



Test Report

Report No. A2250461545129

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Company Name DONGGUAN AILLEN ELECTRONIC TECHNOLOGY CO., LTD.
shown on Report
Address NO.32, JINGGANG ZHONG ROAD, SHATIAN TOWN, DONGGUAN CITY,
GUANGDONG PROVINCE, P. R. CHINA

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

Sample Name Fusible Wire Wound Resistor
Sample Received Date Jul. 3, 2025
Testing Period Jul. 3, 2025 to Jul. 10, 2025

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

Ophelie Wen

Date

Jul. 22, 2025

Ophelie Wen

Lab Authorized Signatory

No. R179752116

Centre Testing International Group Co., Ltd.

CTI 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 | | RL | Limit |
|------------------------------|--------|--------|---|------------|
| | 1 | 2 | | |
| Lead (Pb) | N.D. | N.D. | 10 mg/kg | 1000 mg/kg |
| Cadmium (Cd) | N.D. | N.D. | 10 mg/kg | 100 mg/kg |
| Mercury (Hg) | N.D. | N.D. | 10 mg/kg | 1000 mg/kg |
| Hexavalent Chromium (Cr(VI)) | -- | N.D. ▼ | 0.10 $\mu\text{g}/\text{cm}^2$ (LOQ) | 1000 mg/kg |
| | N.D. | -- | 20 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | RL | Limit |
|---------------------------------|--------|-----------|------------|
| | 1 | | |
| Polybrominated Biphenyls (PBBs) | | | |
| Monobromobiphenyl | N.D. | 100 mg/kg | 1000 mg/kg |
| Dibromobiphenyl | N.D. | 100 mg/kg | |
| Tribromobiphenyl | N.D. | 100 mg/kg | |
| Tetrabromobiphenyl | N.D. | 100 mg/kg | |
| Pentabromobiphenyl | N.D. | 100 mg/kg | |
| Hexabromobiphenyl | N.D. | 100 mg/kg | |
| Heptabromobiphenyl | N.D. | 100 mg/kg | |
| Octabromobiphenyl | N.D. | 100 mg/kg | |
| Nonabromobiphenyl | N.D. | 100 mg/kg | |
| Decabromobiphenyl | N.D. | 100 mg/kg | |

| Tested Item(s) | Result | RL | Limit |
|----------------------------------|--------|-----------|------------|
| | 2 | | |
| Polybrominated Biphenyls (PBBs)* | | | |
| Monobromobiphenyl | N.D. | 100 mg/kg | 1000 mg/kg |
| Dibromobiphenyl | N.D. | 100 mg/kg | |
| Tribromobiphenyl | N.D. | 100 mg/kg | |
| Tetrabromobiphenyl | N.D. | 100 mg/kg | |
| Pentabromobiphenyl | N.D. | 100 mg/kg | |
| Hexabromobiphenyl | N.D. | 100 mg/kg | |
| Heptabromobiphenyl | N.D. | 100 mg/kg | |
| Octabromobiphenyl | N.D. | 100 mg/kg | |
| Nonabromobiphenyl | N.D. | 100 mg/kg | |
| Decabromobiphenyl | N.D. | 100 mg/kg | |

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| Tested Item(s) | Result | RL | Limit |
|--|--------|-----------|------------|
| | 1 | | |
| Polybrominated Diphenyl Ethers (PBDEs) | | | |
| Monobromodiphenyl ether | N.D. | 100 mg/kg | 1000 mg/kg |
| Dibromodiphenyl ether | N.D. | 100 mg/kg | |
| Tribromodiphenyl ether | N.D. | 100 mg/kg | |
| Tetrabromodiphenyl ether | N.D. | 100 mg/kg | |
| Pentabromodiphenyl ether | N.D. | 100 mg/kg | |
| Hexabromodiphenyl ether | N.D. | 100 mg/kg | |
| Heptabromodiphenyl ether | N.D. | 100 mg/kg | |
| Octabromodiphenyl ether | N.D. | 100 mg/kg | |
| Nonabromodiphenyl ether | N.D. | 100 mg/kg | |
| Decabromodiphenyl ether | N.D. | 100 mg/kg | |

| Tested Item(s) | Result | RL | Limit |
|---|--------|-----------|------------|
| | 2 | | |
| Polybrominated Diphenyl Ethers (PBDEs)* | | | |
| Monobromodiphenyl ether | N.D. | 100 mg/kg | 1000 mg/kg |
| Dibromodiphenyl ether | N.D. | 100 mg/kg | |
| Tribromodiphenyl ether | N.D. | 100 mg/kg | |
| Tetrabromodiphenyl ether | N.D. | 100 mg/kg | |
| Pentabromodiphenyl ether | N.D. | 100 mg/kg | |
| Hexabromodiphenyl ether | N.D. | 100 mg/kg | |
| Heptabromodiphenyl ether | N.D. | 100 mg/kg | |
| Octabromodiphenyl ether | N.D. | 100 mg/kg | |
| Nonabromodiphenyl ether | N.D. | 100 mg/kg | |
| Decabromodiphenyl ether | N.D. | 100 mg/kg | |

| Tested Item(s) | Result | RL | Limit |
|---|--------|----------|------------|
| | 1 | | |
| Phthalates (DBP, BBP, DEHP, DIBP) | | | |
| Butyl benzyl phthalate (BBP) CAS#:85-68-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Diisobutyl phthalate (DIBP) CAS#:84-69-5 | N.D. | 50 mg/kg | 1000 mg/kg |
| Dibutyl phthalate (DBP) CAS#:84-74-2 | N.D. | 50 mg/kg | 1000 mg/kg |
| Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7 | N.D. | 50 mg/kg | 1000 mg/kg |

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

Sample/Part Description

| No. | CTI Sample ID | Description |
|-----|---------------|---------------------------------|
| 1 | 1 | Green body(Tested as a whole) # |
| 2 | 2 | Silvery metal pin |

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

- #The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology. The result(s) shown on this report may be different from the content of any homogeneous material.

