

Huizhou Oakio Plastic Wood Building Materials Co., Ltd TEST REPORT

SCOPE OF WORK WPC Decking

REPORT NUMBER

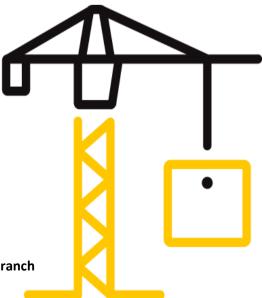
201204007SHF-001

TEST DATE(S) 2020-12-04 - 2020-12-16

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



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Test Report

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Issue Date:	2020-12-16	Intertek Report No.	201204007SHF-001
Applicant:	Huizhou Oakio Plastic Wood Building Mate	rials Co., Ltd	
Address:	3605, Building 3, Huamao Building, Wench	ang Road 1, Huizhou, G	uangdong, China
Attn:	Mr Zhong		
Test Type:	Performance test, samples provided by the	applicant.	

Product Information

Product Name	WPC Decking		Brand	Oakio
Sample		Good Condition	Sample Amount	one package
Description		Good condition	Received Date	2020-11-19
Sample ID		Model	Specification	
S201204007SHF.001		PPD02	140 x 22.5mm	

Test Methods And Standards

Test Standard	With reference to Annex XVII Items 50; Annex XVII Item 51; Annex XVII Item 52; Annex XVII Item 22; Reach Annex XVII Item 23; Reach Annex XVII Item 63; Annex XVII Item 61; EU REACH Regulation No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH requirement in report for details)
	EU REACH Regulation No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH requirement in report for details)
Tost Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:

1. This report relates specifically to the sample(s) that were drawn and provided by the applicant or their nominated third party. The reported result(s) provide no warranty or verification on the sample(s) representing any specific goods and/or shipment and only relate to the sample(s) as received and tested.

Report Authorized Lin vilo ora 检测专用章 Name: Flora Fan Milo Liu Star . Project Engineer Title: Reviewer

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Issue Date:

2020-12-16

Intertek Report No. 201204007SHF-001

Test Items, Method and Results:

Test Item: Polycyclic Aromatic Hydrocarbons (PAHs) Content

Test Method: By solvent extraction and determined by Gas Chromatographic - Mass Spectrometry (GC/MS).

Compound	Result (mg/kg)	Requirement (mg/kg) (Max.)
Benzo(a)pyrene	ND	1
Benzo(e)pyrene	ND	1
Benzo(a)anthracene	ND	1
Chrysene	ND	1
Benzo(b)fluoranthene	ND	1
Benzo(j)fluoranthene	ND	1
Benzo(k)fluoranthene	ND	1
Dibenzo(a,h)anthracene	ND	1

Note:

1. Detection limit = 0.2 mg/kg

2. ND = Not detected (less than the detection limit)

3. The above limit was quoted from Annex XVII Item 50 of the REACH Regulation (EC) No.1907/2006

& amendment (EU) No. 1272/2013 for Polycyclic Aromatic Hydrocarbons (PAHs).

4. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China



Issue Date: 202

2020-12-16

Intertek Report No. 201204007SHF-001

Test Items, Method and Results:

Test Item: Phthalate content test

Test Method: With reference to ISO 8124-6: 2018 method A or C, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

Annex XVII Item 51

Tested compound	Result (%, w/w)	Limit (%,w/w) (Max.)	
Di-butyl phthalate (DBP)	ND		
Di(2-ethyl hexyl) phthalate(DEHP)	ND		
Benzyl butyl phthalate (BBP)	ND		
Diisobutyl phthalate (DIBP)	ND		
Sum of Four phthalates	ND	0.1	

The above limit was quoted according to Annex XVII Item 51 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 & Amendment Commission Regulation (EU) 2018/2005 for phthalate content in articles. For toys and childcare articles, DIBP limit was quoted from Commission Regulation (EU) 2018/2005 effective from 7 July 2020.

For non-toys and non-childcare articles, DBP, DEHP, BBP, DIBP limit was quoted from Commission Regulation (EU) 2018/2005 effective from 7 July 2020.

II. Annex XVII Item 52

Tested compound	Result (%, w/w)	Limit (%,w/w) (Max.)	
Di-iso-nonyl phthalate (DINP)	ND		
Di-n-octyl phthalate (DnOP)	ND		
Di-iso-decyl phthalate (DIDP)	ND		
Sum of three phthalates	ND	0.1	

The above limit was quoted according to Annex XVII Item 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 for phthalate content in toys and childcare articles.

