2-Chloroethanol (2-クロロエタノール)

Chemical Name: 2-Chloroethanol
Synonym: Ethylene chlorohydrin
Ethanol, 2-chloro-
Molecular weight: 80.52
Melting point: -89℃
Boiling point: 127～131℃

Chemical Structure

$CH_2C\ell CH_2OH$

CAS No : 107-07-3
MITI No : (2)-2002
Source of Substance: Wako Pure Chemical Ind., Ltd.
Lot.No. : KPJ5809
Purity: %
Vehicle: Saline

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
Saline													
	24		200	0.5	−	0	0	0	0	0	0	0	−
	48		200	0	−	0.5	0.5	0	0	0	0.5	1.0	−
Test Chemical													
	24	1.0	200	1.0	−	0.5	0	0	0	0	0	0.5	−
		2.0	200	1.0	−	0.5	1.0	0	0	0	1.0	1.5	−
		3.0	200	1.5	−	0.5	0	0.5	0	0	0.5	1.0	−
		4.0	200	0.5	−	0	0.5	1.0	0	0	1.5	1.5	−
		5.0	200	0.5	−	0	0	1.0	0	0	1.0	1.0	−
	48	1.0	200	0	−	0	0	0	0	0	0	0	−
		2.0	200	0	−	0	0	0	0	0	0	0	−
		3.0	200	0	−	0	0	0.5	0	0	0.5	0.5	−
		4.0	200	0	−	0	0	0	0	0	0	0	−
		5.0	200	0.5	−	0	0.5	0.5	0	0	1.0	1.0	−
Positive Control													
(MMC)	24	0.00005	200	0	−	2.5	10.0	49.0	0	0	52.5	54.5	+
	48	0.00005	200	1.5	−	2.0	17.0	62.0	0	1.0	68.0	68.0	+

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
Saline												
−		200	1.0	−	0.5	0	0	0	0	0	0.5	−
+		200	2.0	−	0.5	0.5	0.5	0	0	1.0	1.5	−
Test Chemical												
−	0.2	200	0.5	−	0.5	0	0.5	0	0	0.5	1.0	−
	0.3	200	1.0	−	1.0	0	0	0	0	0	1.0	−
	0.4	200	2.5	−	0	0	1.0	0	0	1.0	1.0	−
	0.5	200	1.5	−	0.5	0	0	0	0	0	0.5	−
	0.6	200	1.0	−	0	1.0	0.5	0	0	1.5	1.5	−
+	0.2	200	0	−	0.5	0	1.0	0	0	1.0	1.5	−
	0.3	200	0	−	4.0	8.0	18.5	0	0	21.5	23.5	+
	0.4	200	0	−	8.0	17.0	47.5	0	0	51.0	51.5	+
	0.5	138	0	−	19.6	58.0	62.3	0.7	0	84.8	85.5	+
	0.6	No observation for metaphase										
Positive Control												
(B(a)P)−		200	1.0	−	0	0	1.0	0	0	1.0	1.0	−
+		200	1.0	−	4.0	21.0	44.5	0	0.5	50.0	52.0	+