Dated 2020-11-30



SVHC Assessment Report

Client: Jiangsu Acrel Electrical Manufacturing. Co., Ltd.

No. 5, Dongmeng Road, Nanzha Street, Jiangyin, Jiangsu, P. R. China

Han zhonghua

Test object: The submitted samples were received and described by client as:

Product: Muli-function Power Meter

Model: ACR10R



Purpose of Evaluation:

Contact person:

 Based on the Candidate List, to test the listed 209 substances of Substances of Very High Concern (SVHC) for Authorisation updated on 15 Jun, 2020, 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.

Remark:

- 1. The tested samples were identified and appointed by client.
- 2. The result relates only to the items tested.
- 3. As the client required, the sample was tested in mixture.
- 4. The tested materials covered by the report were declared by the manufacturer to be used on the models listed in the additional model of the report.

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

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1. Order

1.1 **Date of Purchase Order,** 2020-11-19

1.2 **Customer's Reference**

Nil

1.3 **Receipt Date of Test Sample** 2020-11-15

1.4 **Date of Testing**

2020-11-19~2020-11-30

1.5 **Location of Testing**

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2. Description of the Evaluated Product

Sample No	Description Photograph			
01	Transparent soft plastic inflatable bag	M M M M M M M M M M M M M M M M M M M		
02	Gray soft plastic label	39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55		
03	Gray soft plastic label	3 44 46 47 48 49 50 51 52 53 54 55 56 57 58 59 go		
04	Blue and gray soft plastic label	44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 5		

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Sample No	Description	Photograph
05	Orange rubber button	50 51 52 53 54 55 56 57 58 59
06	Gray soft plastic label	5 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 5
07	Black soft plastic wire jacket	A1 A2 43 A4 45 46 47 45 43 50 51 52 53 54 55 55 51 50 50 50
08	White soft plastic wire jacket	41 42 43 44 45 46 47 45 49 50 51 52 53 54 55 55 57 58 59 50

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China

Sample No	Description	Photograph
09	Silvery soft plastic label	30 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 65 50 57 59 5
10	Yellow soft plastic sheath	30 31 32 33 34 35 36 37 38 39
11	Transparent soft plastic glue	33 34 35 36 37 38 39 40 41 42 43
12	Yellow soft plastic adhesive tape	32 33 34 35 36 37 38 39 40 41 42

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Sample No	Description Photograph			
13	White paper label	27 28 29 0 31 32 33 34 35 36 37 38 39 40 41 42		
14	White paper label	33 34 35 36 37 38 39 40 41 42 43 44 45		
15	Yellow soft plastic adhesive tape	33 34 35 36 37 38 39 40 41 42 43 44		
16	Blue soft plastic film	4 36 37 38 39 40 41 42 43 44 45 46 47 41		

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China

Sample	Description Photograph		
No		constitute of	
17	Gray soft plastic film	9 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	
18	Yellow paper packing		
19	Gray hard plastic shell	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 5	
20	Transparent hard plastic cover	2 43 44 45 46 47 48 49 50 51 52 53 54 55	

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Sample No	Description Photograph			
21	Gray hard plastic shell	38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 5		
22	Yellow hard plastic sheath	26 27 28 29 30 31 32 33		
23	Black hard plastic shell	30 31 32 33 34 35 36 37 38 39 40 41 4		
24	Black hard plastic frame	28 29 30 31 32 33 34 35 36 37 38		

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Sample No	Description	Photograph
25	Black hard plastic bracket	32 33 34 35 36 37 38 39 40 41 42
26	White hard plastic slice	46 47 48 49 50 51 52 53 54 55 56 5
27	Black hard plastic component	46 47 48 49 50 51 52 53 54 5E
28	Silvery metal pin	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 .

