

Report No. 48.400.15.7131.00-00/07

Dated 2015-03-20



China

Technical Report

Applicant: ZHEJIANG SHUANGYANG GROUP CO.,LTD.
Wuli, Guanhaiwei, Cixi, Ningbo, Zhejiang, 315315,P.R. China

Attn. to : Mr. CEN

Manufacture: Same as the client.

Test object: The tested object(s) was(were) submitted and described by client as:
Product Name: Mechanical plug-in time switch
Product Model: TS-MD31



Additional listed model: TS-MD1/2/3/4/4-D/9/20/21/24/201/202,
TS-WD1/2/3/4/4-D, TS-MF1/3/4/201/202, TS-WF1/3/4/201/202,
TS-ME1/4/20/201, TS-WE1/20, TS-MI2/4/20/201, TS-WI2/4/20/201,
TS-MN2/4/6/N2/N4, TS-WN2/4/N2/N4, TS-MA3

Tested sample Description: Please refer to next page(s).

Purpose of examination: Based on the Candidate List, to test the listed 161 substances of Substances of Very High Concern (SVHC) for Authorisation updated on 17 December, 2014, which was published in accordance with Article 59(10) of the REACH Regulation (EC) No 1907/2006.

Test method: 1). Test portion is digested with acid, analyzed by ICP-OES and UV-VIS.
2). Organic solvent extraction, analyzed by GC-MS, HPLC.

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

Conclusion: Concentration of each SVHC is less than 0.1% weight by weight(w/w) in the submitted Articles:

Article I

Pass

Remarks:

1. The tested samples were identified and appointed by client.
2. Samples were tested as received.
3. The additional listed models were only listed as the request by client, TÜV SÜD takes no responsibility for any mistakes and the problems of product consistency caused by inaccurate and/or invalid information submitted by the client.

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TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636

Tel.: +86-21-60376368

www.tuv-sud.cn
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Dated 2015-03-20



China

1. Order

1.1 Date of Purchase Order
2015-03-09

1.2 Customer's Reference
Nil

1.3 Receipt Date of Test Sample
2015-03-10

1.4 Date of Testing
2015-03-10 ~ 2015-03-19

1.5 Document submitted
Nil

1.6 Location of Testing
TÜV PS SHA Chemical Lab

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2. Description of the Evaluated Product

| Article | Description | Weight (g) | Picture |
|---|---|------------|--|
| Article I | Mechanical plug-in time switch TS-MD31 | 132.1 |  |
| <p><i>Note:</i> 1. The analysis of articles via separated group(s), please refer to the next page(s).</p> | | | |

3. Description of the Test Sample

| Group No. | Component | Materials | SVHC Risk Assessment |
|---|---|--|----------------------|
| 1 | -plastic shell -plastic panel & buttons -inner wire jacket -inner electronic component shell -inner plastic gear Mixed testing | Plastic | High |
| 2 | -metal pin of plug -lead of wire -copper terminal bar -screws Mixed testing | Metals (iron, copper, copper alloy) | Medium |
| <p><i>Remark:</i> According to requirement of “Guidance on requirements for substances in Articles”, ECHA 1 April 2011, “A set of objects can not be regarded as one article, but has to be regarded as many articles substances and/or mixtures.</p> | | | |

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3. Test Data:

