Report No. **48.400.21.0504.05-00/05**

Dated **2021-07-22**

Technical Report

Applicant: Zhejiang Haoda Electrical Appliance Co., Ltd

NO.69, Linjiang Gaobu Yuecheng, Shaoxing, 312000 Zhejiang, China

Attn. to: Mr. Li

Manufacture: Same as the above.

Test object: The tested object(s) was(were) submitted and described by client as:
Product Name: Hotplate Cooker
Product Model: HD1001A,HD2013B,HD2013C

Additional models information, please refer to Appendix I.

Test specification: **2011/65/EU (RoHS) Directive and its Annex II amending directive 2015/863/EU**
Test with reference to EN 62321-1:2013, EN 62321-2:2014, EN 62321-3-1:2014, EN 62321-4:2014/A1:2017, EN 62321-5:2014, EN 62321-6:2015, EN 62321-7-1:2015; EN 62321-7-2:2017 and EN 62321-8:2017.

Test result: Refer to the data listed in following pages

Conclusion: With regard to the data of tested components, the requirements of RoHS Directive 2011/65/EU and 2015/863/EU. **PASS**

Remarks:
1. The result relates only to the items tested.
2. Samples were tested as received.
3. The spot tested components were as the request by applicant.
4. This technical report was update from the TUV SUD original report No. 48.400.20.7021.15-00/05.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

1. Order

1.1 Date of Purchase Order
2021-05-31

1.2 Customer's Reference
Technical Report No. 48.400.20.7021.15-00/05.

1.3 Receipt Date of Test Sample
2021-05-31 ~ 2021-06-18, sample 78~100

1.4 Date of Testing
2021-05-31 ~ 2021-07-07, sample 78-100

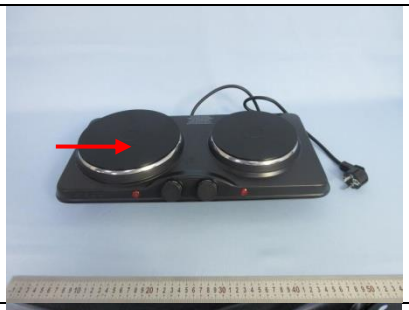
1.5 Document submitted
Nil

1.6 Location of Testing
ED-XRF Spectrometer test
TÜV SÜD Certification and Testing (China) Co., Ltd

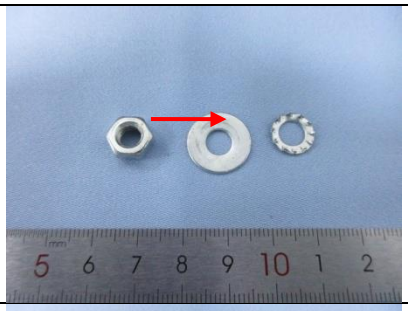
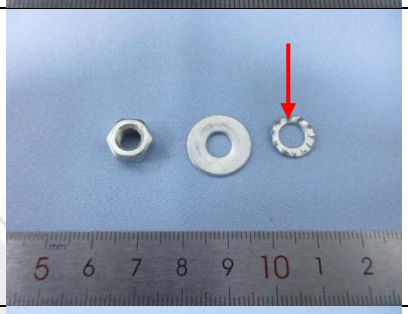
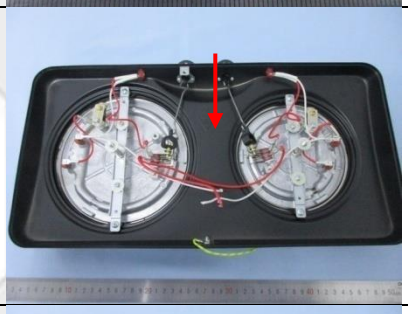
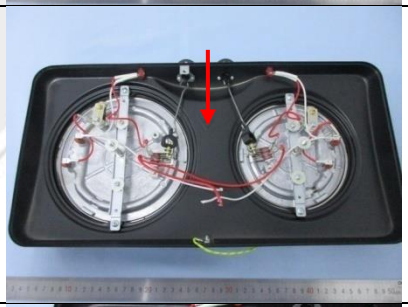
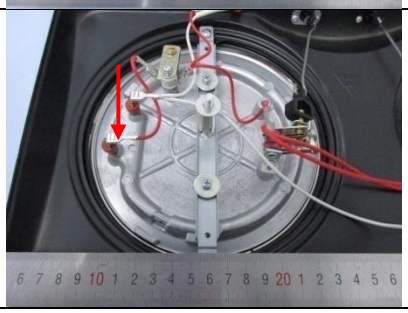
Wet Chemical test
TÜV SÜD Certification and Testing (China) Co., Ltd.
Shanghai Branch, SHA Chemical Lab.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

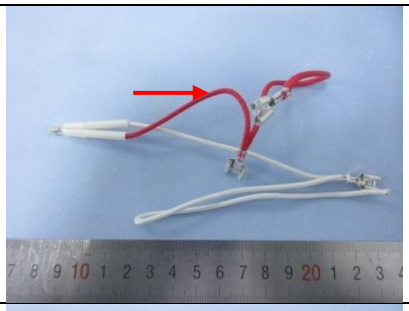
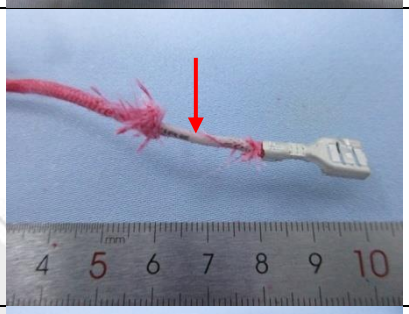
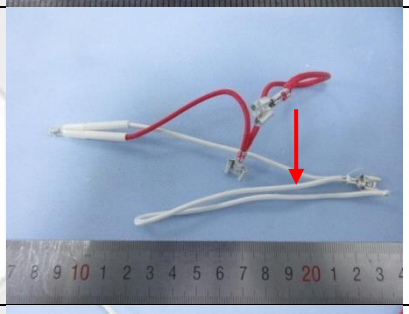
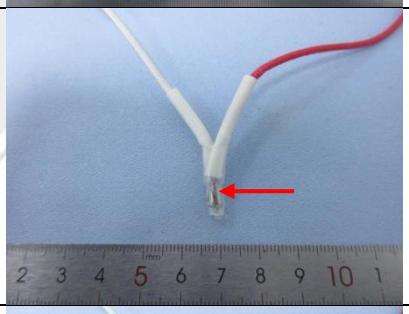
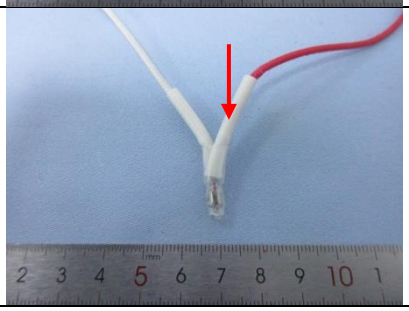
2. Description of the tested specimen

Sample No.	Description	Photograph/Location
1	Black coating (HD2013B/HD2013C)	
2	Red plastic lampshade	
3	Silvery metal screw	
4	Black rubber cushion	
5	Silvery metal nut	

