

# Test Report

**Report No.** ECL01J072676020

Page 1 of 7

**Applicant** CYG WAYON CIRCUIT PROTECTION CO.,LTD

**Address** 1001 SHIWAN 7TH ROAD, SHANGHAI, 201207 P.R. CHINA

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

**Sample Name** Marking Ink

**Sample Received Date** Nov. 20, 2017

**Testing Period** Nov. 20, 2017 to Nov. 28, 2017

**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), Chlorine(Cl), Bromine(Br), Antimony(Sb), Beryllium(Be) 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

*Liu Jie*  
*Su Hongwei*

Approved by

Su Hongwei

Senior Laboratory Manager

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

Reviewed by

*Tao ying*

Date

Nov. 28, 2017

No. R131279013

No.1996,Xinqinqiao Road, Pudong New District,Shanghai,China

# Test Report

Report No. ECL01J072676020

Page 2 of 7

## 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 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013 Ed.1.0	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
Chlorine (Cl)	Refer to EN 14582:2016	IC
Bromine (Br)	Refer to EN 14582:2016	IC
Antimony(Sb)	Refer to US EPA 3052:1996 &US EPA 6010D:2014	ICP-OES
Beryllium(Be)	Refer to US EPA 3052:1996 &US EPA 6010D:2014	ICP-OES

# Test Report

Report No. ECL01J072676020

Page 3 of 7

## Test Result(s)

Tested Item(s)	Result	MDL
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	8 mg/kg

Tested Item(s)	Result	MDL
<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

Tested Item(s)	Result	MDL
<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

# Test Report

**Report No.** ECL01J072676020

Page 4 of 7

Tested Item(s)	Result	MDL
<b>Phthalates</b>		
Dibutyl phthalate(DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butylbenzyl 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 Item(s)	Result	MDL
<b>Halogen</b>		
Chlorine (Cl)	496 mg/kg	10mg/kg
Bromine (Br)	N.D.	10mg/kg

Tested Item(s)	Result	MDL
Antimony(Sb)	N.D.	5 mg/kg
Beryllium(Be)	N.D.	10 mg/kg

**Tested Sample/Part Description** White solid

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

-MDL = Method Detection Limit

-N.D. = Not Detected (&lt;MDL)

-mg/kg = ppm = parts per million

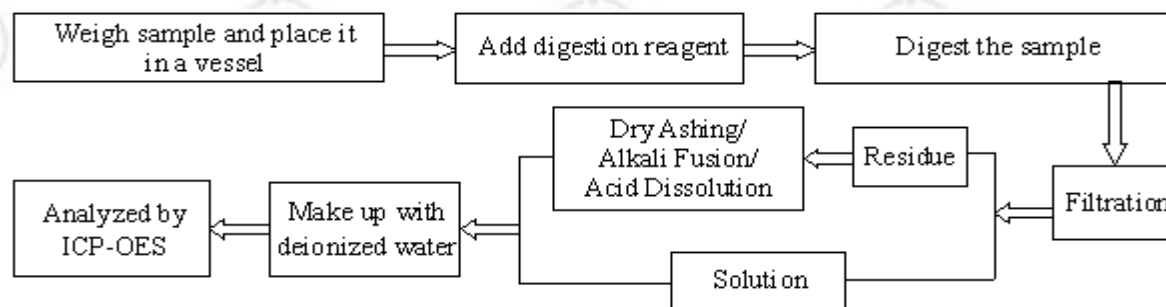
# Test Report

Report No. ECL01J072676020

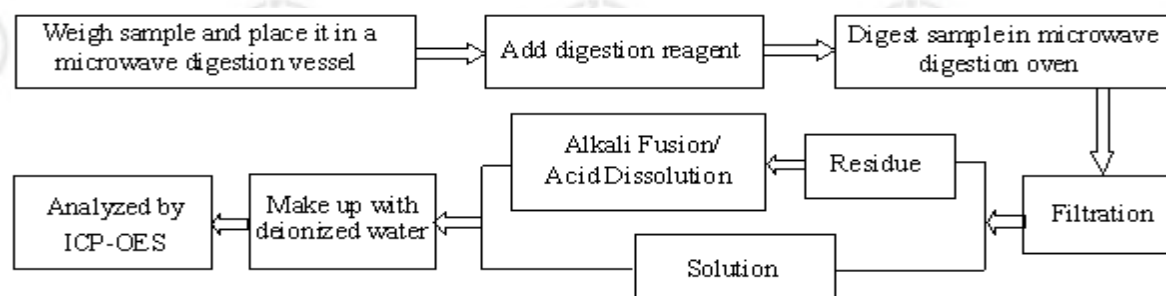
Page 5 of 7

## Test Process

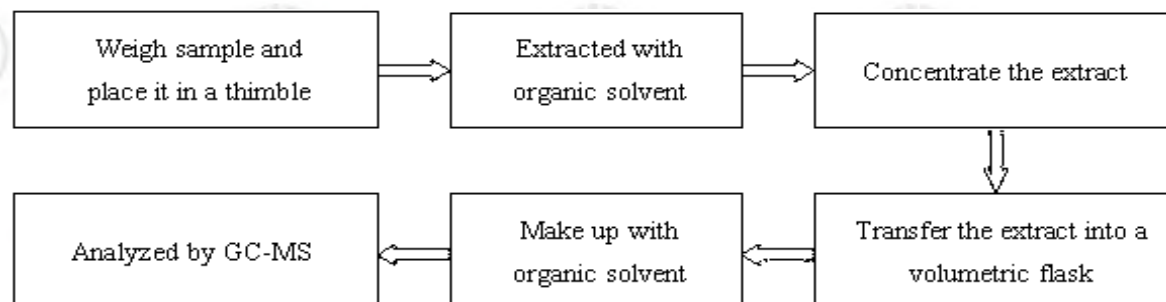
### 1. Lead (Pb), Cadmium (Cd), Chromium (Cr)