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China

Sample	Description	Photograph
No	Description	гиосодіаріі
29	Silvery metal wire	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 1
30	Golden metal rivet	29 30 31 32 33 34 35 36 37 38 39 40 41
31	Silver metal solder	33 34 35 36 37 38 39 40 41 42 43
32	Black metal magnet	28 29 30 31 32 33 34 35 36 37 38

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Sample No	Description Photograph			
33	Golden metal wire	29 30 31 32 33 34 35 36 37 38 39 40 41 42		
34	Silvery metal pin	46 47 48 49 50 51 52 53 54 5E		
35	Silvery metal screw	33 34 35 36 37 38 39 40 41		
36	Silver metal solder	27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42		

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China

Commis	T	China
Sample No	Description	Photograph
37	Green hard PCB with electronic components	27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 4
38	Green hard PCB with electronic components	4 25 26 27 28 29 30 31 32 33 34 35 36 37 38
39	Green hard PCB with electronic components	33 34 35 36 37 38 39 40 41 42 43 44 45
40	Green hard PCB with electronic components	4 35 36 37 38 39 40 41 42 43 44 45 46 47 41

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3. Test Data:

Group NO	Sample ID
Group 1	01+02+03+04+05+06+07+08+09
Group 2	10+11+12+13+14+15+16+17+18
Group 3	19+20+21+22+23+24+25+26+27
Group 4	28+29+30+31+32+33+34+35+36
Group 5	37
Group 6	38
Group 7	39
Group 8	40

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China

Group NO	Concentration of each SVHC in the submitted Objects (%)	Conclusion
Group 1	<0.01%	PASS
Group 2	<0.01%	PASS
Group 3	<0.01%	PASS
Group 4	<0.01%	PASS
Group 5	>0.01%	
Group 6	>0.01%	
Group 7	<0.01%	PASS
Group 8	>0.01%	

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Group 5

Sample No	Description	Photograph
37	Green hard PCB with electronic components	27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 4

Test Item(s)	CAS No.	Result(s) (%)	Classification
i set nem(e)		Group 5	Glacomounch
N,N-dimethylformamide	68-12-2	0.021	Toxic for reproduction (Article 57 c)
Others substances of very high concern(SVHC) ⁵		<0.01	/

Group 6

Sample No	Description	Photograph
38	Green hard PCB with electronic components	4 26 27 28 29 30 31 32 33 34 35 36 3T 38

Test Item(s)	CAS No.	Result(s) (%)	Classification
r oor nom(o)	0710 1101	Group 6	- Glassification
N,N-dimethylformamide	68-12-2	0.024	Toxic for reproduction (Article 57 c)
Others substances of very high concern(SVHC) ⁵		<0.01	/

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Group 8

Sample No	Description	Photograph
40	Green hard PCB with electronic components	4 35 36 37 38 39 40 41 42 43 44 45 46 47 4

Test Item(s)	CAS No.	Result(s) (%)	Classification
r oor nom(o)	0710 1101	Group 8	- Glassilloution
N,N-dimethylformamide	68-12-2	0.015	Toxic for reproduction (Article 57 c)
Others substances of very high concern(SVHC) ⁵		<0.01	/

Remark:

- 1. Detection limit = 0.01%
- 2. "<" denoted less than
- 3. ">" denoted greater than
- 4. "--" denoted no judgement
- 5. Refer to the next pages for detailed list of SVHCs.
- 6. "*" Obligation of Importer (For article)

To communicate information down the supply chain according with article.33 of REACH. OR

- 1. Notification to ECHA, if the quantities of SVHC in the produced/imported articles are above 1 ton in total per year per company.
- 2. Provide sufficient information to ensure safe use of the article and, as a minimum, include the name of the substance, to their customers and on request to consumers within 45 days of the receipt of this request.

