

**REACH TEST REPORT No.I15Z43032-SEM02**

Applicant name: Shanghai Simcom Limited

Applicant address: Building A, SIM Technology Building, No.633 Jinzhong Road, Changning District, Shanghai, P.R.China.

Manufacture name: Shanghai Simcom Limited

Manufacture Address: Building A, SIM Technology Building, No.633 Jinzhong Road, Changning District, Shanghai, P.R.China.

Product Name: Wireless Module

Product Model: SIM5320A

Date of Sample received: 2015-12-07

Date of Test Finished: 2015-12-17

Test Requested: As specified by client, to screen the 163 substances of very high concern (SVHC) under Regulation (EC) No 1907/2006 of REACH in the submitted sample(s).

Test Method: Please refer to next page(s)

Test Result: Please refer to next page(s)

Summary: According to the analytical results, concentrations of 161 SVHC substances are less than 0.1 % in the submitted sample.

Chief tester: Zhang Xiangyuan

Audited by: Hao Xu

Approved by:

卢春阳

Date: 2015.12.17

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

## Test method and substance information:

No	Substance Name(s)	CAS NO.	Substance Classification	Reference method
1.	Anthracene	120-12-7	PBT	EPA 3550C-2007 EPA 8270D-2007 ZEK01.2-08
2.	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	Carcinogen,cat.2	EN 14362-1-2003 GB/T 17592-2001
3.	Dibutyl phthalate(DBP)	84-74-2	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007
4.	Cobalt dichloride	7646-79-9	Carcinogen,cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007
5.	Diarsenic pentaoxide	1303-28-2	Carcinogen,cat.1	EPA 3052-199 EPA 6010C-2007
6.	Diarsenic trioxide	1327-53-3	Carcinogen,cat.1	EPA 3052-1996 EPA 6010C-2007
7.	Sodium dichromate	7789-12-0 10588-01-9	Carcinogen,cat.2 Mutagen, cat.2 Toxic for reproduction, cat.2	EPA 3060A-1996 EPA7196A—1992
8.	Musk xylene	81-15-2	vPvB	EPA 3550C-2007 EPA 8270D-2007
9.	Bis(2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007
10.	(Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD))	25637-99-4 3194-55-6	PBT	EPA 3550C-2007 EPA 8270D-2007
11.	Short Chain Chlorinated Paraffines (SCCPs)	85535-84-8	PBT; vPvB	EPA 3550C-2007 EPA 8270D-2007
12.	Bis(tributyltin) oxide (TBTO)	56-35-9	PBT	EPA 3550C-2007 ISO 17353-2004
13.	Lead hydrogen arsenate	7784-40-9	Carcinogen,cat.1 Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
14.	Benzyl butyl phthalate (BBP)	85-68-7	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007
15.	Triethyl arsenate	15606-95-8	Carcinogen,cat.1	EPA 3052-1996 EPA 3060A-1996
16.	Anthracene Oil	90640-80-5	PBT	EPA 3550C-2007 ZEK 01.2-2008
17.	Anthracene Oil, Anthracene paste, distn, Lights	91995-17-4	PBT	EPA 3550C-2007 ZEK 01.2-2008
18.	Anthracene Oil, anthracene paste, anthracene fraction	91995-15-2	PBT	EPA 3550C-2007 ZEK 01.2-2008
19.	Anthracene oil, anthracene-low	90640-82-7	PBT	EPA3550C-2007 ZEK01.2-2008

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20.	Anthracene oil, anthracene paste	90640-81-6	PBT	EPA 3550C-2007 ZEK 01.2-2008
21.	Coal tar pitch, high temperature (CTPHT)	65996-93-2	PBT; Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
22.	Acrylamide	1979-6-1	Carcinogen,cat.2; Mutagen, cat.2	GB/T 22312-2008
23.	2,4-Dinitrotoluene	121-14-2	Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
24.	Diisobutyl phthalate (DIBP)	84-69-5	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007
25.	Lead chromate	7758-97-6	Carcinogen,cat.2; Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
26.	Lead chromate molybdate sulphate red (C.I. Pigment red 104)	12656-85-8	Carcinogen,cat.2; Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
27.	Lead sulfochromate yellow (C.I. Pigment yellow 104)	1344-37-2	Carcinogen,cat.2; Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
28.	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007
29.	Trichloroethylene	79-01-6	Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
30.	Boric acid	10043-35-3 11113-50-1	Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007
31.	Disodium tetraborate, anhydrous	1330-43-4 12179-04-3 1303-96-4	Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007
32.	Tetraboron disodium heptaoxide, hydrate	12267-73-1	Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007
33.	Sodium chromate	7775-11-3	Carcinogen,cat.2 Mutagenic cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007 EPA 3060A-1996
34.	Potassium chromate	7789-00-6	Carcinogen,cat.2 Mutagenic cat.2	EPA 3052-1996 EPA 6010C-2007 EPA 3060A-1996
35.	Ammonium dichromate	7789-09-5	Carcinogen,cat.2 Mutagenic cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007 EPA 3060A-1996
36.	Potassium dichromate	7778-50-9	Carcinogen,cat.2 Mutagenic cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 EPA 6010C-2007 EPA 3060A-1996
37.	Cobalt(II) sulphate	10124-43-3	Carcinogen,cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 In-house method
38.	Cobalt(II) dinitrate	10141-05-6	T Carcinogen,cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 In-house method
39.	Cobalt(II) carbonate	513-79-1	Carcinogen,cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 In-house method
40.	Cobalt(II) diacetate	71-48-7	Carcinogen,cat.2 Toxic for reproduction, cat.2	EPA 3052-1996 In-house method
41.	2-Methoxyethanol	109-86-4	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007

