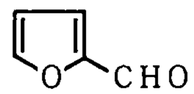
Furfural (フルフラール)

Chemical Name: Furfural
Synonym 2-Furaldehyde
2-Furancarboxaldehyde
Molecular weight: 96.08
Melting point: -36.5℃
Boiling point: 161.8~162℃
Flashing point: 73℃
Chemical Structure



CAS No : 98-01-1
MITI No: (5)-40
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: FBV01
Purity: 95v/v %
Vehicle: DSMO

Mutagenicity
in Bacterial Test: Negative

IARC Evaluation: not yet cited

Experimental Data

Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(154)	(153)	(12)	(10)	(28)	(29)	(26)	(29)	(6)	(7)
	150	173	11	8	22	29	10	32	6	8
	139	148	15	10	22	24	28	20	5	8
20	(145)	(161)	(13)	(9)	(22)	(27)	(19)	(26)	(6)	(8)
	162	151	13	9	28	23	23	32	5	5
	153	144	9	8	30	22	15	25	6	5
39	(158)	(148)	(11)	(9)	(29)	(23)	(19)	(29)	(6)	(5)
	152	181	6	14	23	26	22	24	3	5
	134	165	10	10	32	28	23	22	8	9
78	(143)	(173)	(8)	(12)	(28)	(27)	(23)	(23)	(6)	(7)
	142	135	14	8	28	29	16	25	8	8
	149	169	15	7	24	28	15	26	9	9
156	(146)	(152)	(15)	(8)	(26)	(29)	(16)	(26)	(9)	(9)
	150	179	9	14	24	28	34	24	5	9
	157	139	16	11	36	25	24	24	5	10
313	(154)	(159)	(13)	(13)	(30)	(27)	(29)	(24)	(5)	(10)
	142	159	10	16	32	28	22	28	5	11
	156	145	10	7	23	30	26	28	7	8
625	(149)	(152)	(10)	(12)	(28)	(29)	(24)	(28)	(6)	(10)
	137	202	8	9	20	22	21	23	11	8
	122	131	15	15	26	30	29	44	7	7
1250	(130)	(167)	(12)	(12)	(23)	(26)	(25)	(34)	(9)	(8)
	139	174	8	9	23	37	26	31	7	7
	166	165	11	8	22	39	28	31	8	9
2500	(153)	(170)	(10)	(9)	(23)	(38)	(27)	(31)	(8)	(8)
	115	137	9	7	36	33	30	20	8	6
	119	138	9	14	32	39	33	29	7	7
5000	(117)	(138)	(9)	(11)	(34)	(36)	(32)	(25)	(8)	(7)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF2 (713)	2AA (1025)	NaN_3 (345)	2AA (194)	AF2 (195)	2AA 20 (1269)	AF2 (438)	2AA (453)	9AA (519)	2AA (169)

Experimental Data

Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(122)	(150)	(11)	(11)	(21)	(26)	(30)	(29)	(7)	(8)
	121	109	5	8	16	31	23	34	8	5
	119	149	9	8	17	21	26	28	2	8
78	(120)	(129)	(7)	(8)	(17)	(26)	(25)	(31)	(5)	(7)
	127	157	5	9	11	21	21	45	9	6
	144	141	10	9	17	20	24	20	7	10
156	(136)	(149)	(8)	(9)	(14)	(21)	(23)	(33)	(8)	(8)
	120	151	7	14	17	21	21	36	5	10
	121	143	7	3	22	22	32	29	7	8
313	(121)	(147)	(7)	(9)	(20)	(22)	(27)	(33)	(6)	(9)
	126	155	11	6	15	31	24	32	8	7
	115	133	8	9	30	31	25	25	13	14
625	(121)	(144)	(10)	(8)	(23)	(31)	(25)	(29)	(11)	(11)
	121	130	6	15	21	20	24	29	8	8
	135	169	3	8	22	21	33	36	9	6
1250	(128)	(150)	(5)	(12)	(22)	(21)	(29)	(33)	(9)	(7)
	145	123	11	5	23	33	25	24	9	7
	138	151	11	8	17	20	29	25	10	8
2500	(142)	(137)	(11)	(7)	(20)	(27)	(27)	(25)	(10)	(8)
	74*	79*	5*	15	16	24	30	23	6*	7
	99*	114*	2*	10	21	33	29	26	7*	11
5000	(87*)	(97*)	(4*)	(13)	(19)	(29)	(30)	(25)	(7*)	(9)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF2 (717)	2AA (1036)	NaN_3 (292)	2AA (172)	AF2 (248)	2AA 20 (1141)	AF2 (404)	2AA (415)	9AA (682)	2AA (166)