| Article I | | | | |
|-----------|---|---|---------------|--|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| 1 | Lead hydrogen arsenate** | 7784-40-9 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 2 | Benzyl butyl phthalate (BBP) | 85-68-7 | <0.01 | Toxic for reproduction (article 57c) |
| 3 | Bis (2-ethylhexyl)phthalate (DEHP) | 117-81-7 | <0.01 | Toxic for reproduction (article 57c) |
| 4 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)## | 81-15-2 | <0.01 | vPvB (article 57e) |
| 5 | Diarsenic trioxide | 1327-53-3 | <0.01 | Carcinogenic (article 57a) |
| 6 | Bis(tributyltin)oxide (TBTO) | 56-35-9 | <0.01 | PBT (article 57d) |
| 7 | Triethyl arsenate | 15606-95-8 | <0.01 | Carcinogenic (article 57a) |
| 8 | Diarsenic pentaoxide | 1303-28-2 | <0.01 | Carcinogenic (article 57a) |
| 9 | Sodium dichromate** | 7789-12-0, 10588-01-9 | <0.01 | Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c) |
| 10 | Dibutyl phthalate (DBP) | 84-74-2 | <0.01 | Toxic for reproduction (article 57c) |
| 11 | 4,4'- Diaminodiphenylmethane (MDA) | 101-77-9 | <0.01 | Carcinogenic (article 57a) |
| 12 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) | 85535-84-8 | <0.01 | PBT and vPvB (articles 57 d and 57 e) |
| 13 | Anthracene | 120-12-7 | <0.01 | PBT (article 57d) |
| 14 | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane | 25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8) | <0.01 | PBT (article 57d) |
| 15 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)** | 1344-37-2 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 16 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104)** | 12656-85-8 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 17 | Anthracene oil | 90640-80-5 | <0.01 | Carcinogenic ¹ , PBT and vPvB (articles 57a, 57d and 57e) |
| 18 | 2,4-Dinitrotoluene | 121-14-2 | <0.01 | Carcinogenic (article 57a) |
| 19 | Anthracene oil, anthracene paste, anthracene fraction | 91995-15-2 | <0.01 | Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles |

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| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| | | | | 57a, 57b, 57d and 57e) |
| 20 | Anthracene oil, anthracene-low ^{##} | 90640-82-7 | <0.01 | Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e) |
| 21 | Tris(2-chloroethyl)phosphate | 115-96-8 | <0.01 | Toxic for reproduction (article 57c) |
| 22 | Diisobutyl phthalate | 84-69-5 | <0.01 | Toxic for reproduction (article 57c) |
| 23 | Lead chromate ^{**} | 7758-97-6 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 24 | Anthracene oil, anthracene paste ^{##} | 90640-81-6 | <0.01 | Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e) |
| 25 | Pitch, coal tar, high temp ^{##} | 65996-93-2 | <0.01 | Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e) |
| 26 | Anthracene oil, anthracene paste, distn. lights | 91995-17-4 | <0.01 | Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e) |
| 27 | Acrylamide | 79-06-1 | <0.01 | Carcinogenic and mutagenic (articles 57 a and 57 b) |
| 28 | Trichloroethylene | 79-01-6 | <0.01 | Carcinogenic (article 57 a) |
| 29 | Potassium dichromate ^{**} | 7778-50-9 | <0.01 | Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c) |
| 30 | Tetraboron disodium heptaoxide, hydrate | 12267-73-1 | <0.01 | Toxic for reproduction (article 57 c) |
| 31 | Ammonium dichromate | 7789-09-5 | <0.01 | Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c) |
| 32 | Boric acid | 10043-35-3, 11113-50-1 | <0.01 | Toxic for reproduction (article 57 c) |
| 33 | Sodium chromate ^{**} | 7775-11-3 | <0.01 | Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c) |
| 34 | Disodium tetraborate, anhydrous | 1303-96-4, 1330-43-4, 12179-04-3 | <0.01 | Toxic for reproduction (article 57 c) |
| 35 | Potassium chromate ^{**} | 7789-00-6 | <0.01 | Carcinogenic and mutagenic (articles 57 a |

