

## Test Report

No. : CC/2015/80088

Date : 2015/08/28

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EMBEDIAN, INC.  
4F-7, 432 KEELUNG RD., SEC.1, TAIPEI 11051, TAIWAN.



**The following sample(s) was/were submitted and identified by/on behalf of the applicant as :**

Sample Submitted By : EMBEDIAN, INC.  
Sample Description : SMARC COMPUTER ON MODULE  
Style/Item No. : SMARC-T335X-XXXXX(WHERE "X" MAY BE ANY ALPHANUMERIC CHARACTER, "I", "G" OR "-")  
Sample Receiving Date : 2015/08/21  
Testing Period : 2015/08/21 TO 2015/08/28

=====  
**Test Requested** : 163 Substances of Very High Concern (SVHC) screening. SVHC candidate list based on the publication by European Chemicals Agency (ECHA) on 2015 June 15, regarding Regulation (EC) No 1907/2006 concerning the REACH.  
**Test Result(s)** : Please refer to next page(s).  
**Summary** : According to the interpretation of ECHA and the majority of EU member states on the definition of an article as well as the specified scope and analytical technique, concentrations of 159 items of SVHC are <0.1% in the submitted sample(s). 【See note N/A\*】



Edison Chang / Sr. Supervisor  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory – Taipei

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**Test Sample :** PCBA

**Test Method :** SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES, UV-VIS, GC/MS, LC/MS, GC/FPD, LC/MS/DAD.

**Remark:**

1. The chemical analysis of 163 SVHC is performed by means of currently available analytical techniques against the list published by ECHA on 2015 June 15.

Refer to: <http://echa.europa.eu/web/guest/candidate-list-table>

2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w).
3. Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.
4. If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

**Test Result(s)**

Substance Name	RL (%)	Concentration of Article (%)	Classification
Anthracene (CAS No.: 120-12-7)	0.05	n.d.	PBT
4,4' - Diaminodiphenylmethane (CAS No.: 101-77-9)	0.05	n.d.	CC 1B
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	0.05	n.d.	TRC 1B
BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	0.05	n.d.	TRC 1B
DEHP (Bis (2-ethyl(hexyl) phthalate)) (CAS No.: 117-81-7)	0.05	n.d.	EQC
5-tert-butyl-2,4,6-trinitro- m-xylene (Musk Xylene) (CAS No.: 81-15-2)	0.05	n.d.	vPvB
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α- HBCDD, β- HBCDD, γ- HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	0.05	n.d.	PBT
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	0.05	n.d.	PBT
Bis(tributyltin)oxide (TBTO)***(CAS No.: 56-35-9)	-	n.d.	PBT
Cobalt dichloride (CAS No.: 7646-79-9)	0.005	n.d.	CC 1B; TRC 1B
Diarsenic pentoxide*** (CAS No.: 1303-28-2)	-	n.d.	CC 1A

