Test Report No.: 68.431.21.02766.01B
Dated: 2021-06-18

Applicant	:	Hefei Aichuang Microelectronics Technology Co., Ltd East third floor, A2, industrial investment Liheng industrial Plaza, Feixi County, Hefei City, Anhui Province
Sample Description	:	IC
Style No. / Name / Design No.	:	（SOT23，SOT23-3L/5L/6L，SOT89-3L/5L，TO92，SOP8，DIP8，DFN6，TSSOP8， MSOP8，SOT353，SOT223，SOP24，QFN，TO-251，TO-252，TO-220，TO-126，TO263,FBP 等） 其他的：SOP4/7/14/16，DIP7/14，TSSOP24，SSOP10/16/20/24，TO277
Test Sample Receipt Date, Location	:	2021-05-20, Shenzhen
Test Period, Location	:	From 2021-05-20 to 2021-05-25, Shenzhen
Test Result(s)	:	Refer to Section 3

Purpose Of Examination / Conclusion:

No.	Test Item(s)
1.	**Analysis of the 211 substances of very high concern (SVHC)** Candidate List for authorization, concerning Regulation (EC) No. 1907/2006 as published on the European Chemicals Agency (ECHA) website updated on January 19, 2021.
	Conclusion: According to the specified scope and analytical techniques, the concentration of each of the 211 SVHC is <0.1% (w/w) in the submitted sample(s)

Remarks:
(1) The results relate only to the items tested.
(2) Samples are tested as received.

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TÜV SÜD Group

Prepared by:

Cara Xiang
Senior Project Coordinator

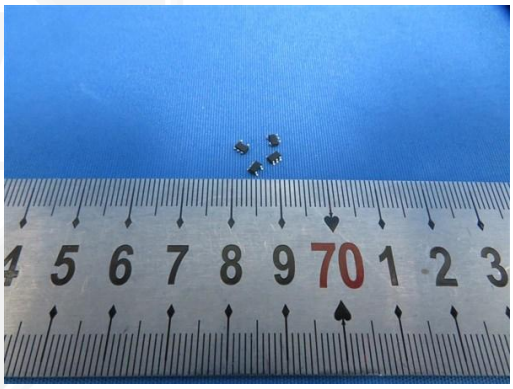
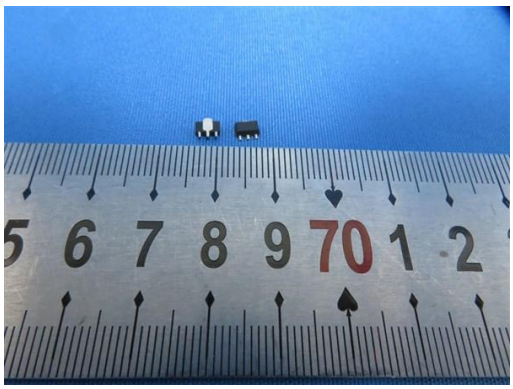
Reviewed by:

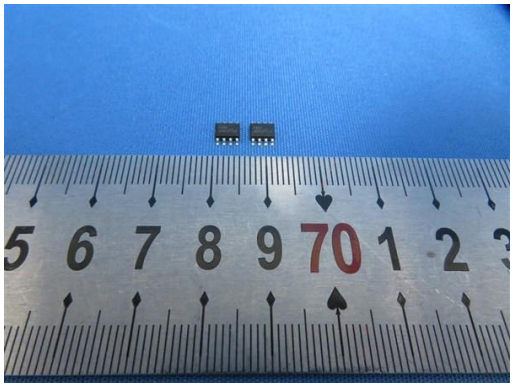
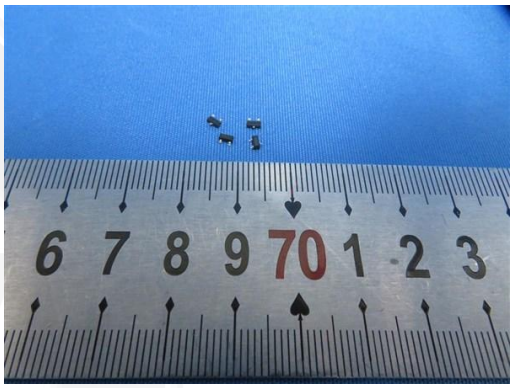
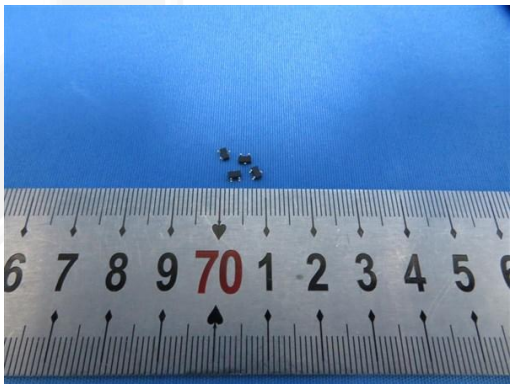
Ken Chen
Project Manager

