

RoHS Technical Document

Date : 01 Mar, 2014 ~ 14 Mar, 2014

Company Name : Ioncares Co., Ltd.

Address : 23-15, Wolgok-gil, Pyeongtaek City, Gyeonggi-do, 450-070
Korea

Product Name : Alkaline water ionizer

Model Name : Ioncare-7000, Ioncare-5000, Ioncare-9000

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Related

Directive : EU Directive 2011/65/EU

Evaluation Result : In compliance with RoHS

Revision History

Date	Revision No.	Issue
2014. 3. 14	Rev.0	Initial Issue

Prepared by : _____

Approved by : _____

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APPENDIX A. Material confidence assessment

APPENDIX B. Supplier confidence assessment

APPENDIX C. Analytical test report

1. Product Description

Product picture :



Specification of Product	Manufacture License No. 4141
	Specification : 340(W) x 340(H) x 147(D)
	Input voltage / power consumption AC220V 60Hz / 150VA
	SMPS Power 350W
	5" Large Color LCD
	Touch Sensor Method
	Original Filter Recognition Feature
	High Function Two Filter Method
	5 White Gold Titanium Electrode Plates
	Auto cleansing, auto discharge features

Categories of EEE :

- Large household appliances.
- Small household appliances.**
- IT and telecommunications equipment.
- Consumer equipment.
- Lighting equipment.
- Electrical and electronic tools.
- Toys, leisure and sports equipment.
- Medical devices.
- Monitoring and control instruments including industrial monitoring and control instruments.
- Automatic dispensers.
- Other EEE not covered by any of the categories above.

2. Standards for Control of Substances concerning Product Environment

In order to sell our products to the world marketplace, Ioncares Co., Ltd. must guarantee and verify environmental compliance for all parts and components of finished products to prevent adverse effects on the environment and the health. The following list of substances with environmental impacts was developed based on global regulatory and requirements of customers.

This document provide information of substances with Environmental Impacts in parts, raw materials, packages, batteries and other components of products. According to prohibition and restriction of specified substances in standards, improves parts and raw materials and develops the products which are friendly on the environment and the health.

- Standard for Operation and Management

1. The company manages Substances concerning Product Environment by classifying them as RoHS Directive.

The substances are restricted from application date. Standards and methods of control are regularly revised.

2. The company will provide a grace period for improvements until substitutes or other methods are available.

3. The suppliers submit an approval sheet with the contents of Substance concerning Product Environment of the new supplies on in written document and comply with the Standards for Control of Substances concerning Product Environment.

- Valid period (report data)

Type of part	Valid period	XRF Test
Worst risk	- 3 year precision analysis report	All parts target
Normal risk		
Low risk		