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4. SVHC candidate list published by European Chemical Agency (ECHA)

SN	Test Item(s)	CAS No.	Classification
1	Lead hydrogen arsenate	7784-40-9	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
2	Benzyl butyl phthalate (BBP)	85-68-7	Toxic for reproduction (article 57c)
3	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	Toxic for reproduction (article 57c)
4	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	vPvB (article 57e)
5	Diarsenic trioxide	1327-53-3	Carcinogenic (article 57a)
6	Bis(tributyltin)oxide (TBTO)	56-35-9	PBT (article 57d)
7	Triethyl arsenate	15606-95-8	Carcinogenic (article 57a)
8	Diarsenic pentaoxide	1303-28-2	Carcinogenic (article 57a)
9	Sodium dichromate	7789-12-0, 10588-01-9	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)
10	Dibutyl phthalate (DBP)	84-74-2	Toxic for reproduction (article 57c)
11	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	Carcinogenic (article 57a)
12	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins, SCCP)	85535-84-8	PBT and vPvB (articles 57 d and 57 e)
13	Anthracene	120-12-7	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)	PBT (article 57d)
15	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	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	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
17	Anthracene oil	90640-80-5	Carcinogenic ¹ , PBT and vPvB (articles 57a, 57d and 57e)

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China

SN	Test Item(s)	CAS No.	Classification
18	2,4-Dinitrotoluene	121-14-2	Carcinogenic (article 57a)
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
20	Anthracene oil, anthracene-low	90640-82-7	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
21	Tris(2-chloroethyl)phosphate	115-96-8	Toxic for reproduction (article 57c)
22	Diisobutyl phthalate	84-69-5	Toxic for reproduction (article 57c)
23	Lead chromate	7758-97-6	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
24	Anthracene oil, anthracene paste	90640-81-6	Carcinogenic², mutagenic³, PBT and vPvB (articles 57a, 57b, 57d and 57e)
25	Pitch, coal tar, high temp.	65996-93-2	Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e)
26	Anthracene oil, anthracene paste,distn. lights	91995-17-4	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
27	Acrylamide	79-06-1	Carcinogenic and mutagenic (articles 57 a and 57 b)
28	Trichloroethylene	79-01-6	Carcinogenic (article 57 a)
29	Potassium dichromate	7778-50-9	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
30	Tetraboron disodium heptaoxide, hydrate	12267-73-1	Toxic for reproduction (article 57 c)
31	Ammonium dichromate	7789-09-5	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
32	Boric acid	10043-35-3, 11113-50-1	Toxic for reproduction (article 57 c)
33	Sodium chromate	7775-11-3	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	Toxic for reproduction (article 57 c)
35	Potassium chromate	7789-00-6	Carcinogenic and mutagenic (articles 57 a and 57 b).

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SN	Test Item(s)	CAS No.	Classification
36	Cobalt(II) diacetate	71-48-7	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
37	Cobalt(II) sulphate	10124-43-3	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
38	2-Ethoxyethanol	110-80-5	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	Carcinogenic (article 57a)
40	2-Methoxyethanol	109-86-4	Toxic for reproduction (article 57c)
41	Chromium trioxide	1333-82-0	Carcinogenic and mutagenic (articles 57 a and 57 b)
42	Cobalt(II) carbonate	513-79-1	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
43	Cobalt(II) dinitrate	10141-05-6	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	Toxic for reproduction (article 57c)
45	1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters	68515-42-4	Toxic for reproduction (article 57c)
46	Strontium chromate	7789-06-2	Carcinogenic (article 57a)
47	1-Methyl-2-pyrrolidone	872-50-4	Toxic for reproduction (article 57c)
48	1,2,3-Trichloropropane	96-18-4	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
49	2-Ethoxyethyl acetate	111-15-9	Toxic for reproduction (article 57c)
50	Hydrazine	302-01-2, 7803-57-8	Carcinogenic (article 57a)
51	Cobalt dichloride	7646-79-9	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
52	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	Equivalent level of concern having probable serious effects to the environment (article 57 f)
53	N,N-dimethylacetamide	127-19-5	Toxic for reproduction (article 57 c)