1. Description of the Test Sample:

Sample Description	IC

2. List of Materials as identified by the Laboratory:

T. No.	Sample No.	Colour and Description	Photograph
T1	001	Black material (SOT23-6)	
T2	002	Black material (SOT23-5)	
T3	003	Black material (SOT89-3)	

T. No.	Sample No.	Colour and Description	Photograph
T4	004	Black material (SOP8)	
T5	005	Black material (SOT23)	
T6	006	Black material (SOT23-3)	

3. Test Results

3.1 Analysis of the 211 Substances of Very High Concern (SVHC)

Candidate List for authorization, concerning Regulation (EC) No. 1907/2006 as published on the European Chemicals Agency (ECHA) website updated on January 19, 2021.

Test method: Screening test. For organic substance(s) analysis, extracted by organic solvent, followed by using Liquid Chromatography with Tandem Mass Spectrometry Detection (LC-MS/MS), Gas Chromatography and Mass Spectrometry (GC-MS), headspace GC-MS and High Performance Liquid Chromatography-Diode Array Detection (HPLC-DAD).

For heavy metal(s) analysis, digested by acid, followed by using Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES), Atomic Absorption Spectrometry (AAS) and UV-Vis Spectrophotometer.

[Reporting limit: 0.01%]

Parameters	Result [% by Weight]	Limit
	Sample 001+002+003+004+005+006	
Two Hundred and eleven substances of very high concern [3]	< 0.01	<0.1% (w/w)

Note: 1. "<" denotes less than
2. "%" denotes percentage
3. Candidate List for authorization, concerning Regulation (EC) No 1907/2006 as published on the European Chemicals Agency (ECHA) website updated on January 19, 2021.

No.	Substance Name	CAS No.	No.	Substance Name	CAS No.
1	Anthracene	120-12-7	28	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2
2	4,4'- Diaminodiphenylmethane	101-77-9	29	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8
3	Dibutyl phthalate (DBP)	84-74-2	30	Acrylamide	79-06-1
4	Cobalt dichloride *	7646-79-9	31	Trichloroethylene	79-01-6
5	Diarsenic pentaoxide*	1303-28-2	32	Boric Acid*	10043-35-3 11113-50-1
6	Diarsenic trioxide *	1327-53-3	33	Disodium tetraborate, anhydrous*	1303-96-4 1330-43-4 12179-04-3
7	Sodium dichromate *	7789-12-0 10588-01-9	34	Tetraboron disodium heptaoxide, hydrate*	12267-73-1
8	5-tert-butyl-2,4,6-trinitro-m -xylene (musk xylene)	81-15-2	35	Sodium chromate*	7775-11-3
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	36	Potassium chromate*	7789-00-6
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α – HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	37	Ammonium dichromate*	7789-09-5
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	38	Potassium dichromate*	7778-50-9
12	Bis(tributyltin)oxide,(TBTO)[#]	56-35-9	39	Cobalt(II) sulphate *	10124-43-3
13	Lead hydrogen arsenate *	7784-40-9	40	Cobalt(II) dinitrate *	10141-05-6
14	Benzyl butyl phthalate (BBP)	85-68-7	41	Cobalt(II) carbonate*	513-79-1
15	Triethyl arsenate *	15606-95-8	42	Cobalt(II) diacetate*	71-48-7
16	Anthracene oil[§]	90640-80-5	43	2-Methoxyethanol	109-86-4
17	Anthracene oil, anthracene paste, distn. lights[§]	91995-17-4	44	2-Ethoxyethanol	110-80-5
18	Anthracene oil, anthracene paste, anthracene fraction[§]	91995-15-2	45	Chromium trioxide*	1333-82-0
19	Anthracene oil, anthracene-low[§]	90640-82-7	46	Acids generated from chromium trioxide and their oligomers: a. Chromic acid* b. Dichromic acid * c. Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2
20	Anthracene oil, anthracene paste[§]	90640-81-6	47	2-Ethoxyethyl acetate (2-EEA)	111-15-9
21	Pitch, coal tar, high temp. [§]	65996-93-2	48	Strontium chromate*	7789-06-2
22	Aluminosilicate Refractory Ceramic Fibres*	-	49	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) [§]	68515-42-4
23	Zirconia Aluminosilicate, Refractory Ceramic Fibres*	-	50	Hydrazine	7803-57-8, 302-01-2
24	2,4-Dinitrotoluene	121-14-2	51	1-Methyl-2-pyrrolidone	872-50-4
25	Diisobutyl phthalate	84-69-5	52	1,2,3-Trichloropropane	96-18-4
26	Lead chromate*	7758-97-6	53	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6
27	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*	12656-85-8			
	-'*' denotes concentration of the substance cannot be determined directly but be converted from the concentration of specific heavy metal(s). -'[#]' denotes the Bis(tributyltin)oxide (TBTO) is tested and calculated in term of Tributyl tin. -'[§]' The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological material), the test results are calculated based on the main constituents.				