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Substance Name	RL (%)	Concentration of Article (%)	Classification
Diarsenic trioxide*** (CAS No.: 1327-53-3)	-	n.d.	CC 1A
Triethyl arsenate*** (CAS No.: 15606-95-8)	-	n.d.	CC 1A
Lead hydrogen arsenate*** (CAS No.: 7784-40-9) (※1)	-	n.d.	CC 1A; TRC 1A
Sodium chromate*** (CAS No.: 7775-11-3)	-	n.d.	CC 1B; MC 1B; TRC 1B
Ammonium dichromate*** (CAS No.: 7789-09-5)	-	n.d.	CC 1B; MC 1B; TRC 1B
Potassium dichromate*** (CAS No.: 7778-50-9)	-	n.d.	CC 1B; MC 1B; TRC 1B
Potassium chromate*** (CAS No.: 7789-00-6)	-	n.d.	CC 1B; MC 1B
Sodium dichromate*** (CAS No.: 10588-01-9, 7789-12-0(**))	-	n.d.	CC 1B; MC 1B; TRC 1B
Chromium trioxide*** (CAS No.: 1333-82-0)	-	n.d.	CC 1A; MC 1B
Acids generated from chromium trioxide and their oligomers: Chromic acid*** (CAS No.: 7738-94-5)	-	n.d.	CC 1B
Acids generated from chromium trioxide and their oligomers: Dichromic acid*** (CAS No.: 13530-68-2)	-	n.d.	CC 1B
Acids generated from chromium trioxide and their oligomers: Oligomers of chromic acid and dichromic acid (* 1)	-	n.d.	CC 1B
Strontium chromate*** (CAS No.: 7789-06-2)	-	n.d.	CC 1B
Anthracene oil (CAS No.: 90640-80-5) (**)	0.05	n.d.	PBT; vPvB; CC 1B
Anthracene oil, anthracene paste, distn. Lights (CAS No.: 91995-17-4) (**)	0.05	n.d.	PBT; vPvB; CC 1B; MC 1B
Anthracene oil, anthracene paste, anthracene fraction (CAS No.: 91995-15-2) (**)	0.05	n.d.	PBT; vPvB; CC 1B; MC 1B
Anthracene oil, anthracene-low (CAS No.: 90640-82-7) (**)	0.05	n.d.	PBT; vPvB; CC 1B; MC 1B
Anthracene oil, anthracene paste (CAS No.: 90640-81-6) (**)	0.05	n.d.	PBT; vPvB; CC 1B; MC 1B
Pitch, coal tar, high-temp. (CAS No.: 65996-93-2) (**)	0.05	n.d.	PBT; vPvB; CC 1B
DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	0.05	n.d.	TRC 1B
2,4-Dinitrotoluene (CAS No.: 121-14-2)	0.05	n.d.	CC 1B
Tris(2-chloroethyl) phosphate (TCEP) (CAS No.: 115-96-8)	0.05	n.d.	TRC 1B
Lead chromate*** (CAS No.: 7758-97-6) (※5)	-	n.d.	CC 1B; TRC 1A
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*** (CAS No.: 12656-85-8) (※5)	-	n.d.	CC 1B; TRC 1A
Lead sulfochromate yellow (C.I. Pigment Yellow 34)*** (CAS No.: 1344-37-2) (※5)	-	n.d.	CC 1B; TRC 1A
Acrylamide (CAS No.: 79-06-1)	0.05	n.d.	CC 1B; MC 1B

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Substance Name	RL (%)	Concentration of Article (%)	Classification
Boric acid*** (CAS No.: 10043-35-3; 11113-50-1)	-	n.d.	TRC 1B
Disodium tetraborate, anhydrous*** (CAS No.: 1303-96-4, 1330-43-4, 12179-04-3)	-	n.d.	TRC 1B
Tetraboron disodium heptaoxide, hydrate (CAS No.: 12267-73-1) (* 2)	-	n.d.	TRC 1B
Trichloroethylene (CAS No.: 79-01-6)	0.05	n.d.	CC 1B
Cobalt(II) sulphate*** (CAS No.: 10124-43-3)	-	N/A*	CC 1B; TRC 1B
Cobalt(II) dinitrate*** (CAS No.: 10141-05-6)	-	N/A*	CC 1B; TRC 1B
Cobalt(II) carbonate*** (CAS No.: 513-79-1)	-	N/A*	CC 1B; TRC 1B
Cobalt(II) diacetate*** (CAS No.: 71-48-7)	-	N/A*	CC 1B; TRC 1B
2-Methoxyethanol (CAS No.: 109-86-4)	0.05	n.d.	TRC 1B
2-Ethoxyethanol (CAS No.: 110-80-5)	0.05	n.d.	TRC 1B
2-ethoxyethyl acetate (CAS No.: 111-15-9)	0.05	n.d.	TRC 1B
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) (CAS No.: 68515-42-4)	0.05	n.d.	TRC 1B
Hydrazine (CAS No.: 7803-57-8; 302-01-2)	0.05	n.d.	CC 1B
1-methyl-2-pyrrolidone (CAS No.: 872-50-4)	0.05	n.d.	TRC 1B
1,2,3-trichloropropane (CAS No.: 96-18-4)	0.05	n.d.	CC 1B; TRC 1B
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) (CAS No.: 71888-89-6)	0.05	n.d.	TRC 1B
Arsenic acid*** (CAS No.: 7778-39-4)	-	n.d.	CC 1A
Calcium arsenate*** (CAS No.: 7778-44-1)	-	n.d.	CC 1A
Trilead diarsenate*** (CAS No.: 3687-31-8) (※1)	-	n.d.	CC 1A; TRC 1A
Lead diazide, Lead azide*** (CAS No.: 13424-46-9)	-	n.d.	TRC 1A
Lead styphnate*** (CAS No.: 15245-44-0)	-	n.d.	TRC 1A
Lead dipicrate*** (CAS No.: 6477-64-1)	-	n.d.	TRC 1A
Dichromium tris (chromate)*** (CAS No.: 24613-89-6)	-	n.d.	CC 1B
Potassium hydroxyoctaoxidizincatedi- chromate*** (CAS No.: 11103-86-9)	-	n.d.	CC 1A
Pentazinc chromate octahydroxide*** (CAS No.: 49663-84-5)	-	n.d.	CC 1A
Formaldehyde, oligomeric reaction products with aniline (technical MDA) (CAS No.: 25214-70-4)	0.05	n.d.	CC 1B
Bis(2-methoxyethyl) phthalate (CAS No.: 117-82-8)	0.05	n.d.	TRC 1B
2-Methoxyaniline; o-Anisidine (CAS No.: 90-04-0)	0.05	n.d.	CC 1B