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42.	2-Ethoxyethanol	110-80-5	Toxic for reproduction, cat.2	EPA 3550C-2007 EPA 8270D-2007
43.	Chromium trioxide	1333-82-0	Carcinogen,cat.1 Mutagen, cat.2	EPA 3052-1996 EPA 3060A-1996 EPA 6010C-2007
44.	Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid	7738-94-5 13530-68-2	Carcinogen,cat.2	EPA 3052-1996 EPA 3060A-1996 EPA 6010C-2007
45.	2-ethoxyethylacetate	111-15-9	Toxic for reproduction, cat.2	EPA3550C-2007 EPA 8270D-2007
46.	Strontium chromate	7789-06-2	Carcinogen,cat.2	EPA3052-1996 EPA3060A-1996 EPA 6010C-2007
47.	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters(DHNUP)	68515-42-4	Toxic for reproduction,cat.2	EN 14372-2004
48.	Hydrazine	7803-57-8 302-01-2	Carcinogen,cat.2	EPA 3550C-2007 In house method
49.	1-methyl-2-pyrrolidone	872-50-4	Toxic for reproduction, cat.2	EPA3550C-2007 EPA 8270D-2007
50.	1,2,3-trichloropropane	96-18-4	Carcinogen,cat.2; Toxic for reproduction, cat.2	EPA3550C-2007 EPA 8270D-2007
51.	1,2-Benzendicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	Toxic for reproduction, cat.2	CPSC-CH-C1001-09.3 EN 14372-2004
52.	Dichromium tris(chromate)	24613-89-6	Carcinogen,cat.2	EPA 3052-1996 EPA 3060A-1996 EPA 6010C-2007
53.	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	Carcinogen,cat.1	EPA 3052-1996 EPA 3060A-1996 EPA 6010C-2007
54.	Pentazinc chromate octahydroxide	49663-84-5	Carcinogen,cat.1	EPA 3052-1996 EPA 3060A-1996 EPA 6010C-2007
55.	Aluminosilicate Refractory Ceramic Fibres (RCF))	-	Carcinogen,cat.2	EPA 3052-1996 EPA 6010C-2007
56.	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	-	Carcinogen,cat.2	EPA 3052-1996 EPA 6010C-2007
57.	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	Carcinogen,cat.2	EPA 3550C-2007 In house method
58.	Bis(2-methoxyethyl phthalate) (DMEP)	117-82-8	Toxic for reproduction, cat.2	EN 14372-2004 CPSC-CH-C1001-09.3



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59.	2-Methoxyaniline (o-Anisidine)	90-04-0	Carcinogen,cat.2	EPA 3550C-2007 EN 14362-1:2003 GB/T 17592-2011
60.	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	Equivalent concern	EPA 3550C-2007 EPA 8270D-2007
61.	1,2-Dichloroethane	107-06-2	Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
62.	Bis(2-methoxyethyl)ether	111-96-6	Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
63.	Arsenic Acid	7778-39-4	Carcinogen,cat.1	EPA 3052-1996 EPA 6010C-2007
64.	Calcium arsenate	7778-44-1	Carcinogen,cat.1	EPA 3052-1996 EPA 6010C-2007
65.	Trilead diarsenate	3687-31-8	Carcinogen,cat.1; Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
66.	N,N-dimethylacetamide(DMAC)	127-19-5	Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
67.	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	Carcinogen,cat.2	EPA 3550C-2007 EPA 8270D-2007
68.	Phenolphthalein	77-9-8	Carcinogen,cat.2	EPA 3550C-2007 In house method
69.	Lead diazide	13424-46-9	Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
70.	Lead 2,4,6-trinitro-m-phenylene dioxide (Lead styphnate)	15245-44-0	Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
71.	Lead dipicrate	6477-64-1	Toxic for reproduction, cat.1	EPA 3052-1996 EPA 6010C-2007
72.	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
73.	1,2-Dimethoxyethane;ethylene glycol dimethyl ether (EGDME)	110-71-4	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
74.	Diboron trioxide	1303-86-2	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
75.	Formamide	75-12-7	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
76.	Lead(II) bis methanesulfonate	17570-76-2	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
77.	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5- -triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	Mutagenic	EPA 3550C-2007 In house method
78.	$\beta$ -TGIC(1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H, ,5H)-trione)	59653-74-6	Mutagenic	EPA 3550C-2007 In house method
79.	4,4'-Bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Carcinogenic	EPA 3550C-2007 In house method

