

Report No. 48.400.15.7131.00-00/10
Dated 2015-03-20



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: Electronic plug-in time switch
Product Model: TS-ED1



Additional listed model: TS-ED4/8/11/20/201/202,TS-EF1/4/8/9/20/201,
TS-EE1/8/20/201,TS-EI1/1(10)/4/20, TS-EN1/N4,TS-EA1,TS-GM1/GE2
TS-JD/JF

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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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	Electronic plug-in time switch TS-ED1	169.3	
<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 buttons -inner wire jacket Mixed testing	Plastic	High
2	-PCB board -Electronic components of PCB -LED of PCB -Battery of PCB Mixed testing	Polymers	High
3	-metal pin of plug -lead of wire -copper terminal bar -screws -Metals of PCB and electronic components Mixed testing	Metals (iron, copper, copper alloy)	Medium
<p><i>Remark:</i> According to requirement of <i>"Guidance on requirements for substances in Articles"</i>, 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,	91995-15-2	<0.01	Carcinogenic ² ,

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	anthracene fraction			mutagenic ³ , PBT and vPvB (articles 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)

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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 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)

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SN	Test Item(s)	CAS No.	Result(s) (%)	Classification
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 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	-	<0.01	Carcinogenic (article 57 a)

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Article I				
SN	Test Item(s)	CAS No.	Result(s) (%)	Classification
	<i>classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium 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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) 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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) 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]-	6786-83-0	<0.01	Carcinogenic (Article 57a)

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SN	Test Item(s)	CAS No.	Result(s) (%)	Classification
	4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [#] [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]			
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 ≥ 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 ≥ 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 ≥ 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	90-94-8	<0.01	Carcinogenic (Article 57a)

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	(Michler's ketone)			
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)
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)

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99	Silicic acid (H ₂ Si ₂ O 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 (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	<0.01	Toxic for reproduction (Article 57 c)
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)

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3. Test Data:

Article I				
SN	Test Item(s)	CAS No.	Result(s) (%)	Classification
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)
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)

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Article I				
SN	Test Item(s)	CAS No.	Result(s) (%)	Classification
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)
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)

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3. Test Data:

Article I				
SN	Test Item(s)	CAS No.	Result(s) (%)	Classification
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)
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)

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

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Report No. 48.400.15.7131.00-00/10

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 its 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 30 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.

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Checked by:

Mr. Feng ZHANG

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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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