

# Test Report

Report No. SCL01I079961

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**Applicant** SHENZHEN HAOTIAN ELECTRONICS CO LTD

**Address** B13 AROUND MAOXHOU INDUSTRIAL SA COMMUNITY SONGGANG  
STREET STBAOAN SHENZHEN

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

Sample Name X2 电容器  
Part No. X2-Cap-MPX  
Color 黄色  
Sample Received Date Sep. 8, 2016  
Testing Period Sep. 8, 2016 to Sep. 13, 2016

**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** Please refer to the following page(s).

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

Tested by

*Sky Liu*

Reviewed by

*Amber*

Approved by

*Danny Liu*

Date

Sep. 13, 2016

Danny Liu

Technical Manager

No. R221587049

Centre Testing International Group Co.,Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

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## Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead(Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium(Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury(Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321:2008 Ed.1 Annex C	UV-Vis
	IEC 62321-7-1:2015	
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates(DBP, BBP, DEHP, DIBP)	Refer to IEC 62321-8 CDV	GC-MS

## Test Result(s)

Tested Item(s)	Result		MDL
	(1)	(2)	
Lead(Pb)	N.D.	N.D.	2 mg/kg
Cadmium(Cd)	N.D.	N.D.	2 mg/kg
Mercury(Hg)	N.D.	N.D.	2 mg/kg
Hexavalent Chromium(Cr(VI))	N.D.	---	2 mg/kg
	---	N.D.▼	0.10 µg/cm <sup>2</sup> (LOQ)

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**Test Result(s)**

Tested Item(s)	Result	MDL
	(1)	
<b>Polybrominated Biphenyls(PBBs)</b>		
Monobromobiphenyl	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	5 mg/kg
<b>Polybrominated Diphenyl Ethers(PBDEs)</b>		
Monobromodiphenyl ether	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	5 mg/kg

Tested Item(s)	Result	MDL
	(1)	
<b>Phthalates</b>		
Dibutyl phthalate(DBP) CAS#:84-74-2	N.D.	50 mg/kg
Benzylbutyl phthalate(BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-2-ethylhexyl phthalate(DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisobutyl phthalate(DIBP) CAS#:84-69-5	N.D.	50 mg/kg

**Tested Sample/Part Description**

- (1) Yellow body with black printing(Mix all)<sup>#</sup>
- (2) Metal with silvery plating

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**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

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

-<sup>▼</sup>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.

-<sup>#</sup>As specified by client, the test was conducted by mixing all materials together. The result(s) shown on this report may be different from the content of any homogeneous material.

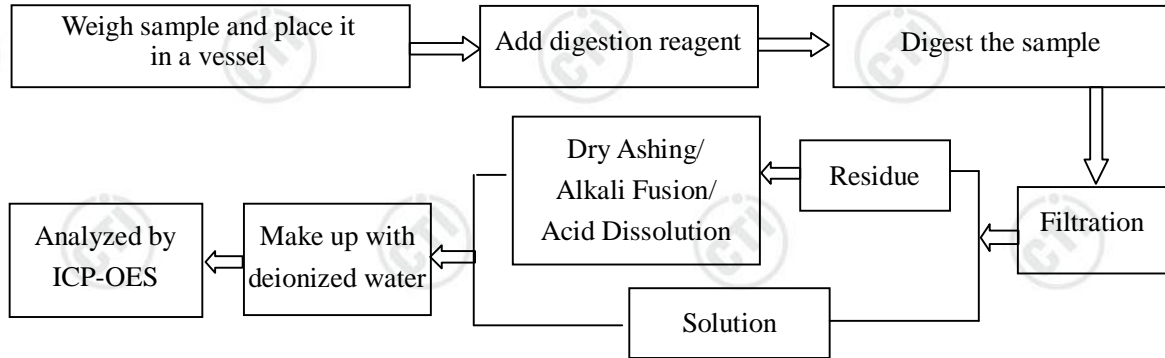
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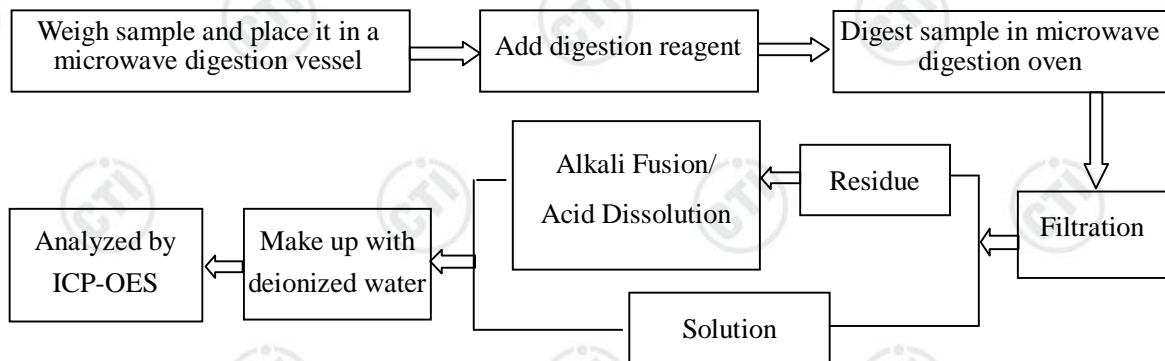
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## Test Process

