

Glyoxal (グリオキサール)

Experimental Data

Chemical Name:	Glyoxal
Synonym	Ethanedial Oxalaldehyde
Molecular weight:	58.0
Melting point:	15°C
Boiling point:	50.4°C
Chemical Structure	
	OHCCHO
CAS No :	107-22-2
MITI No :	(2)-510, (2)-509
Source of Substance:	Tokyo Kasei Kogyo Co., Ltd.
Lot. No. :	AX02
Purity:	%
Vehicle:	Saline

Treated Time (Hr)	Concentration (mg/ml)	No. of Meta-phase	Poly-ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							Judge	
					Gap	CTB	CTE	CSB	CSE	Total			
										-G	+G		
Saline	24	200	1.0	-	0	0	0	0	0	0	0	-	
	48	200	1.5	-	0	0.5	0	0	0	0.5	0.5	-	
Test Chemical	24	200	1.0	-	0	0	0.5	0	0	0.5	0.5	-	
			0.08	-	0.5	2.5	4.5	0	0	6.5	6.5	±	
			0.12	-	1.0	6.5	20.0	0	0	25.5	25.5	+	
			0.16	-	No observation for metaphase								
	48	200	1.0	-	0	0.5	1.5	0	0	2.0	2.0	-	
			0.08	+	0.5	3.0	15.0	0	1.0	19.5	19.5	+	
			0.12	+	0.5	9.5	35.5	0	0	38.0	38.0	+	
			0.16	-	No observation for metaphase								
Positive Control (MMC)	24	0.00005	200	1.0	-	0	6.0	40.0	0	0	43.5	43.5	+
	48	0.00005	200	1.0	-	1.0	7.0	52.5	0	0	54.0	54.5	+

Judgement for Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

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S 9 with or without	Concent- ration (mg/ml)	No. of Meta- phase	Poly- ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							
					Gap	CTB	CTE	CSB	CSE	Total		Judge
										-G	+G	
Saline -		200	0.5	-	0	0	0	0	0	0	0	-
+		200	0.5	-	0	0	1.0	0	0	1.0	1.0	-
<b>Test Chemical</b>												
-	0.025	200	0.5	-	0.5	0	1.0	0	0	1.0	1.5	-
	0.05	200	1.0	-	0	0.5	0	0	0	0.5	0.5	-
	0.1	200	10.5	+	1.0	0	1.0	0	0	1.0	2.0	-
	0.15	200	7.5	±	2.0	8.0	16.5	0	0	21.5	22.0	+
	0.2	200	6.5	±	9.0	30.0	42.0	0	0	56.5	57.0	+
+	0.025	200	0	-	0	0.5	1.5	0	0	2.0	2.0	-
	0.05	200	1.0	-	0	0	0.5	0	0	0.5	0.5	-
	0.1	200	16.5	+	0.5	1.0	3.0	0	0	4.0	4.5	-
	0.15	200	2.0	-	16.5	31.5	76.5	0	0	83.5	84.0	+
	0.2				No observation for metaphase							
<b>Positive Control</b>												
(B(a)P) -		200	0.5	-	0	0.5	1.0	0	0	1.5	1.5	-
+		200	0.5	-	1.5	3.0	37.0	0	0	39.0	40.0	+