Note:

- 1. Detection limit = 0.01% (w/w)
- 2. ND = Not detected (less than the detection limit)
- 3. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China



Issue Date: 2020-12-16

Intertek Report No. 201204007SHF-001

Test Items, Method and Results:

Test Item: Pentachlorophenol (PCP) content test

Teat Method: By Gas Chromatographic-Mass Spectrometric (GC-MS).

Test Item	Test Result %(mg/kg)	Requirement (mg/kg) (Max.)	
Pentachlorophenol (PCP)	ND	100	

Remark:

1. Detection Limit = 0.5mg/kg

2. ND = Not Detected(less than the detection limit)

3. The above limit was quoted from Annex XVII Item 22 of the REACH Regulation (EC) No.1907/2006 for Pentachlorophenol (PCP).

4. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China



Issue Date:

2020-12-16

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Test Items, Method and Results:

Test Item: Cadmium (Cd) Content

Test Method: As per Cadmium content requirement in Commission Regulation (EU) No. 494/2011 of 20 May 2011, (EU) No. 835/2012 of 18 September 2012 and (EU) No. 2016/217 of 16 February 2016 Amending Annex XVII Items 23 of the Reach Regulation (EC) No. 1907/2006. With reference to methods EN 1122:2001 (Method B)/ IEC 62321:2008/ ISO 11885:2007, acid digestion method was used and total Cadmium content was determined by Inductively Coupled Argon Plasma Spectrometry.

Test Item	Test Result (%)	Limit (%)
Cadmium (Cd) Content	ND	0.01

Remark:

1. ND = Not Detected (<0.0005%)

2. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China



Issue Date:

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Test Items, Method and Results:

Test Item: Lead (Pb) Content

Test Method: As per Lead content requirement in Commission Regulation (EU) No. 628/2015 of 22 April 2015 Amending Annex XVII of the Reach Regulation (EC) No. 1907/2006, With reference to method EPA 3051A, microwave digestion method was used and total Lead content was determined by Inductively Coupled Argon Plasma Spectrometry.

Test Item	Test Result (%)	Limit (%)
Lead (Pb) Content	ND	0.05

Remark:

1. ND = Not Detected (<0.001%)

2. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China



Issue Date: 2020-

2020-12-16

Intertek Report No. 201204007SHF-001

Test Items, Method and Results:

Test Item: Dimethyl Fumarate Content

Test Method: By Solvent Extraction And Gas Chromatographic-Mass Spectrometric (GC-MS) Analysis.

Test Item	Result (ppm)	Requirement (ppm)
Dimethyl Fumarate Content	ND	0.1

Remark:

1. Detection Limit = 0.05ppm

- 2. ppm = parts per million = mg/kg
- 3. ND = Not detected (less than the detection limit)

4. The above requirement was quoted from Dimethylfumarate Content Requirement In Annex XVII Item 61 Of The REACH Regulation (EC) NO. 1907/2006 & Amendment (EU) No. 412/2012

5. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China



Issue Date:

2020-12-16

Intertek Report No. 201204007SHF-001

Test Items, Method and Results:

Test method: By a combination of Inductively Coupled Argon Plasma Spectrometry, Gas Chromatography – Mass Spectrometry, Liquid Chromatography - Mass Spectrometry, UV-VIS Spectrophotometer, Gas Chromatography - Electron Capture Detector, Headspace Gas Chromatography - Mass Spectrometry and High-Performance Liquid Chromatography.