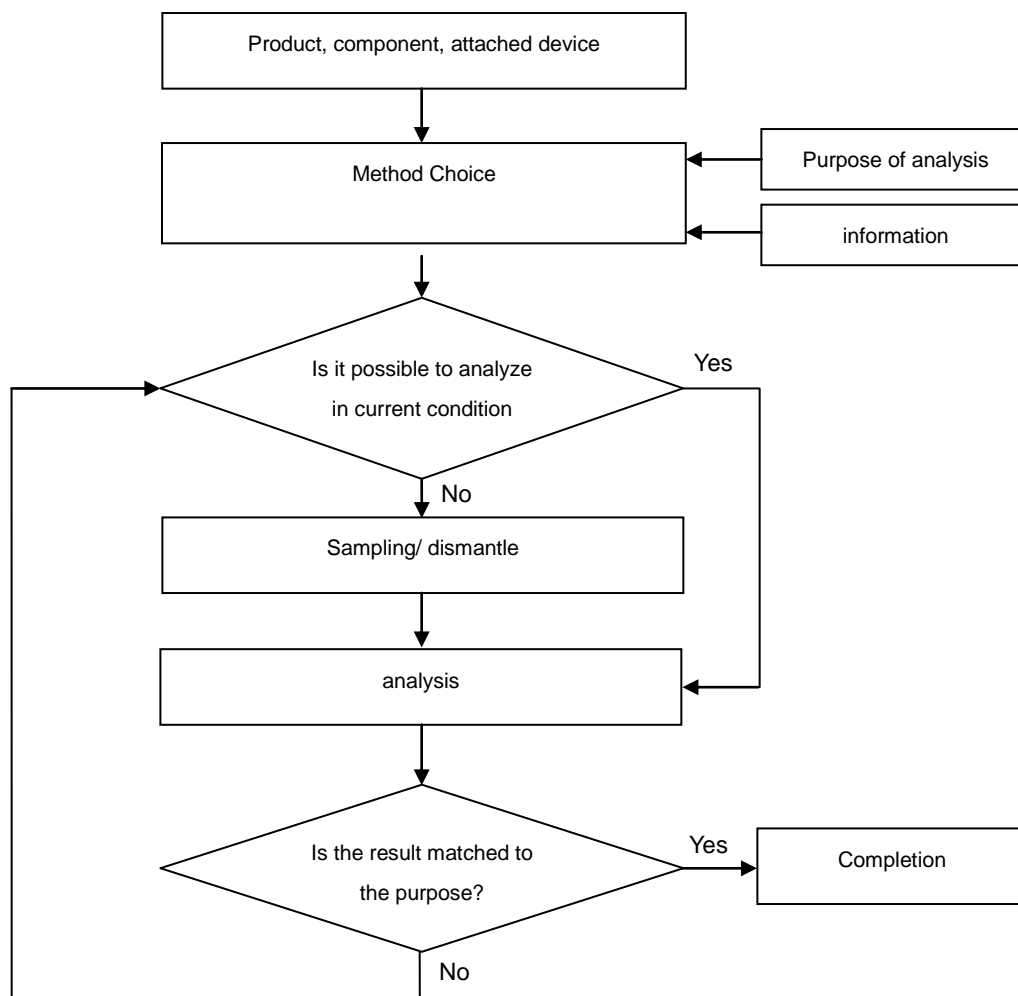
- RoHS substance restriction

Substance group	Maximum concentration	In the parts contain
Lead compound (Pb)	0.1 %	6(c)
Mercury compound (Hg)	0.1 %	Less than 0.1 %
Cadmium compound (Cd)	0.01 %	Less than 0.01 %
Hexavalent chromium (Cr VI)	0.1 %	Less than 0.1 %
Polybrominated biphenyls (PBBs)	0.1 %	Less than 0.1 %
Polybrominated diphenylethers (PBDEs)	0.1 %	Less than 0.1 %

2-1. Sampling Procedures

The use of prohibited material is only accepted in case of maintaining quality and performance of the product. In that case, The exception is recognized by EU RoHS Directive and other environmental regulations.

sampling procedures are below.