### 1. Lead(Pb), Cadmium(Cd)

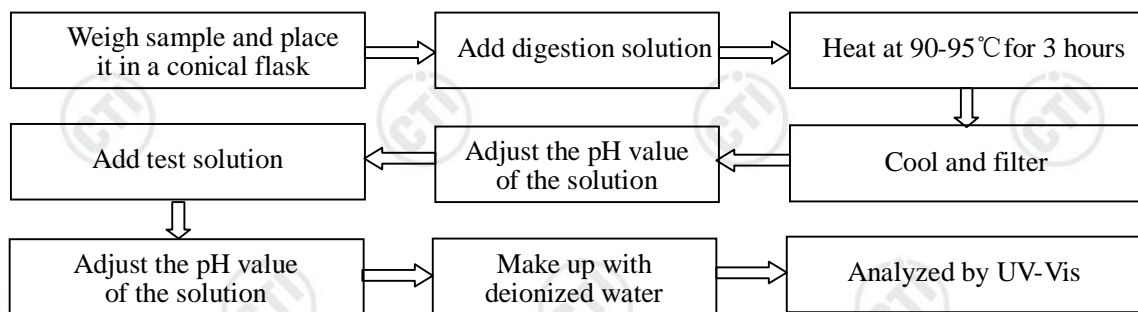


### 2. Mercury(Hg)

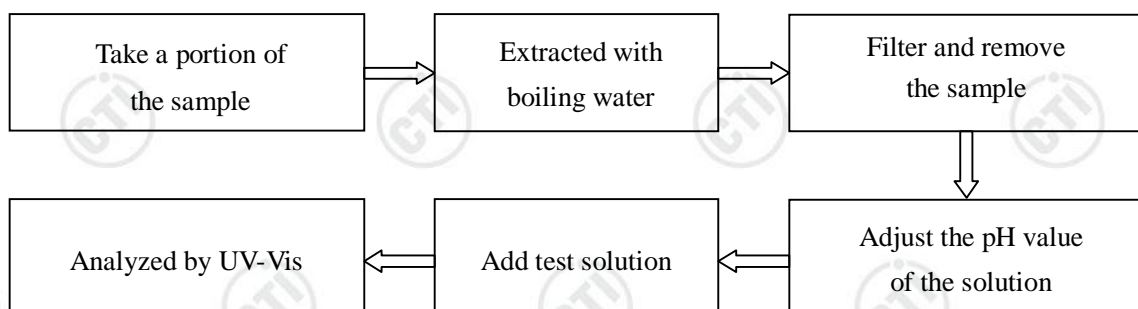


### 3. Hexavalent Chromium (Cr(VI))

#### (1) IEC 62321:2008 Ed.1 Annex C



#### (2) IEC 62321-7-1:2015

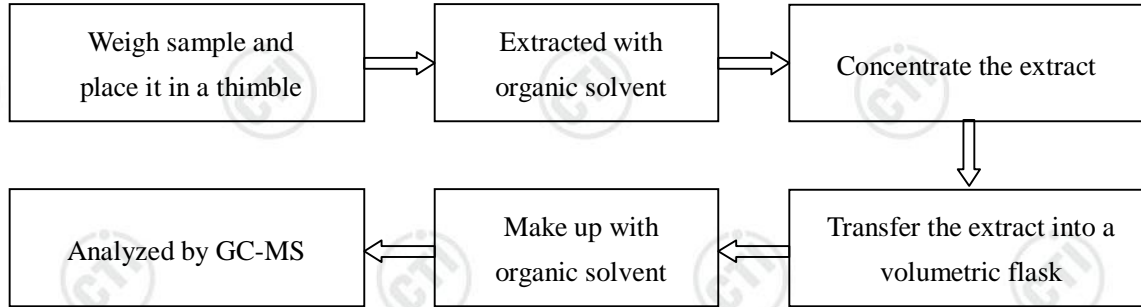


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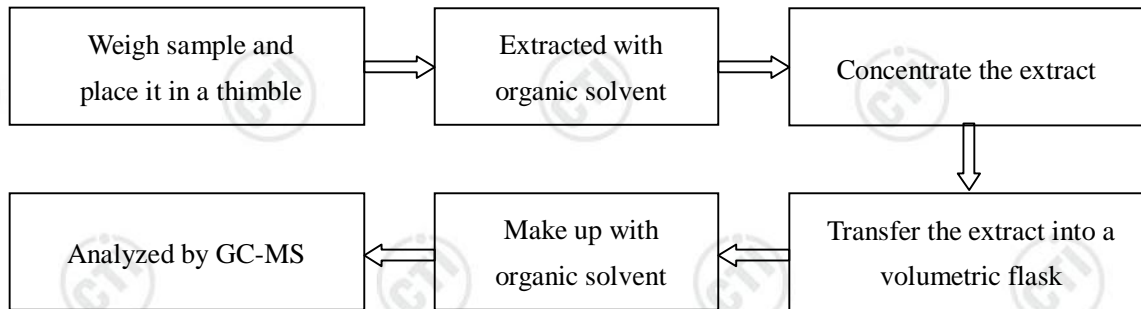