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80.	N,N,N',N'-tetramethyl-4,4'-methylene dianiline (Michler's ase)	101-61-1	Carcinogenic	EPA 3550C-2007 In house method
81.	4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet3)	548-62-9	Carcinogenic	In house method
82.	[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	Carcinogenic	In house method
83.	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue4)	6786-83-0	Carcinogenic	In house method
84.	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	Carcinogenic	In house method
85.	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	PBT; vPvB	IEC 62321-2008
86.	Pentacosafuorotridecanoic acid	72629-94-8	vPvB	EPA 3550C-2007 EPA 8270D-2007
87.	Tricosafuorododecanoic acid	307-55-1	vPvB	EPA 3550C-2007 EPA 8270D-2007
88.	Henicosafuoroundecanoic acid	2058-94-8	vPvB	EPA 3550C-2007 EPA 8270D-2007
89.	Heptacosafuorotetradecanoic acid	376-06-7	vPvB	EPA 3550C-2007 EPA 8270D-2007
90.	Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	Equivalent concern	EPA 3550C-2007 EPA 8270D-2007
91.	Cyclohexane-1,2-dicarboxylic anhydride [1] cis-cyclohexane-1,2-dicarboxylic anhydride [2] trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry].	85-42-7 13149-00-3 14166-21-3	Equivalent concern	EPA 3550C-2007 EPA 8270D-2007

No	Substance Name(s)	CAS NO.	Substance Classification	Reference method
92.	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] <i>[The individual isomers [2], [3] and [4] (including their cis- and trans-stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]</i>	25550-51-0 19438-60-9 48122-14-1 57110-29-9	Equivalent concern	EPA 3550C-2007 EPA 8270D-2007
93.	4-Nonylphenol, branched and linear <i>[substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]</i>	-	Equivalent concern	EPA 3550C-2007 EPA 8270D-2007
94.	4-(1,1,3,3-Tetramethylbutyl)phenol, ethoxylated-covering well-defined substances and UVCB substances, polymers and homologues	-	Equivalent concern	EPA 3550C-2007 EPA 8270D-2007
95.	Methoxyacetic acid	625-45-6	Toxic for reproduction; Equivalent concern	EPA 3550C-2007 EPA 8270D-2007
96.	N,N-dimethylformamide	68-12-2	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
97.	Dibutyltin dichloride (DBTC)	683-18-1	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
98.	Lead monoxide (Lead oxide)	1317-36-8	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
99.	Orange lead (Lead tetroxide)	1314-41-6	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
100.	Lead bis(tetrafluoroborate)	13814-96-5	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
101.	Basic lead carbonate (Trilead bis(carbonate)dihydroxide)	1319-46-6	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
102.	Lead titanium trioxide	12060-00-3	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
103.	Lead titanium zirconium oxide	12626-81-2	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
104.	Silicic acid, lead salt	11120-22-2	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007

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105.	Silicic acid, barium salt, lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
106.	1-bromopropane (n-propyl bromide)	106-94-5	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
107.	Propylene oxide (Methyloxirane)	75-56-9	Carcinogenic Mutagenic	EPA 3550C-2007 EPA 8270D-2007
108.	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
109.	Diisopentylphthalate (DIPP)	605-50-5	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
110.	N-pentyl-isopentylphthalate	776297-69-9	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
111.	1,2-diethoxyethane	629-14-1	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
112.	Acetic acid, lead salt, basic	51404-69-4	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
113.	Lead oxide sulfate	12036-76-9	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
114.	[Phthalato(2-)]dioxotrilead	69011-06-9	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
115.	Dioxobis(stearato)trilead	12578-12-0	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
116.	Fatty acids, C16-18, lead salts	91031-62-8	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
117.	Lead cyanamidate	20837-86-9	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
118.	Lead dinitrate	10099-74-8	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
119.	Pentalead tetraoxide sulphate	12065-90-6	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
120.	Pyrochlore, antimony lead yellow	8012-00-8	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
121.	Sulfurous acid, lead salt, dibasic	62229-08-7	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
122.	Tetraethyllead	78-00-2	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
123.	Tetralead trioxide sulphate	12202-17-4	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
124.	Trilead dioxide phosphonate	12141-20-7	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
125.	Furan	110-00-9	Carcinogenic	EPA 3550C-2007 EPA 8270D-2007



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126.	Diethyl sulphate	64-67-5	Carcinogenic; Mutagenic	EPA 3550C-2007 EPA 8270D-2007
127.	Dimethyl sulphate	77-78-1	Carcinogenic	EPA 3550C-2007 EPA 8270D-2007
128.	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
129.	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
130.	4,4'-methylenedi- <i>o</i> -toluidine	838-88-0	Carcinogenic	EN 14362-2012
131.	4,4'-oxydianiline and its salts	101-80-4	Carcinogenic Mutagenic	EN 14362-2012
132.	4-aminoazobenzene	60-09-3	Carcinogenic	EN 14362-2012
133.	4-methyl- <i>m</i> -phenylenediamine (toluene-2,4-diamine)	95-80-7	Carcinogenic	EN 14362-2012
134.	6-methoxy- <i>m</i> -toluidine (p-cresidine)	120-71-8	Carcinogenic	EN 14362-2012
135.	Biphenyl-4-ylamine	92-67-1	Carcinogenic	EN 14362-2012
136.	<i>o</i> -aminoazotoluene [(4- <i>o</i> -tolylazo- <i>o</i> -toluidine)]	97-56-3	Carcinogenic	EN 14362-2012
137.	<i>o</i> -toluidine	95-53-4	Carcinogenic	EN 14362-2012
138.	N-methylacetamide	79-16-3	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
139.	Cadmium	7440-43-9	CMR EQC	EPA 3052-1996 EPA 6010C-2007
140.	Cadmium oxide	1306-19-0	CMR EQC	EPA 3052-1996 EPA 6010C-2007
141.	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Toxic for reproduction PBT	EPA 3550C-2007 EPA 8270D-2007
142.	Pentadecafluorooctanoic acid (PFOA)	335-67-1	Toxic for reproduction PBT	EPA 3550C-2007 EPA 8270D-2007
143.	Dipentyl phthalate (DPP)	131-18-0	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007