3. Risk Assessment

No.	Part name	Part Code	Supplier	Risk Assessment				CCL ⁵⁾ Yes / No
				Probability Material ¹⁾	Parts for evaluation of Ioncares ²⁾	Supplier ³⁾	Document ⁴⁾	
1	더스트필터	ADF0000	---	M	M	---	M	Y
2	전해조(5P)	AEC0500	---	M	M	---	M	Y
3	전해조(7P)	AEC0700	---	M	M	---	M	Y
4	전해조(9P)	AEC0900	---	M	M	---	M	Y
5	자바라 호스	AFH0000	---	M	M	---	M	Y
6	유량센서	AFS0000	---	M	M	---	M	Y
7	하네스(쫄인선)	AHC0200	---	H	H	---	H	Y
8	하네스(전해조 2P)	AHE0200	---	H	H	---	H	Y
9	하네스(전해조 5P)	AHE0500	---	H	H	---	H	Y
10	하네스(전해조 7P)	AHE0700	---	H	H	---	H	Y
11	하네스(전해조 9P)	AHE0900	---	H	H	---	H	Y
12	하네스(FILTER 4P)	AHF0400	---	H	H	---	H	Y
13	하네스(MAIN 10P)	AHM1000	---	H	H	---	H	Y
14	하네스(파워인렛)	AHP020F	---	H	H	---	H	Y
15	하네스(파워인렛)	AHP020N	---	H	H	---	H	Y
16	하네스(솔밸브_고압)	AHS020H	---	H	H	---	H	Y
17	하네스(솔밸브_저압)	AHS020L	---	H	H	---	H	Y
18	LCD MODULE	ALM0000	---	L	L	---	M	Y
19	파워케이블	APC000B	---	H	H	---	M	Y
20	FILTER PCB(1차)	APF000F	---	H	H	---	H	Y
21	FILTER PCB(2차)	APF000S	---	H	H	---	H	Y
22	MAIN PCB	APM0000	---	H	H	---	H	Y
23	SMPS PCB	APS0000	---	H	H	---	H	Y
24	스피커	ASP0000	---	M	M	---	M	Y
25	솔밸브(고압)	ASV000H	---	M	M	---	M	Y
26	솔밸브(저압)	ASV000L	---	M	M	---	M	Y
27	pH 시약	EAR000P	---	---	---	---	---	Y
28	산성수 밸브	EAV000A	---	M	M	---	M	Y
29	수도가량	EAV000B	---	M	M	---	M	Y
30	피팅 ELBOW(6mm)	EFE0600	---	M	M	---	M	Y
31	피팅 STEM ELBOW(6mm)	EFE060S	---	M	M	---	M	Y
32	피팅 ELBOW(8mm)	EFE0800	---	M	M	---	M	Y
33	피팅 LOCKING GRIP(6mm)	EFL0600	---	M	M	---	M	Y

34	피팅 LOCKING GRIP(8mm)	EFL0800	---	M	M	---	M	Y
35	피팅 END PLUG(6mm)	EFP060E	---	M	M	---	M	Y
36	피팅 STRAIGHT(8mm)	EFS0800	---	M	M	---	M	Y
37	피팅 TEE(6mm)	EFT0600	---	M	M	---	M	Y
38	호스(튜빙선)	EHT060W	---	H	H	---	M	Y
39	박스(부품박스)	EPA0000	---	M	M	---	M	Y
40	박스(카튼박스)	EPC0000	---	M	M	---	M	Y
41	박스(PE BAG)	EPE000B	---	M	M	---	M	Y
42	박스(PE FORM)	EPE000F	---	M	M	---	M	Y
43	박스(필터박스_1차)	EPF000F	---	M	M	---	M	Y
44	박스(필터박스_2차)	EPF000S	---	M	M	---	M	Y
45	박스(제품박스)	EPP000P	---	M	M	---	M	Y
46	고무발(대)	ERF000L	---	H	H	---	H	Y
47	고무발(소)	ERF000S	---	H	H	---	H	Y
48	고무링	ERR000B	---	H	H	---	H	Y
49	전면판 (R_U_BW_ENG)	FRU210E	---	M	M	---	M	Y
50	전면판 (R_U_BW_KOR)	FRU210K	---	M	M	---	M	Y
51	전면판 (R_U_SW_ENG)	FRU310E	---	M	M	---	M	Y
52	전면판 (R_W_AW_KOR)	FRW010K	---	M	M	---	M	Y
53	전면판 (R_W_AB_KOR)	FRW020K	---	M	M	---	M	Y
54	전면판 (R_W_AS_KOR)	FRW030K	---	M	M	---	M	Y
55	전면판 (R_W_AS_SAM)	FRW030S	---	M	M	---	M	Y
56	전면판 (R_W_AR_KOR)	FRW040K	---	M	M	---	M	Y
57	전면판 (S_U_BW_ENG)	FUS210E	---	M	M	---	M	Y
58	전면판 (S_U_BW_KOR)	FUS210K	---	M	M	---	M	Y
59	전면판 (S_U_SW_ENG)	FUS310E	---	M	M	---	M	Y
60	전면판 (S_W_AW_KOR)	FSW010K	---	M	M	---	M	Y
61	전면판 (S_W_AB_KOR)	FSW020K	---	M	M	---	M	Y
62	전면판 (S_W_AS_KOR)	FSW030K	---	M	M	---	M	Y
63	전면판 (S_W_AS_SAM)	FSW030S	---	M	M	---	M	Y
64	전면판 (S_W_AR_KOR)	FSW040K	---	M	M	---	M	Y
65	전해조 브라켓	IBB0000	---	H	H	---	M	Y
66	BACK CASE	IBC0000	---	H	H	---	H	Y

