

Test Report (SVHC)

No. SHAEC1903854301

Date: 12 Mar 2019

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MICRODIODE ELECTRONICS (JIANGSU)CO.,LTD

2 XINSHENG ROAD,XINGSHENG VILLAGE,CHUNJIANG TOWN,XINBEI DISTRICT,CHANGZHOU,JIANGSU PROVINCE CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : DIODE

SGS Job No. : SP19-006381 - SH

Model No. : S2MF

Client Ref. Information : SMA SMB SMC HSMA HSMB HSMC SMAG SMBG SMCG SMAF SMBF SMCF
SOD-123 SOD-123FL SOD-123SL SOD-323 SOD-323FL SOD-523 SOD-723
SOD-923 DFN QFN SOT-23 SOT-323 SOT-523 SOT-353 SOT-363 SOT-563
SOT-553 SOT-723 SOT-23-6L SOT-89 MELF MINI-MELF D-PAK D2-PAK ,
D2-PAK DO-218AB R-1 A-405 DO-35 DO-41 DO-15 R-3 DO-201AD R-6
TO-220AC TO-220AB ITO-220AC ITO-220AB TO-277A TO-277B TO-247
TO-3P TO-251 TO-252 TO-263 TO-92

BRIDGE:UMB MB-S MBF DBS ABF CDS ABS TBS LBF UMSB TMBF MB-M
DB-1 WOM KBP KBP-K D3K KBL KBU RS GBP GBL GBU KBJ GBJ KBPC
KBPC-W GBPC GBPC-W

Country of Origin : CHINA

Date of Sample Received : 06 Mar 2019

Testing Period : 06 Mar 2019 - 12 Mar 2019

Test Requested : As requested by client, SVHC screening is performed according to:
(i) One hundred and ninety seven (197) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before Jan 15, 2019 regarding Regulation (EC) No 1907/2006 concerning the REACH.
(ii) Additional One (1) Substances of Very High Concern (SVHC) identified by the notification of WTO on Feb 7, 2019.

Test Results : Please refer to next page(s).

Summary :

| | |
|---|---|
| According to the ruling of the Court of Justice of the European Union on the definition of an article under REACH, and the specified scope and evaluation screening, the test results of SVHC are > 0.1% (w/w) in the articles of the submitted sample. | See remark 2 for obligation under REACH |
|---|---|



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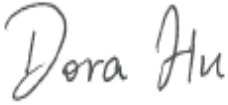
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Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Dora Hu
Approved Signatory



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Remark :

1. The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA: <http://echa.europa.eu/web/guest/candidate-list-table>
These lists are under evaluation by ECHA and may subject to change in the future.
2. REACH obligation:
 - 2.1 Concerning article(s):
Communication:
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 in the Candidate List.

Notification:

In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 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 in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

SGS adopts the ruling of the Court of Justice of the European Union on the definition of an article under REACH unless indicated otherwise. Detail explanation is available at the following link:

<http://www.sgs.com/-/media/global/documents/technical-documents/technical-bulletins/sgs-crs-position-statement-on-svhc-in-articles-a4-en-16-06.pdf?la=en>

2.2 Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

2.3 Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and its amendments, client is suggested to prepare a Safety



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Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

- a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.
- a mixture that is classified as hazardous under the CLP Regulation (EC) No 1272/2008, when it contains a substance with concentration equal to, or greater than the classification limit as set in Regulation (EC) No. 1272/2008; or
- a mixture is not classified as hazardous under the CLP Regulation (EC) No 1272/2008, but contains either:
 - (a) a substance posing human health or environmental hazards in an individual concentration of $\geq 1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or $\geq 0.2\%$ by volume for gaseous mixtures; or
 - (b) a substance that is PBT, or vPvB in an individual concentration of $\geq 0.1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
 - (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of $\geq 0.1\%$ by weight for non-gaseous mixtures; or
 - (d) a substance for which there are Europe-wide workplace exposure limits.

3. 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 Sample :

Sample Description :

| Specimen No. | SGS Sample ID | Description |
|--------------|------------------|-----------------------------|
| SN1 | SHA19-038543.001 | Electronic components group |

Test Method :

SGS In-House method-SHTC-CHEM-SOP-97-T, SHTC-CHEM-SOP-302-T, Analyzed by ICP-OES, UV-VIS, GC-MS, HPLC-DAD/MS and Colorimetric Method.