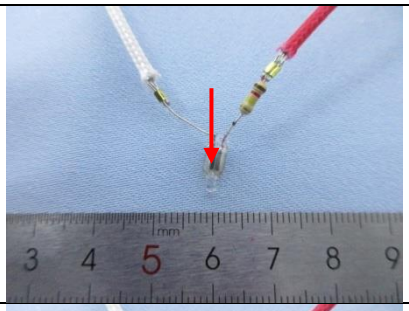
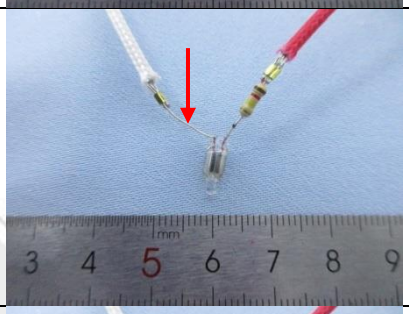
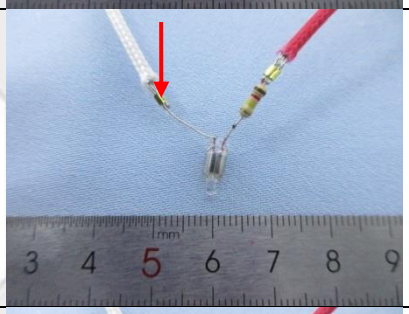
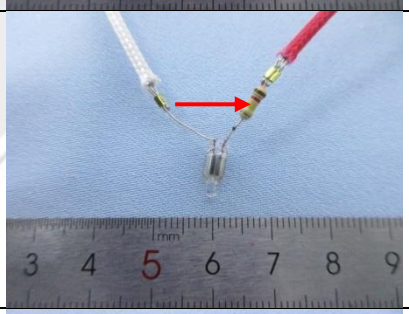
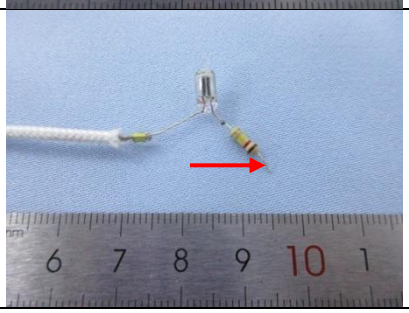
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
6	Silvery metal washer	
7	Black coating (HD2013C)	
8	Metal frame (HD2013C)	
9	Metal frame (HD2013C)	
10	Silvery metal connector	

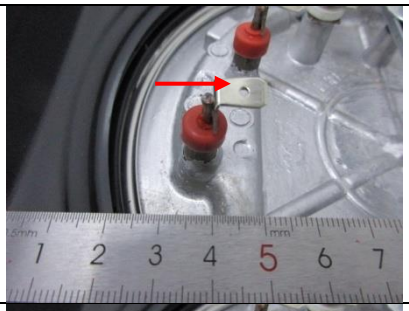
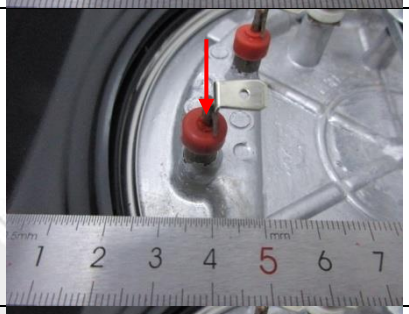
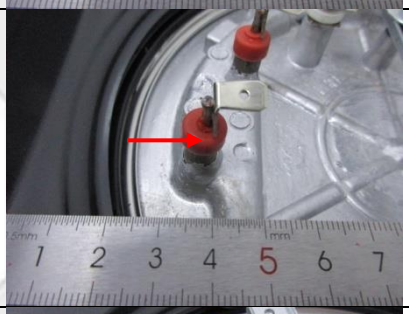
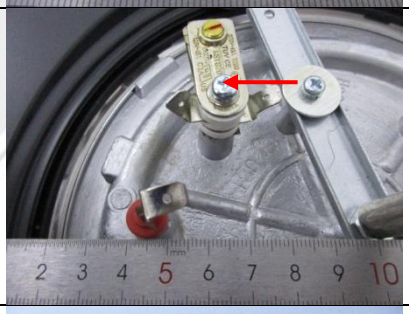
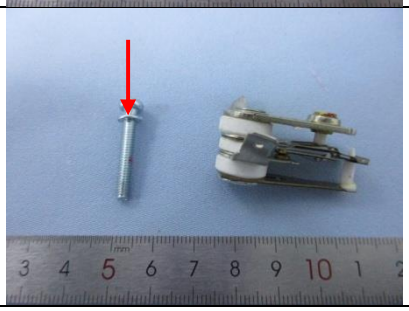
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
11	Red weave sheath	
12	White wire jacket	
13	White weave sheath	
14	Transparent rubber sheath	
15	White rubber sheath	

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
16	Transparent glass lamp	
17	Silvery metal pin of lamp	
18	Golden metal wire clip	
19	Brown resistor	
20	Silvery metal pin of resistor	

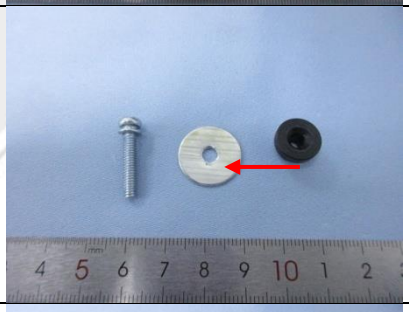
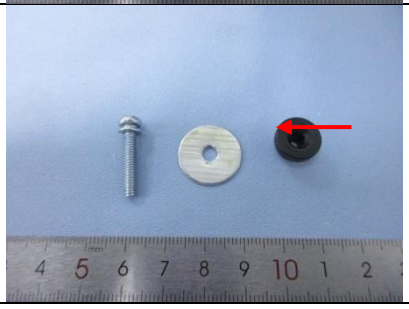
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
21	Silvery metal pin	
22	Silvery metal pin	
23	Red rubber sheath (HD2013C)	
24	Light blue plating metal screw (HD2013C)	
25	Light blue plating metal ring (HD2013C)	

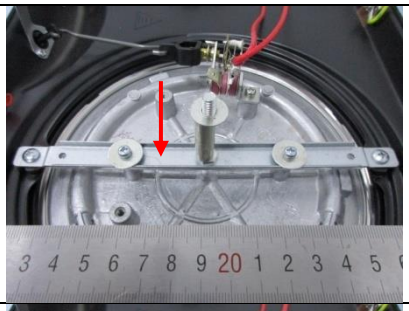
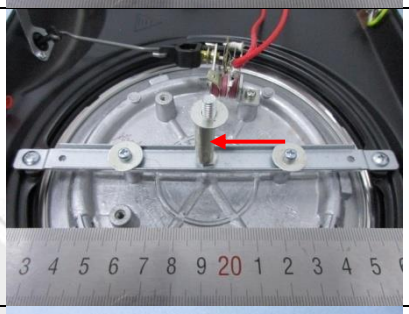
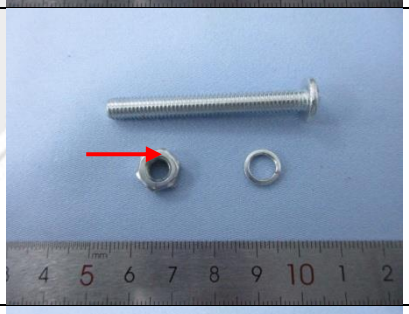
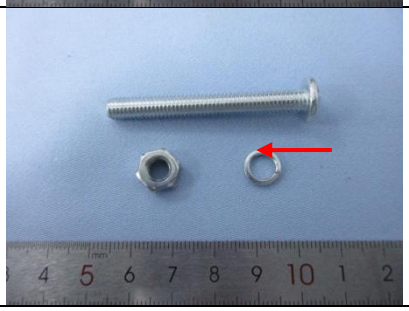
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
26	Silvery metal sheet	
27	Silvery metal sheet	
28	Silvery metal sheet	
29	Silvery metal shaft	
30	Golden metal screw (HD2013B)	