67	파우셋	IBF0000	---	H	H	---	M	Y
68	필터룸 커버(좌)	IBF000L	---	H	H	---	H	Y
69	필터룸 커버(우)	IBF000R	---	H	H	---	H	Y
70	필터 캡	IFC0000	---	H	H	---	H	Y
71	FRONT CASE(R)	IFC000R	---	H	H	---	H	Y
72	FRONT CASE(S)	IFC000S	---	H	H	---	H	Y
73	필터 하우징	IFH0000	---	H	H	---	M	Y
74	필터 중간리데나 (1 차)	IFR00C1	---	M	M	---	M	Y
75	필터 고깔리데나 (1,2 차)	IFR00I0	---	M	M	---	M	Y
76	필터 평리데나(1 차)	IFR00O1	---	M	M	---	M	Y
77	필터 평리데나(2 차)	IFR00O2	---	M	M	---	M	Y
78	BASE CASE	ISC0000	---	H	H	---	H	Y
79	필터 소켓링	ISR0000	---	M	M	---	M	Y
80	필터 소켓	ISS0000	---	M	M	---	M	Y
81	필터 소켓 U- RO(L)	ISU000L	---	M	M	---	M	Y
82	필터소켓 U- RO(S)	ISU000S	---	M	M	---	M	Y

Note:

1) Probability material: Risk assessment for materials

- The item shall be classified into 'H' in case that more than one restricted substance is indicated with 'H' according to standard of IEC/PAS 62596 (Refer to appendix A).
- For Polymer material is classified into 'H' since the different addition agents are used.
- For Coating material is classified into 'H' since it may contain the restricted substances.

* L: Low, M: Medium, H: High

2) Parts of a product selected by Ioncares Co., Ltd. to evaluate for quality assurance

3) Trustworthiness of the supplier: Risk assessment for Supplier

- Classification according to assessment criteria for corporate (Refer to appendix B)

* L: Low, M: Medium, H: High

4) Non-conformity probability of document from a supplier

* L: Low, M: Medium, H: High

5) CCL : Sample is included into 'Critical Component List (CCL)' if there is at least two H value expressed among the three items - Material, Supplier and Analytical Results(ED-XRF) in our report or, equal to Parts of a product selected by Company to evaluate for quality assurance

4. Assessment of high risk

4-1 CCL¹⁾, Critical Component List(CCL¹⁾)

No.	Screening Test(XRF) (Unit : mg/kg)					Precision Analysis (Unit : mg/kg)						Attachment (Evidence attached. Institute, report no., date)	Exemption No. ²⁾	Verdict
	Pb	Cd	Hg	Total Cr	Total Br	Pb	Cd	Hg	Cr (VI)	PBBs	PBDEs			
1	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	KOTITI, 1414000372 14.03.2014	---	Pass
2	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
3	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
4	N.D.	N.D.	N.D.	88 835	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
5	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
6	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
7	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
8	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
9	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
10	119	N.D.	N.D.	N.D.	56	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
11	N.D.	N.D.	N.D.	N.D.	14 696	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass
12	638	N.D.	N.D.	435	N.A.	N.D.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
13	223	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
14	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass

15	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	KOTITI, 1414000372 14.03.2014	---	Pass
16	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
17	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
18	N.D.	N.D.	N.D.	N.D.	286 901	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass
19	228	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
20	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
21	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
22	N.D.	N.D.	N.D.	N.D.	132 497	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass
23	N.D.	N.D.	N.D.	65 645	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
24	N.D.	N.D.	N.D.	82 183	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
25	N.D.	N.D.	N.D.	74 689	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
26	N.D.	N.D.	N.D.	120	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
27	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
28	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
29	N.D.	N.D.	519	N.D.	N.A.	N.A.	N.A.	N.D.	N.A.	N.A.	N.A.		---	Pass
30	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
31	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	---	Pass	
32	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	---	Pass	

