



Technical Report No. 68.420.19.0253.01A
Dated 2019-03-28

Client: Flashbay Electronics

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Attn.: Mr. Levin

Sample Description: Water Bottles

Model No.: Cuppa(KA)

Sample Received Date: 2019-03-10

Test Period: From 2019-03-10 to 2019-03-19

Location of Testing: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

Purpose of examination: Test according to RoHS (Restriction of Hazardous Substances) directive 2011/65/EU and its amendment (EU) 2015/863 on submitted samples

- Heavy Metal (Pb, Cd, Hg and Cr VI) Content **PASS**
- Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) Content **PASS**
- Phthalates (DEHP, BBP, DBP and DIBP) Content **PASS**

Test Result: Refer to following page(s)

Remark: The result relates only to the items tested.

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

Prepared by:

Will Zheng

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Project Handler



Reviewed by:

Scarlett Liang



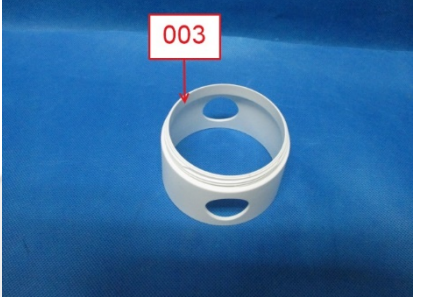
Scarlett Liang
Designated Reviewer

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1. TESTED SUBJECT DESCRIPTION

Sample Number	Item Name	Tested Material Description	Photo
001	Cover (ABS)	White plastic	
002	Mug (silicone)	White silicone	
003	Case (ABS)	White plastic	

2. TEST RESULTS

2.1. HEAVY METAL CONTENT

Test method: With reference to EN 62321-4:2017, EN 62321-5:2014, EN 62321-7-1:2015 and EN 62321-7-2:2017, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and UV-Vis spectrophotometer. [Reporting Limit: 2 mg/kg for Cadmium; 10 mg/kg or 0.10 $\mu\text{g}/\text{cm}^2$ for Hexavalent Chromium, 10 mg/kg for Lead and Mercury.]

Sample No.	Result [mg/kg]			
	Total Cadmium	Hexavalent Chromium	Total Mercury	Total Lead
001	<2	<10	<10	<10
002	<2	<10	<10	<10
003	<2	<10	<10	<10
RoHS Requirement	100	1000	1000	1000

Note:

- “mg/kg” denotes milligram per kilogram
- “<” denotes less than
- “ $\mu\text{g}/\text{cm}^2$ ” denotes micrograms per square centimeter

2.2. POLYBROMINATED BIPHENYLS (PBBs) AND POLYBROMINATED DIPHENYL ETHERS (PBDEs) CONTENT

Test Method: With reference to EN 62321-6:2015, extracted by toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting Limit: 5 mg/kg]

Test Item		Result [mg/kg]		RoHS Requirement [mg/kg]
		Sample 001	Sample 002	
PBBs	Monobromobiphenyl	< 5	< 5	Sum of PBBs 1000
	Dibromobiphenyl	< 5	< 5	
	Tribromobiphenyl	< 5	< 5	
	Tetrabromobiphenyl	< 5	< 5	
	Pentabromobiphenyl	< 5	< 5	
	Hexabromobiphenyl	< 5	< 5	
	Heptabromobiphenyl	< 5	< 5	
	Octabromobiphenyl	< 5	< 5	
	Nonabromobiphenyl	< 5	< 5	
	Decabromobiphenyl	< 5	< 5	
	Sum of PBBs	< 5	< 5	
PBDEs	Monobromodiphenyl Ether	< 5	< 5	Sum of PBDEs 1000
	Dibromodiphenyl Ether	< 5	< 5	
	Tribromodiphenyl Ether	< 5	< 5	
	Tetrabromodiphenyl Ether	< 5	< 5	
	Pentabromodiphenyl Ether	< 5	< 5	
	Hexabromodiphenyl Ether	< 5	< 5	
	Heptabromodiphenyl Ether	< 5	< 5	
	Octabromodiphenyl Ether	< 5	< 5	
	Nonabromodiphenyl Ether	< 5	< 5	
	Decabromodiphenyl Ether	< 5	< 5	
	Sum of PBDEs	< 5	< 5	

Note:

- “mg/kg” denotes miligram per kilogram
- “<” denotes less than

(Continued)

Test Item		Result [mg/kg]	RoHS Requirement [mg/kg]
		Sample 003	
PBBs	Monobromobiphenyl	< 5	Sum of PBBs 1000
	Dibromobiphenyl	< 5	
	Tribromobiphenyl	< 5	
	Tetrabromobiphenyl	< 5	
	Pentabromobiphenyl	< 5	
	Hexabromobiphenyl	< 5	
	Heptabromobiphenyl	< 5	
	Octabromobiphenyl	< 5	
	Nonabromobiphenyl	< 5	
	Decabromobiphenyl	< 5	
	Sum of PBBs	< 5	
PBDEs	Monobromodiphenyl Ether	< 5	Sum of PBDEs 1000
	Dibromodiphenyl Ether	< 5	
	Tribromodiphenyl Ether	< 5	
	Tetrabromodiphenyl Ether	< 5	
	Pentabromodiphenyl Ether	< 5	
	Hexabromodiphenyl Ether	< 5	
	Heptabromodiphenyl Ether	< 5	
	Octabromodiphenyl Ether	< 5	
	Nonabromodiphenyl Ether	< 5	
	Decabromodiphenyl Ether	< 5	
	Sum of PBDEs	< 5	

