

1,2-Dichloropropane (1,2-ジクロロプロパン)

Experimental Data-1

(B9606-1/3)

Chemical Name	; 1,2-Dichloropropane	
Synonym	; Propylene dichloride	
Molecular Weight	; 112.99	
Melting Point	; -100 °C [Aldrich]	
Boiling Point	; 95-96°C [Aldrich]	
Flashing Point	; 21 °C(o.c.)[Merch]	
Molecular Formula	; C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	
Chemical Structure	CH <sub>3</sub> CHClCH <sub>2</sub> Cl	
CAS No.	; 78-87-5	
MITI No.	; (2)-81	
ML No.	; -	
Specified Chemical Substances	; -	
Source of Substance	; Tokyo Kasei Kogyo Co., Ltd.	
Lot No.	; FAZ01	
Purity	; 99.8%	
Vehicle	; DMSO	

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	( 132 )	( 129 )	( 7 )	( 9 )	( 24 )	( 28 )	( 18 )	( 21 )	( 5 )	( 9 )
	129	142	6	7	17	25	16	24	5	8
	124	113	6	7	15	32	20	25	3	13
2.44	( 127 )	( 128 )	( 6 )	( 7 )	( 16 )	( 29 )	( 18 )	( 25 )	( 4 )	( 11 )
	141	121	11	8	17	26	16	24	6	10
	128	127	9	8	24	30	20	28	6	8
9.77	( 135 )	( 124 )	( 10 )	( 8 )	( 21 )	( 28 )	( 18 )	( 26 )	( 6 )	( 9 )
	119	137	9	3	25	18	20	25	5	10
	133	145	5	5	22	26	16	18	5	11
39.1	( 126 )	( 141 )	( 7 )	( 4 )	( 24 )	( 22 )	( 18 )	( 22 )	( 5 )	( 11 )
	129	134	8	3	22	21	14	10	3	11
	137	138	5	10	22	21	16	21	5	9
156	( 133 )	( 136 )	( 7 )	( 7 )	( 22 )	( 21 )	( 15 )	( 16 )	( 4 )	( 10 )
	127	129	9	8	22	32	22	11	5	10
	138	137	5	13	23	24	17	25	2	9
625	( 133 )	( 133 )	( 7 )	( 11 )	( 23 )	( 28 )	( 20 )	( 18 )	( 4 )	( 10 )
	106 *	113 *	5 *	5 *	22 *	17 *	11 *	10 *	6 *	9 *
	94 *	106 *	5 *	8 *	16 *	21 *	8 *	13 *	2 *	8 *
2500	( 100 *)	( 110 *)	( 5 *)	( 7 *)	( 19 *)	( 19 *)	( 10 *)	( 12 *)	( 4 *)	( 9 *)
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
10000	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 ( 688 )	2-AA ( 1302 )	NaN <sub>3</sub> ( 289 )	2-AA ( 260 )	AF-2 ( 213 )	2-AA ( 1003 )	AF-2 ( 487 )	2-AA ( 426 )	9-AA ( 622 )	2-AA ( 173 )

Mutagenicity in Bacterial Test ; Negative

IARC Evaluation ; Group 3

\* Growth inhibition was observed.

Experimental Data-2

(B9606-2/3)