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144.	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	--	EQC	EPA 3550C-2007 EPA 8270D-2007
145.	Cadmium sulphide	1306-23-6	Carcinogenic; Equivalent concern	EPA 3052-1996 EPA 6010C-2007
146.	Disodium,3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	Carcinogenic	In house method
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	Carcinogenic	In house method
148.	Dihexyl phthalate	84-75-3	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
149.	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
150.	Lead di(acetate)	301-04-2	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
151.	Trixylyl phosphate	25155-23-1	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
152.	Cadmium chloride	10108-64-2	Carcinogenic; Mutagenic; Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	EPA 3052-1996 EPA 6010C-2007
153.	Sodium peroxometaborate	7632-04-4	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007

No	Substance Name(s)	CAS NO.	Substance Classification	Reference method
154.	Sodium perborate; perboric acid, sodium salt	/	Toxic for reproduction	EPA 3052-1996 EPA 6010C-2007
155.	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
156.	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	PBT; vPvB	EPA 3550C-2007 EPA 8270D-2007
157.	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	Toxic for reproduction	EPA 3550C-2007 ISO 17353-2004
158.	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)	/	Toxic for reproduction	EPA 3550C-2007 ISO 17353-2004
159.	2-(2H-benzotriazol-2-yl)-4,6-ditertphenylphenol (UV-328)	25973-55-1	PBT; vPvB	EPA 3550C-2007 EPA 8270D-2007
160.	Cadmium fluoride	7790-79-6	Carcinogenic; Mutagenic; Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	EPA 3052-1996 EPA 6010C-2007

No	Substance Name(s)	CAS NO.	Substance Classification	Reference method
161.	Cadmium sulphate	10124-36-4, 31119-53-6	Carcinogenic; Mutagenic; Toxic for reproduction; Equivalent level of concern having probable serious effects to human health	EPA 3052-1996 EPA 6010C-2007
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	Toxic for reproduction	EPA 3550C-2007 EPA 8270D-2007
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 stereoisomers of [1] and [2] or any combination thereof]	--	vPvB	EPA 3550C-2007 EPA 8270D-2007

**Note:**

1. PBT means Persistent, bioaccumulative and toxic;
2. vPvB means very Persistent very bioaccumulative;
3. EQC means Equivalent concern;
4. CMR means Carcinogenicity, Mutagenicity and Reproductive toxicity.

**Part list:**

No	Part Name	Description
1	Wireless Module Metal Part	all parts (Metal) of the Wireless Module
2	Wireless Module non-Metal Part	PCB and Electronics of the Wireless Module



## Test results:

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
1.	Anthracene	N.A.	N.D.	0.005%
2.	4,4'-Diaminodiphenylmethane(MDA)	N.A.	N.D.	0.005%
3.	Dibutyl phthalate(DBP)	N.A.	N.D.	0.005%
4.	Cobalt dichloride <sup>(1)</sup>	N.D.	N.D.	0.01%
5.	Diarsenic pentaoxide <sup>(1)</sup>	N.D.	N.D.	0.01%
6.	Diarsenic trioxide <sup>(1)</sup>	N.D.	N.D.	0.01%
7.	Sodium dichromate <sup>(1)</sup>	N.D.	N.D.	0.01%
8.	Musk xylene	N.A.	N.D.	0.005%
9.	Bis(2-ethyl(hexyl)phthalate) (DEHP)	N.A.	N.D.	0.005%
10.	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD)	N.A.	N.D.	0.005%
11.	Short Chain Chlorinated Paraffines (SCCPs)	N.A.	N.D.	0.01%
12.	Bis(tributyltin) oxide (TBTO)	N.A.	N.D.	0.005%
13.	Lead hydrogen arsenate <sup>(1)</sup>	N.D.	N.D.	0.01%
14.	Benzyl butyl phthalate (BBP)	N.A.	N.D.	0.005%
15.	Triethyl arsenate	N.D.	N.D.	0.01%
16.	Anthracene Oil <sup>(2)</sup>	N.A.	N.D.	0.05%
17.	Anthracene Oil, Anthracene paste, distn, Lights <sup>(2)</sup>	N.A.	N.D.	0.05%
18.	Anthracene Oil, anthracene paste, anthracene fraction <sup>(2)</sup>	N.A.	N.D.	0.05%
19.	Anthracene oil, anthracene-low <sup>(2)</sup>	N.A.	N.D.	0.05%
20.	Anthracene oil, anthracene paste <sup>(2)</sup>	N.A.	N.D.	0.05%
21.	Coal tar pitch, high temperature (CTPHT) <sup>(2)</sup>	N.A.	N.D.	0.05%
22.	Acrylamide	N.A.	N.D.	0.01%