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Substance Name	RL (%)	Concentration of Article (%)	Classification
4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-Octylphenol) (CAS No.: 140-66-9)	0.05	n.d.	EQC
1,2-Dichloroethane (CAS No.: 107-06-2)	0.05	n.d.	CC 1B
Bis(2-methoxyethyl) ether (CAS No.: 111-96-6)	0.05	n.d.	TRC 1B
N,N-dimethylacetamide (DMAC) (CAS No.: 127-19-5)	0.05	n.d.	TRC 1B
2,2'-dichloro- 4,4'-methylenedianiline (MOCA) (CAS No.: 101-14-4)	0.05	n.d.	CC 1B
Phenolphthalein (CAS No.: 77-09-8)	0.05	n.d.	CC 1B
Aluminosilicate, Refractory Ceramic Fibres 【oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges】	0.05	n.d.	CC 1B
Zirconia Aluminosilicate, Refractory Ceramic Fibres 【oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges】	0.05	n.d.	CC 1B
1,2-bis (2-methoxyethoxy) ethane (TEGDME; triglyme) (CAS No.: 112-49-2)	0.05	n.d.	TRC 1B
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (CAS No.: 110-71-4)	0.05	n.d.	TRC 1B
Formamide (CAS No.: 75-12-7)	0.05	n.d.	TRC 1B
Lead(II) bis(methanesulfonate)*** (CAS No.: 17570-76-2)	-	n.d.	TRC 1B
TGIC (1,3,5-tris(oxiranylmethyl)- 1,3,5-triazine-2,4,6 (1H,3H,5H)-trione) (CAS No.: 2451-62-9)	0.05	n.d.	MC 1B
β-TGIC (1,3,5-tris [(2S and 2R)-2,3-epoxypropyl]- 1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) (CAS No.: 59653-74-6) (※3)	0.05	n.d.	MC 1B
4,4'-bis (dimethylamino) benzophenone (Michler's ketone) (CAS No.: 90-94-8)	0.05	n.d.	CC 1B
N,N,N',N'-tetramethyl- 4,4'-methylenedianiline (Michler's base) (CAS No.: 101-61-1)	0.05	n.d.	CC 1B
[4-[4,4'-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3) (CAS No.: 548-62-9) [with ≥ 0.1% of Michler's ketone or Michler's base]	0.05	n.d.	CC 1B
[4-[[4-anilino-1-naphthyl] [4-(dimethylamino) phenyl] methylene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) (CAS No.: 2580-56-5) [with ≥ 0.1% of Michler's ketone or Michler's base]	0.05	n.d.	CC 1B