33	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	KOTITI, 1414000372 14.03.2014	---	Pass
34	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
35	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
36	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
37	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
38	N.D.	N.D.	N.D.	4 380	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
39	1 877	N.D.	N.D.	13 048	N.A.	31 837	N.A.	N.A.	Negative	N.A.	N.A.		6(c)	Pass
40	N.D.	N.D.	N.D.	97 426	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
41	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
42	56	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
43	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
44	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
45	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
46	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
47	N.D.	N.D.	N.D.	N.D.	268 855	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass
48	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
49	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
50	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass

51	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	KOTITI, 1414000372 14.03.2014	---	Pass
52	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
53	54	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
54	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
55	N.D.	N.D.	N.D.	41	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
56	N.D.	N.D.	N.D.	96 233	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
57	N.D.	N.D.	N.D.	87 854	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
58	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
59	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
60	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
61	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
62	N.D.	N.D.	N.D.	1 160	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
63	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
64	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
65	N.D.	N.D.	N.D.	100 768	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
66	N.D.	N.D.	N.D.	597	N.A.	N.A.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
67	N.D.	N.D.	N.D.	107	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
68	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass

69	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	KOTITI, 1414000372 14.03.2014	---	Pass
70	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
71	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
72	1 988	N.D.	N.D.	2 298	N.A.	N.D.	N.A.	N.A.	Negative	N.A.	N.A.		---	Pass
73	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
74	N.D.	N.D.	N.D.	N.D.	858	N.A.	N.A.	N.A.	N.A.	7	N.D.		---	Pass
75	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
76	N.D.	N.D.	N.D.	N.D.	152 724	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass
77	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
78	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
79	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
80	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
81	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
82	N.D.	N.D.	N.D.	49	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
83	N.D.	N.D.	N.D.	443	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
84	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
85	N.D.	N.D.	N.D.	126	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
86	427	N.D.	N.D.	118	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	---	Pass	

87	991	N.D.	N.D.	N.D.	N.A.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	KOTITI, 1414000372 14.03.2014	---	Pass
88	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		---	Pass
89	N.D.	N.D.	N.D.	N.D.	77 306	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass
90	N.D.	N.D.	N.D.	N.D.	66 863	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.		---	Pass

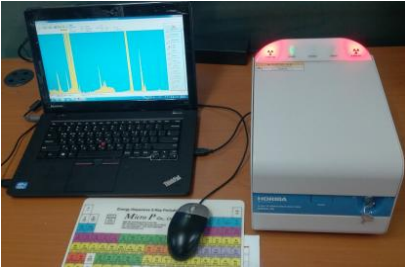



Note:

1) CCL : Sample is included into 'Critical Component List (CCL)' if there is at least two H value expressed among the three items - Material, Supplier and Analytical Results(ED-XRF) in our report or, equal to Parts of a product selected by Company to evaluate for quality assurance











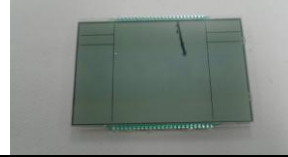


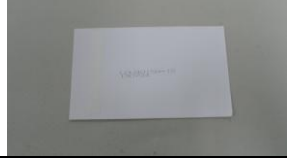

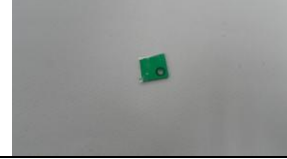












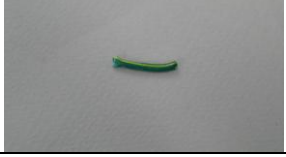







2) Exemption No.: EU RoHS exemption No.