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
23.	2,4-Dinitrotoluene	N.A.	N.D.	0.01%
24.	Diisobutyl phthalate (DIBP)	N.A.	N.D.	0.005%
25.	Lead chromate <sup>(3)</sup>	N.D.	N.D.	0.05%
26.	Lead chromate molybdate sulphate red (C.I. Pigment red 104) <sup>(3)</sup>	N.D.	N.D.	0.05%
27.	Lead sulfochromate yellow (C.I. Pigment yellow 104) <sup>(3)</sup>	N.D.	N.D.	0.05%
28.	Tris(2-chloroethyl)phosphate (TCEP)	N.A.	N.D.	0.01%
29.	Trichloroethylene	N.A.	N.D.	0.005%
30.	Boric acid <sup>(1)</sup>	N.D.	N.D.	0.01%
31.	Disodium tetraborate, anhydrous <sup>(1)</sup>	N.D.	N.D.	0.01%
32.	Tetraboron disodium heptaoxide, hydrate	N.D.	N.D.	0.01%
33.	Sodium chromate <sup>(1)</sup>	N.D.	N.D.	0.01%
34.	Potassium chromate <sup>(1)</sup>	N.D.	N.D.	0.01%
35.	Ammonium dichromate <sup>(1)</sup>	N.D.	N.D.	0.01%
36.	Potassium dichromate <sup>(1)</sup>	N.D.	N.D.	0.01%
37.	Cobalt(II) sulphate <sup>(1)</sup>	N.D.	N.D.	0.01%
38.	Cobalt(II) dinitrate <sup>(1)</sup>	N.D.	N.D.	0.01%
39.	Cobalt(II) carbonate <sup>(1)</sup>	N.D.	N.D.	0.01%
40.	Cobalt(II) diacetate <sup>(1)</sup>	N.D.	N.D.	0.01%
41.	2-Methoxyethanol	N.A.	N.D.	0.005%
42.	2-Ethoxyethanol	N.A.	N.D.	0.005%
43.	Chromium trioxide <sup>(1)</sup>	N.D.	N.D.	0.01%
44.	Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid	N.D.	N.D.	0.01%
45.	2-ethoxyethylacetate	N.A.	N.D.	0.01%

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
46.	Strontium chromate <sup>(1)</sup>	N.D.	N.D.	0.01%
47.	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters(DHNUP)	N.A.	N.D.	0.01%
48.	Hydrazine	N.A.	N.D.	0.01%
49.	1-methyl-2-pyrrolidone	N.A.	N.D.	0.01%
50.	1,2,3-trichloropropane	N.A.	N.D.	0.01%
51.	1,2-Benzendicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich(DIHP) <sup>(2)</sup>	N.A.	N.D.	0.01%
52.	Dichromium tris(chromate) <sup>(1)</sup>	N.D.	N.D.	0.01%
53.	Potassium hydroxyoctaoxodizincatedichromate <sup>(1)</sup>	N.D.	N.D.	0.01%
54.	Pentazinc chromate octahydroxide <sup>(3)</sup>	N.D.	N.D.	0.01%
55.	Aluminosilicate Refractory Ceramic Fibres (RCF) <sup>(3)</sup>	N.D.	N.D.	0.05%
56.	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) <sup>(3)</sup>	N.D.	N.D.	0.05%
57.	Formaldehyde, oligomeric reaction products with aniline <sup>(3)</sup>	N.A.	N.D.	0.01%
58.	Bis(2-methoxyethyl phthalate) (DMEP)	N.A.	N.D.	0.005%
59.	2-Methoxyaniline (o-Anisidine)	N.A.	N.D.	0.005%
60.	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	N.A.	N.D.	0.005%
61.	1,2-Dichloroethane	N.A.	N.D.	0.005%
62.	Bis(2-methoxyethyl)ether	N.A.	N.D.	0.005%
63.	Arsenic Acid <sup>(1)</sup>	N.D.	N.D.	0.01%
64.	Calcium arsenate <sup>(1)</sup>	N.D.	N.D.	0.01%
65.	Trilead diarsenate <sup>(1)</sup>	N.D.	N.D.	0.01%
66.	N,N-dimethylacetamide(DMAC)	N.A.	N.D.	0.01%
67.	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	N.A.	N.D.	0.01%
68.	Phenolphthalein	N.A.	N.D.	0.01%
69.	Lead diazide <sup>(1)</sup>	N.D.	N.D.	0.01%