209 SVHCs Testing Results:

(a) The First List (15 SVHC Released in Oct, 2008)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
1	Cobalt Dichloride Δ	7646-79-9	ND
2	Diarsenic Pentaoxide Δ	1303-28-2	ND
3	Diarsenic Trioxide ∆	1327-53-3	ND
4	Lead Hydrogen Arsenate Δ	7784-40-9	ND
5	Triethyl Arsenate Δ	15606-95-8	ND
6	Sodium Dichromate Δ	7789-12-0, 10588-01-9	ND
7	Bis (Tributyltin) Oxide (TBTO) Δ	56-35-9	ND
8	Anthracene	120-12-7	ND
9	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	ND
10	Hexabromocyclododecane (HBCDD) and All Major Diastereoisomers Identified (α-HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 and 3194-55-6 (134237-50-6, 134237-51-7, 134237-52-8, 25637-99-4)	ND
11	5-Tert-Butyl-2,4,6-Trinitro-m-Xylene (Musk Xylene)	81-15-2	ND
12	Bis (2-Ethylhexyl) Phthalate (DEHP)	117-81-7	ND
13	Dibutyl Phthalate (DBP)	84-74-2	ND
14	Benzyl Butyl Phthalate (BBP)	85-68-7	ND
15	Short Chain Chlorinated Paraffins (C ₁₀₋₁₃)	85535-84-8	ND

(b) The Second List (13 SVHC Released in Jan, 2010 and Mar, 2010)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
16	Lead Chromate Δ	7758-97-6	ND
17	Lead Chromate Molybdate Sulphate Red (C.I. Pigment Red 104) Δ	12656-85-8	ND
18	Lead Sulfochromate Yellow (C.I. Pigment Yellow 34) Δ	1344-37-2	ND
19	Tris (2-Chloroethyl) Phosphate	115-96-8	ND
20	2,4-Dinitrotoluene	121-14-2	ND



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21	Diisobutyl Phthalate (DIBP)	84-69-5	ND
22	Coal Tar Pitch, High Temperature	65996-93-2	ND
23	Anthracene Oil	90640-80-5	ND
24	Anthracene Oil, Anthracene Paste, Distn. Lights	91995-17-4	ND
25	Anthracene Oil, Anthracene Paste, Anthracene Fraction	91995-15-2	ND
26	Anthracene Oil, Anthracene-low	90640-82-7	ND
27	Anthracene Oil, Anthracene Paste	90640-81-6	ND
28	Acrylamide	79-06-1	ND

(c) The Third List (8 SVHC Released in Jun, 2010)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
29	Boric Acid Δ	10043-35-3, 11113-50-1	ND
30	Disodium Tetraborate, Anhydrous Δ	1330-43-4, 12179-04-3, 1303-96-4	ND
31	Tetraboron Disodium Heptaoxide, Hydrate Δ	12267-73-1	ND
32	Sodium Chromate Δ	7775-11-3	ND
33	Potassium Chromate Δ	7789-00-6	ND
34	Ammonium Dichromate Δ	7789-09-5	ND
35	Potassium Dichromate Δ	7778-50-9	ND
36	Trichloroethylene	79-01-6	ND

(d) The Fourth List (8 SVHC Released in Dec, 2010)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
37	2-Methoxyethanol	109-86-4	ND
38	2-Ethoxyethanol	110-80-5	ND
39	Cobalt Sulphate Δ	10124-43-3	ND
40	Cobalt Dinitrate Δ	10141-05-6	ND
41	Cobalt Carbonate Δ	513-79-1	ND
42	Cobalt Diacetate Δ	71-48-7	ND
43	Chromium Trioxide Δ	1333-82-0	ND
44	Chromic Acid Δ Dichromic Acid Δ Oligomers of Chromic Acid and Dichromic Acid Δ	7738-94-5 13530-68-2 	ND



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(e) The Fifth List (7 SVHC Released in Jun, 2011)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
45	Strontium Chromate Δ	7789-06-2	ND
46	2-ethoxyethyl acetate (2-EEA)	111-15-9	ND
47	1,2-Benzenedicarboxylic acid, di-C ₇₋₁₁ -branched and linear alkyl esters (DHNUP)	68515-42-4	ND
48	Hydrazine	7803-57-8, 302-01-2	ND
49	1-methyl-2-pyrrolidone	872-50-4	ND
50	1,2,3-trichloropropane	96-18-4	ND
51	1,2-Benzenedicarboxylic acid, di-C ₆₋₈ -branched alkyl esters, C ₇ -rich (DIHP)	71888-89-6	ND

(f) The Sixth List (20 SVHC Released in Dec, 2011)