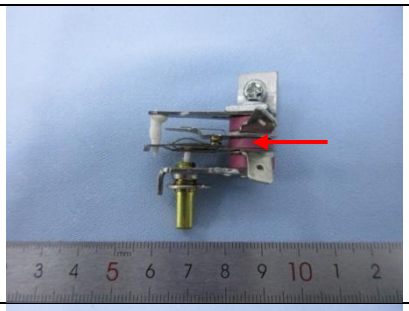
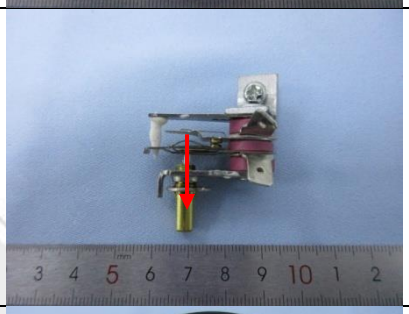
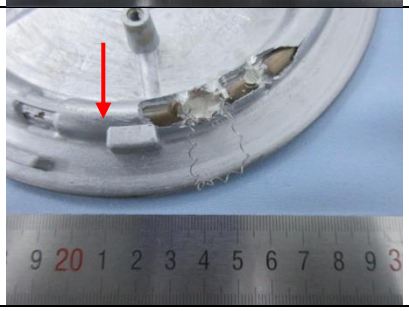
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
31	Silvery metal sheet	
32	Silvery metal sheet	
33	White ceramic ring	
34	Silvery metal washer (HD2013B)	
35	Black plastic ring (HD2013B)	

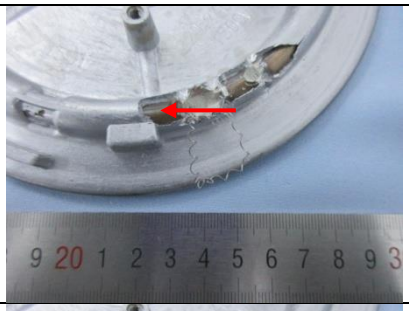
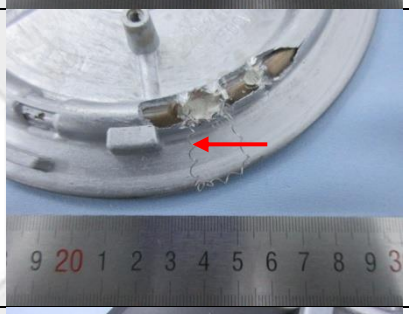
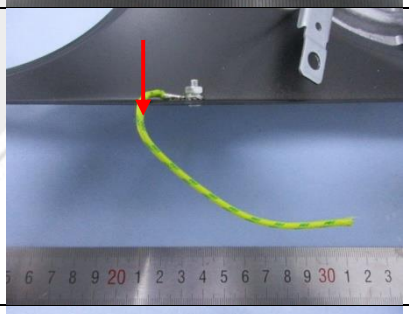
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
36	Silvery metal bracket (HD2013C)	
37	Silvery metal tube (HD2013B/HD2013C)	
38	Silvery metal screw	
39	Silvery metal nut	
40	Silvery metal ring	

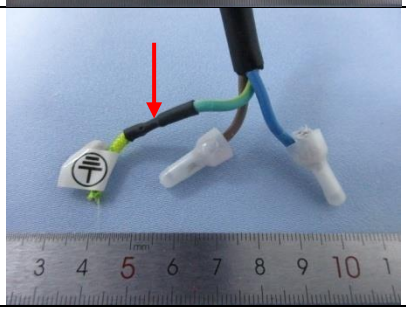
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
41	Brick-red ceramic ring (HD2013B)	
42	Golden metal shaft *Copper alloy materials by client's declaration*	
43	Black plastic ring (HD2013C)	
44	Silvery metal ring (HD2013B/HD2013C)	
45	Silvery metal housing (HD2013C)	

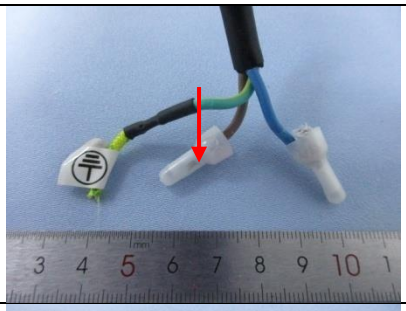
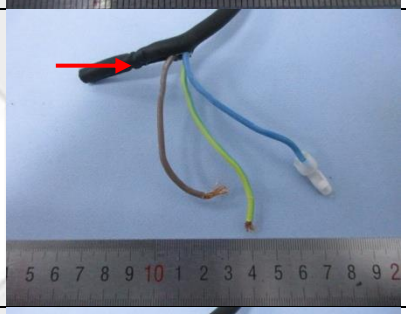
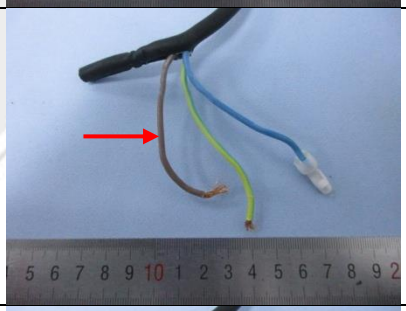
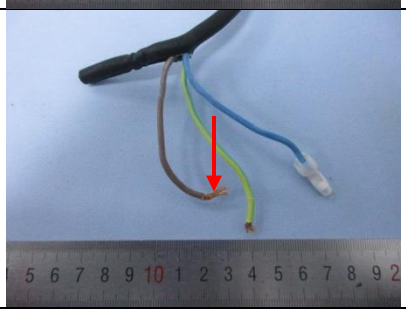
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
46	Coppery metal tube (HD2013B/HD2013C)	
47	White solid powder	
48	Silvery metal wire	
49	Yellow and green weave sheath	
50	Black plastic frame (HD2013C)	