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Test Result: (Substances in the Candidate List of SVHC)

| Batch | Substance Name | CAS No. | 001 Concentration (%) | RL (%) |
|-------|---|------------|--------------------------|--------|
| VIII | Lead cyanamidate* | 20837-86-9 | 1.261 | 0.010 |
| VIII | Lead dinitrate* | 10099-74-8 | 1.676 | 0.010 |
| VIII | Lead monoxide* | 1317-36-8 | 1.129 | 0.010 |
| VIII | Lead oxide sulfate* | 12036-76-9 | 1.332 | 0.010 |
| VIII | Lead tetroxide (orange lead)* | 1314-41-6 | 1.156 | 0.010 |
| VIII | Sulfurous acid, lead salt, dibasic* | 62229-08-7 | 1.337 | 0.010 |
| VIII | Tetralead trioxide sulphate* | 12202-17-4 | 1.231 | 0.010 |
| VIII | Trilead bis(carbonate)dihydroxide (basic lead carbonate)* | 1319-46-6 | 1.309 | 0.010 |
| X | Lead di(acetate)* | 301-04-2 | 1.646 | 0.010 |
| XIX | Lead* | 7439-92-1 | 1.048 | 0.01 |
| - | Other tested SVHC in candidate list | - | ND | - |

Test Result:(Additional SVHC)

| Batch | Substance Name | CAS No. | 001 Concentration (%) | RL (%) |
|-------|-----------------|---------|--------------------------|--------|
| - | All tested SVHC | - | ND | - |



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Notes :

- (1) The table above only shows detected SVHC, and SVHC that below RL are not reported. Please refer to Appendix for the full list of tested SVHC.
- (2) RL = Reporting Limit. All RL are based on homogenous material
ND = Not detected (lower than RL), ND is denoted on the SVHC substance.
- (3) Δ CAS No. of diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD): 134237-50-6, 134237-51-7, 134237-52-8
 \star CAS No. of Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride: 25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9; EC No. of those: 247-094-1, 243-072-0, 256-356-4, 260-566-1.
- (4) * The test result is based on the calculation of selected element(s) and to the worst-case scenario.
 ** The test result is based on the calculation of selected marker(s) and to the worst-case scenario.
 For detail information, please refer to the SGS REACH website:

<http://www.sgs.com/en/Consumer-Goods-Retail/Toys-and-Juvenile-Products/Toys/REACH/Management-of-SVHC.aspx>

Calculated concentration of boric compounds are based on the total boron for liquid, powder and paste samples and water extractive boron for other samples by ICP-OES.

RL = 0.01% is evaluated for element (i.e. cobalt, arsenic, lead, chromium (VI), aluminum, zirconium, boron, strontium, zinc, antimony, titanium, barium and cadmium respectively), except molybdenum RL=0.001%, boron RL=0.005% (only for Lead bis(tetrafluoroborate)), chromium (VI) RL=0.005% (only for Pentazinc chromate octahydroxide).

- (5) \S The substance is proposed for the identification as SVHC only where it contains Michler's ketone (CAS Number: 90-94-8) or Michler's base (CAS Number: 101-61-1) $\geq 0.1\%$ (w/w).
- (6) Composite test has been performed in equal proportion for the components/material per client requested. And the result is calculated using the minimum sample weight.
- (7) In consideration of the analysis requirement and the limit of sample volume, the screening test for the article is based on components / material enough to test.
- (8) Add. = Additional identified SVHC



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Appendix

Full list of tested SVHC:

| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|---|---------------------------|--------|
| I | 1 | 4,4' -Diaminodiphenylmethane(MDA) | 101-77-9 | 0.100 |
| I | 2 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) | 81-15-2 | 0.100 |
| I | 3 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) | 85535-84-8 | 0.100 |
| I | 4 | Anthracene | 120-12-7 | 0.100 |
| I | 5 | Benzyl butyl phthalate (BBP) | 85-68-7 | 0.100 |
| I | 6 | Bis (2-ethylhexyl)phthalate (DEHP) | 117-81-7 | 0.100 |
| I | 7 | Bis(tributyltin)oxide (TBTO) | 56-35-9 | 0.100 |
| I | 8 | Cobalt dichloride* | 7646-79-9 | 0.010 |
| I | 9 | Diarsenic pentaoxide* | 1303-28-2 | 0.010 |
| I | 10 | Diarsenic trioxide* | 1327-53-3 | 0.010 |
| I | 11 | Dibutyl phthalate (DBP) | 84-74-2 | 0.100 |
| I | 12 | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) [△] | 25637-99-4, 3194- 55-6 | 0.100 |
| I | 13 | Lead hydrogen arsenate* | 7784-40-9 | 0.010 |
| I | 14 | Sodium dichromate* | 7789-12-0, 10588-01-9 | 0.010 |
| I | 15 | Triethyl arsenate* | 15606-95-8 | 0.010 |
| II | 16 | 2,4-Dinitrotoluene | 121-14-2 | 0.100 |
| II | 17 | Acrylamide | 79-06-1 | 0.100 |
| II | 18 | Anthracene oil** | 90640-80-5 | 0.100 |
| II | 19 | Anthracene oil, anthracene paste** | 90640-81-6 | 0.100 |
| II | 20 | Anthracene oil, anthracene paste, anthracene fraction** | 91995-15-2 | 0.100 |



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Appendix

Full list of tested SVHC:

| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|---|--|--------|
| II | 21 | Anthracene oil, anthracene paste, distn. lights** | 91995-17-4 | 0.100 |
| II | 22 | Anthracene oil, anthracene-low** | 90640-82-7 | 0.100 |
| II | 23 | Diisobutyl phthalate | 84-69-5 | 0.100 |
| II | 24 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104)* | 12656-85-8 | 0.010 |
| II | 25 | Lead chromate* | 7758-97-6 | 0.010 |
| II | 26 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)* | 1344-37-2 | 0.010 |
| II | 27 | Pitch, coal tar, high temp.** | 65996-93-2 | 0.100 |
| II | 28 | Tris(2-chloroethyl)phosphate | 115-96-8 | 0.100 |
| III | 29 | Ammonium dichromate* | 7789-09-5 | 0.010 |
| III | 30 | Boric acid* | 10043-35-3, 11113-50-1 | 0.010 |
| III | 31 | Disodium tetraborate, anhydrous* | 1303-96-4, 1330-43-4, 12179-04-3 | 0.010 |
| III | 32 | Potassium chromate* | 7789-00-6 | 0.010 |
| III | 33 | Potassium dichromate* | 7778-50-9 | 0.010 |
| III | 34 | Sodium chromate* | 7775-11-3 | 0.010 |
| III | 35 | Tetraboron disodium heptaoxide, hydrate* | 12267-73-1 | 0.010 |
| III | 36 | Trichloroethylene | 79-01-6 | 0.100 |
| IV | 37 | 2-Ethoxyethanol | 110-80-5 | 0.100 |
| IV | 38 | 2-Methoxyethanol | 109-86-4 | 0.100 |
| IV | 39 | Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid* | 7738-94-5 - 13530-68-2 | 0.010 |



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Full list of tested SVHC:

| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|---|-----------------------------|--------|
| IV | 40 | Chromium trioxide* | 1333-82-0 | 0.010 |
| IV | 41 | Cobalt(II) carbonate* | 513-79-1 | 0.010 |
| IV | 42 | Cobalt(II) diacetate* | 71-48-7 | 0.010 |
| IV | 43 | Cobalt(II) dinitrate* | 10141-05-6 | 0.010 |
| IV | 44 | Cobalt(II) sulphate* | 10124-43-3 | 0.010 |
| V | 45 | 1,2,3-trichloropropane | 96-18-4 | 0.100 |
| V | 46 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich | 71888-89-6 | 0.100 |
| V | 47 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | 68515-42-4 | 0.100 |
| V | 48 | 1-methyl-2-pyrrolidone | 872-50-4 | 0.100 |
| V | 49 | 2-ethoxyethyl acetate | 111-15-9 | 0.100 |
| V | 50 | Hydrazine | 7803-57-8, 302-01-2 | 0.100 |
| V | 51 | Strontium chromate* | 7789-06-2 | 0.010 |
| VI | 52 | 1,2-Dichloroethane | 107-06-2 | 0.100 |
| VI | 53 | 2,2'-dichloro-4,4'-methylenedianiline | 101-14-4 | 0.100 |
| VI | 54 | 2-Methoxyaniline; o-Anisidine | 90-04-0 | 0.100 |
| VI | 55 | 4-(1,1,3,3-tetramethylbutyl)phenol | 140-66-9 | 0.100 |
| VI | 56 | Aluminosilicate Refractory Ceramic Fibres * | 650-017-00-8 (Index no.) | 0.010 |
| VI | 57 | Arsenic acid* | 7778-39-4 | 0.010 |
| VI | 58 | Bis(2-methoxyethyl) ether | 111-96-6 | 0.100 |
| VI | 59 | Bis(2-methoxyethyl) phthalate | 117-82-8 | 0.100 |