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|-----------|---|-----------------------|---------------|--|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| | | | | and 57 b). |
| 36 | Cobalt(II) diacetate** | 71-48-7 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 37 | Cobalt(II) sulphate** | 10124-43-3 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 38 | 2-Ethoxyethanol ^{##} | 110-80-5 | <0.01 | Toxic for reproduction (article 57c) |
| 39 | Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid**, Dichromic acid**, Oligomers of chromic acid and dichromic acid**. | 7738-94-5, 13530-68-2 | <0.01 | Carcinogenic (article 57a) |
| 40 | 2-Methoxyethanol | 109-86-4 | <0.01 | Toxic for reproduction (article 57c) |
| 41 | Chromium trioxide** | 1333-82-0 | <0.01 | Carcinogenic and mutagenic (articles 57 a and 57 b) |
| 42 | Cobalt(II) carbonate** | 513-79-1 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 43 | Cobalt(II) dinitrate** | 10141-05-6 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 44 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich | 71888-89-6 | <0.01 | Toxic for reproduction (article 57c) |
| 45 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | 68515-42-4 | <0.01 | Toxic for reproduction (article 57c) |
| 46 | Strontium chromate** | 7789-06-2 | <0.01 | Carcinogenic (article 57a) |
| 47 | 1-Methyl-2-pyrrolidone | 872-50-4 | <0.01 | Toxic for reproduction (article 57c) |
| 48 | 1,2,3-Trichloropropane | 96-18-4 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 49 | 2-Ethoxyethyl acetate | 111-15-9 | <0.01 | Toxic for reproduction (article 57c) |
| 50 | Hydrazine | 302-01-2, 7803-57-8 | <0.01 | Carcinogenic (article 57a) |
| 51 | Cobalt dichloride* | 7646-79-9 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a |

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| Article I | | | | |
|-----------|---|------------|---------------|---|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| | | | | and 57 c) |
| 52 | 4-(1,1,3,3-tetramethylbutyl)phenol | 140-66-9 | <0.01 | Equivalent level of concern having probable serious effects to the environment (article 57 f) |
| 53 | N,N-dimethylacetamide | 127-19-5 | <0.01 | Toxic for reproduction (article 57 c) |
| 54 | Phenolphthalein | 77-09-8 | <0.01 | Carcinogenic (article 57 a) |
| 55 | Lead diazide, Lead azide | 13424-46-9 | <0.01 | Toxic for reproduction (article 57 c), |
| 56 | Lead dipicrate | 6477-64-1 | <0.01 | Toxic for reproduction (article 57 c) |
| 57 | 1,2-dichloroethane | 107-06-2 | <0.01 | Carcinogenic (article 57 a) |
| 58 | Calcium arsenate** | 7778-44-1 | <0.01 | Carcinogenic (article 57 a) |
| 59 | Dichromium tris(chromate)** | 24613-89-6 | <0.01 | Carcinogenic (article 57 a) |
| 60 | 2-Methoxyaniline; o-Anisidine | 90-04-0 | <0.01 | Carcinogenic (article 57 a) |
| 61 | Pentazinc chromate octahydroxide** | 49663-84-5 | <0.01 | Carcinogenic (article 57 a) |
| 62 | Arsenic acid** | 7778-39-4 | <0.01 | Carcinogenic (article 57 a) |
| 63 | Potassium hydroxyoctaoxidizincatedichromate** | 11103-86-9 | <0.01 | Carcinogenic (article 57 a) |
| 64 | Formaldehyde, oligomeric reaction products with aniline | 25214-70-4 | <0.01 | Carcinogenic (article 57 a) |
| 65 | Lead styphnate** | 15245-44-0 | <0.01 | Toxic for reproduction (article 57 c) |
| 66 | Trilead diarsenate** | 3687-31-8 | <0.01 | Carcinogenic and toxic for reproduction (articles 57 a and 57 c) |
| 67 | Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium | - | <0.01 | Carcinogenic (article 57 a) |