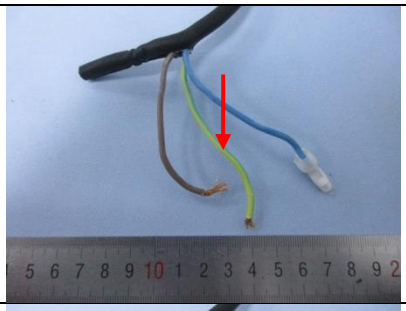
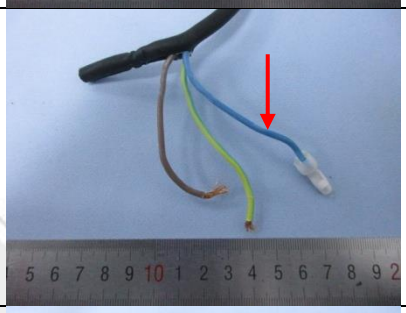
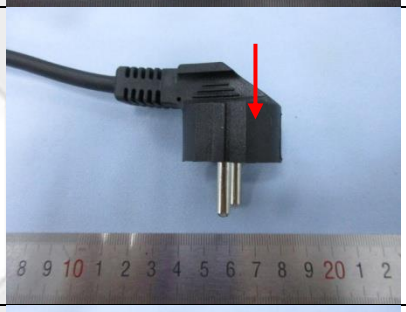
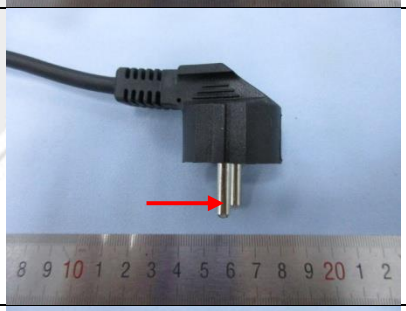
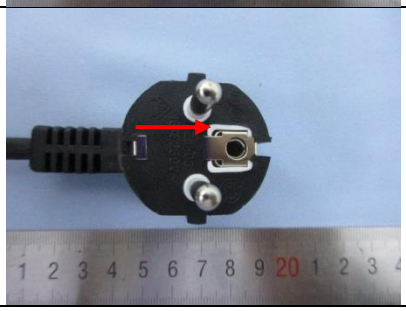
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
51	Silvery metal connector	
52	Silvery metal pole (HD2013C)	
53	Black plastic frame (HD2013C)	
54	Silvery metal frame (HD2013C)	
55	Black heat shrink tubing	

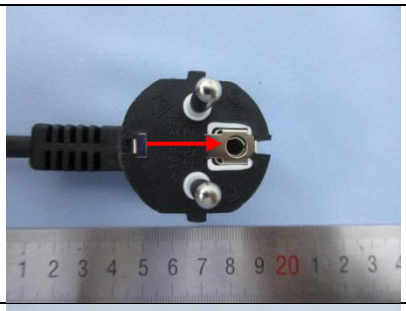
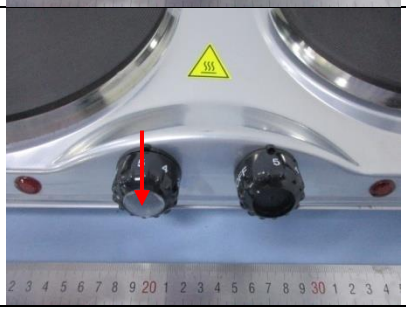
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
56	Translucent plastic cap	
57	Silvery metal wire clip	
58	Black insulation jacket	
59	Brown wire jacket	
60	Coppery metal wire	

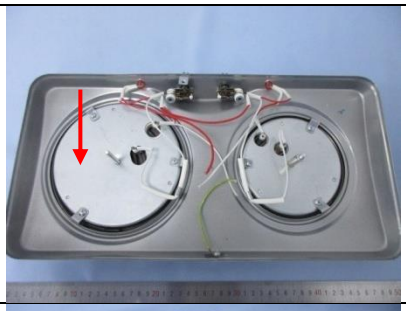
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
61	Yellow and green wire jacket	
62	Blue wire jacket	
63	Black plastic plug	
64	Silvery metal pin *Copper alloy materials by client's declaration*	
65	White plastic frame	

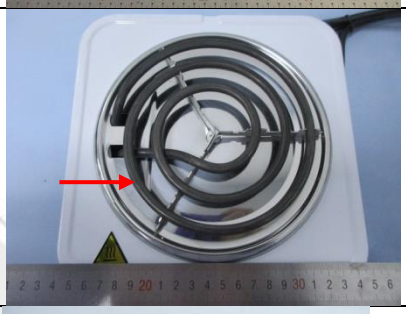
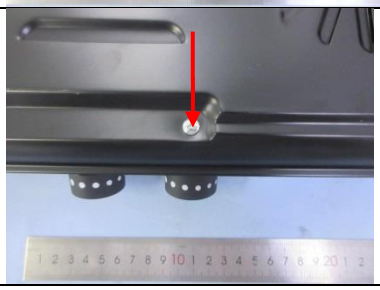
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
66	Silvery metal contact sheet	
67	Silvery coating (HD2013B)	
68	Metal housing (HD2013B)	
69	Black plastic rotary knob (HD2013B)	
70	Transparent plastic housing (HD2013B)	

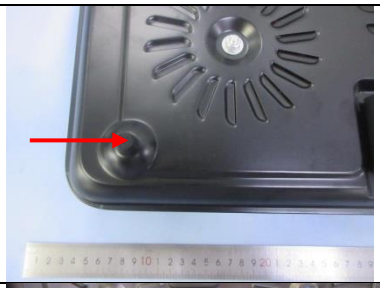
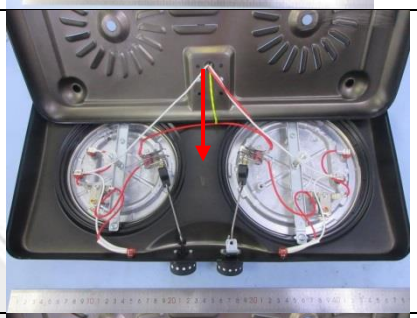
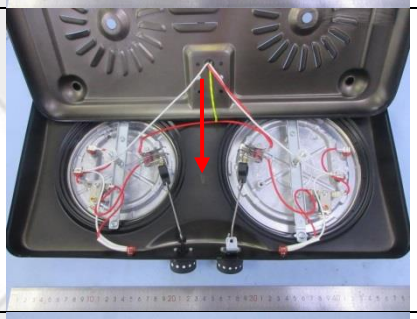
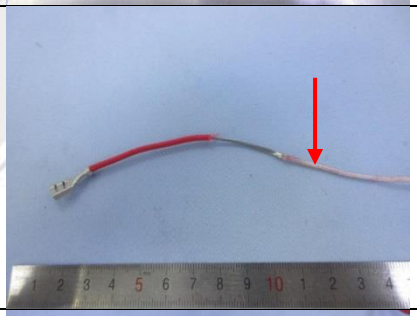
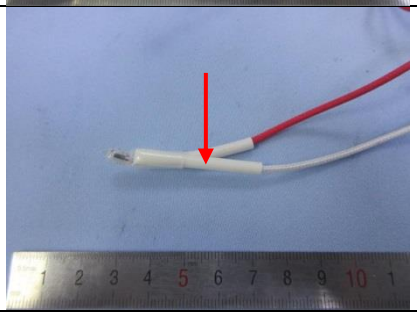
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
71	Silvery metal housing (HD2013B)	
72	White foam cushion (HD2013B)	
73	Grey metal board (HD2013B)	
74	White solid glue (HD2013B)	
75	White coating (HD1001A)	