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
70.	Lead 2,4,6-trinitro-m-phenylene dioxide (Lead styphnate) <sup>(1)</sup>	N.D.	N.D.	0.01%
71.	Lead dipicrate <sup>(1)</sup>	N.D.	N.D.	0.01%
72.	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	N.A.	N.D.	0.01%
73.	1,2-Dimethoxyethane;ethylene glycol dimethyl ether (EGDME)	N.A.	N.D.	0.01%
74.	Diboron trioxide <sup>(1)</sup>	N.D.	N.D.	0.01%
75.	Formamide	N.A.	N.D.	0.01%
76.	Lead(II) bis methanesulfonate <sup>(1)</sup>	N.D.	N.D.	0.01%
77.	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	N.A.	N.D.	0.01%
78.	β-TGIC(1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) <sup>(4)</sup>	N.A.	N.D.	0.01%
79.	4,4'-Bis(dimethylamino)benzophenone (Michler's ketone)	N.A.	N.D.	0.01%
80.	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's ase)	N.A.	N.D.	0.01%
81.	4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet3)	N.A.	N.D.	0.01%
82.	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)	N.A.	N.D.	0.01%
83.	α,α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue4)	N.A.	N.D.	0.01%
84.	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	N.A.	N.D.	0.01%
85.	Bis(pentabromophenyl) ether (DecaBDE)	N.A.	N.D.	0.005%
86.	Pentacosafuorotridecanoic acid	N.A.	N.D.	0.005%
87.	Tricosafuorododecanoic acid	N.A.	N.D.	0.005%
88.	Henicosafuoroundecanoic acid	N.A.	N.D.	0.005%
89.	Heptacosafuorotetradecanoic acid	N.A.	N.D.	0.005%
90.	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	N.A.	N.D.	0.005%

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
91.	Cyclohexane-1,2-dicarboxylic anhydride [1] cis-cyclohexane-1,2-dicarboxylic anhydride [2] trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry].	N.A.	N.D.	0.01%
92.	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	N.A.	N.D.	0.01%
93.	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, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] <sup>(2)</sup>	N.A.	N.D.	0.01%
94.	4-(1,1,3,3-Tetramethylbutyl)phenol, ethoxylated-covering well-defined substances and UVCB substances, polymers and homologues <sup>(2)</sup>	N.A.	N.D.	0.01%
95.	Methoxyacetic acid	N.A.	N.D.	0.01%
96.	N,N-dimethylformamide	N.A.	N.D.	0.01%
97.	Dibutyltin dichloride (DBTC)	N.A.	N.D.	0.01%
98.	Lead monoxide (Lead oxide) <sup>(1)</sup>	N.D.	N.D.	0.01%
99.	Orange lead (Lead tetroxide) <sup>(1)</sup>	N.D.	N.D.	0.01%
100.	Lead bis(tetrafluoroborate) <sup>(1)</sup>	N.D.	N.D.	0.01%
101.	Basic lead carbonate (Trilead bis(carbonate)dihydroxide) <sup>(1)</sup>	N.D.	N.D.	0.01%
102.	Lead titanium trioxide <sup>(1)</sup>	N.D.	N.D.	0.01%
103.	Lead titanium zirconium oxide <sup>(1)</sup>	N.D.	N.D.	0.01%
104.	Silicic acid, lead salt <sup>(1)</sup>	N.D.	N.D.	0.01%
105.	Silicic acid, barium salt, lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008] <sup>(3)</sup>	N.D.	N.D.	0.01%
106.	1-Bromopropane (n-propyl bromide)	N.A.	N.D.	0.01%



No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
107.	Propylene oxide (Methyloxirane)	N.A.	N.D.	0.01%
108.	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	N.A.	N.D.	0.01%
109.	Diisopentylphthalate (DIPP)	N.A.	N.D.	0.005%
110.	N-pentyl-isopentylphthalate	N.A.	N.D.	0.005%
111.	1,2-Diethoxyethane	N.A.	N.D.	0.01%
112.	Acetic acid, lead salt, basic <sup>(1)</sup>	N.D.	N.D.	0.01%
113.	Lead oxide sulfate <sup>(1)</sup>	N.D.	N.D.	0.01%
114.	[Phthalato(2-)]dioxotrilead	N.D.	N.D.	0.01%
115.	Dioxobis(stearato)trilead	N.D.	N.D.	0.01%
116.	Fatty acids, C16-18, lead salts	N.D.	N.D.	0.01%
117.	Lead cyanamide <sup>(1)</sup>	N.D.	N.D.	0.01%
118.	Lead dinitrate <sup>(1)</sup>	N.D.	N.D.	0.01%
119.	Pentalead tetraoxide sulphate <sup>(3)</sup>	N.D.	N.D.	0.01%
120.	Pyrochlore, antimony lead yellow <sup>(3)</sup>	N.D.	N.D.	0.01%
121.	Sulfurous acid, lead salt, dibasic <sup>(1)</sup>	N.D.	N.D.	0.01%
122.	Tetraethyllead	N.D.	N.D.	0.01%
123.	Tetralead trioxide sulphate <sup>(1)</sup>	N.D.	N.D.	0.01%
124.	Trilead dioxide phosphonate <sup>(1)</sup>	N.D.	N.D.	0.01%
125.	Furan	N.A.	N.D.	0.01%
126.	Diethyl sulphate	N.A.	N.D.	0.01%
127.	Dimethyl sulphate	N.A.	N.D.	0.01%
128.	3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	N.A.	N.D.	0.01%
129.	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	N.A.	N.D.	0.01%
130.	4,4'-Methylenedi-o-toluidine	N.A.	N.D.	0.005%
131.	4,4'-Oxydianiline and its salts	N.A.	N.D.	0.005%
132.	4-Aminoazobenzene	N.A.	N.D.	0.005%