No.	Substance Name	CAS No.	No.	Substance Name	CAS No.
54	1,2-Dichloroethane	107-06-2	76	Lead(II) bis(methanesulfonate)*	17570-76-2
55	2,2'-Dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	77	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (TGIC)	2451-62-9
56	2-Methoxyaniline, o-Anisidine	90-04-0	78	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6
57	4-(1,1,3,3-Tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8
58	Arsenic acid*	7778-39-4	80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
59	Bis(2-methoxyethyl) ether	111-96-6	81	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)[#]	2580-56-5
60	Bis(2-methoxyethyl) phthalate	117-82-8	82	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)[#]	548-62-9
61	Calcium arsenate*	7778-44-1	83	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [#]	561-41-1
62	Dichromium tris(chromate)*	24613-89-6	84	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)[#]	6786-83-0
63	Formaldehyde, oligomeric reaction products with aniline (technical MDA)[§]	25214-70-4	85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5
64	Lead diazide*	13424-46-9	86	Pentacosafluorotridecanoic acid	72629-94-8
65	Lead dipicrate*	6477-64-1	87	Tricosafluorododecanoic acid	307-55-1
66	Lead styphnate*	15245-44-0	88	Henicosafluoroundecanoic acid	2058-94-8
67	N,N-dimethylacetamide (DMAC)	127-19-5	89	Heptacosafluorotetradecanoic acid	376-06-7
68	Pentazinc chromate octahydroxide*	49663-84-5	90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated[§]	-
69	Phenolphthalein	77-09-8	91	4-Nonylphenol, branched and linear - *substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol*[§]	-
70	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
71	Trilead diarsenate*	3687-31-8	93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	94	Hexahydromethylphathalic anhydride, Hexahydro-4-methylphathalic anhydride, Hexahydro-1-methylphathalic anhydride, Hexahydro-3-methylphathalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	95	Methoxy acetic acid	625-45-6
74	Diboron trioxide*	1303-86-2	96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
75	Formamide	75-12-7	97	Diisopentylphthalate (DIPP)	605-50-5
	- '*' denotes concentration of the substance cannot be determined directly but be converted from the concentration of specific heavy metal(s). - '§' The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological material), the test results are calculated based on the main constituents. - "#" denotes the substance does only fulfil the criteria of REACH Art. 57 (a) if it contains Michler's ketone (CAS Number: 90-94-8) or Michler's base (CAS Number: 101-61-1) in a concentration ≥ 0.1% (weight / weight).				