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Substance Name	RL (%)	Concentration of Article (%)	Classification
$\alpha,\alpha$ -Bis[4-(dimethylamino) phenyl]-4 (phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4) (CAS No.: 6786-83-0) [with $\geq 0.1\%$ of Michler's ketone or Michler's base]	0.05	n.d.	CC 1B
Diboron trioxide*** (CAS No.: 1303-86-2)	-	n.d.	TRC 1B
4,4'-bis (dimethylamino)-4''-(methylamino) trityl alcohol (CAS No.: 561-41-1) [with $\geq 0.1\%$ of Michler's ketone or Michler's base]	0.05	n.d.	CC 1B
Bis(pentabromophenyl) ether (DecaBDE) (CAS No.: 1163-19-5)	0.05	n.d.	PBT
Pentacosafuorotridecanoic acid (CAS No.: 72629-94-8)	0.05	n.d.	PBT
Tricosafuorododecanoic acid (CAS No.: 307-55-1)	0.05	n.d.	PBT
Henicosafuoroundecanoic acid (CAS No.: 2058-94-8)	0.05	n.d.	PBT
Heptacosafuorotetradecanoic acid (CAS No.: 376-06-7)	0.05	n.d.	PBT
4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated- covering well-defined substances and UVCB substances, polymers and homologues	0.05	n.d.	EQC
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	0.05	n.d.	EQC
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (CAS No.: 123-77-3)	0.05	n.d.	EQC
Cyclohexane-1,2-dicarboxylic anhydride (HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2- dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA) (CAS No.: 85-42-7, 13149-00-3, 14166-21-3)	0.05	n.d.	EQC
Hexahydromethylphthalic anhydride (CAS No.: 25550-51-0) Hexahydro-4-methylphthalic anhydride (CAS No.: 19438-60-9) Hexahydro-1-methylphthalic anhydride (CAS No.: 48122-14-1) Hexahydro-3-methylphthalic anhydride (CAS No.: 57110-29-9)	0.05	n.d.	EQC
Methoxy acetic acid (CAS No.: 625-45-6)	0.05	n.d.	TRC 1B
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (CAS No.: 84777-06-0)	0.05	n.d.	TRC 1B
Diisopentylphthalate (CAS No.: 605-50-5)	0.05	n.d.	TRC 1B
N-pentyl-isopentylphthalate (CAS No.: 776297-69-9)	0.05	n.d.	TRC 1B
1,2-Diethoxyethane (CAS No.: 629-14-1)	0.05	n.d.	TRC 1B
N,N-dimethylformamide; dimethyl formamide (CAS No.: 68-12-2)	0.05	n.d.	TRC 1B

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Substance Name	RL (%)	Concentration of Article (%)	Classification
Dibutyltin dichloride (DBTC)*** (CAS No.: 683-18-1)	-	n.d.	TRC 1B
Acetic acid, lead salt, basic*** (CAS No.: 51404-69-4)	-	n.d.	TRC 1A
Trilead bis(carbonate) dihydroxide (basic lead carbonate)*** (CAS No.: 1319-46-6)	-	n.d.	TRC 1A
Lead oxide sulfate*** (CAS No.: 12036-76-9)	-	n.d.	TRC 1A
[Phthalato(2-)] dioxotrilead*** (CAS No.: 69011-06-9)	-	n.d.	TRC 1A
Dioxobis(stearato) trilead*** (CAS No.: 12578-12-0)	-	n.d.	TRC 1A
Fatty acids, C16-18, lead salts*** (CAS No.: 91031-62-8)	-	n.d.	TRC 1A
Lead cyanamidate*** (CAS No.: 20837-86-9)	-	n.d.	TRC 1A
Lead dinitrate*** (CAS No.: 10099-74-8)	-	n.d.	TRC 1A
Lead oxide (lead monoxide)*** (CAS No.: 1317-36-8)	-	n.d.	TRC 1A
Lead tetroxide (orange lead)*** (CAS No.: 1314-41-6)	-	n.d.	TRC 1A
Pentalead tetraoxide sulphate*** (CAS No.: 12065-90-6)	-	n.d.	TRC 1A
Silicic acid, lead salt*** (CAS No.: 11120-22-2)	-	n.d.	TRC 1A
Sulfurous acid, lead salt, dibasic*** (CAS No.: 62229-08-7)	-	n.d.	TRC 1A
Tetraethyllead*** (CAS No.: 78-00-2)	-	n.d.	TRC 1A
Tetralead trioxide sulphate*** (CAS No.: 12202-17-4)	-	n.d.	TRC 1A
Lead bis(tetrafluoroborate)*** (CAS No.: 13814-96-5)	-	n.d.	TRC 1A
Lead titanium trioxide*** (CAS No.: 12060-00-3)	-	n.d.	TRC 1A
Lead Titanium Zirconium Oxide*** (CAS No.: 12626-81-2)	-	n.d.	TRC 1A
Pyrochlore, antimony lead yellow*** (CAS No.: 8012-00-8)	-	n.d.	TRC 1A
Trilead dioxide phosphonate*** (CAS No.: 12141-20-7)	-	n.d.	TRC 1A
Silicic acid, barium salt, lead-doped (※4) (CAS No.: 68784-75-8)	0.05	n.d.	TRC 1A
Furan (CAS No.: 110-00-9)	0.05	n.d.	CC 1B
Propylene oxide; 1,2-epoxypropane; methyloxirane (CAS No.: 75-56-9)	0.05	n.d.	CC 1B; MC 1B
Diethyl sulphate (CAS No.: 64-67-5)	0.05	n.d.	CC 1B; MC 1B
Dimethyl sulphate (CAS No.: 77-78-1)	0.05	n.d.	CC 1B
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine (CAS No.: 143860-04-2)	0.05	n.d.	TRC 1B
Dinoseb (CAS No.: 88-85-7)	0.05	n.d.	TRC 1B
4,4'-methylenedi-o-toluidine (CAS No.: 838-88-0)	0.05	n.d.	CC 1B
4,4'-oxydianiline and its salts (CAS No.: 101-80-4)	0.05	n.d.	CC 1B; MC 1B
4-Aminoazobenzene; 4-Phenylazoaniline (CAS No.: 60-09-3)	0.05	n.d.	CC 1B