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|-----------|---|-----------|---------------|---------------------------------------|
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| | <i>are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na₂O+K₂O+CaO+MgO+BaO) content less or equal to 18% by weight**</i> | | | |
| 68 | Bis(2-methoxyethyl) phthalate | 117-82-8 | <0.01 | Toxic for reproduction (article 57 c) |
| 69 | Aluminosilicate Refractory Ceramic Fibres <i>are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na₂O+K₂O+CaO+MgO+BaO) content less or equal to 18% by weight**</i> | - | <0.01 | Carcinogenic (article 57 a) |
| 70 | Bis(2-methoxyethyl) ether | 111-96-6 | <0.01 | Toxic for reproduction (article 57 c) |
| 71 | 2,2'-dichloro-4,4'-methylenedianiline | 101-14-4 | <0.01 | Carcinogenic (article 57 a) |
| 72 | α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [#] <i>[with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]</i> | 6786-83-0 | <0.01 | Carcinogenic (Article 57a) |

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|-----------|---|------------|---------------|---------------------------------------|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| 73 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) | 101-61-1 | <0.01 | Carcinogenic (Article 57a) |
| 74 | 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 | <0.01 | Mutagenic (Article 57b) |
| 75 | Diboron trioxide | 1303-86-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 76 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme) | 112-49-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 77 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [#] [with \geq 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 561-41-1 | <0.01 | Carcinogenic (Article 57a) |
| 78 | Lead(II) bis(methanesulfonate)** | 17570-76-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 79 | Formamide | 75-12-7 | <0.01 | Toxic for reproduction (Article 57 c) |
| 80 | [4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [#] [with \geq 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 548-62-9 | <0.01 | Carcinogenic (Article 57a) |
| 81 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4 | <0.01 | Toxic for reproduction (Article 57 c) |
| 82 | [4-[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26) [#] [with \geq 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 2580-56-5 | <0.01 | Carcinogenic (Article 57a) |
| 83 | 1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC) | 2451-62-9 | <0.01 | Mutagenic (Article 57b) |
| 84 | 4,4'-bis(dimethylamino)benzophenone (Michler's ketone) | 90-94-8 | <0.01 | Carcinogenic (Article 57a) |
| 85 | Pyrochlore, antimony lead yellow** | 8012-00-8 | <0.01 | Toxic for reproduction (Article 57 c) |
| 86 | 6-methoxy-m-toluidine (p-cresidine) | 120-71-8 | <0.01 | Carcinogenic (Article 57a) |

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| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| 87 | Henicosafuoroundecanoic acid | 2058-94-8 | <0.01 | vPvB (Article 57 e) |
| 88 | 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] | 25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9 | <0.01 | Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 89 | 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 | <0.01 | Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 90 | Dibutyltin dichloride (DBTC) | 683-18-1 | <0.01 | Toxic for reproduction (Article 57 c) |
| 91 | Lead bis(tetrafluoroborate)** | 13814-96-5 | <0.01 | Toxic for reproduction (Article 57 c) |
| 92 | Lead dinitrate** | 10099-74-8 | <0.01 | Toxic for reproduction (Article 57 c) |
| 93 | Silicic acid, lead salt** | 11120-22-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 94 | 4-Aminoazobenzene | 60-09-3 | <0.01 | Carcinogenic (Article 57a) |
| 95 | Lead titanium zirconium oxide** | 12626-81-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 96 | Lead monoxide (lead oxide)** | 1317-36-8 | <0.01 | Toxic for reproduction (Article 57 c) |
| 97 | o-Toluidine | 95-53-4 | <0.01 | Carcinogenic (Article 57a) |
| 98 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 143860-04-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 99 | Silicic acid (H ₂ SiO ₅), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 | 68784-75-8 | <0.01 | Toxic for reproduction (Article 57 c) |