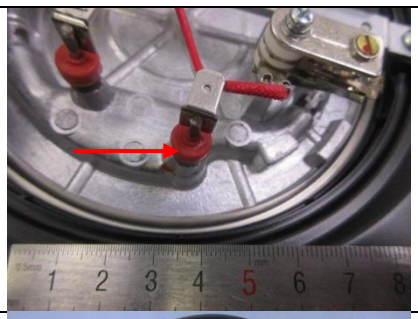
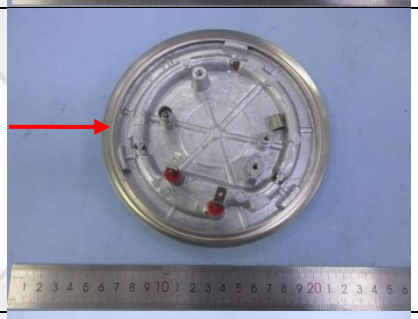
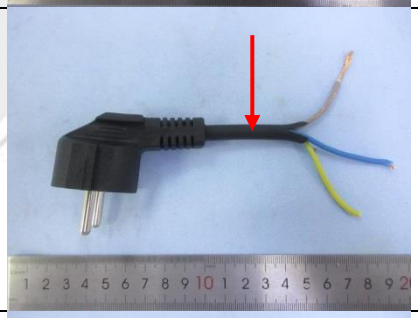
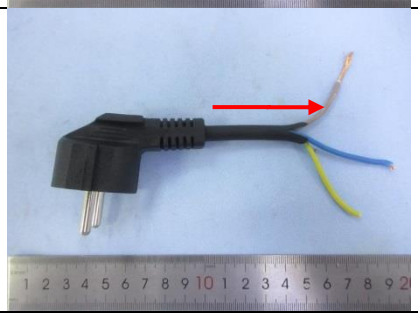
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
76	Metal housing (HD1001A)	
77	Grey metal tube (HD1001A)	
78	Black coating (HD2013B/HD2013C)	
79	Red plastic lampshade	
80	Silvery metal screw	

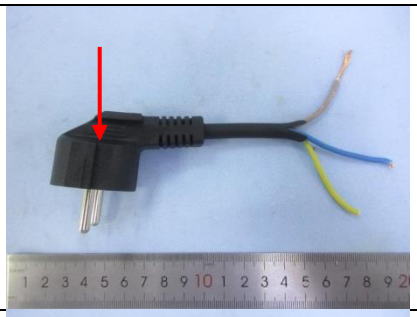
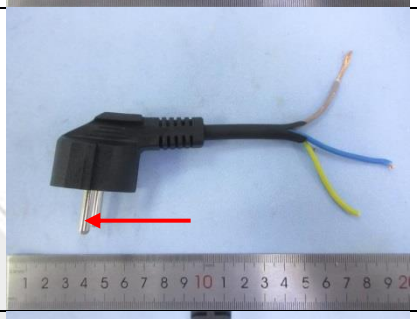
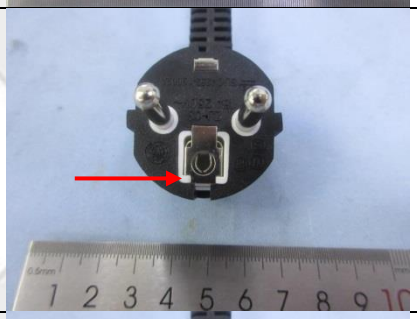
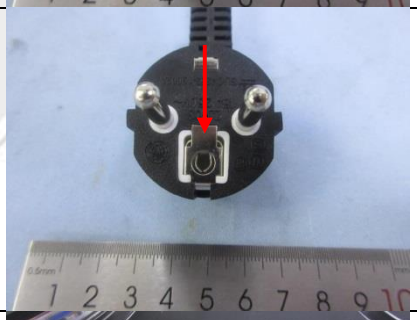
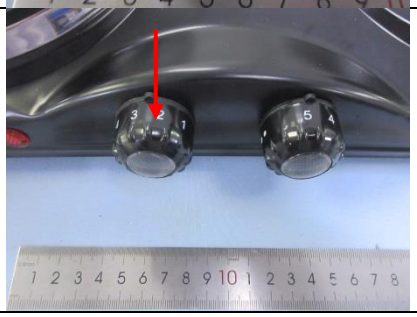
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
81	Black rubber cushion	
82	Black coating	
83	Metal frame (HD2013C)	
84	White wire jacket	
85	White rubber sheath	

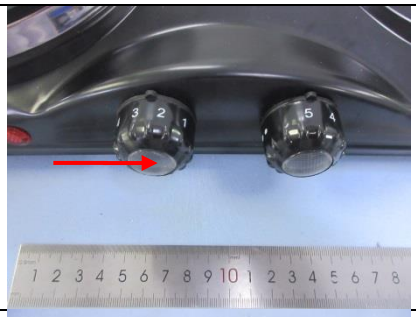
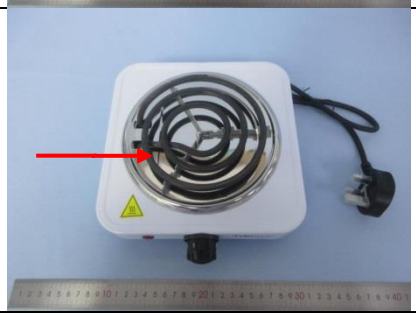
TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
86	Red rubber sheath (HD2013C)	
87	Black plastic ring (HD2013C)	
88	Silvery metal ring (HD2013B/HD2013C)	
89	Black insulation jacket	
90	Brown wire jacket	

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
91	Black plastic plug	
92	Silvery metal pin	
93	White plastic frame	
94	Silvery metal contact sheet	
95	Black plastic rotary knob (HD2013B)	

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Sample No.	Description	Photograph/Location
96	Transparent plastic housing (HD2013B)	
97	Grey metal board (HD2013B)	
98	White coating (HD1001A)	
99	Metal housing (HD1001A)	
100	Grey metal tube (HD1001A)	

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

3. Test Results

3.1 ED-XRF Spectrometer test for total Cadmium, Chromium, Mercury, Lead and Bromine according to EN 62321-3-1:2014

XRF screening limits in mg/kg for regulated elements in various matrices

ELEMENT	POLYMER		
	BL	INCONCLUSIVE	OL
Cd	X<(70-3σ)	(70-3σ)<X<(130+3σ)	X>(130+3σ)
Pb	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Hg	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Br	X<(300-3σ)	X>(300-3σ)	--
Cr	X<(700-3σ)	X>(700-3σ)	--

ELEMENT	METAL		
	BL	INCONCLUSIVE	OL
Cd	X<(70-3σ)	(70-3σ)<X<(130+3σ)	X>(130+3σ)
Pb	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Hg	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Cr	X<(700-3σ)	X>(700-3σ)	--

ELEMENT	COMPLEX MATERIAL		
	BL	INCONCLUSIVE	OL
Cd	X<(50-3σ)	(50-3σ)<X<(150+3σ)	X>(150+3σ)
Pb	X<(500-3σ)	(500-3σ)<X<(1500+3σ)	X>(1500+3σ)
Hg	X<(500-3σ)	(500-3σ)<X<(1500+3σ)	X>(1500+3σ)
Br	X<(250-3σ)	X>(250-3σ)	--
Cr	X<(500-3σ)	X>(500-3σ)	--

Explanation for RoHS limit

Regarding Chromium and Bromine, the XRF test score shows the total Chromium and the total Bromine, but the RoHS limit of 1000 mg/kg, according to the directive 2011/65/EU, is only for Hexavalent Chromium and Brominated Flame Retardants. Therefore, if the XRF test result for the total Chromium and the total Bromine is inconclusive, further analytical tests are necessary to find out the exact amount of Hexavalent Chromium and Brominated Flame Retardants

