

# CPST

## Test Report

No. C230407053001-2

Date: Apr 13, 2023

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Applicant: DONGGUAN JIANHONG HARDWARE ELECTRONIC TECHNOLOGY CO., LTD

Applicant Address: ROOM 201, BUILDING 1, GONGJIAO ROAD 1, SHIPAI TOWN, DONGGUAN CITY, GUANGDONG PROVINCE

The following samples were submitted and identified on behalf of the clients as

Sample Name: Hardware battery  
CPST Internal Reference No.: C230407053  
Sample Received Date: Apr 07, 2023  
Test Period: Apr 07, 2023 to Apr 13, 2023  
Test Method: Please refer to next page(s).  
Test Result: Please refer to next page(s).

### CONCLUSION :

<u>TESTED SAMPLES</u>	<u>TEST ITEM</u>	<u>RESULT</u>
Hardware battery	1. According to the applicant requirements, the submitted samples are tested as follows: — Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content — Di-(2-ethylhexyl) phthalate (DEHP), Benzylbutyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP) Content	See the result  See the result

Signed for and on behalf of  
Eurones (Dongguan) Consumer Products Testing Service Co., Ltd

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### Photo of the Submitted Sample



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### Test Result(s):

Description of Specimen : Hardware battery(mixed)

### 1. Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content

Test Items	Unit	Test Method	Result	MDL
Lead (Pb)	mg/kg	IEC 62321-5:2013, ICP-OES	N.D.	2
Mercury (Hg)	mg/kg	IEC 62321-4:2013+A1:2017, ICP-OES	N.D.	2
Cadmium(Cd)	mg/kg	IEC 62321-5:2013, ICP-OES	N.D.	2
Hexavalent Chromium (Cr <sup>6+</sup> )#	µg/cm <sup>2</sup>	IEC 62321-7-1:2015, UV-VIS	N.D.	0.10
Monobromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Dibromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Tribromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Tetrabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Pentabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Hexabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Heptabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Octabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Nonabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Decabromobiphenyl	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Sum of PBBs	mg/kg	-	N.D.	-
Monobromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Dibromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Tribromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Tetrabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Pentabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Hexabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Heptabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Octabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Nonabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Decabromodiphenyl ether	mg/kg	IEC 62321-6:2015, GC-MS	N.D.	5
Sum of PBDEs	mg/kg	-	N.D.	-

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**Note:**

1. mg/kg = milligram per kilogram = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit
4. "-" = Not Regulated
5. #= a. When the concentration of hexavalent chromium in boiling-water-extraction solution with 1cm<sup>2</sup> sample surface area is higher than 0.13 µg/cm<sup>2</sup>, the sample is positive, that is, contains hexavalent chromium;  
b. When the concentration of hexavalent chromium in boiling-water-extraction solution with 1cm<sup>2</sup> sample surface area is N.D.(less than 0.10µg/cm<sup>2</sup>), the sample is negative, that is, no hexavalent chromium is detected;  
c. When the concentration of hexavalent chromium in boiling-water-extraction solution with 1cm<sup>2</sup> sample surface area is between 0.10µg/cm<sup>2</sup> and 0.13µg/cm<sup>2</sup>, it is not possible to directly determine whether hexavalent chromium is detected.

Surface differences of samples from different individuals may affect the determination results:

Since the storage condition and production date of the sample are not known, the test result of the sample can only represent the state of the sample containing hexavalent chromium at the time of the test.

6. Positive = result be regarded as not comply with RoHS requirement
7. Negative = result be regarded as comply with RoHS requirement

### **Di-(2-ethylhexyl) phthalate(DEHP), Benzylbutyl phthalate(BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP) Content**

Test method:IEC 62321-8:2017, analysis was performed by Gas Chromatograph-Mass Spectrometer (GC-MS) .

Test Items	Unit	Result	MDL
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	N.D.	50
Benzylbutyl phthalate (BBP)	mg/kg	N.D.	50
Dibutyl phthalate (DBP)	mg/kg	N.D.	50
Diisobutyl phthalate(DIBP)	mg/kg	N.D.	50