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3. Test Data:

| Article I | | | | |
|-----------|--|------------|---------------|---|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| | (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]** | | | |
| 100 | Trilead bis(carbonate)dihydroxide** | 1319-46-6 | <0.01 | Toxic for reproduction (Article 57 c) |
| 101 | Furan | 110-00-9 | <0.01 | Carcinogenic (Article 57a) |
| 102 | N,N-dimethylformamide | 68-12-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 103 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues] | - | <0.01 | Equivalent level of concern having probable serious effects to the environment (Article 57 f) |
| 104 | 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] | - | <0.01 | Equivalent level of concern having probable serious effects to the environment (Article 57 f) |
| 105 | 4,4'-methylenedi-o-toluidine | 838-88-0 | <0.01 | Carcinogenic (Article 57a) |
| 106 | Diethyl sulphate | 64-67-5 | <0.01 | Carcinogenic (Article 57a); Mutagenic (Article 57b) |
| 107 | Dimethyl sulphate | 77-78-1 | <0.01 | Carcinogenic (Article 57a) |
| 108 | Lead oxide sulphate** | 12036-76-9 | <0.01 | Toxic for reproduction (Article 57 c) |
| 109 | Lead titanium trioxide** | 12060-00-3 | <0.01 | Toxic for reproduction (Article 57 c) |
| 110 | Acetic acid, lead salt, basic** | 51404-69-4 | <0.01 | Toxic for reproduction (Article 57 c) |
| 111 | [Phthalato(2-)]dioxotrilead** | 69011-06-9 | <0.01 | Toxic for reproduction (Article 57 c) |
| 112 | Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE) | 1163-19-5 | <0.01 | PBT (Article 57 d); vPvB (Article 57 e) |
| 113 | N-methylacetamide | 79-16-3 | <0.01 | Toxic for reproduction (Article 57 c) |
| 114 | Dinoseb (6-sec-butyl-2,4-dinitrophenol) | 88-85-7 | <0.01 | Toxic for reproduction (Article 57 c) |

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TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636

Tel.: +86-21-60376368

www.tuv-sud.cn
info@tuv-sud.cn

3. Test Data:

| Article I | | | | |
|-----------|--|-------------|---------------|--|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| 115 | 1,2-Diethoxyethane | 629-14-1 | <0.01 | Toxic for reproduction (Article 57 c) |
| 116 | Tetralead trioxide sulphate** | 12202-17-4 | <0.01 | Toxic for reproduction (Article 57 c) |
| 117 | N-pentyl-isopentylphthalate | 776297-69-9 | <0.01 | Toxic for reproduction (Article 57 c) |
| 118 | Dioxobis(stearato)trilead** | 12578-12-0 | <0.01 | Toxic for reproduction (Article 57 c) |
| 119 | Tetraethyllead | 78-00-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 120 | Pentalead tetraoxide sulphate** | 12065-90-6 | <0.01 | Toxic for reproduction (Article 57 c) |
| 121 | Pentacosafuorotridecanoic acid | 72629-94-8 | <0.01 | vPvB (Article 57 e) |
| 122 | Tricosafuorododecanoic acid | 307-55-1 | <0.01 | vPvB (Article 57 e) |
| 123 | Heptacosafuorotetradecanoic acid | 376-06-7 | <0.01 | vPvB (Article 57 e) |
| 124 | 1-bromopropane (n-propyl bromide) | 106-94-5 | <0.01 | Toxic for reproduction (Article 57 c) |
| 125 | Methoxyacetic acid | 625-45-6 | <0.01 | Toxic for reproduction (Article 57 c) |
| 126 | 4-methyl-m-phenylenediamine (toluene-2,4-diamine) | 95-80-7 | <0.01 | Carcinogenic (Article 57a) |
| 127 | Methyloxirane (Propylene oxide) | 75-56-9 | <0.01 | Carcinogenic (Article 57a); Mutagenic (Article 57b) |
| 128 | Trilead dioxide phosphonate** | 12141-20-7 | <0.01 | Toxic for reproduction (Article 57 c) |
| 129 | o-aminoazotoluene | 97-56-3 | <0.01 | Carcinogenic (Article 57a) |
| 130 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear | 84777-06-0 | <0.01 | Toxic for reproduction (Article 57 c) |
| 131 | 4,4'-oxydianiline and its salts | 101-80-4 | <0.01 | Carcinogenic (Article 57a); Mutagenic (Article 57b) |
| 132 | Orange lead (lead tetroxide)** | 1314-41-6 | <0.01 | Toxic for reproduction (Article 57 c) |
| 133 | Biphenyl-4-ylamine | 92-67-1 | <0.01 | Carcinogenic (Article 57a) |
| 134 | Diisopentylphthalate | 605-50-5 | <0.01 | Toxic for reproduction (Article 57 c) |
| 135 | Fatty acids, C16-18, lead salts** | 91031-62-8 | <0.01 | Toxic for reproduction (Article 57 c) |
| 136 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) | 123-77-3 | <0.01 | Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 137 | Sulfurous acid, lead salt, dibasic** | 62229-08-7 | <0.01 | Toxic for reproduction (Article 57 c) |