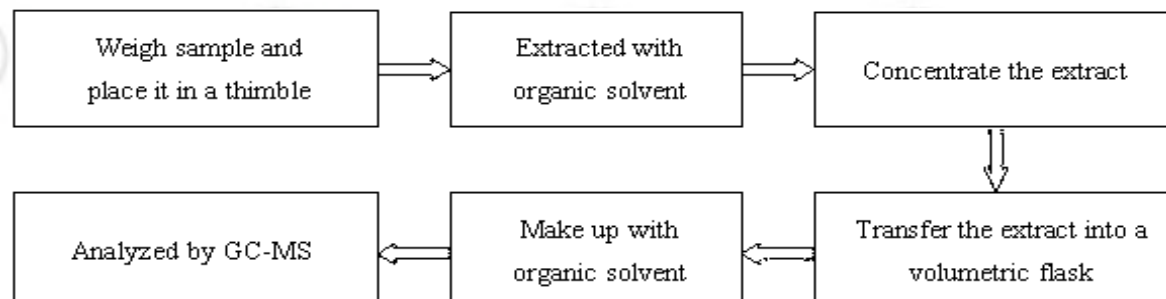
### 2. Mercury (Hg)



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



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

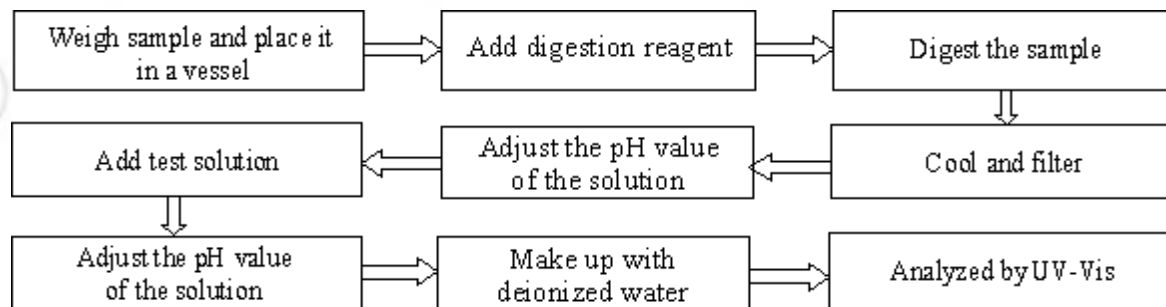


# Test Report

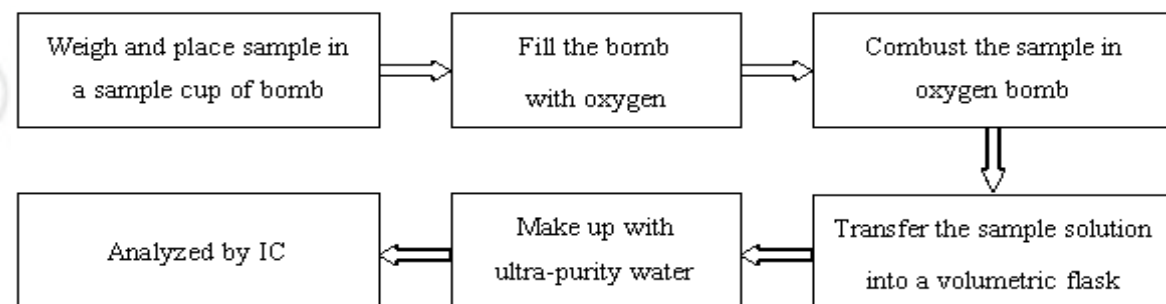
Report No. ECL01J072676020

Page 6 of 7

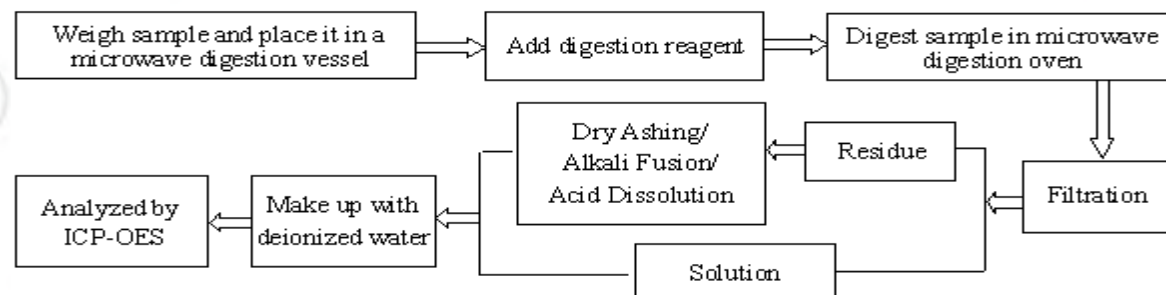
## 5. Hexavalent Chromium(Cr(VI))



## 6. Bromine(Br), Chlorine(Cl)



## 7. Antimony(Sb), Beryllium(Be)





# Test Report

Report No. ECL01J072676020

Page 7 of 7

Photo(s) of the sample(s)



\*\*\* End of report \*\*\*

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.