Chemical Name;1-Bromo-3-chloropropane
Synonym ;1-Chloro-3-bromopropane
Trimethylene bromochloride
1-ｸﾛﾛ-3-ﾌﾞﾛﾓﾌﾟﾛﾊﾟﾝ
ﾄﾘﾒﾁﾚﾝﾌﾞﾛﾓﾌﾟﾛﾊﾟﾝ

Molecular Weight ; 157.44
Melting Point ; — ℃
Boiling Point ; 142 - 143 ℃ [CHCD]
144 - 145 ℃ [Aldrich]
Flashing Point ; — ℃
Molecular Formula; C_3H_6BrCl

Chemical Structure

$ClCH_2CH_2CH_2Br$

CAS No. ; 109-70-6
MITI No. ; (9)-370
ML No. ; 2-(13)-64
Specified Chemical Substances; —

Source of Substance; Wako Junyaku Kogyo Co.,Ltd.
Lot No. ; WDR4309
Purity ; 99.5 %

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 (%)							
							Chromatid		Chromosome		Total		
Substance	Time (h)	Concent-ration (mg/ml)	No. of Metaphase	Polyploid (%)	**Judge-ment**	Gap	CTB	CTE	CSB	CSE	−G	+G	**Judge-ment**
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	1.0	200	2.5	−	0.5	0.5	0.0	0.0	0.0	0.5	1.0	−
		2.0	200	11.5	+	0.5	3.0	3.0	0.0	0.0	5.5	5.5	±
		3.0 *	200	11.5	+	1.0	3.5	10.5	0.0	0.0	12.5	13.0	+
		4.0 *	200	11.0	+	1.0	4.5	12.0	0.0	0.0	14.5	14.5	+
		5.0 *	200	9.0	±	0.0	6.0	11.5	0.0	0.0	13.5	13.5	+
	48	1.0	200	1.0	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
		2.0	200	6.5	±	0.0	1.0	1.0	0.0	0.0	2.0	2.0	−
		3.0 *	200	25.0	+	0.0	0.5	1.5	0.0	0.0	2.0	2.0	−
		4.0 *	200	34.5	+	0.0	1.0	3.5	0.0	0.0	4.5	4.5	−
		5.0 *	200	33.0	+	0.0	1.0	3.5	0.0	0.0	3.5	3.5	−
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	+

* Test chemical was precipitated.

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	−		200	0.0	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
	+		200	0.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
Test Chemical	−	0.1	200	2.0	−	0.5	0.5	0.0	0.0	0.0	1.0	1.0	−
		0.15	200	0.5	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.2	200	1.5	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
		0.25	200	0.0	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
		0.3	200	0.0	−	0.0	0.0	0.5	0.0	0.0	0.5	0.5	−
	+	0.1	200	0.0	−	0.0	0.0	1.0	0.0	0.0	1.0	1.0	−
		0.15	200	0.5	−	0.0	0.5	0.0	0.0	0.0	0.0	0.0	−
		0.2	200	0.0	−	0.0	0.0	1.5	0.0	0.0	1.5	1.5	−
		0.25	200	2.5	−	0.0	1.0	11.0	0.0	0.0	11.5	11.5	+
		0.3	200	1.5	−	1.5	4.0	20.0	0.0	0.0	21.5	21.5	+
Positive Control [B(a)P]	−	0.01	200	0.0	−	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−
	+	0.01	200	0.0	−	1.0	3.0	26.0	0.0	0.0	26.5	27.0	+