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3. Test Data:

| Article I | | | | |
|-----------|---|------------|---------------|--|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| 138 | Lead cyanamidate** | 20837-86-9 | <0.01 | Toxic for reproduction (Article 57 c) |
| 139 | Cadmium | 7440-43-9 | <0.01 | Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 140 | Ammonium pentadecafluorooctanoate (APFO) | 3825-26-1 | <0.01 | Toxic for reproduction (Article 57 c); PBT (Article 57 d) |
| 141 | Pentadecafluorooctanoic acid (PFOA) | 335-67-1 | <0.01 | Toxic for reproduction (Article 57 c); PBT (Article 57 d) |
| 142 | Dipentyl phthalate (DPP) | 131-18-0 | <0.01 | Toxic for reproduction (Article 57 c) |
| 143 | 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] | - | <0.01 | Equivalent level of concern having probable serious effects to the environment (Article 57 f) |
| 144 | Cadmium oxide* | 1306-19-0 | <0.01 | Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 145 | Cadmium sulphide | 1306-23-6 | <0.01 | Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 146 | 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 | <0.01 | Carcinogenic (Article 57a) |
| 147 | Dihexyl phthalate | 84-75-3 | <0.01 | Toxic for reproduction (Article 57 c) |
| 148 | Imidazolidine-2-thione; (2-imidazoline-2-thiol) | 96-45-7 | <0.01 | Toxic for reproduction (Article 57 c) |
| 149 | Trixylyl phosphate | 25155-23-1 | <0.01 | Toxic for reproduction (Article 57 c) |

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10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636

Tel.: +86-21-60376368

www.tuv-sud.cn
info@tuv-sud.cn

3. Test Data:

| Article I | | | | |
|-----------|--|------------|---------------|--|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| 150 | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) | 573-58-0 | <0.01 | Toxic for reproduction (Article 57 c) |
| 151 | Lead di(acetate) | 301-04-2 | <0.01 | Toxic for reproduction (Article 57 c) |
| 152 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | 68515-50-4 | <0.01 | Toxic for reproduction (Article 57 c) |
| 153 | Cadmium chloride | 10108-64-2 | <0.01 | Carcinogenic (Article 57a); Mutagenic (Article 57(b)); Toxic for Reproduction (Article 57(c); Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 154 | Sodium perborate; perboric acid, sodium salt | -- | <0.01 | Toxic for reproduction (Article 57 c) |
| 155 | Sodium peroxometaborate | 7632-04-4 | <0.01 | Toxic for reproduction (Article 57 c) |
| 156 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) | 223-346-6 | <0.01 | PBT (Article 57 d); vPvB (Article 57 e) |
| 157 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) | 239-622-4 | <0.01 | Toxic for reproduction (Article 57 c) |
| 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) | -- | <0.01 | Toxic for reproduction (Article 57 c) |
| 159 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) | 247-384-8 | <0.01 | PBT (Article 57 d); vPvB (Article 57 e) |
| 160 | Cadmium fluoride | 232-222-0 | <0.01 | Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 161 | Cadmium sulphate | 233-331-6 | <0.01 | Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction |

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10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636

