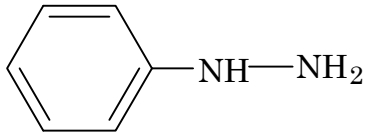
Chemical Name ; Phenylhydrazine

Synoym ; Hydrazinobenzene

Molecular Weight ; 108.14
Melting Point ; 19.6℃ [CHCD]
Boiling Point ; 243.5℃(decomposition)[CHCD]
Flashing Point ; 88 ℃ [CHCD]
Molecular Formula ; $C_6H_8N_2$

Chemical Structure



CAS No. ; 100-63-0
MITI No. ; (3)-470
ML No. ; −
Specified Chemical Substances ; −

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; FGF01
Purity ; 99.8%

Vehicle ; Saline

Judgement for
Chromosomal Aberration in CHL ; Positive

IARC Evaluation ; not yet cited

Treatment			No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
Substance	Time (h)	Concentration (mg/ml)		(%)	Judgement	Gap	Chromatid		Chromosome		Others	Total		Judgement
						g	ctb	cte	csb	cse		−g	+g	
Saline	24	10%	200	1.5	−	0.5	0	0	0	0	0	0	0.5	−
	48	10%	200	0	−	0	0.5	0	0	0	0	0.5	0.5	−
Test Chemical	24	0.0025	200	0	−	0	2.5	0	0	0	0	2.5	2.5	−
		0.0050	200	0.5	−	0	1	4	0	0	0	4.5	4.5	−
		0.010	200	1.5	−	1	9	9	0.5	0	0	16.5	17.5	+
		0.015	200	0	−	0	3.5	2.7	0	0	0	6.2	6.2	±
		0.020	200	0	−	2.5	3.8	0	0	0	0	3.8	5.1	±
	48	0.0020	200	0	−	0	0	0	0	0	0	0	0	−
		0.0040	200	0.5	−	0	0	0	0	0	0	0	0	−
		0.0080	200	0.5	−	0	1	2.5	0	0	0	2.5	2.5	−
		0.012	200	2	−	0	7.5	10.5	0	0.5	0	13.5	13.5	+
		0.016	No obserbation for metaphase											
Positive Control [MMC]	24	0.00004	200	0.5	−	2	9.5	36.5	0	0.5	0	42	43.5	+
	48	0.00004	200	0.5	−	3.5	14	54	0	0.5	0	59	59.5	+

Experimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
Substance	S9 mix	Concent-ration (mg/ml)		(%)	Judge-ment	Gap	Chromatid		Chromosome		Others	Total		Judge-ment
						g	ctb	cte	csb	cse		−g	+g	
Saline	−	10%	200	2	−	0.5	2	0.5	0	0	0	2.5	3	−
	+	10%	200	3.5	−	0	0	1	0	0	0	1	1	−
Test Chemical	−	0.010	200	3.5	−	1	4	2.5	0	0	0	5.5	6.5	±
		0.020	200	3	−	1	12	21.5	0	0.5	0	24.5	24.5	+
		0.040	200	1	−	0	12.5	31.5	0	0	0	35	35	+
		0.080	200	1	−	0.5	11.5	28	0	0	0	30.5	30.5	+
		0.16	No obserbation for metaphase											
	+	0.040	200	4	−	0	2	2.5	0	0	0	4	4	−
		0.080	200	3	−	0.5	4.5	21	0	0	0	22	22.5	+
		0.16	200	3.5	−	0.5	8	28.5	0	0	0	31.5	32	+
		0.32	96	7.3	±	0	20.8	60.4	2.1	0	0	67.7	67.7	+
Positive Control [B[a]P]	−	0.01	200	3.5	−	0.5	2	0.5	0	0.5	0	3	3.5	−
	+	0.01	200	1.5	−	0	2.5	33.5	0	1	0	35	35	+

※ Test conditions: Treatment time ; 6h, Rcovery time ; 18h