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Substance Name	RL (%)	Concentration of Article (%)	Classification
4-methyl-m-phenylenediamine (2,4-toluenediamine) (CAS No.: 95-80-7)	0.05	n.d.	CC 1B
6-methoxy-m-toluidine (p-cresidine) (CAS No.: 120-71-8)	0.05	n.d.	CC 1B
Biphenyl-4-ylamine (CAS No.: 92-67-1)	0.05	n.d.	CC 1A
o-aminoazotoluene (CAS No.: 97-56-3)	0.05	n.d.	CC 1B
o-Toluidine; 2-Aminotoluene (CAS No.: 95-53-4)	0.05	n.d.	CC 1B
N-methylacetamide (CAS No.: 79-16-3)	0.05	n.d.	TRC 1B
1-bromopropane (CAS No.: 106-94-5)	0.05	n.d.	TRC 1B
Pentadecafluorooctanoic acid (PFOA) (CAS No.: 335-67-1)	0.05	n.d.	TRC 1B & PBT
Ammoniumpentadecafluorooctanoate (APFO)*** (CAS No.: 3825-26-1)	-	n.d.	TRC 1B & PBT
Cadmium (Cd) (CAS No.: 7440-43-9)	0.005	n.d.	CC 1B & EQC
Cadmium oxide*** (CAS No.: 1306-19-0)	-	n.d.	CC 1B & EQC
Dipentyl phthalate (CAS No.: 131-18-0)	0.05	n.d.	TRC 1B
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]	0.05	n.d.	EQC
Dihexyl phthalate (CAS No.: 84-75-3)	0.05	n.d.	TRC 1B
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) (CAS No.: 573-58-0)	0.05	n.d.	CC 1B
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) (CAS No.: 1937-37-7)	0.05	n.d.	CC 1B
Imidazolidine-2-thione; 2-imidazoline-2-thiol (CAS No.: 96-45-7)	0.05	n.d.	TRC 1B
Trixylyl phosphate (CAS No.: 25155-23-1)	0.05	n.d.	TRC 1B
Cadmium sulphide*** (CAS No.: 1306-23-6)	-	n.d.	CC 1B & EQC
Lead di(acetate)*** (CAS No.: 301-04-2)	-	n.d.	TRC 1A
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (CAS No.: 68515-50-4)	0.05	n.d.	TRC 1B
Cadmium chloride*** (CAS No.: 10108-64-2)	-	n.d.	CC 1B; MC 1B; TRC 1B; EQC
Sodium perborate; perboric acid, sodium salt***	-	n.d.	TRC 1B
Sodium peroxometaborate*** (CAS No.: 7632-04-4)	-	n.d.	TRC 1B
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) (CAS No.: 25973-55-1)	0.05	n.d.	vPvB & PBT