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Appendix

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| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|--|--------------|--------|
| VI | 60 | Calcium arsenate* | 7778-44-1 | 0.010 |
| VI | 61 | Dichromium tris(chromate) * | 24613-89-6 | 0.010 |
| VI | 62 | Formaldehyde, oligomeric reaction products with aniline | 25214-70-4 | 0.100 |
| VI | 63 | Lead diazide, Lead azide* | 13424-46-9 | 0.010 |
| VI | 64 | Lead dipicrate* | 6477-64-1 | 0.010 |
| VI | 65 | Lead styphnate* | 15245-44-0 | 0.010 |
| VI | 66 | N,N-dimethylacetamide | 127-19-5 | 0.100 |
| VI | 67 | Pentazinc chromate octahydroxide* | 49663-84-5 | 0.010 |
| VI | 68 | Phenolphthalein | 77-09-8 | 0.100 |
| VI | 69 | Potassium hydroxyoctaoxodizincatedichromate* | 11103-86-9 | 0.010 |
| VI | 70 | Trilead diarsenate* | 3687-31-8 | 0.010 |
| VI | 71 | Zirconia Aluminosilicate Refractory Ceramic Fibres* (Index no.) | 650-017-00-8 | 0.010 |
| VII | 72 | [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 | 0.100 |
| VII | 73 | [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylamm onium chloride (C.I. Basic Violet 3)§ | 548-62-9 | 0.100 |
| VII | 74 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme) | 112-49-2 | 0.100 |
| VII | 75 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4 | 0.100 |
| VII | 76 | 4,4'-bis(dimethylamino) benzophenone (Michler's Ketone) | 90-94-8 | 0.100 |
| VII | 77 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol§ | 561-41-1 | 0.100 |
| VII | 78 | Diboron trioxide* | 1303-86-2 | 0.010 |



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|-------|-----|---|-------------|--------|
| VII | 79 | Formamide | 75-12-7 | 0.100 |
| VII | 80 | Lead(II) bis(methanesulfonate)* | 17570-76-2 | 0.010 |
| VII | 81 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) | 101-61-1 | 0.100 |
| VII | 82 | TGIC (1,3,5-tris (oxiranylmethyl) -1,3,5-triazine-2,4,6(1H,3H,5H)-trione) | 2451-62-9 | 0.100 |
| VII | 83 | α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) § | 6786-83-0 | 0.100 |
| VII | 84 | β -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 | 0.100 |
| VIII | 85 | [Phthalato(2-)]dioxotrilead* | 69011-06-9 | 0.010 |
| VIII | 86 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear | 84777-06-0 | 0.100 |
| VIII | 87 | 1,2-Diethoxyethane | 629-14-1 | 0.100 |
| VIII | 88 | 1-Bromopropane | 106-94-5 | 0.100 |
| VIII | 89 | 3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 143860-04-2 | 0.100 |
| VIII | 90 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated | - | 0.100 |
| VIII | 91 | 4,4'-Methylenedi-o-toluidine | 838-88-0 | 0.100 |
| VIII | 92 | 4,4'-Oxydianiline and its salts | 101-80-4 | 0.100 |
| VIII | 93 | 4-Aminoazobenzene | 60-09-3 | 0.100 |
| VIII | 94 | 4-Methyl-m-phenylenediamine | 95-80-7 | 0.100 |
| VIII | 95 | 4-Nonylphenol, branched and linear | - | 0.100 |
| VIII | 96 | 6-Methoxy-m-toluidine | 120-71-8 | 0.100 |
| VIII | 97 | Acetic acid, lead salt, basic* | 51404-69-4 | 0.010 |