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SN	Test Item(s)	CAS No.	Classification
54	Phenolphthalein	77-09-8	Carcinogenic (article 57 a)
55	Lead diazide, Lead azide	13424-46-9	Toxic for reproduction (article 57 c),
56	Lead dipicrate	6477-64-1	Toxic for reproduction (article 57 c)
57	1,2-dichloroethane	107-06-2	Carcinogenic (article 57 a)
58	Calcium arsenate	7778-44-1	Carcinogenic (article 57 a)
59	Dichromium tris(chromate)	24613-89-6	Carcinogenic (article 57 a)
60	2-Methoxyaniline; o-Anisidine	90-04-0	Carcinogenic (article 57 a)
61	Pentazinc chromate octahydroxide	49663-84-5	Carcinogenic (article 57 a)
62	Arsenic acid	7778-39-4	Carcinogenic (article 57 a)
63	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	Carcinogenic (article 57 a)
64	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	Carcinogenic (article 57 a)
65	Lead styphnate	15245-44-0	Toxic for reproduction (article 57 c)
66	Trilead diarsenate	3687-31-8	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 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	-	Carcinogenic (article 57 a)

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SN	Test Item(s)	CAS No.	Classification
68	Bis(2-methoxyethyl) phthalate	117-82-8	Toxic for reproduction (article 57 c)
69	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 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	-	Carcinogenic (article 57 a)
70	Bis(2-methoxyethyl) ether	111-96-6	Toxic for reproduction (article 57 c)
71	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	Carcinogenic (article 57 a)
72	α,α-Bis[4-(dimethylamino)phenyl]-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)]	6786-83-0	Carcinogenic (Article 57a)
73	N,N,N',N'-tetramethyl-4,4'- methylenedianiline (Michler's base)	101-61-1	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	Mutagenic (Article 57b)
75	Diboron trioxide	1303-86-2	Toxic for reproduction (Article 57 c)
76	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	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	Carcinogenic (Article 57a)
78	Lead(II) bis(methanesulfonate)	17570-76-2	Toxic for reproduction (Article 57 c)
79	Formamide	75-12-7	Toxic for reproduction (Article 57 c)

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SN	Test Item(s)	CAS No.	Classification
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	Carcinogenic (Article 57a)
81	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	Toxic for reproduction (Article 57 c)
82	[4-[[4-anilino-1-naphthyl]][4- (dimethylamino)phenyl]methylene]cyclohe xa-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	Carcinogenic (Article 57a)
83	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5- triazinane-2,4,6-trione (TGIC)	2451-62-9	Mutagenic (Article 57b)
84	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Carcinogenic (Article 57a)
85	Pyrochlore, antimony lead yellow	8012-00-8	Toxic for reproduction (Article 57 c)
86	6-methoxy-m-toluidine (p-cresidine)	120-71-8	Carcinogenic (Article 57a)
87	Henicosafluoroundecanoic acid	2058-94-8	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	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	Equivalent level of concern having probable serious effects to human health (Article 57 f)
90	Dibutyltin dichloride (DBTC)	683-18-1	Toxic for reproduction (Article 57 c)
91	Lead bis(tetrafluoroborate)	13814-96-5	Toxic for reproduction (Article 57 c)

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SN	Test Item(s)	CAS No.	Classification
92	Lead dinitrate	10099-74-8	Toxic for reproduction (Article 57 c)
93	Silicic acid, lead salt	11120-22-2	Toxic for reproduction (Article 57 c)
94	4-Aminoazobenzene	60-09-3	Carcinogenic (Article 57a)
95	Lead titanium zirconium oxide	12626-81-2	Toxic for reproduction (Article 57 c)
96	Lead monoxide (lead oxide)	1317-36-8	Toxic for reproduction (Article 57 c)
97	o-Toluidine	95-53-4	Carcinogenic (Article 57a)
98	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3- oxazolidine	143860-04-2	Toxic for reproduction (Article 57 c)
99	Silicic acid (H2Si2O5), 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	Toxic for reproduction (Article 57 c)
100	Trilead bis(carbonate)dihydroxide	1319-46-6	Toxic for reproduction (Article 57 c)
101	Furan	110-00-9	Carcinogenic (Article 57a)
102	N,N-dimethylformamide	68-12-2	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]	-	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]	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
105	4,4'-methylenedi-o-toluidine	838-88-0	Carcinogenic (Article 57a)
106	Diethyl sulphate	64-67-5	Carcinogenic (Article 57a); Mutagenic (Article 57b)

