Chemical Name ; Glutaraldehydel

; Pentanedial
Gulutaral
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Molecular Weight ; 100.12
Melting Point ; -14℃ [CHCD]
Boiling Point ; 188℃(decomposition)[CHCD]
Flashing Point ; －
Molecular Formula ; $C_5H_8O_2$
Chemical Structure $OHC(CH_2)_3CHO$

CAS No. ; 111-30-8
MITI No. ; (2)-509
; －
Specified Chemical Substances ; －

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; FGB03
; 50.6%

Vehicle ; H_2O

Mutagenicity in Bacterial Test ; Positive

IARC Evaluation ; not yet cited

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
H_2O	S9－	S9＋	S9－	S9＋	S9－	S9＋	S9－	S9＋	S9－	S9＋
	(146)	(154)	(10)	(11)	(20)	(21)	(17)	(24)	(5)	(7)
	163	162	10	9	15	23	16	30	2	7
	169	157	9	10	14	13	21	34	6	7
1 .22	(166)	(160)	(10)	(10)	(15)	(18)	(19)	(32)	(4)	(7)
	208	172	13	8	14	31	17	28	1	6
	246	164	9	8	23	25	21	24	5	8
4 .88	(227)	(168)	(11)	(8)	(19)	(28)	(19)	(26)	(3)	(7)
	418	280	11	15	18	25	46	30	3	6
	394	273	10	8	21	20	48	38	7	8
19 .5	(406)	(277)	(11)	(12)	(20)	(23)	(47)	(34)	(5)	(7)
	141 *	191 *	7 *	13 *	17 *	14 *	16 *	29 *	2 *	6 *
	108 *	170 *	5 *	8 *	13 *	18 *	9 *	30 *	5 *	7 *
78 .1	(125 *)	(181 *)	(6 *)	(11 *)	(15 *)	(16 *)	(13 *)	(30 *)	(4 *)	(7 *)
	0 *	205 *	0 *	8 *	0 *	17 *	0 *	17 *	0 *	6 *
	0 *	176 *	0 *	10 *	0 *	28 *	0 *	20 *	0 *	5 *
313	(0 *)	(191 *)	(0 *)	(9 *)	(0 *)	(23 *)	(0 *)	(19 *)	(0 *)	(6 *)
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *	0 *
1250	(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 *
5000	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)	(0 *)
Judgement	－	－	－	－	－	－	－	－	－	－
Specific Mutagenicity										
Positive Control	AF-2 (641)	2-AA (1134)	NaN_3 (281)	2-AA (280)	AF-2 (256)	2-AA (1027)	AF-2 (501)	2-AA (461)	9-AA (725)	2-AA (183)

* Growth inhibitation was observed.

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
H_2O	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
	(155)	(155)	(8)	(9)	(20)	(19)	(16)	(26)	(7)	(9)
	158	183	10	8	23	31	21	30	7	13
	170	184	5	10	22	24	17	22	7	13
2.44	(164)	(184)	(8)	(9)	(23)	(28)	(19)	(26)	(7)	(13)
	188	162	11	11	16	24	21	45	7	11
	195	179	9	7	14	18	22	36	7	7
4.88	(192)	(171)	(10)	(9)	(15)	(21)	(22)	(41)	(7)	(9)
	207	164	13	11	28	18	34	33	9	11
	258	185	10	8	21	22	23	17	6	13
9.77	(233)	(175)	(12)	(10)	(25)	(20)	(29)	(25)	(8)	(12)
	362	235	8	13	28	21	28	25	3	10
	323	259	10	10	20	14	30	33	6	15
19.5	(343)	(247)	(9)	(12)	(24)	(18)	(29)	(29)	(5)	(13)
	170 *	317 *	9 *	9 *	43 *	23	47 *	25	6	8
	145 *	253 *	6 *	9 *	20 *	20	38 *	22	11	13
39.1	(158 *)	(285 *)	(8 *)	(9 *)	(32 *)	(22)	(43 *)	(24)	(9)	(11)
	120 *	158 *	13 *	6 *	17 *	24 *	13 *	22 *	6 *	10 *
	106 *	158 *	8 *	8 *	15 *	17 *	10 *	30 *	7 *	6 *
78.1	(113 *)	(158 *)	(11 *)	(7 *)	(16 *)	(21 *)	(12 *)	(26 *)	(7 *)	(8 *)
Judgement	−	−	−	−	−	−	+	−	−	−
Specific Mutagenicity							691			
Positive Control	AF-2 (664)	2-AA (1178)	NaN_3 (320)	2-AA (215)	AF-2 (241)	2-AA (1056)	AF-2 (535)	2-AA (369)	9-AA (651)	2-AA (160)

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
H_2O	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
	(142)	(138)	(7)	(9)	(20)	(28)	(15)	(21)	(6)	(9)
	139	123	8	9	15		14		6	
	148	123	9	9	18		11		2	
1 .22	(144)	(123)	(9)	(9)	(17)	( )	(13)	( )	(4)	( )
	137	122	13	8	9	20	11	21	7	13
	114	141	7	3	22	28	10	23	5	10
2 .44	(126)	(132)	(10)	(6)	(16)	(24)	(11)	(22)	(6)	(12)
	179	134	11	9	15	20	16	14	6	9
	152	129	7	14	20	17	9	18	6	10
4 .88	(166)	(132)	(9)	(12)	(18)	(19)	(13)	(16)	(6)	(10)
	190	129	6	5	20	24	20	20	6	6
	200	166	6	10	14	18	22	20	3	6
9 .77	(195)	(148)	(6)	(8)	(17)	(21)	(21)	(20)	(5)	(6)
	268	201	15	9	23	23	32	25	11	8
	242	184	8	6	25	29	30	21	8	3
19 .5	(255)	(193)	(12)	(8)	(24)	(26)	(31)	(23)	(10)	(6)
	209 *	245 *	5 *	9 *	26 *	32	33 *	33	2 *	7
	188 *	215 *	7 *	8 *	23 *	31	26 *	37	6 *	9
39 .1	(199 *)	(230 *)	(6 *)	(9 *)	(25 *)	(32)	(30 *)	(35)	(4 *)	(8)
						20 *		23 *		6 *
						24 *		23 *		9 *
78 .1						(22 *)		(23 *)		(8 *)
Judgement	−	−	−	−	−	−	+	−	−	−
Specific Mutagenicity							821			
Positive Control	AF-2 (553)	2-AA (1019)	NaN_3 (280)	2-AA (247)	AF-2 (215)	2-AA (999)	AF-2 (421)	2-AA (427)	9-AA (675)	2-AA (155)