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Substance Name	RL (%)	Concentration of Article (%)	Classification
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) (CAS No.: 3846-71-7)	0.05	n.d.	vPvB & PBT
Cadmium fluoride*** (CAS No.: 7790-79-6)	-	n.d.	CC 1B; MC 1B; TRC 1B; EQC
Cadmium sulphate*** (CAS No.: 10124-36-4; 31119-53-6)	-	n.d.	CC 1B; MC 1B; TRC 1B; EQC
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)*** (CAS No.: 15571-58-1)	-	n.d.	TRC 1B
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)***	-	n.d.	TRC 1B
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 (CAS No.: 68515-51-5; 68648-93-1)	0.05	n.d.	TRC 1B
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]	0.05	n.d.	EQC

## Note :

1. mg/kg = ppm; 0.1wt% = 1000ppm
2. n.d.= not detected = below Reporting Limit
3. RL = Reporting Limit
4. " - " = Not Regulated
5. (\* 1): Oligomers of chromic acid and dichromic acid : since the oligomers are made of the unknown amount of chromic acid or dichromic acid that results in no fixed molecular weight, therefore the monomer of chromic acid or dichromic acid is relevant and considered.
6. (\* 2): Tetraboron disodium heptaoxide, hydrate: Only anhydrous form of disodium tetraborate is relevant and considered according to ECHA explanation (Ref no.: INC 000000032519).

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7. \*\*\*: The substance was calculated by the test results of MonoctylTin, Dioctyl Tin, Tributyl Tin, Dibutyl Tin, PFOA or element (Ex. Arsenic, Lead, Cr(VI), Boron, Cobalt, Barium, Cadmium respectively).

**The test result is given as:**

Substance Name	RL (%)	Concentration of Article (%)
Tributyl Tin (TBT)	0.05	n.d.
Arsenic (As) (※2)	0.005	n.d.
Lead (Pb)	0.005	n.d.
Hexavalent Chromium Cr(VI)	0.005	n.d.
Boron (B) (※2)	0.005	n.d.
Cobalt (Co)	0.005	0.0141
Dioctyl Tin (DOT)	0.0230	n.d.
MonoctylTin (MOT)	0.0138	n.d.
Dibutyl Tin (DBT)	0.05	n.d.

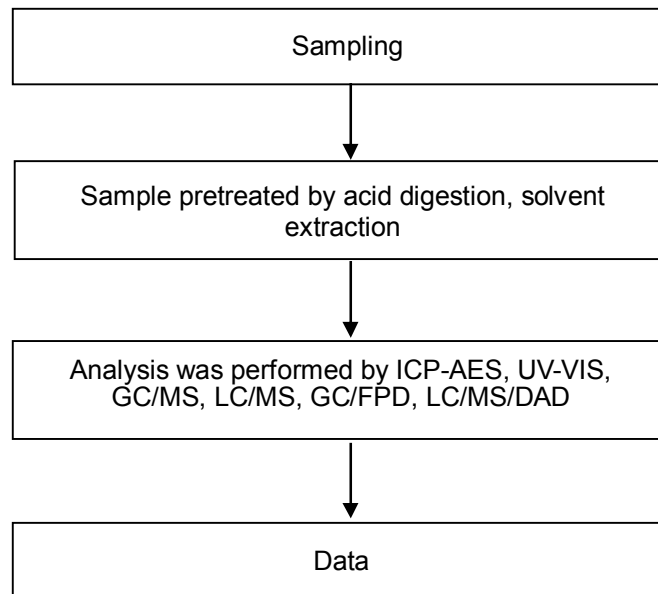
8. (※1): Regarding the compound containing arsenic and lead, lead and arsenic are tested and respectively used for the calculation of the independent concentration of the compound containing arsenic and lead. The minimum value of the two independently calculated concentrations is used as the final concentration for the report.
9. F Parameter Conversion Table : Please refer to [http://twap.sgs.com/sgsrsts/chn/download-REACH\\_tw.asp](http://twap.sgs.com/sgsrsts/chn/download-REACH_tw.asp)
10. Classification : Please refer to [http://twap.sgs.com/sgsrsts/chn/download-REACH\\_tw.asp](http://twap.sgs.com/sgsrsts/chn/download-REACH_tw.asp)
11. (\*): conc. of Sodium dichromate dihydrate (CAS No.: 7789-12-0) = conc. of sodium dichromate × 1.1374
12. (\*\*): The concentrations of above-mentioned mixtures are evaluated per the gained composition rate between the selected marks and the mixtures.
13. (※2): The extracted soluble Boron / Arsenic are detected by ICP-AES.
14. (※3): TGIC is a mixture and also contains β-TGIC. According to the ECHA's technical dossier the ratio of β-TGIC to TGIC is around 1 to 10. Therefore β-TGIC is issued based on the above-mentioned ratio.
15. (※4): Only if both qualitative results of lead and silicon are positive, the test result of the compound will be calculated based on the concentration of barium.
16. (※5): Regarding the compound containing Cr(VI) and lead, lead and Cr(VI) are tested and respectively used for the calculation of the independent concentration of the compound containing Cr(VI) and lead. The minimum value of the two independently calculated concentrations is used as the final concentration for the report.
17. N/A\* = Not Applicable to direct analysis. The item can't directly be identified. Therefore the specific element(s) of SVHC was analysed according to the recommendation from the ECHA. The submitted sample was found to contain detectable amount of specific element(s) of SVHC. Upon further test verification or information provided from the client, the source of the detectable specific element(s) can't be identified from SVHC. Therefore the test result is expressed as N/A\*.