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SN	Test Item(s)	CAS No.	Classification
107	Dimethyl sulphate	77-78-1	Carcinogenic (Article 57a)
108	Lead oxide sulfate	12036-76-9	Toxic for reproduction (Article 57 c)
109	Lead titanium trioxide	12060-00-3	Toxic for reproduction (Article 57 c)
110	Acetic acid, lead salt, basic	51404-69-4	Toxic for reproduction (Article 57 c)
111	[Phthalato(2-)]dioxotrilead	69011-06-9	Toxic for reproduction (Article 57 c)
112	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	PBT (Article 57 d); vPvB (Article 57 e)
113	N-methylacetamide	79-16-3	Toxic for reproduction (Article 57 c)
114	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	Toxic for reproduction (Article 57 c)
115	1,2-Diethoxyethane	629-14-1	Toxic for reproduction (Article 57 c)
116	Tetralead trioxide sulphate	12202-17-4	Toxic for reproduction (Article 57 c)
117	N-pentyl-isopentylphthalate	776297-69-9	Toxic for reproduction (Article 57 c)
118	Dioxobis(stearato)trilead	12578-12-0	Toxic for reproduction (Article 57 c)
119	Tetraethyllead	78-00-2	Toxic for reproduction (Article 57 c)
120	Pentalead tetraoxide sulphate	12065-90-6	Toxic for reproduction (Article 57 c)
121	Pentacosafluorotridecanoic acid	72629-94-8	vPvB (Article 57 e)
122	Tricosafluorododecanoic acid	307-55-1	vPvB (Article 57 e)
123	Heptacosafluorotetradecanoic acid	376-06-7	vPvB (Article 57 e)
124	1-bromopropane (n-propyl bromide)	106-94-5	Toxic for reproduction (Article 57 c)
125	Methoxyacetic acid	625-45-6	Toxic for reproduction (Article 57 c)
126	4-methyl-m-phenylenediamine (toluene- 2,4-diamine)	95-80-7	Carcinogenic (Article 57a)
127	Methyloxirane (Propylene oxide)	75-56-9	Carcinogenic (Article 57a); Mutagenic (Article 57b)
128	Trilead dioxide phosphonate	12141-20-7	Toxic for reproduction (Article 57 c)

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SVI	SN Test Item(s) CAS No.		Classification	
JIN	rest item(s)	CAS NO.	Ciassilication	
129	o-aminoazotoluene	97-56-3	Carcinogenic (Article 57a)	
130	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Toxic for reproduction (Article 57 c)	
131	4,4'-oxydianiline and its salts	101-80-4	Carcinogenic (Article 57a); Mutagenic (Article 57b)	
132	Orange lead (lead tetroxide)	1314-41-6	Toxic for reproduction (Article 57 c)	
133	Biphenyl-4-ylamine	92-67-1	Carcinogenic (Article 57a)	
134	Diisopentylphthalate	605-50-5	Toxic for reproduction (Article 57 c)	
135	Fatty acids, C16-18, lead salts	91031-62-8	Toxic for reproduction (Article 57 c)	
136	Diazene-1,2-dicarboxamide (C,C'- azodi(formamide))	123-77-3	Equivalent level of concern having probable serious effects to human health (Article 57 f)	
137	Sulfurous acid, lead salt, dibasic	62229-08-7	Toxic for reproduction (Article 57 c)	
138	Lead cyanamidate	20837-86-9	Toxic for reproduction (Article 57 c)	
139	Cadmium	7440-43-9	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)	
140	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Toxic for reproduction (Article 57 c); PBT (Article 57 d)	
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	Toxic for reproduction (Article 57 c); PBT (Article 57 d)	
142	Dipentyl phthalate (DPP)	131-18-0	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]	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f)	
144	Cadmium oxide	1306-19-0	Carcinogenic (Article 57a); Equivalent level of concern having	

