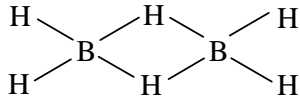


Chemical Name	: Diborane
Synonym	: Diborane(6) Diborane hexahydride Boroethane ボロエタン
Molecular Weight	: 27.67
Melting Point	: -165 °C[Merck]
Boiling Point	: -92.5°C[Merck]
Flashing Point	: -
Molecular Formula	: B <sub>2</sub> H <sub>6</sub>
Chemical Structure	
CAS No.	: 19287-45-7
MITI No.	: (1)-1209
ML No.	: -
Specified Chemical Substances	: -
Source of Substance	: Nihon Sanso Co., Ltd.
Lot No.	: 4K 49637
Purity	: 0.510%
Vehicle	: He
Exposure Condition	: 25°C, 2hr
Culture Condition	: 37°C, 48hr

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <sub>uvrA</sub>		TA98		TA1537	
He	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	( 154 )	( 164 )	( 20 )	( 10 )	( 34 )	( 24 )	( 23 )	( 43 )	( 29 )	( 38 )
	180	176	12	3	32	28	29	39	29	26
0.02	( 185 )	( 178 )	( 13 )	( 5 )	( 29 )	( 25 )	( 28 )	( 46 )	( 31 )	( 32 )
	166	168	13	9	30	23	37	52	31	34
0.05	( 173 )	( 172 )	( 13 )	( 7 )	( 26 )	( 26 )	( 31 )	( 47 )	( 25 )	( 36 )
	200	213	16	8	27	29	46	55	21	27
	192	197	12	2	29	33	33	54	35	27
0.1	( 196 )	( 205 )	( 14 )	( 5 )	( 28 )	( 31 )	( 40 )	( 55 )	( 28 )	( 27 )
	226	264	10	2	41	33	52	72	28	27
0.2	( 242 )	( 262 )	( 8 )	( 3 )	( 40 )	( 35 )	( 48 )	( 82 )	( 28 )	( 30 )
	375	350	5	3	36	55	87	140	23	20
0.5	( 355 )	( 407 )	( 5 )	( 4 )	( 37 )	( 74 )	( 98 )	( 132 )	( 22 )	( 22 )
Judgement	+	+	-	-	-	+	+	+	-	-
Specific Mutagenicity #	0.5%	0.5%				0.5%	1.0%	1.0%		
Positive Control	AF-2 ( 635 )	2-AA ( 4056 )	NaN <sub>3</sub> ( 363 )	2-AA ( 288 )	AF-2 ( 113 )	2-AA/20 ( 1326 )	AF-2 ( 797 )	2-AA ( 912 )	9-AA ( 447 )	2-AA ( 982 )

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

Mutagenicity in Bacterial Test ; Posiyive

IARC Evaluation ; not yet cited

Experimental Data-2

(B8613-2/2)

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
He	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	( 137 )	( 134 )	( 14 )	( 8 )	( 22 )	( 24 )	( 12 )	( 36 )	( 12 )	( 25 )
0 .02	114	120	11	5	16	18	12	31	12	15
	116	128	10	4	20	22	14	40	13	28
	( 115 )	( 124 )	( 11 )	( 5 )	( 18 )	( 20 )	( 13 )	( 36 )	( 13 )	( 22 )
0 .05	132	150	12	2	23	13	19	28	21	27
	133	149	9	10	23	19	20	29	21	14
	( 133 )	( 150 )	( 11 )	( 6 )	( 23 )	( 16 )	( 20 )	( 29 )	( 21 )	( 21 )
0 .1	139	153	10	6	23	20	24	40	14	10
	129	163	11	4	23	18	25	46	19	17
	( 134 )	( 158 )	( 11 )	( 5 )	( 23 )	( 19 )	( 25 )	( 43 )	( 17 )	( 14 )
0 .3	149	296	8	7	27	26	45	87	15	12
	193	280	9	8	32	34	46	100	18	8
	( 171 )	( 288 )	( 9 )	( 8 )	( 30 )	( 30 )	( 46 )	( 94 )	( 17 )	( 10 )
0 .5	203	312	4	6	26	40	57	89	16	13
	206	308	4	9	30	56	56	114	8	15
	( 205 )	( 310 )	( 4 )	( 8 )	( 28 )	( 48 )	( 57 )	( 102 )	( 12 )	( 14 )
Judgement	-	+	-	-	-	+	+	+	-	-
Specific Mutagenicity #		0.3%				0.5%	1.0%	1.0%		
Positive Control	AF-2 ( 430 )	2-AA ( 3745 )	NaN <sub>3</sub> ( 235 )	2-AA ( 185 )	AF-2 ( 124 )	2-AA/20 ( 1487 )	AF-2 ( 669 )	2-AA ( 916 )	9-AA ( 188 )	2-AA ( 460 )