No.	Chemical Substance	<u>CAS No.</u>	Results %(w/w)
52	Lead dipicrate Δ	6477-64-1	ND
53	Lead styphnate Δ	15245-44-0	ND
54	Lead azide; Lead diazide Δ	13424-46-9	ND
55	Phenolphthalein	77-09-8	ND
56	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	ND
57	N,N-dimethylacetamide (DMAC)	127-19-5	ND
58	Trilead diarsenate Δ	3687-31-8	ND
59	Calcium arsenate Δ	7778-44-1	ND
60	Arsenic acid Δ	7778-39-4	ND
61	Bis(2-methoxyethyl) ether	111-96-6	ND
62	1,2-Dichloroethane	107-06-2	ND
63	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	ND
64	2-Methoxyaniline; o-Anisidine	90-04-0	ND
65	Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	ND
66	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	ND
67	Pentazinc chromate octahydroxide Δ	49663-84-5	ND
68	Potassium hydroxyoctaoxodizincate di-chromate Δ	11103-86-9	ND
69	Dichromium tris(chromate) Δ	24613-89-6	ND
70	Aluminosilicate Refractory Ceramic Fibres Δ	(Index No. 650-017-00-8)	ND
71	Zirconia Aluminosilicate Refractory Ceramic Fibres Δ	(Index No. 650-017-00-8)	ND



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(g) The Seventh List (13 SVHC Released in Jun, 2012)

No.	Chemical Substance	CAS No.	<u>Results %(w/w)</u>
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	ND
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	ND
74	Diboron trioxide Δ	1303-86-2	ND
75	Formamide	75-12-7	ND
76	Lead(II) bis(methanesulfonate) Δ	17570-76-2	ND
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine- 2,4,6(1H,3H,5H)-trione)	2451-62-9	ND
78	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	ND
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	ND
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	ND
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa- 2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with $\ge 0.1\%$ of Michler's ketone (EC No. 202- 027-5) or Michler's base (EC No. 202-959-2)]	548-62-9	ND
82	[4-[[4-anilino-1-naphthyl]][4- (dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1- ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with $\ge 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	2580-56-5	ND
83	α, α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michl er's base (EC No. 202-959-2)]	6786-83-0	ND
84	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	ND



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(h) The Eighth List (54 SVHC Released in Dec, 2012)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	Results %(w/w)
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	ND
86	Pentacosafluorotridecanoic acid	72629-94-8	ND
87	Tricosafluorododecanoic acid	307-55-1	ND
88	Henicosafluoroundecanoic acid	2058-94-8	ND
89	Heptacosafluorotetradecanoic acid	376-06-7	ND
90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	ND
91	Cyclohexane-1,2-dicarboxylic anhydride [1] cis-cyclohexane-1,2-dicarboxylic anhydride [2] trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry].	85-42-7 13149-00-3 14166-21-3	ND
92	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	25550-51-0 19438-60-9 48122-14-1 57110-29-9	ND
93	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]		ND
94	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]		ND
95	Methoxyacetic acid	625-45-6	ND
96	N,N-dimethylformamide	68-12-2	ND
97	Dibutyltin dichloride (DBTC) Δ	683-18-1	ND
98	Lead monoxide (Lead oxide) Δ	1317-36-8	ND
99	Orange lead (Lead tetroxide) Δ	1314-41-6	ND
100	Lead bis(tetrafluoroborate) Δ	13814-96-5	ND
101	Trilead bis(carbonate)dihydroxide Δ	1319-46-6	ND
102	Lead titanium trioxide Δ	12060-00-3	ND
103	Lead titanium zirconium oxide Δ	12626-81-2	ND