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <sub>uvrA</sub>		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	( 136 )	( 128 )	( 6 )	( 8 )	( 26 )	( 22 )	( 24 )	( 26 )	( 8 )	( 10 )
	123	122	3	8	20	23	20	25	11	10
78 .1	129	135	6	3	25	29	21	29	6	9
	( 126 )	( 129 )	( 5 )	( 6 )	( 23 )	( 26 )	( 21 )	( 27 )	( 9 )	( 10 )
	137	141	8	5	24	17	18	15	6	6
156	150	123	3	7	17	18	11	26	8	8
	( 144 )	( 132 )	( 6 )	( 6 )	( 21 )	( 18 )	( 15 )	( 21 )	( 7 )	( 7 )
	112	144	3	5	18	17	16	31	6	14
313	122	124	5	9	15	22	26	30	6	6
	( 117 )	( 134 )	( 4 )	( 7 )	( 17 )	( 20 )	( 21 )	( 31 )	( 6 )	( 10 )
	116	126	2	6	21	24	15	22	6	8
625	129	144	5	5	24	17	26	24	5	6
	( 123 )	( 135 )	( 4 )	( 6 )	( 23 )	( 21 )	( 21 )	( 23 )	( 6 )	( 7 )
	139 *	109 *	9 *	8 *	18	26	13	15	7	10
1250	120 *	124 *	3 *	5 *	18	30	15	21	2	5
	( 130 *)	( 117 *)	( 6 *)	( 7 *)	( 18 )	( 28 )	( 14 )	( 18 )	( 5 )	( 8 )
	107 *	81 *	1 *	7 *	21 *	21 *	7 *	18 *	2 *	7 *
2500	99 *	85 *	6 *	5 *	9 *	22 *	8 *	17 *	1 *	6 *
	( 103 *)	( 83 *)	( 4 *)	( 6 *)	( 15 *)	( 22 *)	( 8 *)	( 18 *)	( 2 *)	( 7 *)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 ( 696 )	2-AA ( 1075 )	NaN <sub>3</sub> ( 280 )	2-AA ( 236 )	AF-2 ( 263 )	2-AA ( 988 )	AF-2 ( 421 )	2-AA ( 410 )	9-AA ( 473 )	2-AA ( 188 )

Experimental Data-3

Conc. μ g/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2 <i>uvrA</i> /pKM101	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+
	( 318 )	( 377 )	( 320 )	( 381 )	( 61 )	( 84 )
2 .44	285 ( 277 )	343 ( 358 )	355 ( 370 )	346 ( 348 )	76 ( 64 )	99 ( 95 )
9 .77	303 ( 288 )	370 ( 376 )	310 ( 317 )	347 ( 362 )	60 ( 66 )	63 ( 61 )
39 .1	299 ( 295 )	341 ( 355 )	313 ( 324 )	390 ( 381 )	66 ( 60 )	107 ( 100 )
156	267 ( 298 )	383 ( 388 )	362 ( 347 )	352 ( 380 )	72 ( 67 )	105 ( 102 )
625	301 ( 303 )	361 ( 373 )	356 ( 335 )	378 ( 361 )	60 ( 65 )	94 ( 87 )
2500	280 ( 267 )	222 ( 240 )	323 * ( 314 *)	239 * ( 264 *)	56 * ( 43 *)	47 * ( 58 *)
10000	0 * ( 0 *)	0 * ( 0 *)	0 * ( 0 *)	0 * ( 0 *)	0 * ( 0 *)	0 * ( 0 *)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM ( 793 )	2-AA ( 1472 )	PA ( 2104 )	2-AA ( 1357 )	AF-2 ( 1875 )	2-AA ( 1119 )

Experimental Data-4

(B9606-3/3)

Conc. μ g/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2 <i>uvrA</i> /pKM101	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+
	( 306 )	( 365 )	( 306 )	( 377 )	( 46 )	( 81 )
78 .1			287 ( 291 )	318 ( 333 )	41 ( 47 )	72 ( 73 )
156		376 ( 332 )	314 ( 317 )	304 ( 328 )	53 ( 49 )	74 ( 71 )
313	282 ( 303 )	346 ( 357 )	312 ( 303 )	427 ( 407 )	49 ( 52 )	60 ( 72 )
625	290 ( 269 )	360 ( 353 )	317 ( 304 )	388 ( 386 )	67 ( 57 )	67 ( 70 )
1250	272 ( 257 )	304 ( 314 )	312 ( 322 )	364 ( 335 )	60 ( 56 )	61 ( 70 )
2500	214 ( 247 )	225 ( 240 )	291 * ( 286 *)	267 * ( 275 *)	57 * ( 55 *)	61 * ( 68 *)
5000	0 * ( 0 *)	0 * ( 0 *)				
10000	0 * ( 0 *)	0 * ( 0 *)				
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM ( 664 )	2-AA ( 1177 )	PA ( 1706 )	2-AA ( 1402 )	AF-2 ( 1695 )	2-AA ( 848 )