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
133.	4-Methyl-m-phenylenediamine (toluene-2,4-diamine)	N.A.	N.D.	0.005%
134.	6-Methoxy- <i>m</i> -toluidine (p-cresidine)	N.A.	N.D.	0.005%
135.	Biphenyl-4-ylamine	N.A.	N.D.	0.005%
136.	o-Aminoazotoluene [(4-o-tolylazo-o-toluidine)]	N.A.	N.D.	0.005%
137.	o-Toluidine	N.A.	N.D.	0.005%
138.	N-methylacetamide	N.A.	N.D.	0.01%
139.	Cadmium	N.D.	N.D.	0.005%
140.	Cadmium oxide <sup>(1)</sup>	N.D.	N.D.	0.005%
141.	Ammonium pentadecafluorooctanoate(APFO)	N.A.	N.D.	0.005%
142.	Pentadecafluorooctanoic acid(PFOA)	N.A.	N.D.	0.005%
143.	Dipentyl phthalate(DPP)	N.A.	N.D.	0.005%
144.	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof] <sup>(2)</sup>	N.A.	N.D.	0.01%
145.	Cadmium sulphide	N.D.	N.D.	0.01%
146.	Disodium, 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	N.D.	N.D.	0.01%
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)	N.D.	N.D.	0.01%
148.	Dihexyl phthalate	N.A.	N.D.	0.01%
149.	Imidazolidine-2-thione (2-imidazoline-2-thiol)	N.A.	N.D.	0.01%
150.	Lead di(acetate)	N.D.	N.D.	0.01%
151.	Trixylyl phosphate	N.A.	N.D.	0.01%
152.	Cadmium chloride	N.D.	N.D.	0.01%
153.	Sodium peroxometaborate	N.D.	N.D.	0.01%
154.	Sodium perborate; perboric acid, sodium salt	N.D.	N.D.	0.01%

No	Substance Name(s)	Concentration (Unit:%)		DL
		1	2	
155.	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	N.A.	N.D.	0.01%
156.	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	N.A.	N.D.	0.01%
157.	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetra decanoate (DOTE)	N.A.	N.D.	0.01%
158.	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetra decanoate 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)	N.A.	N.D.	0.01%
159.	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	N.A.	N.D.	0.01%
160.	Cadmium fluoride	N.D.	N.D.	0.01%
161.	Cadmium sulphate	N.D.	N.D.	0.01%
162.	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate (EC No. 201-559-5)	N.A.	N.D.	0.01%
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 stereoisomers of [1] and [2] or any combination thereof]	N.A.	N.D.	0.01%

**Note:**

DL means Detection Limit;

N.D. means non-detected (<MDL); N.A. means not available;

0.1 % = 1000 mg/kg = 1000 ppm.

1. Concentration value of cobalt dichloride is by the conversion from the test results of cobalt (Co) and chlorine (Cl). Concentration value of cobalt(II) sulfate, cobalt(II) dinitrate, cobalt(II) carbonate, cobalt(II) diacetate are by the conversion from the test results of cobalt (Co) and acid. Concentration value of diarsenic pentaoxide, diarsenic trioxide, sodium dichromate, lead hydrogen arsenate, boric acid, disodium tetraborate, anhydrous, tetraboron disodium heptaoxide, hydrate, sodium chromate, potassium chromate, potassium dichromate, ammonium dichromate, chromium trioxide, chromium hemitrioxide and acid from its oligomer, strontium chromate, dichromium tris(chromate), potassium hydroxyoctaoxodizincatedi-chromate, arsenic acid, calcium arsenate, trilead diarsenate, lead diazide, lead styphnate, lead dipicrate, diboron trioxide, lead(II) bis(methanesulfonate), acetic acid, lead salt, basic, basic lead carbonate, lead oxide sulfate, lead bis(tetrafluoroborate), lead cyanamide, lead dinitrate, lead oxide, lead tetroxide, lead titanium trioxide, lead titanium zirconium oxide, silicic acid, lead salt, sulfurous acid, lead salt, dibasic, tetralead trioxide sulphate, trilead dioxide phosphonate, cadmium oxide, Cadmium fluoride, Cadmium sulphate, Cadmium chloride, Sodium peroxometaborate, Sodium perborate, perboric acid and sodium salt are by the conversion from the test results of corresponding inorganic elements.
2. In view of the substances are established as UVCB substances (substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test results are calculated based on the main constituents of the representative compounds for substances.
3. When tested substances contain variable compounds, the test results are calculated based on main constituents of the representative compounds for the substances. The test results of the representative compounds are calculated based on the result of specified heavy metal elements.
4. TGIC is a mixture and also contains  $\beta$ -TGIC. According to the ECHA's technical dossier the ratio of  $\beta$ -TGIC to TGIC is around 1 to 10. Therefore  $\beta$ -TGIC is issued based on the above-mentioned ratio.
5. The mixing sample test was performed as client's request. Result obtained only gives informality value and does not represent individual sample material.

