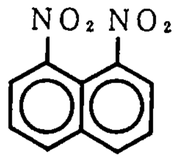
1,8-Dinitronaphthalene (1,8-ジニトロナフタレン)

Chemical Name: 1,8-Dinitronaphthalene
Synonym peri-Dinitronaphthalene
Molecular weight: 218.2
Melting point:173-173.5 ℃
Boiling point: ℃

Chemical Structure



CAS No : 602-38-0
MITI No : (4)-325
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: AG01
Purity: %
Vehicle: DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

Experimental Data

	Treated Time (Hr)	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	24		200	1.0	−	0	0	0	0	0.5	0.5	0.5	−
	48		200	0	−	2.0	0.5	0	0	0	0.5	2.5	−
Test Chemical													
	24	0.0063	200	1.0	−	0.5	0	0	0	0	0	0.5	−
		0.013	200	0.5	−	0.5	0.5	0.5	0	0	1.0	1.5	−
		0.025	200	0	−	0	0.5	0.5	0	0	1.0	1.0	−
		0.05	200	0	−	1.0	0.5	0.5	0	0	1.0	2.0	−
		0.1	200	0.5	−	0	1.5	0.5	0	0	2.0	2.0	−
	48	0.0063	200	0	−	1.0	0	0	0	0	0	1.0	−
		0.013	200	0.5	−	1.0	0	0.5	0	0	0.5	1.5	−
		0.025	200	0	−	0	0	0	0	0.5	0.5	0.5	−
		0.05	200	0.5	−	0.5	0	1.0	0	0	1.0	1.5	−
		0.1	200	0.5	−	0.5	0.5	1.0	0	0	1.5	2.0	−
Positive Control													
(MMC)	24	0.00008	200	1.5	−	3.0	6.0	28.5	0	0	31.5	33.5	+
	48	0.00008	200	0	−	2.0	6.5	25.5	0	0.5	30.5	31.5	+

Experimental Data

	S 9 with or without	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	−		200	0	−	0	0	0	0	0	0	0	−
	+		200	0	−	0.5	0	0	0	0	0	0.5	−
Test Chemical													
	−	0.01	200	0	−	0	0	0	0	0	0	0.5	−
		0.015	200	0.5	−	0	0	0	0	0	0	0	−
		0.02	200	0	−	0	0	0	0	0	0	0	−
		0.025	200	0	−	0.5	0	0.5	0	0	0.5.	1.0	−
		0.03	200	0	−	0	0	0	0	0	0	0	−
	+	0.01	200	0	−	0.5	0.5	0	0	0	0.5	1.0	−
		0.015	200	1.5	−	0.5	2.0	9.5	0	0	10.5	10.5	+
		0.02	200	2.0	−	2.5	2.5	14.5	0	0	16.0	16.5	+
		0.025	200	2.0	−	3.0	3.5	10.0	0	0	12.0	14.0	+
		0.03	200	1.0	−	3.5	5.0	17.0	0	0	18.5	20.0	+
Positive Control													
(B(a)P)−			200	0	−	0.5	0	0.5	0	0	0.5	1.0	−
	+		200	0	−	4.0	5.0	32.5	0.5	1.0	35.0	36.5	+