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104	Silicic acid, lead salt Δ	11120-22-2	ND
105	Silicic acid ($H_2Si_2O_5$), barium salt (1:1), lead-doped Δ [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	ND
106	1-bromopropane (n-propyl bromide)	106-94-5	ND
107	Methyloxirane (Propylene oxide)	75-56-9	ND
108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	ND
109	Diisopentylphthalate (DIPP)	605-50-5	ND
110	N-pentyl-isopentylphthalate	776297-69-9	ND
111	1,2-diethoxyethane	629-14-1	ND
112	Acetic acid, lead salt, basic Δ	51404-69-4	ND
113	Lead oxide sulfate Δ	12036-76-9	ND
114	[Phthalato(2-)] dioxotrilead Δ	69011-06-9	ND
115	Dioxobis(stearato)trilead ∆	12578-12-0	ND
116	Fatty acids, C16-18, lead salts Δ	91031-62-8	ND
117	Lead cyanamidate Δ	20837-86-9	ND
118	Lead dinitrate Δ	10099-74-8	ND
119	Pentalead tetraoxide sulphate Δ	12065-90-6	ND
120	Pyrochlore, antimony lead yellow Δ	8012-00-8	ND
121	Sulfurous acid, lead salt, dibasic Δ	62229-08-7	ND
122	Tetraethyllead Δ	78-00-2	ND
123	Tetralead trioxide sulphate Δ	12202-17-4	ND
124	Trilead dioxide phosphonate Δ	12141-20-7	ND
125	Furan	110-00-9	ND
126	Diethyl sulphate	64-67-5	ND
127	Dimethyl sulphate	77-78-1	ND
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	ND
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	ND
130	4,4'-methylenedi-o-toluidine	838-88-0	ND
131	4,4'-oxydianiline and its salts	101-80-4	ND
132	4-aminoazobenzene	60-09-3	ND
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	ND
134	6-methoxy-m-toluidine (p-cresidine)	120-71-8	ND
135	Biphenyl-4-ylamine	92-67-1	ND
136	o-aminoazotoluene [(4-o-tolylazo-o-toluidine])	97-56-3	ND
137	o-toluidine	95-53-4	ND
138	N-methylacetamide	79-16-3	ND



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(i) The Ninth List (6 SVHC Released in Jun, 2013)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
139	Cadmium Δ	7440-43-9	ND
140	Cadmium oxide Δ	1306-19-0	ND
141	Dipentyl phthalate (DPP)	131-18-0	ND
142	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]		ND
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	ND
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	ND

(j) The Tenth List (7 SVHC Released in Dec, 2013)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
145	Cadmium sulphide Δ	1306-23-6	ND
146	Lead di(acetate) Δ	301-04-2	ND
147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'- biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene- 2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	ND
148	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4- aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	ND
149	Dihexyl phthalate	84-75-3	ND
150	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	ND
151	Trixylyl phosphate	25155-23-1	ND

(k) The Eleventh List (4 SVHC Released in Jun, 2014)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	ND
153	Cadmium chloride Δ	10108-64-2	ND
154	Sodium perborate; perboric acid, sodium salt Δ	15120-21-5, 11138-47-9	ND
155	Sodium peroxometaborate Δ	7632-04-4	ND



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(I) The Twelfth List (6 SVHC Released in December, 2014)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	ND
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	ND
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4- stannatetradecanoate (DOTE)	15571-58-1	ND
159	Cadmium fluoride Δ	7790-79-6	ND
160	Cadmium sulphate Δ	10124-36-4; 31119-53-6	ND
161	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)		ND

(m) The Thirteenth List (2 SVHC Released in June, 2015)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
162	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2- benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with \ge 0.3% of dihexyl phthalate (EC No. 201-559- 5)	68515-51-5; 68648-93-1	ND
	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]		ND

(n) The Fourteenth List (5 SVHC Released in December, 2015)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
164	1,3-Propanesultone	1120-71-4	ND
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV- 327)	3864-99-1	ND
166	2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	ND
167	Nitrobenzene	98-95-3	ND
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4	ND



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(o) The Fifteenth List (1 SVHC Released in June, 2016)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	ND

(p) The Sixteenth List (4 SVHC Released in January, 2017)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	ND
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts Nonadecafluorodecanoic acid EC no.: 206-400-3 CAS no.: 335-76-2 Ammonium nonadecafluorodecanoate EC no.: 221-470-5 CAS no.: 3108-42-7 Decanoic acid, nonadecafluoro-, sodium salt EC no.: CAS no.: 3830-45-3	-	ND
172	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]		ND
173	p-(1,1-dimethylpropyl)phenol	80-46-6	ND

(q) The Seventeenth List (1 SVHC Released in July, 2017)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
174	Perfluorohexane-1-sulphonic acid and its salt (PFHxS)		ND

(r) The Eighteenth List (7 SVHC Released in Jan, 2018)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
175	Benz[a]anthracene	56-55-3	ND
176	Cadmium nitrate∆	10325-94-7	ND
177	Cadmium carbonate∆	513-78-0	ND
178	Cadmium hydroxide∆	21041-95-2	ND
179	Chrysene	218-01-9	ND



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180	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]	 ND
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with \geq 0.1% w/w 4-heptylphenol, branched and linear]	 ND