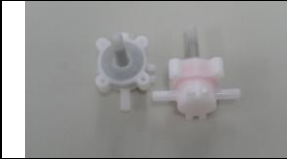





N/A: Not Applicable




































● Test Equipment

			
XRF (X-ray Fluorescence Spectrometer)	ICP-OES ((Inductively Coupled Plasma - Optical Emission Spectrometer)	UV-VIS (UV-Vis-Spectrophotometer)	GC-MS (Gas Chromatography-Mass Spectrometer)

5. Sample Picture

			
	Front	Back	
			
1	2	3	
			
4	5	6	7
			
8	9	10	11
			
		12	13
			
14	15	16	17
			
18	19		20
			
21	22	23	24
			

25	26		27
			
28	29	30	31
			
32	33		34
			
35	36	37	
			
38	39	40	41
			
42		43	44
			
45	46		47
			
48	49	50	51
			
52	53		54
			
55	56	57	58

			
59	60	61	
			
	62	63	
			
64	65	66	67
			
68	69	70	71
			
72	73		74
			
75	76	77	78
			
79	80	81	82
			
83	84	85	86
			
87	88	89	90

6. Normative References

- 1) IEC 62321 series, Determination of certain substances in electrotechnical products
- 2) IEC 62321-2 Part 2, Disassembly, disjointment and mechanical sample preparation
- 3) EN 50581, Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
- 4) IEC/TR 62476, Guidance for evaluation of products with respect to substance-use restrictions in electrical and electronic products
- 5) IEC 62474, Material Declaration for Products of and for the electrotechnical Industry

APPENDIX A. Material confidence assessment (IEC/PAS 62596)

Components/ Materials	Restricted Substances						Number of homogeneous materials	Remarks
	Hg	Cd	Pb	Cr(VI)	PBBs	PBDEs		
Materials								
Paint, ink & similar coating	L	H	H	M	L	L	1	
Adhesive			M		M	M	1	
Polyurethane – high gloss	H	M	M	L	L	M	>1	
Polyvinyl chloride (PVC)	L	H	H	M	L	M	1	
Styrene, polystyrene (HI-PS), ABS, polyethylene (PE), polyester	L	M	M	L	L	H	1	
Rubber	L	M	M	L	L	M	1	
Plastics – other	L	M	M	L	L	M	1	
Colorants (all plastics) red, orange, yellow, pink, green	M	H	H	H	N/A	N/A	1	
Metal	L	M	H	H	N/A	N/A	1 & >1	
Steel – other	L	L	L	H	N/A	N/A	1	
Steel – free-machining	L	L	H	L	N/A	N/A	1	
Copper alloy	L	H	H	L	N/A	N/A	1	Pb in metal could be exempt

Aluminum alloy	L	L	H	L	N/A	N/A	1	Pb in metal could be exempt
Metallic chromium plating	L	L	L	L	N/A	N/A	>1	
Zinc coating	L	H	H	H	N/A	N/A	>1	
Other metallic coatings	L	H	L	H	N/A	N/A	>1	
Glass – other	L	M	H	M	N/A	N/A	U	Pb could be exempt
Ceramics	L	M	H	L	N/A	N/A	U	Pb could be exempt

NOTE: This Table is to be used as guidance to assist in selecting components/materials for testing that have a high probability of continuing a restricted substance. Not every part listed in the Table requires testing and not every “high” probability substance is intended to be tested. See Clause 4.3 for additional guidance on sampling strategy (e.g. Table 4.2). It is very important to identify any applicable exemptions before beginning testing to ensure an accurate interpretation of the analytical results and avoid any unnecessary follow-up testing

Remark

- L : Low probability.
- M: Medium probability.
- H: High probability.
- N/A: Not applicable.
- 1 : One homogeneous material.
- >1 : Two or more homogeneous materials.
- U : Unknown.

APPENDIX B. Supplier confidence assessment

Type	Criteria
L	Vendor has provided the updated documents of revised version regularly to Client
M	Vendor has provided the documents to Client but not delivered any updates immediately
H	Vendor has not provided the required documents to Client

APPENDIX C. Analytical test report

Remark: See attached test report.