

p-Chlorobenzyl chloride (p-クロロベンジルクロリド)Experimental Data (Short treatments)

Chemical Name : <u>4-Chlorobenzyl chloride</u>	S9 mix	Concentration (mg/ml)	Cell with Structural Chromosome Aberration (%)							Gap (%)	Cell Growth Rate (%)	Cell with Numerical Chromosome Aberration(%)					
			No. of Metaphase	Chromatid ctb cte		Chromosome csb cse		Others	Total			No. of Metaphase	Poly-ploid	Others	Total		
Synonym : <u>4,α-Dichlorotoluene</u> <u>1-Chloro-4-(chloromethyl)-benzene</u> <u>4-Chlorobenzyl chloride</u>	6-18	-	[DMSO] (1%)	200	0	0	0	0	0	0	100	200	0	0	0		
			0.016	200	0	0.5	0	0	0	0	0.5	0.5	80	201	0.5	0	0.5
			0.024	200	0.5	1.5	0	0	0	0	2	2	68	207	3.4	0	3.4
			0.032	200	2	9	0	0	0	0	11	0.5	37	213	6.1	0	6.1
			0.040	TOX									23	TOX			
			0.048	TOX									21	TOX			
			[MMC] (0.00012)	200	10	52.5	0	0	0	0	56	0.5	—	200	0	0	0
Molecular Weight : 161.03	6-18	+	[DMSO] (1%)	200	0	0.5	0	0	0	0.5	100	200	0	0	0		
Melting Point : 29 °C [CHCD]			0.040	200	0.5	0	0	0	0	0	0.5	0	90	200	0	0	0
Boiling Point : 122-126 °C(16mmHg)[CHCD]			0.080	200	0	0.5	0	0	0	0	0.5	0	83	200	0	0	0
Flashing Point : 97.8°C [Aldrich]			0.12	200	0.5	0.5	0	0	0	0	1	0	75	201	0.5	0	0.5
Molecular Formula : C ₇ H ₆ Cl ₂			0.16	200	2.5	12.5	0	0	0	0	13.5	0	53	207	2.9	0.5	3.4
Chemical Structure :			0.20†	200	5	22.5	0	0	0	0	24	0	34	210	4.8	0	4.8
			[B[a]P] (0.01)	200	4	25	0	0	0	0	27	1.5	—	203	0	1.5	1.5
CAS No. : 104-83-6																	
METI No. : (3)-91																	
MHLW No. : 4-(15)-60																	
Specified Chemical Substances ; —																	
Source of Substance; Wako Pure Chemical Industries, Ltd.																	
Lot No. : KSN1798																	
Purity : 99.7%																	
Vehicle : Dehydrated DMSO																	

Judgement for
Chromosomal Aberration in CHL/IU ; Positive

IARC Evaluation : not yet cited

※ Test conditions: S9mix ; 5%, Treatment time ; 6h, Recovery time ; 18h

† The precipitation of test chemical was observed in the culture medium.

Experimental Data without Metabolic Activation (Continuous treatments)

Treatment Time (h)	Concentration (mg/ml)	Cell with Structural Chromosome Aberration (%)							Gap (%)	Cell Growth Rate (%)	Cell with Numerical Chromosome Aberration(%)				
		No. of Metaphase	Chromatid		Chromosome		Others	Total			No. of Metaphase	Poly-ploid	Others	Total	
			ctb	cte	csb	cse									
24-0	[DMSO] (1%)	200	1	0	0	0	0	1	0.5	100	200	0	0	0	
	0.0060	200	1.5	3	0	0	0	4.5	2	89	200	0	0	0	
	0.012	200	3	8	0	0	0	9.5	1.5	78	203	1.5	0	1.5	
	0.018	200	8	30.5	0	0	0	35	2	70	202	1	0	1	
	0.024	200	9.5	43	0	0	0	44.5	1.5	39	203	1.5	0	1.5	
	[MMC] (0.00004)	200	11	34	0	0	0	41.5	2	—	200	0	0	0	
48-0	[DMSO] (1%)	200	0	1.5	0	0	0	1.5	0.5	100	200	0	0	0	
	0.0060	200	1	0.5	0	0	0	1.5	0.5	90	201	0.5	0	0.5	
	0.012	200	0.5	0.5	0	0	0	1	0	78	201	0.5	0	0.5	
	0.018	200	0	1.5	0	0	0	1.5	0.5	61	203	1.5	0	1.5	
	0.024	200	0.5	3	0	0	0	3	0.5	26	207	3.4	0	3.4	
	0.030	TOX									12	TOX			
	[MMC] (0.00004)	200	12.5	38	0	0	0	44.5	2	—	201	0.5	0	0.5	

※ Test conditions: Treatment time ; 24h or 48h, Recovery time ; 0h