Bromochloromethane (ﾌﾞﾛﾓｸﾛﾛﾒﾀﾝ)

Chemical Name: Bromochloromethane
Synonym Methane, bromochloro-
Molecular weight: 129.4
Melting point: - 88 ℃
Boiling point:67.8-68℃

Chemical Structure

$C\ell CH_2Br$

CAS No : 74-97-5
MITI No : (2)-58
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: FA001
Purity: %
Vehicle: 1%CMC

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

Experimental Data

(Petri dish)

	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
CMC	24		200	0	—	0	0	0	0	0	0	0	—
	48		200	0	—	0	0	0	0	0	0	0	—
Test Chemical													
	24	1.0	200	0.5	—	0	0	1.0	0	0	1.0	1.0	—
		2.0	200	0.5	—	0	0	0.5	0	0	0.5	0.5	—
		3.0	200	0	—	0.5	0	0	0	0	0	0.5	—
		4.0	200	0	—	0.5	0	0	0	0	0	0.5	—
		5.0	200	1.5	—	0	0.5	0	0	0	0.5	0.5	—
	48	1.0	200	0.5	—	0	0.5	0.5	0	0	1.0	1.0	—
		2.0	200	0	—	0.5	0	0	0	0	0	0.5	—
		3.0	200	1.0	—	0	0	0.5	0	0	0.5	0.5	—
		4.0	200	0	—	1.0	0	0	0	0	0	1.0	—
		5.0	200	1.0	—	0	0	0.5	0	0	0.5	0.5	—
Positive Control													
(MMC)	24	0.00008	200	0	—	2.0	6.5	30.0	0	0	33.0	33.5	+
	48	0.00008	200	0.5	—	2.0	8.0	49.5	0	0.5	53.0	53.5	+

Experimental Data

(Square glass bottle, sealed)

	Treated Time (Hr)	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							
											Total		
						Gap	CTB	CTE	CSB	CSE	-G	+G	Judge
CMC	24		200	0.5	—	1.0	0	0	0	0	0	1.0	—
Test Chemical													
	24	3.0	200	0.5	—	0	0	2.5	0	0	2.5	2.5	—
		4.0	200	2.5	—	0	1.0	2.5	0	0	3.5	3.5	—
		5.0	200	1.5	—	1.0	1.5	9.5	0	0	11.0	11.5	+
		6.0	200	0	—	1.0	1.5	19.5	0	0	23.0	23.5	+
		7.0	200			No observation for metaphase							
Positive Control													
(MMC)	24	0.00008	200	0.5	—	4.5	7.5	48.0	0	0	50.0	50.0	+

Experimental Data

(Petri dish)

	S 9 with or without	Concent-ration (mg/ml)	No. of Meta-phase	Poly-ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							
											Total		
						Gap	CTB	CTE	CSB	CSE	-G	+G	Judge
CMC	−		200	0	−	0	1.0	0	0	0	1.0	1.0	−
	+		200	0	−	0	0	0	0	0	0	0	−
Test Chemical													
	−	1.3	200	0	−	0	0.5	0.5	0	0	1.0	1.0	−
		2.5	200	0	−	0.5	0	0	0	0	0	0.5	−
		5.0	200	2.5	−	0	0.5	0	0	0	0.5	0.5	−
		7.5	200	1.0	−	0	0	0	0	0	0	0	−
		10.0	No observation for metaphase										
	+	1.3	200	0	−	0.5	0	0.5	0	0	0.5	1.0	−
		2.5	200	0	−	0.5	0	0	0	0	0	0.5	−
		5.0	200	1.0	−	0.5	0.5	0	0	0	0.5	1.0	−
		7.5	200	0.5	−	0	1.0	0	0	0	1.0	1.0	−
		10.0	No observation for metaphase										
Positive Control (B(a)P)	−		200	0.5	−	0	0	0	0	0	0	0	−
	+		200	0	−	4.0	7.0	26.0	0	0	29.5	32.0	+