Tel.: +86-21-60376368

www.tuv-sud.cn
info@tuv-sud.cn

Report No. 48.400.15.7131.00-00/07

Dated 2015-03-20



China

3. Test Data:

| Article I | | | | |
|-----------|--------------|---------|---------------|--|
| SN | Test Item(s) | CAS No. | Result(s) (%) | Classification |
| | | | | (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f) |

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Jiangsu, 214100, P. R. China

Tel.: +86-510-88203737
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Dated 2015-03-20



China

Remark:

1. Above result for the Article(s) are calculated based on relevant material testing data.
2. ** Denotes result is based on the heavy metal or inorganic element concentration. Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain.
3. ## The substances are UVCB(substance of unknown or variable composition, complex reaction products or biological materials), which are identified by it main constituents. Individual concentrations to the constituent of UVCB with an amount of <0.01% were not considered by the calculation of the sum.
4. # only applicable with $\geq 0.1\%$ of Michler's ketone (CAS No. 90-94-8) or Michler's base (CAS No. 101-61-1)
5. The analysis of 161 SVHC is done by currently available test & screening techniques against the SVHC candidate list published by European Chemical Agency (ECHA). Refer to http://echa.europa.eu/chem_data/candidate_list_table_en.asp for details.
6. In accordance with Regulation(EC) No 1907/2006, any producer or importer of substances, preparations and 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), if both the following conditions are met:
 - (a) The substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year;
 - (b) The substance is present in those articles above a concentration of 0.1% weight by weight (w/w).
7. From 38 October 2008, EU & EEA suppliers whose goods contain substances on the Candidate List in a concentration above 0.1%(w/w) must provide sufficient information to their customers and on request to a consumer within 45 days of the receipt of this request. This information must ensure safe use of the article and, as a minimum, include the name of the substance.

TÜV SÜD Certification and Testing (China) Co., Ltd.

Prepared by:

Mr. Yongfeng DU

Checked by:

Mr. Feng ZHANG

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info@tuv-sud.cn

Shanghai Chemical Lab
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Shanghai City

Tel.: +86-21-60376368

Appendix I

| | |
|--|---|
| Classification | Definition under 67/548/EEC and Regulation (EC) No 1907/2006 |
| Carcinogen category 1 | Substances known to be carcinogenic to humans. There is sufficient evidence to establish a causal association between human exposure to the substance and the development of cancer. |
| Carcinogen category 2 | Substances that should be regarded as if they are carcinogenic to humans, there is sufficient evidence, based on long-term animal studies and other relevant information, to provide a strong presumption that human exposure may result in the development of cancer. |
| Mutagen category 1 | Substances known to be mutagenic to humans, There is sufficient evidence to establish a causal association between human exposure to a substance and heritable genetic damage. |
| Mutagen category 2 | Substances which should be regarded as if they are mutagenic to man. There is sufficient evidence to provided a strong presumption that human exposure to the substance may result in the development of heritable genetic damage, generally on the basis of: -appropriate animal studies, -other relevant information. |
| Toxic to Reproduction category 1: | Substances known to impair fertility in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and impaired fertility. Substances known to cause developmental toxicity in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and subsequent developmental toxic effects in the progeny. |
| Toxic to Reproduction category 2: | Substances which should be regarded as if they impair fertility in humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in impaired fertility on the basis of : -clear evidence in animal studies of impaired fertility in the absence of toxic effects, or, evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary nonspecific consequence of the other. -other relevant information. Substances which should be regarded as if they cause developmental toxicity to humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in developmental toxicity, generally on the basis of : -clear results in appropriate animal studies where effects have been observed in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of the other toxic effects. -other relevant information. |
| PBT & vPvB | Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative(vPvB) pose a particular challenge to the chemicals safety management. For these substances a "safe" concentration in the environment cannot be established with sufficient reliability. |

-END OF REPORT-

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info@tuv-sud.cn