



Test Report

Report No. A222038878510301

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Company Name UF CAPACITORS FACTORY CO.,LTD

shown on Report

Address FACTORY BUILDING NO.22, CHANGPING JEWELRY INDUSTRIAL PARK,
CHANGPING, DONGGUAN, GUANGDONG, CHINA

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

Sample Name	Film Capacitor (box series)
Part No.	Yellow
Color	Yellow
Material	Case、Filler、Dielectric、Lead
Sample Received Date	Sep. 1, 2022
Testing Period	Sep. 1, 2022 to Sep. 6, 2022

Test Requested

As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

Test Method/Test Result(s) Please refer to the following page(s).

Approved by

Date

Feb. 22, 2023

Hill Zheng
Technical Manager

No. R450148092

Centre Testing International Group Co., Ltd.

CETI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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Conclusion

Tested Sample	According to standard/directive	Result
Submitted Sample	RoHS Directive 2011/65/EU with amendment (EU) 2015/863	PASS

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis
	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

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Test Result(s)

Tested Item(s)	Result			MDL	Limit
	001	002	003		
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	8 mg/kg	1000 mg/kg
	--	--	--	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result	MDL	Limit
	004		
Lead (Pb)	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	8 mg/kg	1000 mg/kg
	N.D.▼	0.10 µg/cm² (LOQ)	1000 mg/kg

Tested Item(s)	Result			MDL	Limit
	001	002	003		
Polybrominated Biphenyls (PBBs)					
Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	

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Tested Item(s)	Result			MDL	Limit
	001	002	003		
Polybrominated Diphenyl Ethers (PBDEs)					
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	

Tested Item(s)	Result			MDL	Limit
	001	002	003		
Phthalates (DBP, BBP, DEHP, DIBP)					
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg

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Sample/Part Description

001	Yellow plastic with grey printing
002	Yellow solid
003	Silvery film
004	Metal pin with silvery plating

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-1000 mg/kg = 0.1%

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is $0.10 \mu\text{g}/\text{cm}^2$

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below $0.10 \mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating.

- According to the client's statement, the Company Name shown on Report in this report and the Company Name shown on Report in the report A2220388785103E are the buyer-supplier relations, the test result(s) of this report is/are presented in reference to the result(s) that reported in A2220388785103E.

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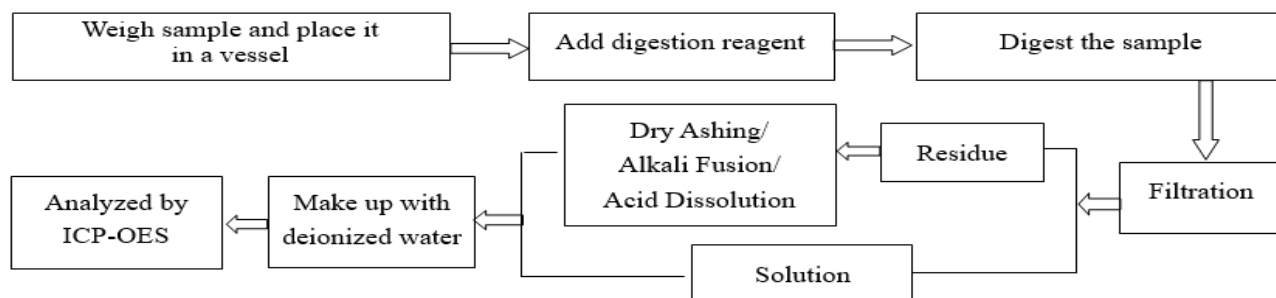
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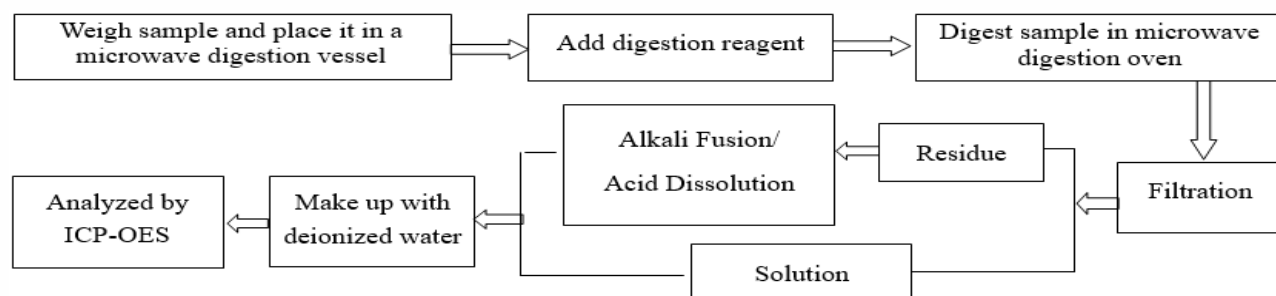
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Test Process