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Test Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Total Chromium [mg/kg]	Total Bromine [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	**1000**	**1000**
1	BL	BL	BL	BL	BL
2	BL	BL	BL	BL	BL
3	BL	BL	BL	INC(a)	--
4	BL	BL	BL	BL	BL
5	BL	BL	BL	INC(a)	--
6	BL	BL	BL	INC(a)	--
7	BL	BL	BL	INC(a)	--
8	BL	BL	BL	BL	BL
9	BL	BL	BL	BL	--
10	BL	BL	BL	BL	--
11	BL	BL	BL	BL	BL
12	BL	BL	BL	BL	BL
13	BL	BL	BL	BL	BL
14	BL	BL	BL	BL	BL
15	BL	BL	BL	BL	BL
16	BL	BL	BL	BL	BL
17	BL	BL	BL	BL	--
18	BL	BL	BL	BL	--
19	BL	BL	BL	BL	BL
20	BL	BL	BL	BL	--
21	BL	BL	BL	BL	--
22	BL	BL	BL	BL	--
23	BL	BL	BL	BL	BL
24	BL	BL	BL	INC(a)	--
25	BL	BL	BL	INC(a)	--
26	BL	BL	BL	INC(a)	--

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

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

Test Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Total Chromium [mg/kg]	Total Bromine [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	**1000**	**1000**
27	BL	BL	BL	INC(a)	--
28	BL	BL	BL	INC(a)	--
29	BL	BL	BL	INC(a)	--
30	BL	*INC(a)	BL	BL	--
31	BL	BL	BL	INC(a)	--
32	BL	BL	BL	INC(a)	--
33	BL	BL	BL	BL	BL
34	BL	BL	BL	INC(a)	--
35	BL	BL	BL	BL	INC(b)
36	BL	BL	BL	BL	--
37	BL	BL	BL	INC(a)	--
38	BL	BL	BL	BL	--
39	BL	BL	BL	BL	--
40	BL	BL	BL	BL	--
41	BL	BL	BL	BL	--
42	BL	*INC(a)	BL	BL	--
43	BL	BL	BL	BL	INC(b)
44	BL	BL	BL	INC(a)	--
45	BL	BL	BL	BL	--
46	BL	BL	BL	INC(a)	--
47	BL	BL	BL	BL	BL
48	BL	BL	BL	INC(a)	--
49	BL	BL	BL	BL	BL
50	BL	BL	BL	BL	INC(b)
51	BL	BL	BL	BL	--
52	BL	BL	BL	INC(a)	--

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

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

Test Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Total Chromium [mg/kg]	Total Bromine [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	**1000**	**1000**
53	BL	BL	BL	BL	BL
54	BL	BL	BL	INC(a)	--
55	BL	BL	BL	BL	BL
56	BL	BL	BL	BL	BL
57	BL	BL	BL	BL	--
58	BL	BL	BL	BL	BL
59	BL	BL	BL	BL	BL
60	BL	BL	BL	BL	--
61	BL	BL	BL	BL	BL
62	BL	BL	BL	BL	BL
63	BL	BL	BL	BL	BL
64	BL	*INC(a)	BL	BL	--
65	BL	BL	BL	BL	INC(b)
66	BL	BL	BL	BL	--
67	BL	BL	BL	BL	BL
68	BL	BL	BL	INC(a)	--
69	BL	BL	BL	BL	BL
70	BL	BL	BL	BL	BL
71	BL	BL	BL	INC(a)	--
72	BL	BL	BL	BL	BL
73	BL	BL	BL	INC(a)	--
74	BL	BL	BL	BL	BL
75	BL	BL	BL	BL	BL
76	BL	BL	BL	BL	--
77	BL	BL	BL	INC(a)	--
78	BL	BL	BL	BL	BL

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

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

Test Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Total Chromium [mg/kg]	Total Bromine [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	**1000**	**1000**
79	BL	BL	BL	BL	BL
80	BL	BL	BL	INC(a)	--
81	BL	BL	BL	BL	BL
82	BL	BL	BL	BL	BL
83	BL	BL	BL	INC(a)	--
84	BL	BL	BL	BL	BL
85	BL	BL	BL	BL	BL
86	BL	BL	BL	BL	BL
87	BL	BL	BL	BL	INC(b)
88	BL	BL	BL	INC(a)	--
89	BL	BL	BL	BL	BL
90	BL	BL	BL	BL	BL
91	BL	BL	BL	BL	BL
92	BL	*INC(a)	BL	BL	--
93	BL	BL	BL	BL	INC(b)
94	BL	BL	BL	BL	--
95	BL	BL	BL	BL	BL
96	BL	BL	BL	BL	BL
97	BL	BL	BL	INC(a)	--
98	BL	BL	BL	BL	BL
99	BL	BL	BL	INC(a)	--
100	BL	BL	BL	INC(a)	--

Remark:
1. “mg/kg” denotes ”milligram per kilogram”.
2. “BL” means test result is “Below the Limit”.
3. “INC“ means test result is “Inconclusive“.
4. “OL“ means test result is “Over the Limit“.
5. “--” means the substance for this sample are not tested.
6. “(a)” denotes further wet chemicla confirmation test was conducted, results are listed in 3.2.1.
7. “(b)” denotes further wet chemical confirmation test was conducted, results are listed in 3.2.2.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

8. With regard to the stoichiometry of Br in PBBs and PBDEs, the lower limit for Br is set at 300 mg/kg.
9. "*" Refer to RoHS Official Exemption Item, 6(c) Copper alloy containing up to 4 % lead by weight.
10. "**" Refer to RoHS Official Exemption Item, 8(b)-I Cadmium and its compounds in electrical contacts.
11. "***" Refer to RoHS Official Expemtion Item, 7(c)-I, Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors.
12. Test data of sample 1-77 was copied for the TÜV SÜD original report No. 48.400.20.7021.15-00/05.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

3. Test Results

3.2 Wet chemical test

Main instruments used for wet chemical test

Testing Target	Instrument	Method
Lead & Cadmium	ICP-OES	**EN 62321-4:2014/A1:2017, EN 62321-5:2014, EN 62321-6:2015, EN 62321-7-1:2015, EM 62321-7-2:2017, EN 62321-8:2017**
Mercury	ICP-OES	
Hexavalent Chromium	UV-Vis	
PBBs & PBDEs	GC/MS	
DEHP, DBP, BBP, DIBP	GC/MS	

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

3.2.1 Metallic material wet chemical test result (Cd, Pb, Hg, Cr6+)

Test Sample	Cadmium [mg/kg]	Lead [mg/kg]	Mercury [mg/kg]	Chromium (VI) [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	§
3	--	--	--	Negative
5	--	--	--	Negative
6	--	--	--	Negative
7	--	--	--	Negative
24	--	--	--	Negative
25	--	--	--	Negative
26	--	--	--	Negative
27	--	--	--	Negative
28	--	--	--	Negative
29	--	--	--	Negative
31	--	--	--	Negative
32	--	--	--	Negative
34	--	--	--	Negative
37	--	--	--	Negative
44	--	--	--	Negative
46	--	--	--	Negative
48	--	--	--	Negative
52	--	--	--	Negative
54	--	--	--	Negative
68	--	--	--	Negative
71	--	--	--	Negative
73	--	--	--	Negative
77	--	--	--	Negative
80	--	--	--	Negative
83	--	--	--	Negative
88	--	--	--	Negative
97	--	--	--	Negative
99	--	--	--	Negative
100	--	--	--	Negative