No.	Substance Name	CAS No.	No.	Substance Name	CAS No.
98	N-pentyl-isopentylphtalate	-	131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3
99	1,2-Diethoxyethane	629-14-1	132	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
100	N,N-dimethylformamide; dimethyl formamide	68-12-2	133	6-methoxy-m-toluidine (p-cresidine)	120-71-8
101	Dibutyltin dichloride (DBT)	683-18-1	134	Biphenyl-4-ylamine	92-67-1
102	Acetic acid, lead salt, basic*	51404-69-4	135	o-aminoazotoluene	97-56-3
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)*	1319-46-6	136	o-Toluidine; 2-Aminotoluene	95-53-4
104	Lead oxide sulfate (basic lead sulfate)*	12036-76-9	137	N-methylacetamide	79-16-3
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)*	69011-06-9	138	1-bromopropane; n-propyl bromide	106-94-5
106	Dioxobis(stearato)trilead*	12578-12-0	139	Cadmium	7440-43-9
107	Fatty acids, C16-18, lead salts*	91031-62-8	140	Cadmium oxide*	1306-19-0
108	Lead bis(tetrafluoroborate)*	13814-96-5	141	Dipentyl phthalate (DPP)	131-18-0
109	Lead cynamidate*	20837-86-9	142	4-Nonylphenol, branched and linear, ethoxylated[§]	-
110	Lead dinitrate*	10099-74-8	143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
111	Lead oxide (lead monoxide)*	1317-36-8	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1
112	Lead tetroxide (orange lead)*	1314-41-6	145	Cadmium sulphide*	1306-23-6
113	Lead titanium trioxide*	12060-00-3	146	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0
114	Lead Titanium Zirconium Oxide*	12626-81-2	147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7
115	Pentalead tetraoxide sulphate*	12065-90-6	148	Dihexyl phthalate	84-75-3
116	Pyrochlore, antimony lead yellow*	8012-00-8	149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7
117	Silicic acid, barium salt, lead-doped*	68784-75-8	150	Lead di(acetate)*	301-04-2
118	Silicic acid, lead salt*	11120-22-2	151	Trixylyl phosphate	25155-23-1
119	Sulfurous acid, lead salt, dibasic*	62229-08-7	152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4
120	Tetraethyllead*	78-00-2	153	Cadmium chloride*	10108-64-2
121	Tetralead trioxide sulphate*	12202-17-4	154	Sodium perborate; perboric acid, sodium salt*	-
122	Trilead dioxide phosphonate*	12141-20-7	155	Sodium peroxometaborate*	7632-04-4
123	Furan	110-00-9	156	Cadmium fluoride*	7790-79-6
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	157	Cadmium sulphate*	10124-36-4; 31119-53-6
125	Diethyl sulphate	64-67-5	158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
126	Dimethyl sulphate	77-78-1	159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2			
128	Dinoseb	88-85-7			
129	4,4'-methylenedi-o-toluidine	838-88-0			
130	4,4'-oxydianiline and its salts	101-80-4			
	- '*' denotes concentration of the substance cannot be determined directly but be converted from the concentration of specific heavy metal(s). - '§' The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological material), the test results are calculated based on the main constituents.				

No.	Substance Name	CAS No.	No.	Substance Name	CAS No.
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	179	Cadmium hydroxide*	21041-95-2
161	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	180	Chrysene	218-01-9
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5, 68648-93-1 (271-094-0, 272-013-1)	181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear	-
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	-	182	Octamethylcyclotetrasiloxane (D4)	556-67-2
164	1,3-propanesultone	1120-71-4 (214-317-9)	183	Decamethylcyclopentasiloxane (D5)	541-02-6
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1 (223-383-8)	184	Dodecamethylcyclohexasiloxane (D6)	540-97-6
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3 (253-037-1)	185	Lead	7439-92-1
167	Nitrobenzene	98-95-3 (202-716-0)	186	Disodium octaborate*	12008-41-2
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononanoic acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4 (206-801-3)	187	Benzo[ghi]perylene	191-24-2
169	Benzo[def]chrysene	50-32-8 (200-028-5)	188	Terphenyl hydrogenated	61788-32-7
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7 (201-245-8)	189	Ethylenediamine (EDA)	107-15-3
171	nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2, 3830-45-3, 3108-42-7 (206-400-3, -, 221-470-5)	190	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7
172	4-heptylphenol, branched and linear (4-HPbl)	-	191	Dicyclohexyl phthalate (DCHP)	84-61-7
173	4-tert-pentylphenol (PTAP)	80-46-6 (201-280-9)	192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6
174	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	-	193	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8
175	Dechlorane Plus(TM)	-	194	Benzo[k]fluoranthene	207-08-9
176	Benz[a]anthracene	56-55-3	195	Fluoranthene	206-44-0
177	Cadmium nitrate*	10325-94-7	196	Phenanthrene	85-01-8
178	Cadmium carbonate*	513-78-0	197	Pyrene	129-00-0
	-'*' denotes concentration of the substance cannot be determined directly but be converted from the concentration of specific heavy metal(s).				

No.	Substance Name	CAS No.	No.	Substance Name	CAS No.
198	2-methoxyethyl acetate	110-49-6	-	-	-
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	-	-
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	-	-	-
201	4-tert-butylphenol (PTBP)	98-54-4	-	-	-
202	Diisohexyl phthalate	71850-09-4	-	-	-
203	2-benzyl-2-dimethylamino-4'morpholinobutyrophenone	119313-12-1	-	-	-
204	2-methyl-1-(4methylthiophenyl)-2morpholinopropan-1-one	71868-10-5	-	-	-
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	-	-
206	1-vinylimidazole	1072-63-5 (214-012-0)	-	-	-
207	2-methylimidazole	693-98-1 (211-765-7)	-	-	-
208	Butyl 4-hydroxybenzoate (Butylparaben)	94-26-8 (202-318-7)	-	-	-
209	Dibutylbis(pentane-2,4dionato-O,O')tin	22673-19-4 (245-152-0)	-	-	-
210	Bis(2-(2- methoxyethoxy)ethyl) ether	143-24-8 (205-594-7)	-	-	-
211	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	-	-	-

-- END OF THE TEST REPORT --

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