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	China			
SN	Test Item(s)	CAS No.	Classification	
			probable serious effects to human health (Article 57 f)	
145	Cadmium sulphide	1306-23-6	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)	
146	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	Carcinogenic (Article 57a)	
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	Carcinogenic (Article 57a)	
148	Dihexyl phthalate	84-75-3	Toxic for reproduction (Article 57 c)	
149	Imidazolidine-2-thione (2-imidazoline-2- thiol)	96-45-7	Toxic for reproduction (Article 57 c)	
150	Lead di(acetate)	301-04-2	Toxic for reproduction (Article 57 c)	
151	Trixylyl phosphate	25155-23-1	Toxic for reproduction (Article 57 c)	
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Toxic for reproduction (Article 57 c)	
153	Cadmium chloride	10108-64-2	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		Toxic for reproduction (Article 57 c)	
155	Sodium peroxometaborate	7632-04-4	Toxic for reproduction (Article 57 c)	

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SN	Test Item(s)	CAS No.	Classification
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	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)	15571-58-1	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)		Toxic for reproduction (Article 57 c)
159	2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	25973-55-1	PBT (Article 57 d); vPvB (Article 57 e)
160	Cadmium fluoride	7790-79-6	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	10124-36-4 31119-53-6	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)
162	1,2-benzenedicarboxylic acid, di-C6-10- alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5 68648-93-1	Toxic for Reproduction (Article 57 c)
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]	117933-89-8	vPvB (Article 57 e)
164	1,3-propanesultone	1120-71-4	Carcinogenic (Article 57 a)
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2- yl)phenol (UV-327)	3864-99-1	vPvB (Article 57 e)
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6- (sec-butyl)phenol (UV-350)	36437-37-3	vPvB (Article 57 e)

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	Cilila		
SN	Test Item(s)	CAS No.	Classification
167	Nitrobenzene	98-95-3	Toxic for reproduction (Article 57 c)
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9- heptadecafluorononanoic acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4	Toxic for reproduction (Article 57 c);PBT (Article 57 d)
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); PBT (Article 57 d); vPvB (Article 57 e)
170	4,4'-isopropylidenediphenol (Bisphenol A, BPA)	80-05-7	Toxic for reproduction (Article 57 c)
171	Nonadecaflurodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2, 3830-45-3, 3108-42-7	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
172	4-Heptylphenol, branched and linear		Equivalent level of concern having probable serious effects to the environment (Article 57 f)
173	p-(1,1-dimethylpropyl)phenol (pentylphenol, PTAP)	80-46-6	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4	vPvB (Article 57e)
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]	13560-89-9, 135821-74-8, 135821-03-3	vPvB(Article 57 e)
176	Benz[a]anthracene	56-55-3	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); vPvB(Article 57 e)
177	Cadmium nitrate	10325-94-7	Carcinogenic (Article 57 a); Mutagenic (Article 57 b);