Test Sample	Cadmium [mg/kg]	Lead [mg/kg]	Mercury [mg/kg]	Chromium (VI) [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	§
30	--	27481*	--	--
42	--	28315*	--	--
64	--	27178*	--	--
92	--	26243*	--	--

Remark:

1. " –" means the substance for this sample are not tested.
2. "mg/kg" denotes "milligram per kilogram"
3. Detected limit of Cd, Pb and Hg:10mg/kg;
4 "§" The Cr(VI) content in surface layer have been confirmed with reference to EN 62321-7-1:2015

Result	Chromium (VI) concentration	Qualitative result
Negative	<0.1µg/cm^2	The sample is negative for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating.
Inconclusive	≥0.1µg/cm^2 and ≤0.13 µg/cm^2	The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	>0.13 µg/cm^2	The sample is positive for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

5. "*" Refer to ROHS Official Exemption Item, 6(c) Copper alloy containing up to 4 % lead by weight.
6. Test data of sample 1-77 was copied for the TÜV SÜD original report No. 48.400.20.7021.15-00/05.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

3.2.2 Non-metallic material wet chemical test result (Cd, Pb, Hg, Cr6+, PBBs, PBDEs)

Test Sample	Cadmium [mg/kg]	Lead [mg/kg]	Mercury [mg/kg]	Chromium (VI) [mg/kg]	PBBs (Sum) [mg/kg]	PBDEs (Sum) [mg/kg]
RoHS Limit	**100**	**1000**	**1000**	**1000**	**1000**	**1000**
35	--	--	--	--	<50	<50
43	--	--	--	--	<50	<50
50	--	--	--	--	<50	<50
65	--	--	--	--	<50	<50
87	--	--	--	--	<50	<50
93	--	--	--	--	<50	<50

Remark:
1. Detected limit of Cd, Pb, Hg, Cr :10mg/kg; PBBs and PBDEs :5mg/kg;
2. “mg/kg” denotes “milligram per kilogram”.
3. “ --” means the substance for this sample are not tested.
4. “<” means less than (<MDL)
5. Test data of sample 1-77 was copied for the TÜV SÜD original report No. 48.400.20.7021.15-00/05.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

3.2.3 Non-metallic material wet chemical test result (DEHP, DBP, BBP, DIBP)

Test Sample	DEHP [mg/kg]	DBP [mg/kg]	BBP [mg/kg]	DIBP [mg/kg]
RoHS Limit	**1000**	**1000**	**1000**	**1000**
1	<200	<200	<200	<200
2	<200	<200	<200	<200
4	<200	<200	<200	<200
8	<200	<200	<200	<200
11	<200	<200	<200	<200
12	250	<200	<200	<200
13	<200	<200	<200	<200
14	<200	<200	<200	<200
15	<200	<200	<200	<200
16	<200	<200	<200	<200
19	<200	<200	<200	<200
23	<200	<200	<200	600
33	<200	<200	<200	<200
35	<200	<200	<200	<200
43	<200	<200	<200	<200
47	<200	<200	<200	<200
49	<200	<200	<200	<200
50	<200	<200	<200	<200
53	<200	<200	<200	<200
55	<200	<200	<200	<200
56	<200	<200	<200	<200
58	<200	<200	<200	<200
59	<200	<200	<200	<200

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Test Sample	DEHP [mg/kg]	DBP [mg/kg]	BBP [mg/kg]	DIBP [mg/kg]
RoHS Limit	**1000**	**1000**	**1000**	**1000**
61	<200	<200	<200	<200
62	<200	<200	<200	<200
63	<200	<200	<200	<200
65	<200	<200	<200	<200
67	<200	<200	<200	<200
69	800	<200	<200	<200
70	<200	<200	<200	<200
72	<200	<200	<200	<200
74	<200	<200	<200	<200
75	<200	<200	<200	<200
78	<200	<200	<200	<200
79	<200	<200	<200	<200
81	<200	<200	<200	<200
82	<200	<200	<200	<200
84	<200	<200	<200	<200
85	<200	<200	<200	<200
86	<200	<200	<200	<200
87	<200	<200	<200	<200
89	<200	<200	<200	<200
90	<200	<200	<200	<200
91	<200	<200	<200	<200
93	<200	<200	<200	<200
95	<200	<200	<200	<200
96	<200	<200	<200	<200

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

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

Test Sample	DEHP [mg/kg]	DBP [mg/kg]	BBP [mg/kg]	DIBP [mg/kg]
RoHS Limit	**1000**	**1000**	**1000**	**1000**
98	<200	<200	<200	<200

Remark:
1. Detected limit of DEHP, DBP, BBP and DIBP: 200mg/kg.
2. “mg/kg” denotes “milligram per kilogram”.
3. “<” means less than (<MDL)
4. Test data of sample 1-77 was copied for the TÜV SÜD original report No. 48.400.20.7021.15-00/05.

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

Prepared by:

Mr. Yongfeng DU

Checked by:

Mr. Feng ZHANG

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

APPENDIX I: Additional Listed Models Reference

HD1011A,HD1001B,HD1011B,HD1002A,HD1012A,HD1002B,HD1012B,HD1015B,HD1016B,HD01,HD02,HD03H,HD02H1,HD02HC,
HD02CH,HD02H2,HD02C2，HD01A,HD02H5,HD2011C,HD02H3,HD02H6,
HD2012BB,HD2001A,HD2011A,HD2001B,HD2011B,HD2002A,HD2012A,
HD2002B,HD2012B,HD2003A,HD2013A,HD2015B,HD2016B,HD2016C,HD2016D,HD2013D

Remarks:
The above listed may covered models were only based on client's guarantee letter (self-declaration). 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.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

APPENDIX II: Official Exemption Items

Below items are quoted based on Directives of 2011/65/EU and its valid Amending Directives.

	Exemption	Scope and dates of applicability
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner)	
1(a)	For general lighting purpose< 30 W:5mg	Expires on 31 December 2011; 3,5mg maybe used per burner after 31 December 2011 until 31 December 2012; 2.5mg shall be used per burner after 31 December 2012
1(b)	For general lighting purposes ≥ 30 W and < 50 W:5mg	Expires on 31 December 2011; 3,5mg maybe used per burner after 31 December 2011 until 31 December 2012; 2.5mg shall be used per burner after 31 December 2012
1(c)	For general lighting purposes ≥ 50 W and < 150 W:5mg	
1(d)	For general lighting purpose ≥ 30 W and ≥ 150 W:15mg	
1(e)	For general lighting purpose with circular or square structural shape san tube diameter <17mm	No limitation of use until 31 December 2011; 7 mg may be used per burner after 31 December 2011
1(f)	For special purposes:5mg	
2(a)	Mercury in double capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp)	
2(a)(1)	Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 5mg	Expires on 31 December 2011; 4mg may be used per lamp after 31 December 2011
2(a)(2)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17mm (e.g. T5): 5mg	Expires on 31 December 2011; 3mg may be used per lamp after 31 December 2011
2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter >17 mm and ≤ 28mm (e.g. T8): 5mg	Expires on 31 December 2011; 3,5 mg may be used per lamp after 31 December 2011
2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter >28mm (e.g. T12): 5mg	Expires on 31 December 2011; 3,5 mg may be used per lamp after 31 December 2011
2(a)(5)	Tri-band phosphor with long lifetime(≥25 000h):8mg	Expires on 13 December 2011;5mg may be used per lamp after 31 December 2011
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):	
2(b)(1)	Linear halophosphate lamps with tube >28 mm(e.g.T10 and T12): 10mg	Expires on 13 April 2012
2(b)(2)	Non-linear halophosphate lamps (all diameters):15mg	Expires on 13 April 2016
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter >17mm (e.g. T9)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011
2(b)(4)	Lamps for other general lighting and special purposes (e.g. induction lamps)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011