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| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|--|---------------------------------------|--------|
| VIII | 98 | Biphenyl-4-ylamine | 92-67-1 | 0.100 |
| VIII | 99 | Bis(pentabromophenyl) ether (DecaBDE) | 1163-19-5 | 0.100 |
| VIII | 100 | Cyclohexane-1,2-dicarboxylic anhydride, cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride | 85-42-7, 13149-00-3, 14166-21-3 | 0.100 |
| VIII | 101 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) | 123-77-3 | 0.100 |
| VIII | 102 | Dibutyltin dichloride (DBTC) | 683-18-1 | 0.100 |
| VIII | 103 | Diethyl sulphate | 64-67-5 | 0.100 |
| VIII | 104 | Diisopentylphthalate | 605-50-5 | 0.100 |
| VIII | 105 | Dimethyl sulphate | 77-78-1 | 0.100 |
| VIII | 106 | Dinoseb | 88-85-7 | 0.100 |
| VIII | 107 | Dioxobis(stearato)trilead* | 12578-12-0 | 0.010 |
| VIII | 108 | Fatty acids, C16-18, lead salts* | 91031-62-8 | 0.010 |
| VIII | 109 | Furan | 110-00-9 | 0.100 |
| VIII | 110 | Henicosafuoroundecanoic acid | 2058-94-8 | 0.100 |
| VIII | 111 | Heptacosafuorotetradecanoic acid | 376-06-7 | 0.100 |
| VIII | 112 | Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride | ☆ | 0.100 |
| VIII | 113 | Lead bis(tetrafluoroborate)* | 13814-96-5 | 0.010 |
| VIII | 114 | Lead cyanamidate* | 20837-86-9 | 0.010 |
| VIII | 115 | Lead dinitrate* | 10099-74-8 | 0.010 |
| VIII | 116 | Lead monoxide* | 1317-36-8 | 0.010 |



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| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|---|-------------|--------|
| VIII | 117 | Lead oxide sulfate* | 12036-76-9 | 0.010 |
| VIII | 118 | Lead tetroxide (orange lead)* | 1314-41-6 | 0.010 |
| VIII | 119 | Lead titanium trioxide* | 12060-00-3 | 0.010 |
| VIII | 120 | Lead titanium zirconium oxide* | 12626-81-2 | 0.010 |
| VIII | 121 | Methoxyacetic acid | 625-45-6 | 0.100 |
| VIII | 122 | Methyloxirane (Propylene oxide) | 75-56-9 | 0.100 |
| VIII | 123 | N,N-dimethylformamide | 68-12-2 | 0.100 |
| VIII | 124 | N-Methylacetamide | 79-16-3 | 0.100 |
| VIII | 125 | N-Pentyl-isopentylphthalate | 776297-69-9 | 0.100 |
| VIII | 126 | o-Aminoazotoluene | 97-56-3 | 0.100 |
| VIII | 127 | o-Toluidine | 95-53-4 | 0.100 |
| VIII | 128 | Pentacosfluorotridecanoic acid | 72629-94-8 | 0.100 |
| VIII | 129 | Pentalead tetraoxide sulphate* | 12065-90-6 | 0.010 |
| VIII | 130 | Pyrochlore, antimony lead yellow* | 8012-00-8 | 0.010 |
| VIII | 131 | Silicic acid, barium salt, lead-doped* | 68784-75-8 | 0.010 |
| VIII | 132 | Silicic acid, lead salt* | 11120-22-2 | 0.010 |
| VIII | 133 | Sulfurous acid, lead salt, dibasic* | 62229-08-7 | 0.010 |
| VIII | 134 | Tetraethyllead* | 78-00-2 | 0.010 |
| VIII | 135 | Tetralead trioxide sulphate* | 12202-17-4 | 0.010 |
| VIII | 136 | Tricosfluorododecanoic acid | 307-55-1 | 0.100 |
| VIII | 137 | Trilead bis(carbonate)dihydroxide (basic lead carbonate)* | 1319-46-6 | 0.010 |



