Carbon tetrachloride (四塩化炭素)

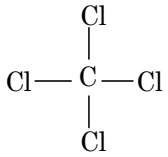
Experimental Data (Short treatments)-1

Chemical Name ; Carbon tetrachloride

Synoym ; Tetrachloromethane
Perchloromethane

Molecular Weight ; 153.82
Melting Point ; -23 ℃[Merck]
Boiling Point ; 76.74℃[CHCD]
Flashing Point ; －
Molecular Formula ; CCl_4

Chemical Structure ;



CAS No. ; 56-23-5
METI No. ; (2)-38
MHLW No. ; 2-(13)-47
Specified Chemical Substances ; －

Source of Substance; Wako Pure Chemical Industries, Ltd.
Lot No. ; DWQ7984
Purity ; 100.0%

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
		0.20	200	0	0	0	0	0	0	0	96	200	0	0	0
		0.25	200	0	0	0	0	0	0	0	81	200	0	0	0
		0.30	200	0.5	0	0	0	0	0.5	0	62	206	2.9	0	2.9
		0.35	200	0	0	0	0	0	0	0	48	201	0.5	0	0.5
		0.40	200	0	0	0	0	0	0	0	42	203	1.5	0	1.5
		[MMC] (0.00012)	200	6.5	50.5	0	0.5	0	54.5	0	－	200	0	0	0
6-18	＋	[DMSO] (1%)	200	0	0	0	0	0	0	1	100	200	0	0	0
		0.20	200	0	0.5	0	0	0	0.5	0.5	102	200	0	0	0
		0.25	200	0	0	0	0	0	0	0	98	202	1	0	1
		0.30	200	0	0	0	0	0	0	0	59	203	1.5	0	1.5
		0.35	200	0	1	0	0	0	1	0	36	200	0	0	0
		0.40	TOX								5	TOX			
		[B[a]P] (0.015)	200	5.5	39.5	0	0	0	41.5	1.5	－	202	1	0	1

Judgement for
Chromosomal Aberration in CHL/IU ; Negative

IARC Evaluation ; Group 2B

※ Test conditions: S9mix ; 5%, Treatment time ; 6h, Recovery time ; 18h
The culture vessel was sealed and cultured rotating after adding the test chemical.

Experimental Data (Short treatments)-2

Treat-ment Time (h)	S9 mix	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								
6-18	−	[DMSO] (1%)	200	0	0	0	0	0	0	0	100	200	0	0	0
		0.35	200	0	0.5	0	0	0	0.5	0	65	203	1.5	0	1.5
		0.40	200	0	0	0	0	0	0	0	45	205	2.4	0	2.4
		0.45	TOX								4	TOX			
		0.50	TOX								0	TOX			
		0.55†	TOX								0	TOX			
		0.60†	TOX								0	TOX			
		[MMC] (0.00012)	200	9	50	0	0	0	54	2	−	201	0.5	0	0.5

※ Test conditions: S9mix ; 5%, Treatment time ; 6h, Recovery time ; 18h
The culture vessel was sealed and cultured rotating after adding the test chemical.

† 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	0	0.5	0	0	0	0.5	0.5	100	200	0	0	0
	0.25	200	0	0.5	0	0	0	0.5	0.5	100	200	0	0	0
	0.30	200	0	0	0	0	0	0	0	83	203	1.5	0	1.5
	0.35	200	0.5	0	0	0	0	0.5	0	82	204	2	0	2
	0.40	27	0	0	0	0	0	0	0	11	27	0	0	0
	0.45	TOX								3	TOX			
	[MMC] (0.00004)	200	3	34.5	0	0	0	36.5	0.5	−	200	0	0	0
48-0	[DMSO] (1%)	200	0	0	0	0	0	0	0.5	100	201	0.5	0	0.5
	0.25	200	0.5	0	0	0	0	0.5	0	101	201	0.5	0	0.5
	0.30	200	1.5	0	0	0	0	1.5	1	66	201	0.5	0	0.5
	0.35	200	0	1	0	0	0	1	0	67	206	2.9	0	2.9
	0.40	TOX								0	TOX			
	0.45	TOX								0	TOX			
	[MMC] (0.00004)	200	6.5	28	0	0	0	32.5	1.5	−	200	0	0	0

※ Test conditions: Treatment time ; 24h or 48h, Recovery time ; 0h
The culture vessel was sealed and cultured rotating after adding the test chemical.