

Experimental Data-1

(B0104-1/2)

Tetrachloroethylene (テトラクロロエチレン)

Chemical Name : Tetrachloroethylene  
 Synonym : 四塩化エチレン  
Perchloroethylene  
Tetrachloroethene  
Ethylene tetrachloride

Molecular Weight : 165.83  
 Melting Point : -19°C[CHCD]  
 Boiling Point : 121°C[CHCD]  
 Flashing Point : -  
 Molecular Formular: C<sub>2</sub>Cl<sub>4</sub>

Chemical Structure:

$$\begin{array}{c} \text{Cl} \\ \diagdown \\ \text{C} = \text{C} \\ \diagup \\ \text{Cl} \end{array} \begin{array}{c} \text{Cl} \\ \diagdown \\ \text{C} = \text{C} \\ \diagup \\ \text{Cl} \end{array}$$

CAS No. : 127-18-4  
 METI No. : (2)-114  
 MHLW No. : -  
 Specified Chemical Substances: -

Source of Substance: Wako Pure Chemical Industries Ltd.  
 Lot No. : CKE4528  
 Purity : 99.00%

Vehicle : Air  
 Exposure Condition : 37°C, 24hr  
 Culture Condition : 37°C, 24hr

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <i>uvrA</i> /pKM101		TA98		TA1537	
Air	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
		( 100 )	( 98 )	( 13 )	( 12 )	( 75 )	( 91 )	( 17 )	( 25 )	( 11 )
0.05	89	104	22	17	76	114	15	28	2	13
	( 88 )	( 103 )	( 20 )	( 16 )	( 78 )	( 106 )	( 18 )	( 22 )	( 5 )	( 14 )
0.1	89	94	11	10	93	105	18	20	10	10
	( 89 )	( 98 )	( 13 )	( 8 )	( 85 )	( 106 )	( 16 )	( 26 )	( 8 )	( 9 )
0.5	89	71	26	26	61	87	21	10	9	17
	( 97 )	( 69 )	( 29 )	( 26 )	( 64 )	( 80 )	( 22 )	( 14 )	( 9 )	( 9 )
1	43	52	45	23	45	71	10	17	1	2
	( 51 )	( 58 )	( 39 )	( 28 )	( 45 )	( 69 )	( 11 )	( 19 )	( 4 )	( 4 )
5	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )
10	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )
Judgement	-	-	+	+	-	-	-	-	-	-
Specific Mutagenicity #			0.5%	0.5%						
Positive Control	AF-2	2-AA	NaN <sub>3</sub>	2-AA	AF-2	2-AA	AF-2	2-AA	9-AA	2-AA
	( 482 )	( 1178 )	( 329 )	( 248 )	( 722 )	( 996 )	( 662 )	( 371 )	( 435 )	( 259 )

\* Growth inhibition was observed.

# The concentration which was two times of the negative control value was shown.

IARC Evaluation : Group 2A

Mutagenicity in Bacterial Test: Positive

Experimental Data-2

(B0104-2/2)

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <i>uvrA</i> /pKM101		TA98		TA1537	
Air	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	( 107 )	( 100 )	( 16 )	( 12 )	( 76 )	( 97 )	( 20 )	( 25 )	( 8 )	( 7 )
0.05	116	122	8	13	89	101	17	26	5	8
	85	87	14	13	85	115	26	26	7	10
	( 101 )	( 105 )	( 11 )	( 13 )	( 87 )	( 108 )	( 22 )	( 26 )	( 6 )	( 9 )
0.1	78	100	18	18	98	82	28	28	10	9
	84	96	18	15	81	100	20	23	8	5
	( 81 )	( 98 )	( 18 )	( 17 )	( 90 )	( 91 )	( 24 )	( 26 )	( 9 )	( 7 )
0.2	109	90	34	16	64	82	29	21	7	6
	96	101	26	23	72	87	26	22	7	5
	( 103 )	( 96 )	( 30 )	( 20 )	( 68 )	( 85 )	( 28 )	( 22 )	( 7 )	( 6 )
0.5	134	92	29	25	85	98	17	24	9	7
	116	94	38	25	97	79	21	21	2	10
	( 125 )	( 93 )	( 34 )	( 25 )	( 91 )	( 89 )	( 19 )	( 23 )	( 6 )	( 9 )
1	60	66	46	28	60	52	18	17	6	1
	51	75	48	38	53	62	18	17	8	7
	( 56 )	( 71 )	( 47 )	( 33 )	( 57 )	( 57 )	( 18 )	( 17 )	( 7 )	( 4 )
2	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )
5	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )	( 0 * )
Judgement	-	-	+	+	-	-	-	-	-	-
Specific Mutagenicity #			0.5%	0.5%						
Positive Control	AF-2 ( 461 )	2-AA ( 1157 )	NaN <sub>3</sub> ( 304 )	2-AA ( 244 )	AF-2 ( 638 )	2-AA ( 934 )	AF-2 ( 622 )	2-AA ( 335 )	9-AA ( 460 )	2-AA ( 226 )

\* Growth inhibition was observed.

# The concentration which was two times of the negative control value was shown.