

Report No: SZ180310005EN

Report Date: 2018/3/9

Applicant: UTOP Electronic (Guangzhou) Co., Ltd.

Address: NO.51 Shi Nan Road Huijiang Village Dashi town Panyu area,Guangzhou city,china.

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the client.


Sample Name SDRH-D series
 Sample Received Date 2018.3.5
 Testing Period 2018.3.5-2018.3.9

Test Requirement(s):

Test Item(s)	Test Standard(s)	Conclusion
1 Lead (Pb),Cadmium (Cd),Mercury (Hg) and Hexavalent Chromium (Cr(VI))	2011/65/EU	Pass
2 Polybrominated Biphenyls(PBBs) and PolybrominatedDipheny Ethers (PBDEs) Content	2011/65/EU	Pass
3 Phthalates(DBP, BBP, DEHP, DIBP)	2011/65/EU & (EU)2015/863	Pass
4 Halogen (F, Cl, Br, I) Content	IEC 61249-2-21:2003	Pass

***** For Further Details, Please Refer To the Following Page(s) *****

Approved by:



 Joey Fan
 Vice General Manager

Shenzhen IMPAQ Testing Technology Co., Ltd



1. Lead (Pb), Cadmium (Cd), Mercury (Hg) and Hexavalent Chromium (Cr(VI))

With reference to IEC 62321-4:2013/IEC 62321-5:2013/ IEC 62321: 2008, and analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and UV-Vis spectrophotometer

Test Item(s)	Result(s)	MDL	Limit
	001		
Lead(Pb) (mg/kg)	10.9	2.0	≤ 1000
Cadmium(Cd) (mg/kg)	N.D.	2.0	≤ 100
Mercury(Hg) (mg/kg)	N.D.	2.0	≤ 1000
Hexavalent Chromium(Cr(VI)) (mg/kg)	N.D.	2.0	≤ 1000

Note: The sample(s) had been digested totally tested for Lead, Cadmium, Mercury

- "MDL" denotes Method Detection Limit
- "N.D." : denotes Not Detected (<MDL)
- "mg/kg" : denotes milligram per kilogram

2. Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) Content

With reference to IEC 62321-6: 2015, and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Test Item(s)	Result(s)	MDL (mg/kg)	Limit (mg/kg)
	001		
Monobromobiphenyl (1Br-PBB)	N.D.	5.0	--
Dibromobiphenyl (2Br-PBB)	N.D.	5.0	--
Tribromobiphenyl (3Br-PBB)	N.D.	5.0	--
Tetrabromobiphenyl (4Br-PBB)	N.D.	5.0	--
Pentabromobiphenyl (5Br-PBB)	N.D.	5.0	--
Hexabromobiphenyl (6Br-PBB)	N.D.	5.0	--
Heptabromobiphenyl (7Br-PBB)	N.D.	5.0	--
Octabromobiphenyl (8Br-PBB)	N.D.	5.0	--
Nonabromobiphenyl (9Br-PBB)	N.D.	5.0	--
Decabromobiphenyl (10Br-PBB)	N.D.	5.0	--
Sum of Polybrominated Biphenyls	N.D.	--	≤ 1000
Monobromodiphenyl ether (1Br-PBDE)	N.D.	5.0	--
Dibromodiphenyl ether (2Br-PBDE)	N.D.	5.0	--
Tribromodiphenyl ether (3Br-PBDE)	N.D.	5.0	--
Tetrabromodiphenyl ether (4Br-PBDE)	N.D.	5.0	--
Pentabromodiphenyl ether (5Br-PBDE)	N.D.	5.0	--
Hexabromodiphenyl ether (6Br-PBDE)	N.D.	5.0	--
Heptabromodiphenyl ether (7Br-PBDE)	N.D.	5.0	--
Octabromodiphenyl ether (8Br-PBDE)	N.D.	5.0	--
Nonabromodiphenyl ether (9Br-PBDE)	N.D.	5.0	--
Decabromodiphenyl ether (10Br-PBDE)	N.D.	5.0	--
Sum of Polybrominated Diphenyl Ethers	N.D.	--	≤ 1000