## Appendix:

1. Any supplier of an article containing a substance that is included in the Candidate List in a concentration above 0,1 % weight by weight (w/w) has the duty to communicate information in accordance with Article 33 of European Union regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
  - 1) Any supplier shall provide the recipient of the article with sufficient information to allow safe use of the article including, as a minimum, the name of that substance.
  - 2) On request by a consumer any supplier shall provide the consumer with sufficient information to allow safe use of the article including, as a minimum, the name of that substance within 45 days of receipt of the request, free of charge.
2. The supplier of a substance that is included in the Candidate List on their own shall provide the recipient of the substance with a safety data sheet for free compiled in accordance with Article 3 and Annex II of REACH.
3. The supplier of a mixture that containing a substance that is included in the Candidate List shall exchange information in accordance with Article 31, Article 32, and Annex II of REACH.
  - 1) Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation meets the criteria for classification as dangerous in accordance with Directives 1999/45/EC.
  - 2) Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation does not meet the criteria for classification as dangerous in accordance with Directive 1999/45/EC, but contains any substance that is included in the Candidate List in an individual concentration of  $\geq 0.1$  % by weight for non-gaseous mixtures or  $\geq 0.2$  % by volume for gaseous mixtures.



**Photo of the integrate product:**



Photo 1 The sample of SIM5320A

## Photo of the disassembled sample:



Photo 1 Wireless Module Metal Part

**Photo of the disassembled sample:**



Photo 2 Wireless Module non-Metal Part-1



Photo 3 Wireless Module non-Metal Part-2

**Photo of the disassembled sample:**



Photo 4 Wireless Module non-Metal Part-3



Photo 5 Wireless Module non-Metal Part-4



**Photo of the disassembled sample:**



Photo 6 Wireless Module non-Metal Part-5



Photo 7 Wireless Module non-Metal Part-6



**Photo of the disassembled sample:**



Photo 8 Wireless Module non-Metal Part-7

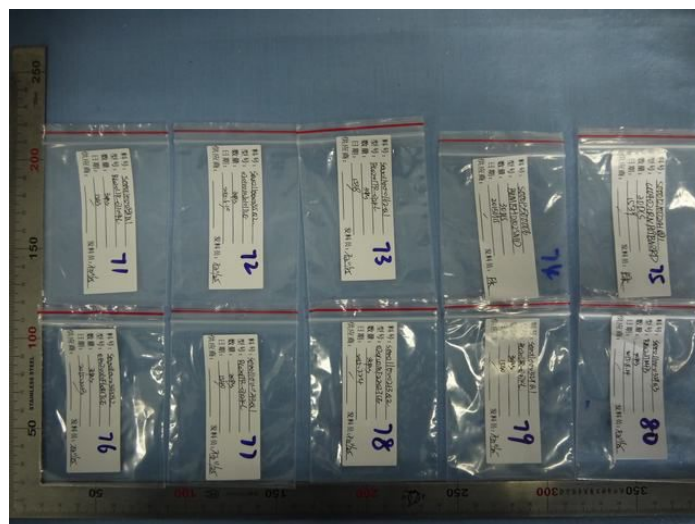


Photo 9 Wireless Module non-Metal Part-8

**Photo of the disassembled sample:**

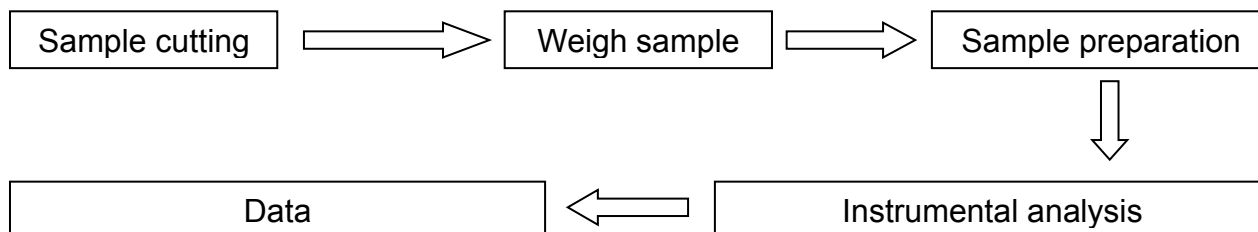


Photo 10 Wireless Module non-Metal Part-9

### The Main Testing Equipment list:

No.	Equipment Name	Model/spec	Equipment Serial Number	Calibration valid date	(√)
1.	XRF analyzer	Ux-310	F2008AA6	2016-06-30	--
2.	XRF analyzer	Ux-310	F2009521	2016-06-30	√
3.	XRF analyzer	Ux-310	F1162	2016-06-30	--
4.	XRF analyzer	XLT-797WZ	10740	2016-06-30	--
5.	XRF analyzer	SEA6000VX	106004050001	2016-07-01	√
6.	ICP-AES	5300DV	077N5072703	2016-07-08	√
7.	GC-MS	Clarus500	GC:650N5081051 MS:651N5072702	2016-07-20	√
8.	HPLC	e2695	G09SM4892A	2016-07-22	√
9.	LC-MSMS	API3200	LC:L20104611696AE MS:AA20320807	2016-11-07	√
10.	UV-VIS	Lambda 35	101N5081605	2016-10-18	√
11.	IC	ICS2000	09090780	2016-12-19	--
12.	Electronic balance	CP225D	50861713	2016-11-14	--
13.	Electronic balance	CPA225D	26192007	2016-04-03	√

## Test Flow Chart:



\*\*\*END OF REPORT\*\*\*