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## 4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs)



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



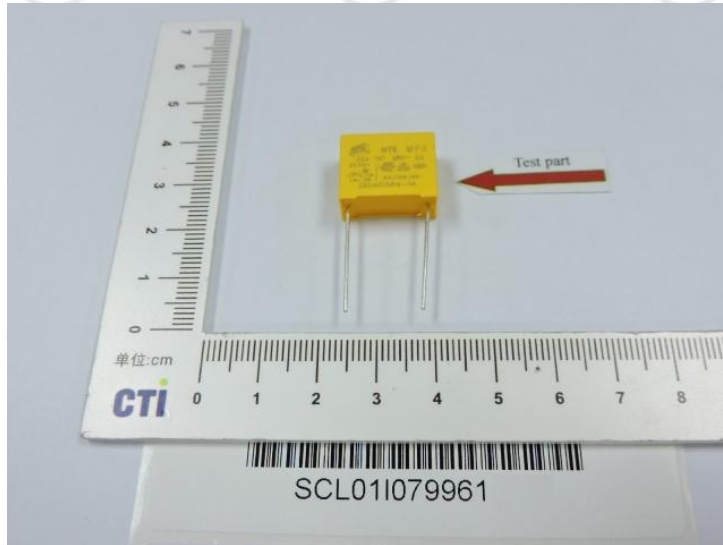
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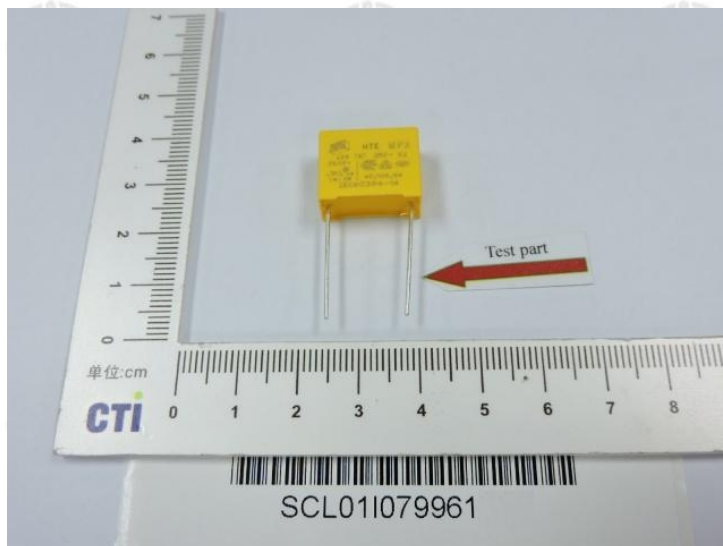
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## Photo(s) of the sample(s)

(1)



(2)



\*\*\* End of Report \*\*\*

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