Note:

- “mg/kg” denotes miligram per kilogram
- “<” denotes less than

2.3. PHTHALATES CONTENT TEST

Test method: With reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 100 mg/kg]

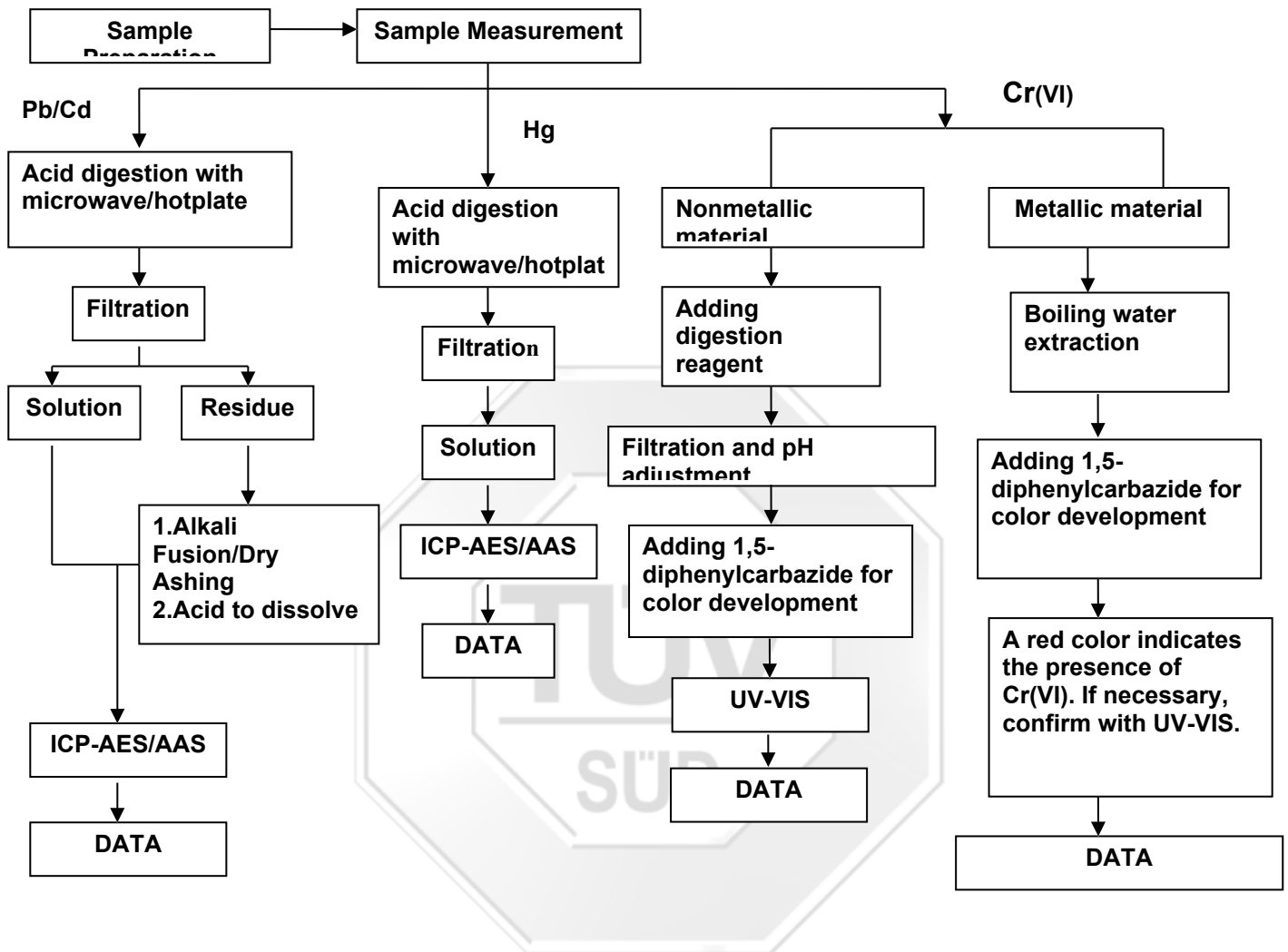
Test Item	Result [mg/kg]		RoHS Requirement [mg/kg]
	Sample 001	Sample 002	
Di-(2-ethyl-hexyl) Phthalate (DEHP)	< 100	< 100	1000
Butyl-benzyl Phthalate (BBP)	< 100	< 100	1000
Di-butyl Phthalate (DBP)	< 100	< 100	1000
Di-iso-butyl Phthalate (DIBP)	< 100	< 100	1000

Test Item	Result [mg/kg]	RoHS Requirement [mg/kg]
	Sample 003	
Di-(2-ethyl-hexyl) Phthalate (DEHP)	< 100	1000
Butyl-benzyl Phthalate (BBP)	< 100	1000
Di-butyl Phthalate (DBP)	< 100	1000
Di-iso-butyl Phthalate (DIBP)	< 100	1000

Note:

- “mg/kg” denotes miligram per kilogram
- “<” denotes less than

Appendix RoHS Testing Procedure Flowchart



These sample were dissolved totally by pre-conditioning method according to above flow chart(Cr(VI) test method excluded)

PBBs/PBDEs, Phthalates

