Cobalt(Ⅱ) acetate tetrahydrate (酢酸コバルト(Ⅱ)＝四水和物)

Chemical Name ; Cobalt(Ⅱ) acetate tetrahydrate
Synoym ; Cobaltous acetate

Molecular Weight ; 249.08
Melting Point ; －
Boiling Point ; －
Flashing Point ; －
Molecular Formular; $C_4H_{14}CoO_8$

Chemical Structure;

$$(CH_3COO)_2Co\cdot 4H_2O$$

CAS No. ; 6147-53-1
METI No. ; (2)-693
MHLW No. ; －
Specified Chemical Substances;－

Source of Substance; Wako Pure Chemical Industries, Ltd.
Lot No. ; PAE2996
Purity ; >99%

Vehicle ; Distilled 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*uvrA*/pKM101		TA98		TA1537	
	S9－	S9＋	S9－	S9＋	S9－	S9＋	S9－	S9＋	S9－	S9＋
H_2O	(129)	(130)	(8)	(8)	(58)	(96)	(20)	(23)	(11)	(13)
	120	128	9	10	38	76	16	29	8	9
	126	129	9	9	52	96	22	17	8	6
1 .22	(123)	(129)	(9)	(10)	(45)	(86)	(19)	(23)	(8)	(8)
	116	122	14	15	45	70	16	23	7	7
	128	136	6	9	61	104	8	25	9	14
4 .88	(122)	(129)	(10)	(12)	(53)	(87)	(12)	(24)	(8)	(11)
	153	177	6	5	89	84	20	20	10	7
	159	134	9	3	106	81	8	25	8	6
19 .5	(156)	(156)	(8)	(4)	(98)	(83)	(14)	(23)	(9)	(7)
	276	130	10	3	149	92	44	18	28	6
	301	149	8	6	167	99	46	29	10	7
78 .1	(289)	(140)	(9)	(5)	(158)	(96)	(45)	(24)	(19)	(7)
	263	126	7	7	49	79	37	18	28	13
	261	130	15	2	36	81	54	21	25	10
313	(262)	(128)	(11)	(5)	(43)	(80)	(46)	(20)	(27)	(12)
	221	142	11	3	0	10	49	29	31	9
	222	141	5	9	1	15	52	14	26	7
1250	(222)	(142)	(8)	(6)	(1)	(13)	(51)	(22)	(29)	(8)
	199	126	10	9	0 *	0 *	39	34	6	9
	250	134	13	1	0 *	0 *	39	17	15	5
5000	(225)	(130)	(12)	(5)	(0 *)	(0 *)	(39)	(26)	(11)	(7)
Judgement	＋	－	－	－	＋	－	＋	－	＋	－
Specific Mutagenicity	2050				1280		320		51.1	
Positive Control	AF-2 (657)	2-AA (1445)	NaN_3 (397)	2-AA (299)	AF-2 (1021)	2-AA (896)	AF-2 (482)	2-AA (514)	9-AA (372)	2-AA (240)

* Growth inhibitiom was observed.

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
H_2O	(140)	(136)	(12)	(11)	(60)	(80)	(17)	(25)	(5)	(11)
19 .5	( )	( )	( )	( )	94 76 (85)	( )	( )	( )	( )	( )
39 .5	( )	( )	( )	( )	156 167 (162)	( )	( )	( )	( )	( )
78 .1	214 207 (211)	( )	13 14 (14)	( )	162 133 (148)	( )	38 28 (33)	( )	25 25 (25)	( )
156	239 249 (244)	( )	13 9 (11)	( )	117 133 (125)	85 94 (90)	53 41 (47)	( )	33 18 (26)	( )
313	234 216 (225)	163 130 (147)	9 10 (10)	7 6 (7)	49 61 (55)	81 76 (79)	49 44 (47)	20 23 (22)	30 18 (24)	11 10 (11)
625	219 246 (233)	123 136 (130)	16 21 (19)	2 6 (4)	5 3 (4)	61 52 (57)	71 54 (63)	23 22 (23)	30 23 (27)	8 11 (10)
1250	234 219 (227)	138 116 (127)	13 5 (9)	7 5 (6)	1 1 (1)	11 8 (10)	51 51 (51)	18 28 (23)	18 21 (20)	11 9 (10)
2500	214 208 (211)	128 126 (127)	9 13 (11)	7 8 (8)	( )	0 * 1 * (1 *)	43 37 (40)	20 29 (25)	21 17 (19)	6 10 (8)
5000	194 204 (199)	104 133 (119)	9 14 (12)	9 10 (10)	( )	( )	34 38 (36)	30 25 (28)	9 13 (11)	8 7 (8)
Judgement	−	−	−	−	+	−	+	−	+	−
Specific Mutagenicity					2580		192		256	
Positive Control	AF-2 (731)	2-AA (1224)	NaN_3 (438)	2-AA (275)	AF-2 (840)	2-AA (791)	AF-2 (521)	2-AA (511)	9-AA (329)	2-AA (185)

* Growth inhibitiom was observed.

Experimental Data-3

Conc. μ g/plate	Number of Revertants/plate		
	Base-substitution	Frame-shift	
	TA100	TA98	TA1537
	S9−	S9−	S9−
H_2O	(120)	(14)	(8)
	176	18	7
	178	11	8
19 .5	(177)	(15)	(8)
	188	22	8
	184	32	7
39 .1	(186)	(27)	(8)
	261	32	10
	280	25	16
78 .1	(271)	(29)	(13)
	287	30	10
	304	22	10
156	(296)	(26)	(10)
	263	30	22
	223	37	22
313	(243)	(34)	(22)
	261	34	18
	260	37	17
625	(261)	(36)	(18)
	282	32	13
	246	32	8
1250	(264)	(32)	(11)
Judgement	+	+	+
Specific Mutagenicity	1930	192	44.7
Positive Control	AF-2 (788)	AF-2 (503)	9-AA (315)

Experimental Data-4 (B9905-3/3)

Conc. μ g/plate	Number of Revertants/plate		
	Base-substitution	Frame-shift	
	TA100	TA98	TA1537
	S9−	S9−	S9−
H_2O	(107)	(11)	(7)
	101	21	6
	137	15	10
19 .5	(119)	(18)	(8)
	162	15	6
	143	17	10
39 .1	(153)	(16)	(8)
	200	37	15
	229	37	18
78 .1	(215)	(37)	(17)
	233	31	17
	223	24	15
156	(228)	(28)	(16)
	220	31	16
	227	29	26
313	(224)	(30)	(21)
	223	47	17
	212	25	9
625	(218)	(36)	(13)
	212	26	16
	229	32	13
1250	(221)	(29)	(15)
Judgement	+	+	+
Specific Mutagenicity	1380	333	128
Positive Control	AF-2 (584)	AF-2 (533)	9-AA (387)