**Note:**

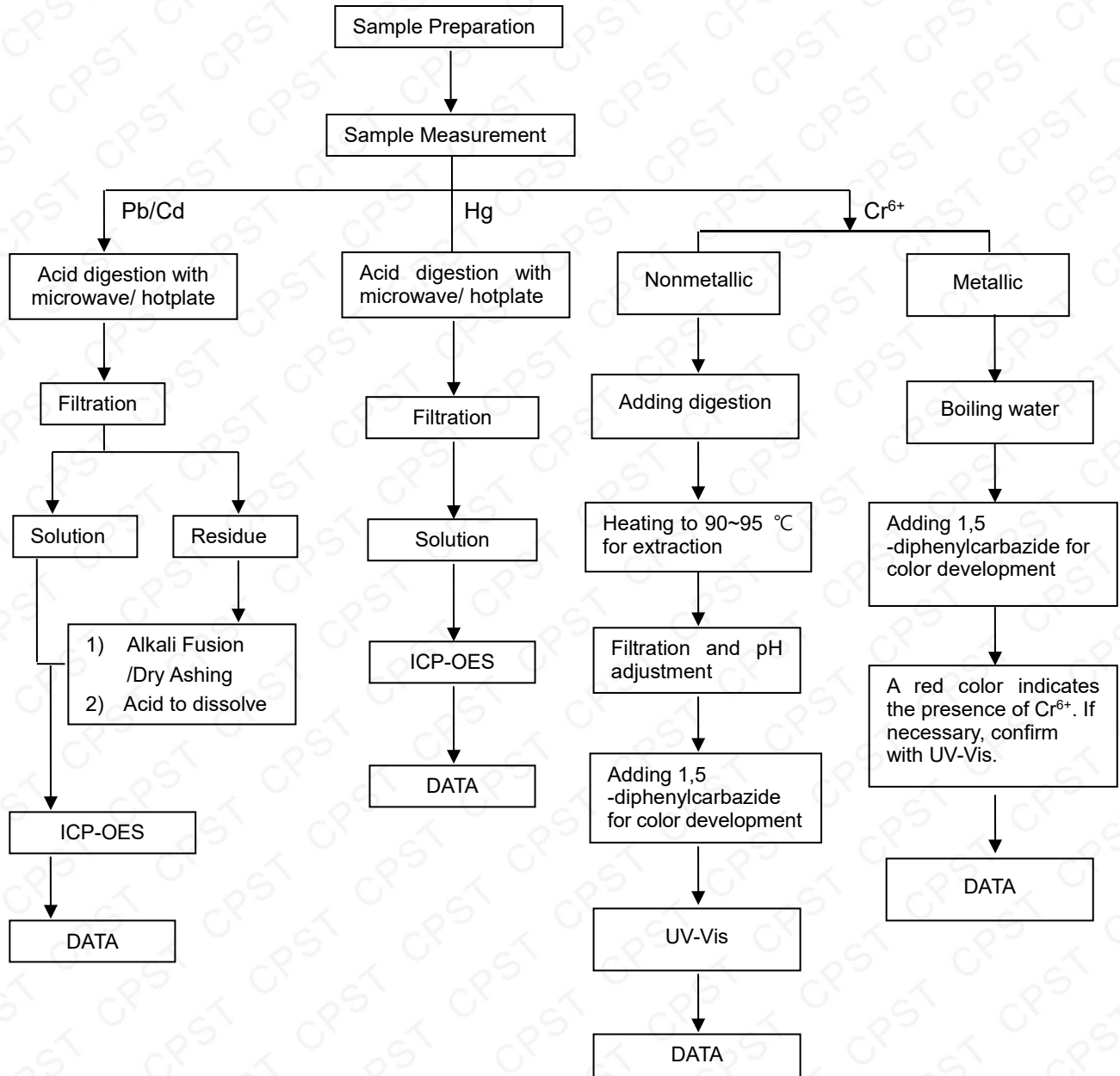
1. mg/kg = milligram per kilogram = ppm
2. N.D. = Not Detected (<MDL)
3. MDL = Method detection limit

Remark: As specified by applicant, to test content in the selected materials of the submitted samples. The test results are only responsible for the submitted sample. The test report is only for customer research, teaching, internal quality control, product development and other purposes, for reference only.

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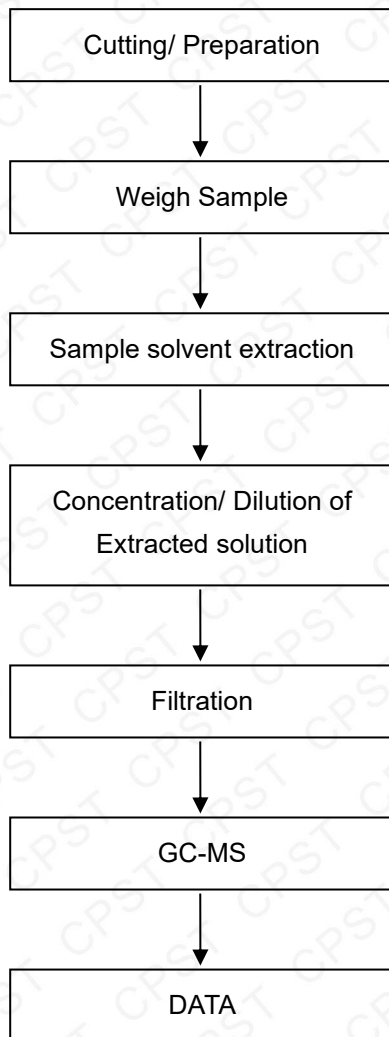
### Pb/Cd/Hg/Cr<sup>6+</sup> Testing Flow Chart

- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)



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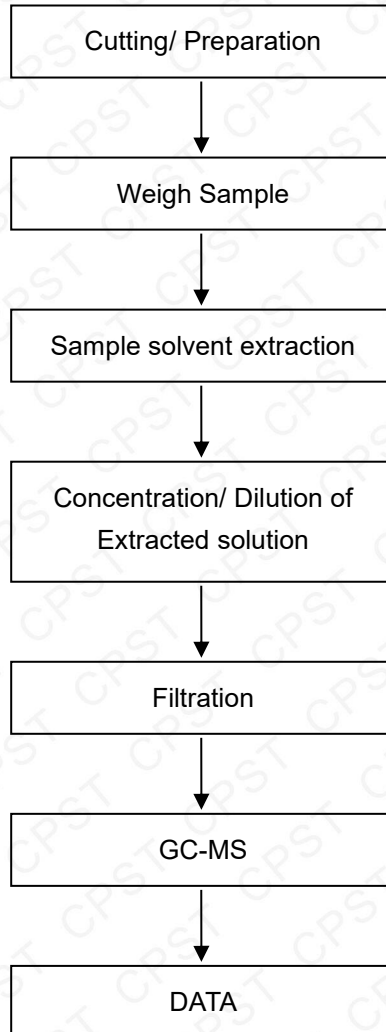
### PBBs/PBDEs Testing Flow Chart



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### Phthalates Testing Flow Chart



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

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