

Chloromethyl methyl ether (クロロメチルメチルエーテル)

Experimental Data

Chemical Name:	Chloromethyl methyl ether
Synonym	Chloromethyl ether Chlorodimethyl ether Chloromethoxymethane Methane, chloromethoxy-
Molecular weight:	80.5
Melting point:	-103.5°C
Boiling point:	55-57°C
Flashing point:	15°C
Chemical Structure	$\text{CH}_3\text{OCH}_2\text{c}\ell$
CAS No :	107-30-2
MITI No :	(2)-378
ML No :	2-(12)-25
Specific chemical substances:	G2
Source of Substance:	Tokyo Kasei Kogyo Co. Ltd
Lot.No:	FC002
Purity:	%
Vehicle:	DMSO

Treated Time (Hr)	Concentration (mg/ml)	No. of Meta-phase	Poly-ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)								
					Gap	CTB	CTE	CSB	CSE	Total		Judge	
										-G	+G		
DMSO	24	200	0.5	-	0	0	0.5	0	0	0.5	0.5	-	
	48	200	1.0	-	0	0	0.5	0	0	0.5	0.5	-	
Test Chemical	24	0.008	200	1.0	-	0.5	0	2.0	0	0	2.0	2.5	-
		0.012	200	8.0	±	1.0	1.5	11.5	0	0	12.0	12.0	+
		0.016	200	10.5	+	2.0	4.0	22.5	0	0	23.0	23.5	+
		0.020	200	21.5	+	5.5	5.5	20.0	0	0	23.5	25.5	+
		0.024				No observation for metaphase							
	48	0.008	200	4.5	-	0	0	0.5	0	0	0.5	0.5	-
		0.012	200	6.0	±	0	0	1.5	0	0	1.5	1.5	-
		0.016	200	11.0	+	1.5	2.0	6.0	0	0	7.5	8.5	±
		0.020	200	14.5	+	1.5	0.5	4.5	0	0.5	5.5	6.5	±
		0.024				No observation for metaphase							
Positive Control (MMC)	24	0.00008	200	0	-	5.0	14.0	40.0	0	0	47.5	49.0	+
	48	0.00008	200	3.5	-	4.5	14.0	51.0	0	0.5	60.0	60.5	+

Judgement for Chromosomal Aberration in CHL: Positive

IARC Evaluation: not yet cited

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S 9 with or without	Concentration (mg/ml)	No. of Meta- phase	Poly- ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							Judge	
					Gap	CTB	CTE	CSB	CSE	Total			
										-G	+G		
DMSO	-	200	0.5	-	0	0	1.0	0	0	1.0	1.0	-	
	+	200	0.5	-	0	0	0.5	0	0	0.5	0.5	-	
Test Chemical													
	-	0.02	200	10.5	+	3.5	1.0	1.0	0	0	24.0	25.5	+
		0.04					No observation for metaphase						
		0.08					No observation for metaphase						
		0.12					No observation for metaphase						
	+	0.02	200	0	-	0	0	0	0	0	0	-	
		0.04	200	2.0	-	1.0	2.5	8.0	0	0	10.0	10.5	+
		0.08	200	3.5	-	13.0	31.5	72.5	0	0	78.5	79.0	+
		0.12					No observation for metaphase						
Positive Control (B(a)P)													
	-	0.016	200	0	-	0.5	0	1.0	0	0	1.0	1.5	-
	+	0.016	200	0.5	-	3.0	8.5	32.5	0	0	36.0	37.0	+