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

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

	Exemption	Scope and dates of applicability
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp)	
3(a)	Short length(≤500mm)	No limitation of use until 31 December 2011; 3,5 mg may be used per lamp after 31 December 2011
3(b)	Medium length (> 500mm and ≤ 1 500mm)	No limitation of use until 31 December 2011; 5 mg may be used per lamp after 31 December 2011
3(c)	Long length (> 1 500mm)	No limitation of use until 31 December 2011; 13 mg may be used per lamp after 31 December 2011
4(a)	Mercury in other low pressure discharge lamps (per lamp)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011
4(b)	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra >60;	
4(b)-I	P≤155 W	No limitation of use until 31 December 2011; 30mg may be used per burner after 31 December 2011
4(b)-II	155 W < P ≤ 405 W	No limitation of use until 31 December 2011; 40mg may be used per burner after 31 December 2011
4(b)-III	P > 405 W	No limitation of use until 31 December 2011; 40mg may be used per burner after 31 December 2011
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner)	
4(c)-I	P≤155 W	No limitation of use until 31 December 2011; 30mg may be used per burner after 31 December 2011
4(c)-II	155 W < P ≤ 405 W	No limitation of use until 31 December 2011; 40mg may be used per burner after 31 December 2011
4(c)-III	P > 405 W	No limitation of use until 31 December 2011; 40mg may be used per burner after 31 December 2011
4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	Expires on 13 April 2015
4(e)	Mercury in metal halide lamps (MH)	
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	
4(g)	Mercury in hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light-artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0,3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; (b) 15 mg per electrode pair + 0,24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications.	Expires on 1 December 2018

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

	Exemption	Scope and dates of applicability
5(a)	Lead in glass of cathode ray tubes	
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	
6(a)	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight	Expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight	Expires on 21 July 2021 for categories 1-7 and 10.'
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	Expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
6(b)-I	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	Expires on 21 July 2021 for categories 1-7 and 10.
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	Expires on 18 May 2021 for categories 1-7 and 10.'
6(c)	Copper alloy containing up to 4 % lead by weight	Expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diag-nostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical de-vices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to categories 1-7 and 10 (except applications covered by point 24 of this Annex) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical de-vices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.'
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	Applies to categories 1-7 and 10 (except applications covered under point 34) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Exemption		Scope and dates of applicability
		For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex. Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'
7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors'	Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	Expires on 1 January 2012 and after that date may be used in spare parts for EEE placed on the market before 1 January 2012
8(b)	Cadmium and its compounds in electrical contacts	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
8(b)-I	Cadmium and its compounds in electrical contacts used in: — circuit breakers, — thermal sensing controls, — thermal motor protectors (excluding hermetic thermal motor protectors), — AC switches rated at: — 6 A and more at 250 V AC and more, or — 12 A and more at 125 V AC and more, — DC switches rated at 20 A and more at 18 V DC and more, and — switches for use at voltage supply frequency ≥ 200 Hz.	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.'
9	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	
11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24 September 2010
11(b)	Lead used in other than C-press compliant pin connector systems	Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

	Exemption	Scope and dates of applicability
12	Lead as a coating material for the thermal conduction module C-ring	May be used in spare parts for EEE placed on the market before 24 September 2010
13(a)	Lead in white glasses used for optical applications	
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	
14	Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight	Expires on 1 January 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January 2011
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
15(a)	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: —a semiconductor technology node of 90 nm or larger; —a single die of 300 mm2 or larger in any semiconductor technology node; —stacked die packages with die of 300 mm2 or larger, or silicon interposers of 300 mm2 or larger.	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.'
16	Lead in linear incandescent lamps with silicate coated tubes	Expires on 1 September 2013
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	
18(a)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ($(Sr,Ba)_2MgSi_2O_7$:Pb)	Expires on 1 January 2011
18(b)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP($BaSi_2O_5$:Pb)	Categories 1-7 and 10, Expires on 21 July 2021 Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, Expires on 21 July 2021 Category 8 in vitro diagnostic medical devices, Expires on 21 July 2023 Category 9 industrial monitoring and control instruments, and for category 11, Expires on 21 July 2024
18(b)-I	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment	Categories 5 and 8, excluding applications covered by entry 34 of Annex IV, Expires on 21 July 2021
19	Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	Expires on 1 June 2011
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expires on 1 June 2011
21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Applies to categories 8, 9 and 11 and expires on:

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

Exemption		Scope and dates of applicability
		—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE	Applies to categories 1 to 7 and 10 except applications covered by entry 21(b) or entry 39 and expires on 21 July 2021.
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Applies to categories 1 to 7 and 10 except applications covered by entry 21(a) or 39 and expires on 21 July 2021.
21(c)	Lead in printing inks for the application of enamels on other than borosilicate glasses	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.
23	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	May be used in spare parts for EEE placed on the market before 24 September 2010
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial moni-toring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic med-ical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.’
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	
26	Lead oxide in the glass envelope of black light blue lamps	Expires on 1 June 2011
27	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expired on 24 September 2010
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC (1)	Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and ontrol instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
30	Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	
31	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)	
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Expires on: —21 July 2021 for categories 1-7 and 10, —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636

	Exemption	Scope and dates of applicability
		monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'
33	Lead in solders for the soldering of thin copper wires of 100 um diameter and less in power transformers	
34	Lead in cermet-based trimmer potentiometer elements	Applies to all categories; expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diag-nostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical de-vices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'
36	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Expired on 1 July 2010
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'
38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm2 of display screen area)	Expires for all categories on [two years after the publication of the Delegated Directive in the Official Journal]
40	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	Expires on 31 December 2013
41	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council.	Expires on 1 December 2018
42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: - with engine total displacement ≥ 15 litres; or - with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications.	Applies to category 11, excluding applications covered by entry 6(c) of this Annex. Expires on 21 July 2024.'
43	Bis(2-ethylhexyl) phthalate in rubber components in engine systems, designed for use in equipment that is not intended solely for consumer use and provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed:	Applies to category 11 and expires on 21 July 2024.

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

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

	Exemption	Scope and dates of applicability
	(a) 30 % by weight of the rubber for (i) gasket coatings; (ii) solid-rubber gaskets; or (iii) rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, "prolonged contact with human skin" means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.	
44	Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council (*1), installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users	Applies to category 11 and expires on 21 July 2024.
45	Lead diazide, lead styphnate, lead dipicramate, orange lead (lead tetroxide), lead dioxide in electric and electronic initiators of explosives for civil (professional) use and barium chromate in long time pyrotechnic delay charges of electric initiators of explosives for civil (professional) use	Applies to category 11 and expires on 20 April 2026

--END OF REPORT--

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China
www.tuvsud.com
info@tuvsud.com
Tel.: +86-510-88203737
Fax: +86-510-88203636