Note: - "MDL" denotes Method Detection Limit

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3. Phthalates (DBP, BBP, DEHP, DIBP)

With reference to EN 14372:2004, and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Test Item(s)	Result(s)	MDL (mg/kg)	Limit (mg/kg)
	001		
Di(2-ethylhexyl) phthalate (DEHP)	N.D.	30	≤ 1000
Dibutyl phthalate (DBP)	N.D.	30	≤ 1000
Benzyl butyl phthalate (BBP)	N.D.	30	≤ 1000
Diisobutyl phthalate (DIBP)	N.D.	30	≤ 1000

Note: - "MDL" denotes Method Detection Limit
 - "N.D." : denotes Not Detected (<MDL)
 - "mg/kg" : denotes milligram per kilogram

4. Halogen (F, Cl, Br, I) Content

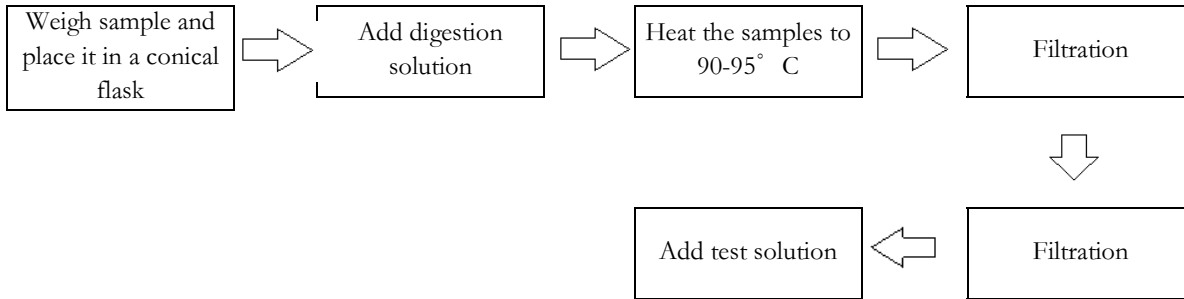
With reference to EN 14582:2007, and analyzed by Ion chromatography (IC).

Test Item(s)	Result(s)	MDL (mg/kg)	Limit (mg/kg)
	001		
Fluorine (F)	N.D.	50	--
Chlorine (Cl)	N.D.	50	≤ 900
Bromine (Br)	N.D.	50	≤ 900
Iodine (I)	N.D.	50	--
sum of Cl and Br	N.D.	--	≤ 1500

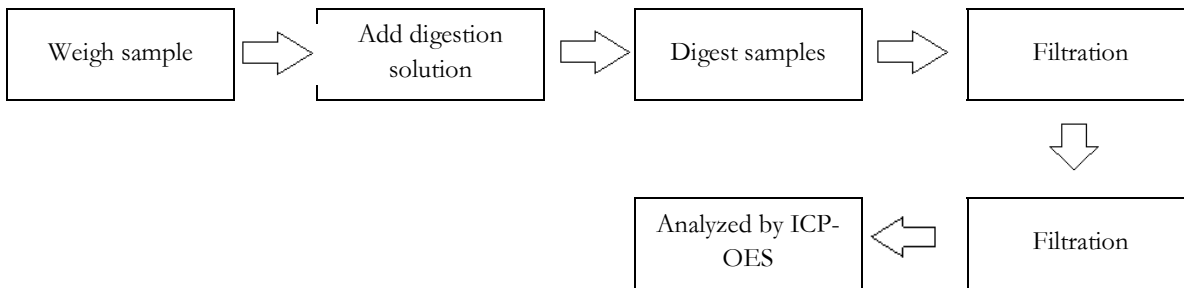
Note: - "MDL" denotes Method Detection Limit
 - "N.D." : denotes Not Detected (<MDL)
 - "mg/kg" : denotes milligram per kilogram