(s) The Nineteenth List (10 SVHC Released in Jun, 2018)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	Results %(w/w)
182	Octamethylcyclotetrasiloxane (D4)	556-67-2	ND
183	Decamethylcyclopentasiloxane (D5)	541-02-6	ND
184	Dodecamethylcyclohexasiloxane (D6)	540-97-6	ND
185	Lead	7439-92-1	ND
186	Disodium octaborate∆	12008-41-2	ND
187	Benzo[ghi]perylene	191-24-2	ND
188	Terphenyl hydrogenated	61788-32-7	ND
189	Ethylenediamine (EDA)	107-15-3	ND
190	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (Trimellitic anhydride) (TMA)	552-30-7	ND
191	Dicyclohexyl phthalate (DCHP)	84-61-7	ND

(t) The Twentieth List (6 SVHC Released in Jan, 2019)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	ND
193	Benzo[k]fluoranthene	207-08-9	ND
194	Fluoranthene	206-44-0	ND
195	Phenanthrene	85-01-8	ND
196	Pyrene	129-00-0	ND
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan- 2-one (3-benzylidene camphor)	15087-24-8	ND



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(u) The Twenty-first List (4 SVHC Released in July, 2019)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
198	4-tert-butylphenol (PTBP)	98-54-4	ND
199	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)		ND
200	2-methoxyethyl acetate	110-49-6	ND
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\ge 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)		ND

(v) The Twenty-second List (4 SVHC Released in Jan, 2020)

No.	Chemical Substance	<u>CAS No.</u>	<u>Results %(w/w)</u>
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	ND
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1- one	71868-10-5	ND
204	Diisohexyl phthalate	71850-09-4	ND
205	Perfluorobutane sulfonic acid (PFBS) and its salts		ND

(w) The Twenty-third List (4 SVHC Released in Jun, 2020)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	<u>Results %(w/w)</u>
206	1-vinylimidazole	1072-63-5	ND
207	2-methylimidazole	693-98-1	ND
208	Butyl 4-hydroxybenzoate	94-26-8	ND
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	ND





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Note:

1

Reporting limit = 0.010% (raw material)

SVHC = Substance of very high concern

ND = Not detected (the result is less than the reporting limit)

Reporting limit = Quantitation limit of analyte in sample

Δ = Determination was based on elemental analysis. The content was calculated based on assumption of worst-Case

Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai

- Address: Block B, Jinling Business Square, No.801, Yi Shan Road, Shanghai, China
 - Substances of very high concern (SVHC) are classified as:
 - a. Carcinogenic, mutagenic or toxic to reproduction category 1 (proven on humans) and category 2 (proven on animals)

b. Persistent, bioaccumulative and toxic chemicals (PBT)

- c. Very persistent and very bioaccumulative chemicals (vPvB)
- d. Other similar substances such as endocrine disrupters
- 2. If the imported or manufactured volume of each individual SVHC in article is more than 0.1% (w/w) and if it exceeds 1 tonne per year across all product ranges, then importer or manufacturer require notification to the European Chemical Agency (ECHA). For substances included in the Candidate List on or after 1 December 2010, the notifications have to be submitted no later than 6 months after the inclusion. The following information has to be submitted for notification:
 - a. Identification of the registrant and the substance
 - b. Classification and labelling of the substance
 - c. Description of use of the substance and the article
 - d. Registration number, if available
 - e. Tonnage range
- 3. As per article 31 of regulation (EC) No. 1907/2006 (REACH), suppliers of mixtures not classified as dangerous according to directive 1999/45/EC have to provide the recipients, at their request, with a safety data sheet if the mixtures contain at least one substance on the SVHC candidate list and its individual concentration is 0.1%(w/w) or above for non-gaseous preparations.

REACH requirement:

As per article 33(1) of regulation (EC) No. 1907/2006 (REACH), recipients of product must be provided with information of safe use if any of the tested substances (SVHC) exceeded 0.1% (w/w). A product meets the requirement of article 33(1) by default when no SVHC exceeds 0.1% (w/w).

Conclusion:

Tested Samples	Standard	Result
Submitted sample	EU REACH Regulation No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH requirement in report for details)	Meet Requirement



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Appendix A: Sample Received Photo



NO.	Date	Changes	Author	Reviewer
201204007SHF-001	2020-12-16	First issue	Milo Liu	Flora Fan