73.0	73.0	+

※ There was no observation for metaphase with both treatment of 24Hr and 48Hr at 0.16mg/ml.

Exprimental Data with Metabolic Activation

Treatment						Cell with Structural Chromosome Aberration (%)							
Substance	S9 mix	Concent-ration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge-ment		Chromatid		Chromosome		Total		Judge-ment
						Gap	CTB	CTE	CSB	CSE	−G	+G	
DMSO	−		200	2.0	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
	+		200	0.5	−	0.0	0.0	1.5	0.0	0.0	1.5	1.5	−
Test Chemical	−	0.025	200	1.0	−	0.0	0.0	1.0	0.0	0.0	1.0	1.0	−
		0.05	200	1.0	−	0.0	0.5	2.5	0.0	0.0	3.0	3.0	−
		0.1	200	0.5	−	0.0	0.5	1.5	0.0	0.0	1.5	1.5	−
		0.15	No observation for metaphase										
		0.2	No observation for metaphase										
	+	0.025	200	0.5	−	0.0	0.0	1.0	0.0	0.0	1.0	1.0	−
		0.05	200	0.0	−	0.5	4.0	13.5	0.0	0.0	15.0	15.5	+
		0.1	200	1.5	−	1.0	7.0	36.5	0.0	0.0	40.5	40.5	+
		0.15	200	0.5	−	1.5	7.0	21.0	0.0	0.0	25.5	25.5	+
		0.2	No observation for metaphase										
Positive Control [B(a)P]	−	0.01	200	1.0	−	0.5	1.0	0.5	0.0	0.0	2.0	2.0	−
	+	0.01	200	0.0	−	0.0	2.5	25.0	0.0	0.0	27.0	27.0	+