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SN Test Item(s) CAS No. Classification Equivalent level of concern having probable serious effects to human health (Article 57 f) Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Cadmium carbonate 178 513-78-0 Equivalent level of concern having probable serious effects to human health (Article 57 f) Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Cadmium hydroxide 179 Equivalent level of concern having 21041-95-2 probable serious effects to human health (Article 57 f) Carcinogenic (Article 57 a); Chrysene 180 Mutagenic (Article 57 b); 218-01-9 vPvB(Article 57 e) Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-Equivalent level of concern having heptylphenol, branched and linear (RP-181 probable serious effects to human HP) [with ≥0.1% w/w 4-heptylphenol, health (Article 57 f) branched and linear] Benzene-1,2,4-tricarboxylic acid 1,2-Respiratory sensitising properties 182 552-30-7 anhydride (trimellitic anhydride) (TMA) (Article 57(f)) – human health) Toxic for reproduction (Article 57(c)); endocrine disrupting Dicyclohexyl phthalate (DCHP) 183 84-61-7 properties (Article 57(f) - human health) PBT (Article 57d); Octamethylcyclotetrasiloxane (D4) 556-67-2 184 vPvB (Article 57e) PBT (Article 57d); Decamethylcyclopentasiloxane (D5) 541-02-6 185 vPvB (Article 57e) PBT (Article 57d); Dodecamethylcyclohexasiloxane (D6) 540-97-6 186 vPvB (Article 57e) Lead 7439-92-1 Toxic for reproduction (Article 57c) 187

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SN	Test Item(s)	CAS No.	Classification
	Disadium octoborato	12008-41-2	Toxic for rounduction (Article 57c)
188	Disodium octaborate	12006-41-2	Toxic for reproduction (Article 57c)
	Benzo[ghi]perylene	191-24-2	PBT (Article 57d);
189	Denzo[grii]perviene	131-24-2	vPvB (Article 57e)
190	Terphenyl hydrogenated	61788-32-7	vPvB (Article 57e)
191	Ethylenediamine (EDA)	107-15-3	Respiratory sensitising properties (Article 57(f) - human health)
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	Toxic for reproduction (Article 57c)
193	1,7,7-trimethyl-3- (phenylmethylene)bicyclo[2.2.1]heptan-2- one (3-benzylidene camphor)	15087-24-8	Endocrine disrupting properties (Article 57(f) - environment)
194	Benzo[k]fluoranthene	207-08-9	Carcinogenic (Article 57a); PBT (Article 57d); vPvB (Article 57e)
195	Fluoranthene	206-44-0	PBT (Article 57d); vPvB (Article 57e)
196	Phenanthrene	85-01-8	vPvB (Article 57e)
197	Pyrene	129-00-0	PBT (Article 57d); vPvB (Article 57e)
198	2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)		Equivalent level of concern having probable serious effects on the environment (Article 57f) Equivalent level of concern having probable serious effects on human health (Article 57f)
199	2-methoxyethyl acetate	110-49-6	Toxic for reproduction (Article 57c)
200	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)		Endocrine disrupting properties (Article 57(f) – environment)

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SN	Test Item(s)	CAS No.	Classification
201	4-tert-butylphenols (PTBP)	98-54-4	Endocrine disrupting properties (Article 57(f) – environment)
202	Diisohexyl phthalate	71850-09-4	Toxic for reproduction (Article 57c)
203	2-benzyl-2-dimethylamino-4'- morpholinobutyrophenone	119313-12-1	Toxic for reproduction (Article 57c)
204	2-methyl-1-(4-methylthiophenyl)-2- morpholinopropan-1-one	71868-10-5	Toxic for reproduction (Article 57c)
205	Perfluorobutane sulfonic acid (PFBS) and its salts		Equivalent level of concern having probable serious effects on the environment (Article 57f) Equivalent level of concern having probable serious effects on human health (Article 57f)
206	1-vinylimidazole	1072-63-5	Toxic for reproduction (Article 57c)
207	2-methylimidazole	693-98-1	Toxic for reproduction (Article 57c)
208	Butyl 4-hydroxybenzoate	94-26-8	Endocrine disrupting properties (Article 57(f) – environment)
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	Toxic for reproduction (Article 57c)

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Remark:

- 1. Definition of classification is listed in Appendix A of this report in accordance with 67/548/EEC and Regulation (EC) No 1907/2006.
- 2. The analysis of 209 SVHCs 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.
- 3."**" The substances are tested in terms of its respective elements and the test result is based on the calculation of selected elements.

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

Prepared by:



Checked by



--END OF REPORT--

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