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|-------|-----|--|------------|--------|
| VIII | 138 | Trilead dioxide phosphonate* | 12141-20-7 | 0.010 |
| IX | 139 | 4-Nonylphenol, branched and linear, ethoxylated | - | 0.100 |
| IX | 140 | Ammonium pentadecafluorooctanoate (APFO)** | 3825-26-1 | 0.100 |
| IX | 141 | Cadmium oxide* | 1306-19-0 | 0.010 |
| IX | 142 | Cadmium* | 7440-43-9 | 0.010 |
| IX | 143 | Dipentyl phthalate (DPP) | 131-18-0 | 0.100 |
| IX | 144 | Pentadecafluorooctanoic acid (PFOA) | 335-67-1 | 0.100 |
| X | 145 | Cadmium sulphide* | 1306-23-6 | 0.010 |
| X | 146 | Dihexyl phthalate | 84-75-3 | 0.100 |
| X | 147 | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) | 573-58-0 | 0.100 |
| X | 148 | 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 | 0.100 |
| X | 149 | Imidazolidine-2-thione; (2-imidazoline-2-thiol) | 96-45-7 | 0.100 |
| X | 150 | Lead di(acetate)* | 301-04-2 | 0.010 |
| X | 151 | Trixylyl phosphate | 25155-23-1 | 0.100 |
| XI | 152 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | 68515-50-4 | 0.100 |
| XI | 153 | Cadmium chloride* | 10108-64-2 | 0.010 |
| XI | 154 | Sodium perborate; perboric acid, sodium salt* | - | 0.010 |
| XI | 155 | Sodium peroxometaborate* | 7632-04-4 | 0.010 |
| XII | 156 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) | 25973-55-1 | 0.100 |



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| XII | 157 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) | 3846-71-7 | 0.100 |
| XII | 158 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) | 15571-58-1 | 0.100 |
| XII | 159 | Cadmium fluoride* | 7790-79-6 | 0.010 |
| XII | 160 | Cadmium sulphate* | 10124-36-4,31119-53-6 | 0.010 |
| XII | 161 | Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate & 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 & MOTE) | - | 0.100 |
| XIII | 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 | 68515-51-5,68648-93-1 | 0.100 |
| XIII | 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] | - | 0.100 |
| XIV | 164 | 1,3-propanesultone | 1120-71-4 | 0.100 |
| XIV | 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327) | 3864-99-1 | 0.100 |
| XIV | 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) | 36437-37-3 | 0.100 |
| XIV | 167 | Nitrobenzene | 98-95-3 | 0.100 |
| XIV | 168 | Perfluorononan-1-ic-acid and its sodium and ammonium salts | 375-95-1,21049-39-8,4149-60-4 | 0.100 |
| XV | 169 | Benzo[def]chrysene (Benzo[a]pyrene) | 50-32-8 | 0.100 |
| XVI | 170 | 4,4'-isopropylidenediphenol (bisphenol A) | 80-05-7 | 0.100 |



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Test Report (SVHC)

No. SHAEC1903854301

Date: 12 Mar 2019

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Appendix

Full list of tested SVHC:

| Batch | No. | Substance Name | CAS No. | RL (%) |
|-------|-----|--|------------------------------------|--------|
| XVI | 171 | 4-Heptylphenol, branched and linear | - | 0.100 |
| XVI | 172 | Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts | 3108-42-7 335-76-2 3830-45-3 | 0.100 |
| XVI | 173 | p-(1,1-dimethylpropyl)phenol | 80-46-6 | 0.100 |
| XVII | 174 | Perfluorohexane-1-sulphonic acid and its salts | - | 0.100 |
| XVIII | 175 | 1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus" TM) [covering any of its individual anti- and syn-isomers or any combination thereof] | - | 0.100 |
| XVIII | 176 | Benz[a]anthracene | 56-55-3, 1718-53-2 | 0.100 |
| XVIII | 177 | Cadmium nitrate* | 10022-68-1, 10325-94-7 | 0.010 |
| XVIII | 178 | Cadmium carbonate* | 513-78-0 | 0.010 |
| XVIII | 179 | Cadmium hydroxide* | 21041-95-2 | 0.010 |
| XVIII | 180 | Chrysene | 218-01-9, 1719-03-5 | 0.100 |
| XVIII | 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] | - | 0.100 |
| XIX | 182 | Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride) | 552-30-7 | 0.100 |
| XIX | 183 | Benzo[ghi]perylene | 191-24-2 | 0.100 |
| XIX | 184 | Decamethylcyclopentasiloxane (D5) | 541-02-6 | 0.100 |
| XIX | 185 | Dicyclohexyl phthalate (DCHP) | 84-61-7 | 0.100 |
| XIX | 186 | Disodium octaborate* | 12008-41-2 | 0.010 |
| XIX | 187 | Dodecamethylcyclohexasiloxane (D6) | 540-97-6 | 0.100 |



