1,2-Dichloro-4-nitrobenzene (1,2-ｼﾞｸﾛﾛ-4-ﾆﾄﾛﾍﾞﾝｾﾞﾝ)

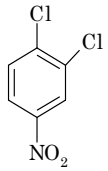
Experimental Data (Short treatments)

Chemical Name ; 1,2-Dichloro-4-nitrobenzene

Synoym ; 3,4-Dichloronitrobenzene
3,4-Dichloro-1-nitrobenzene

Molecular Weight ; 192.00
Melting Point ; 42-43 ℃[CHCD]
Boiling Point ; 255-256 ℃[CHCD]
Flashing Point ; 123.9℃[Aldrich]
Molecular Formula ; $C_6H_3Cl_2NO_2$

Chemical Structure ;



CAS No. ; 99-54-7
METI No. ; (3)-455
MHLW No. ; －
Specified Chemical Substances ; －

Source of Substance; Wako Pure Chemical Industries, Ltd.
Lot No. ; SKJ1382
Purity ; 99.1%

Vehicle ; Dehydrated DMSO

Treatment Time (h)	S9 mix	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								
6-18	－	[DMSO] (1%)	200	0	0	0	0	0	0	0	100	200	0	0	0
		0.04	200	0	0	0	0	0	0	0	88	203	1.5	0	1.5
		0.08	200	0	0.5	0	0	0	0.5	0	82	207	3.4	0	3.4
		0.12	200	0.5	0	0	0	0	0.5	0	74	203	1.5	0	1.5
		0.16†	200	0.5	1.5	0	0	0	2	0	56	214	6.5	0	6.5
		0.20†	TOX								33	TOX			
		[MMC] (0.00012)	200	12	33.5	0	0	0	39	3	－	200	0	0	0
6-18	＋	[DMSO] (1%)	200	0	0.5	0	0	0	0.5	0	100	201	0.5	0	0.5
		0.02	200	0	0	0	0	0	0	0	89	201	0.5	0	0.5
		0.04	200	0.5	2	0	0	0	2	0	83	202	1	0	1
		0.08	200	2	10.5	0	0	0	11.5	0.5	69	203	1.5	0	1.5
		0.12	200	7.5	22	0	0	0	22.5	1	61	202	1	0	1
		0.16†	200	17	35	0	0	0	40	2.5	58	201	0.5	0	0.5
		[B[a]P] (0.01)	200	6.5	27.5	0	0	0	31.5	0.5	－	202	1	0	1

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)

Treat-ment Time (h)	Concent-ration (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	0	0	0	0	0	0	1.5	100	202	1	0	1
	0.03	200	0.5	0	0	0	0	0.5	0.5	75	207	3.4	0	3.4
	0.06	200	0.5	0.5	0	0	0	1	0.5	68	207	3.4	0	3.4
	0.12	200	2	1	0	0	0	2.5	1	52	202	1	0	1
	0.18†	200	13.5	7.5	0	0	0	19	2	35	201	0.5	0	0.5
	0.24†	TOX								21	TOX			
	[MMC] (0.00004)	200	7.5	27	0	0	0	33	1.5	—	200	0	0	0
48-0	[DMSO] (1%)	200	0.5	1	0	0	0	1	0	100	201	0.5	0	0.5
	0.03	200	0.5	0	0	0	0	0.5	0	66	201	0.5	0	0.5
	0.06	200	0.5	2	0	0	0	2.5	0	53	204	2	0	2
	0.12	200	2	4	0	0.5	0	5	0	43	219	8.7	0	8.7
	0.18†	TOX								24	TOX			
	0.24†	TOX								16	TOX			
	[MMC] (0.00004)	200	15.5	40	0	0.5	0	48.5	0	—	202	1	0	1

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

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