Test Flow Chart

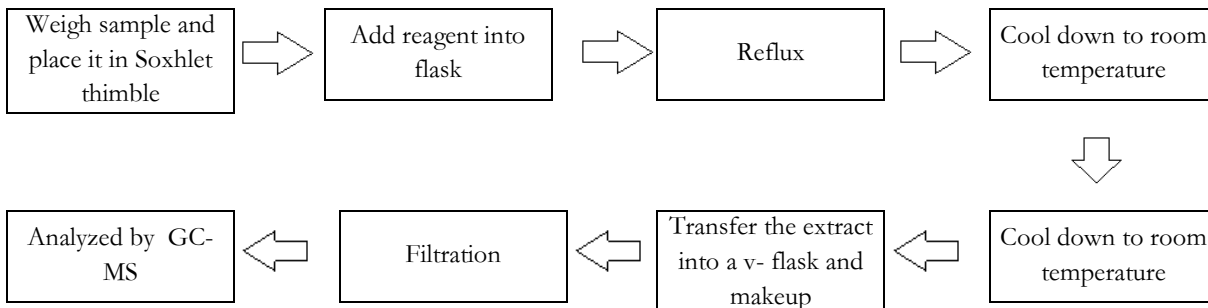
Chromium(VI) Content



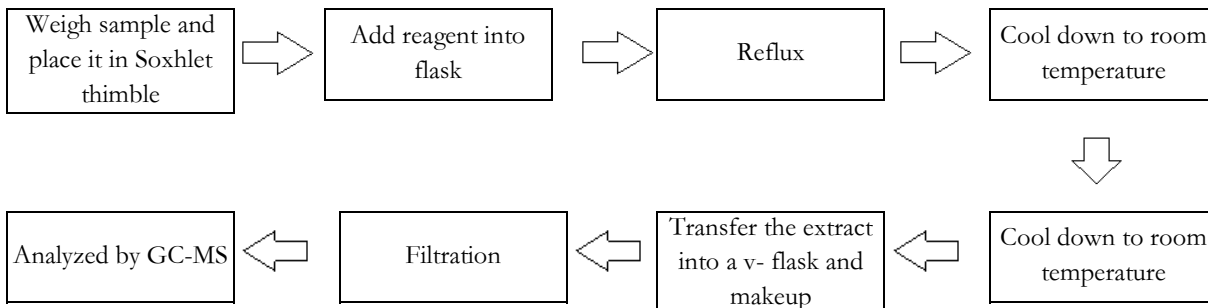
Pb/Cd/Hg Content



PBBs/PBDEs Content



Phthalates Content

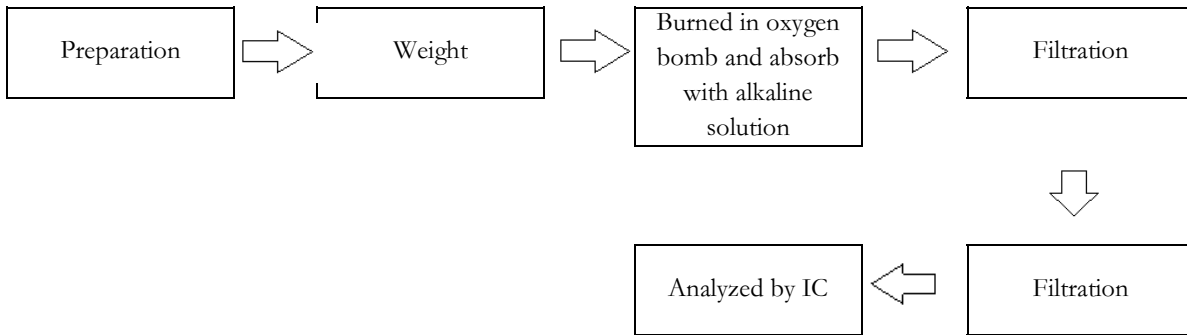


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Halogen (F, Cl, Br, I) Content



Tested Sample/Part Description

Sample No.	Tested Material Description
001	SDRH-D series

Photo(s) of the sample(s)



*** End of Report ***

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