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### Analytical flow chart of SVHC

- Name of the person who made measurement: Roy Lin, JR Wang
- Name of the person in charge of measurement: Troy Chang



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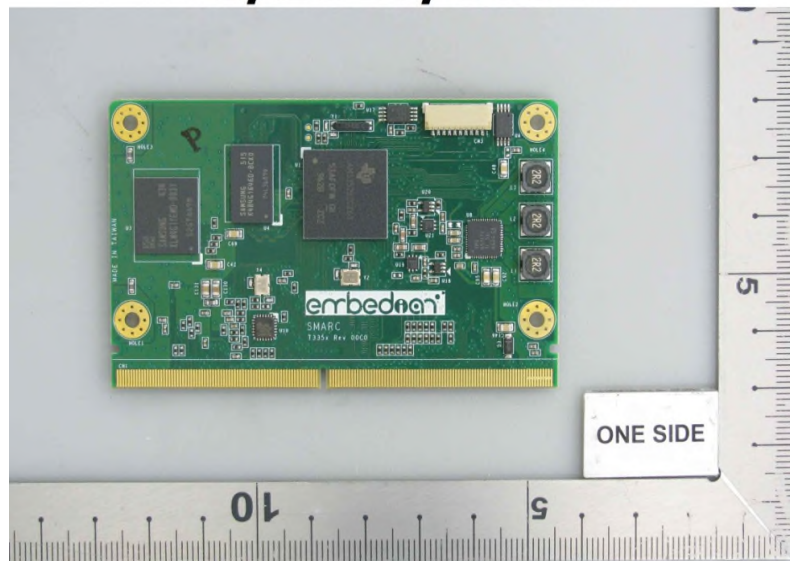
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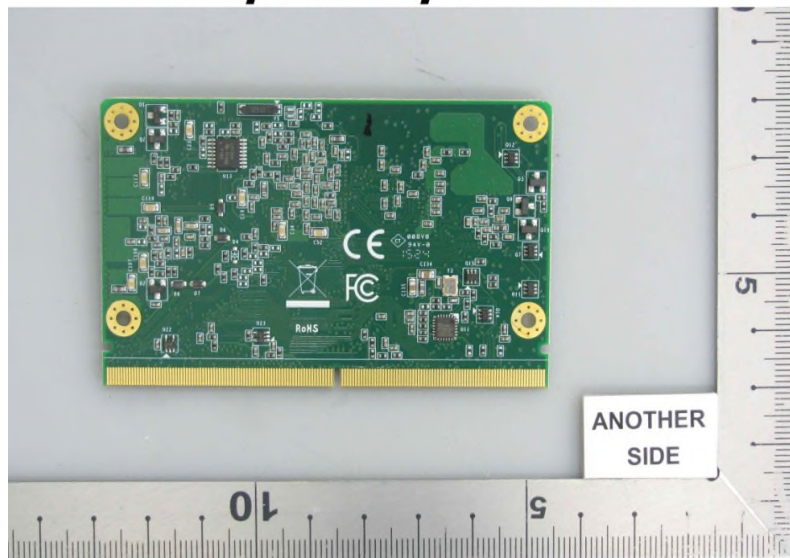


\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

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\*\* End of Report \*\*

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