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|-------|-----|---|-------------------------|--------|
| XIX | 188 | Ethylenediamine (EDA) | 107-15-3 | 0.100 |
| XIX | 189 | Lead* | 7439-92-1 | 0.01 |
| XIX | 190 | Octamethylcyclotetrasiloxane (D4) | 556-67-2 | 0.100 |
| XIX | 191 | Terphenyl, hydrogenated | 61788-32-7 | 0.100 |
| XX | 192 | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor) | 15087-24-8 | 0.100 |
| XX | 193 | 2,2-bis(4'-hydroxyphenyl)-4-methylpentane | 6807-17-6 | 0.100 |
| XX | 194 | Benzo[k]fluoranthene | 207-08-9 | 0.100 |
| XX | 195 | Fluoranthene | 206-44-0, 93951-69-0 | 0.100 |
| XX | 196 | Phenanthrene | 85-01-8 | 0.100 |
| XX | 197 | Pyrene | 129-00-0, 1718-52-1 | 0.100 |
| Add. | 198 | 4-tert-butylphenol (PTBP) | 98-54-4 | 0.100 |



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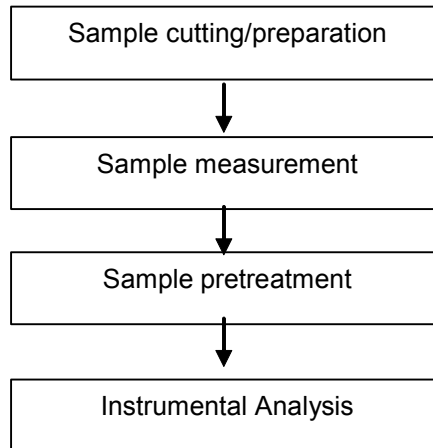
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SVHC Testing Flow Chart



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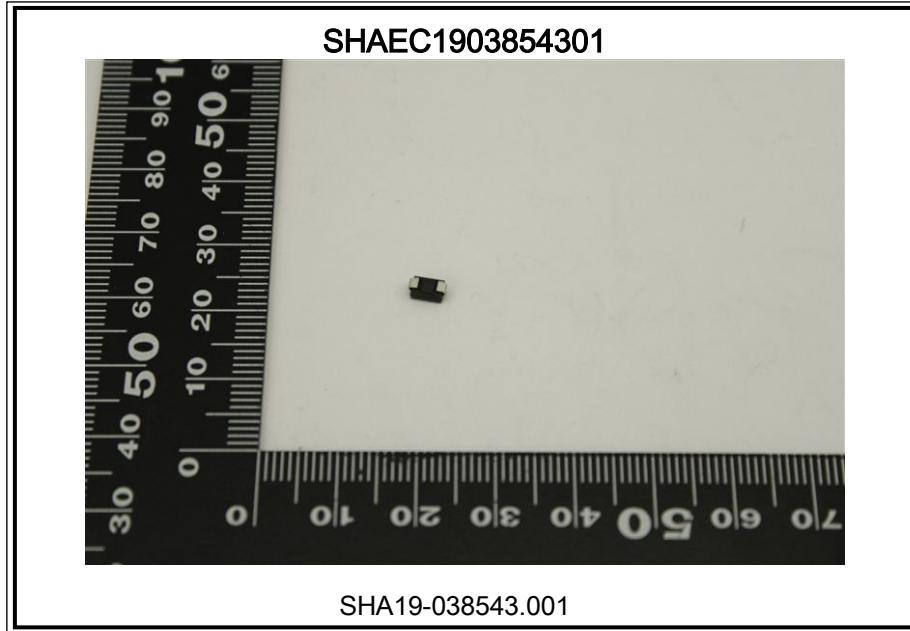
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