1. Lead (Pb), Cadmium (Cd), Chromium(Cr)

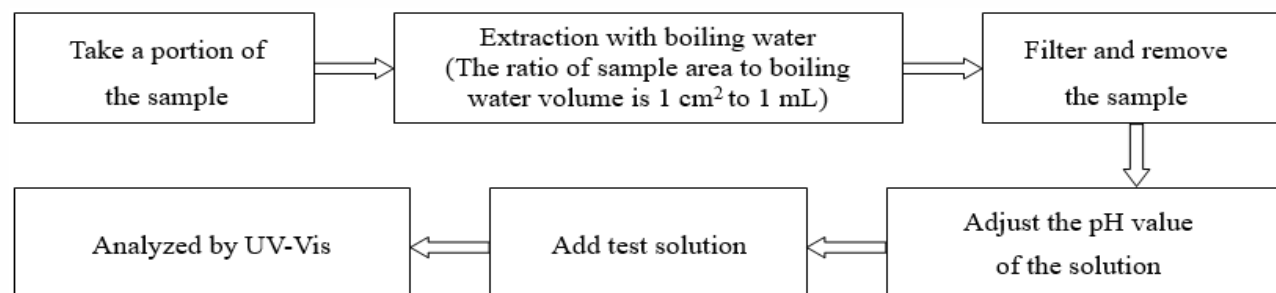


2. Mercury (Hg)

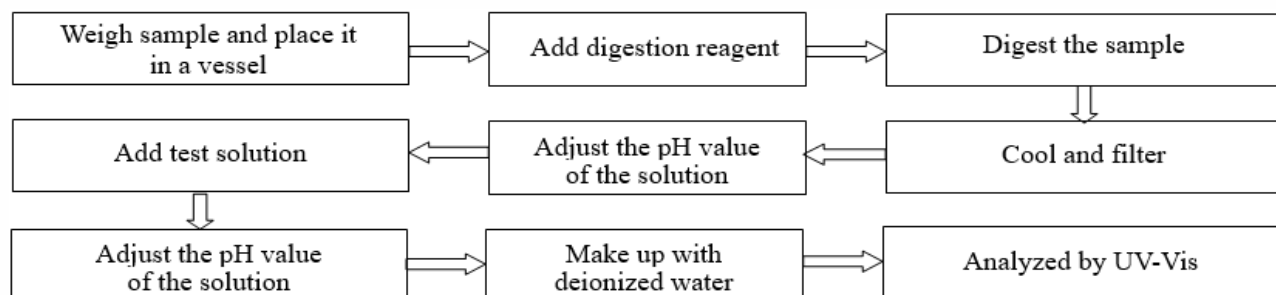


3. Hexavalent Chromium (Cr(VI))

(1) IEC 62321-7-1:2015



(2) IEC 62321-7-2:2017

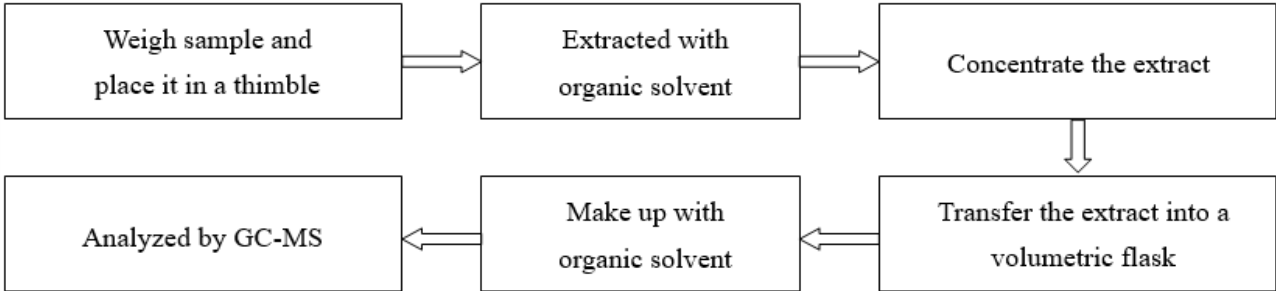


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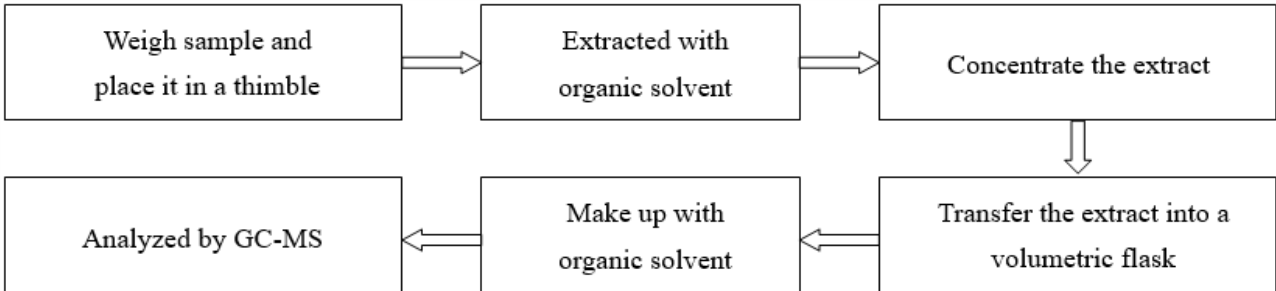
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4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



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



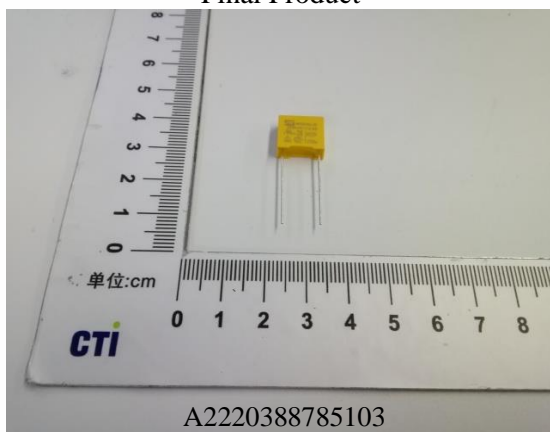
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Photo(s) of the sample(s)

Final Product



001



002



003



004



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Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Without written approval of CTI, this report can't be reproduced except in full;
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** End of Report ***