-RL = Report Limit

-N.D. = Not Detected (<RL 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. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

-In consideration of the analysis requirement and the limit of sample volume, the screening test for the article is based on components / material enough to test.

Note: “*” indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.

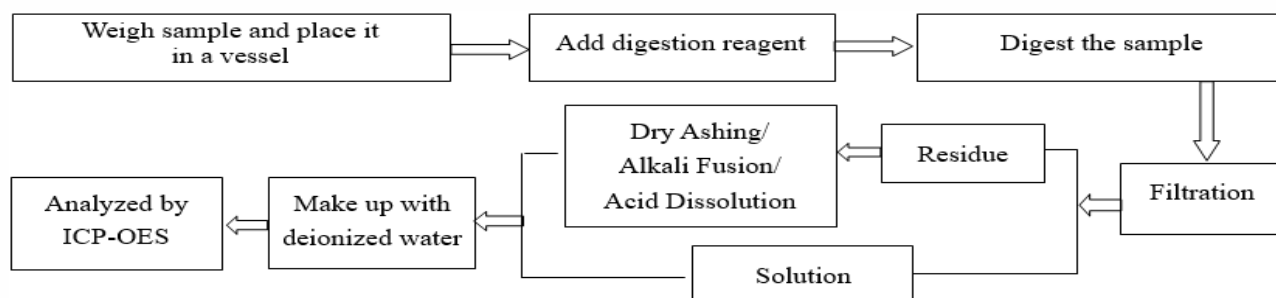
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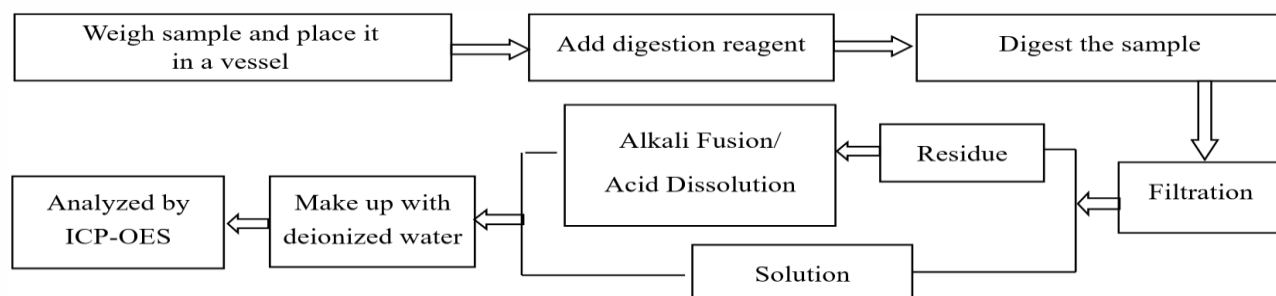
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Test Process

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

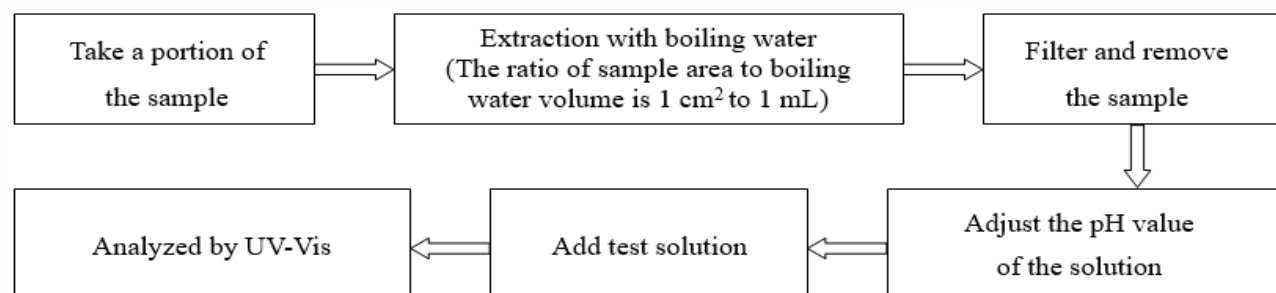


2. Mercury (Hg)

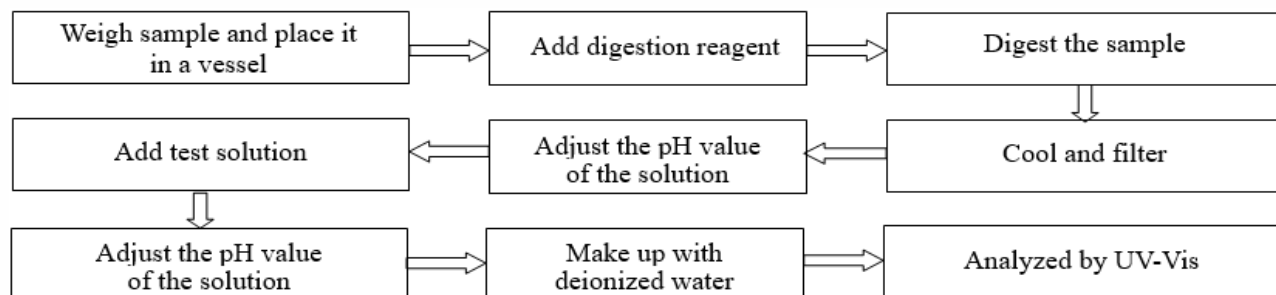


3. Hexavalent Chromium (Cr(VI))

(1) IEC 62321-7-1:2015



(2) IEC 62321-7-2:2017

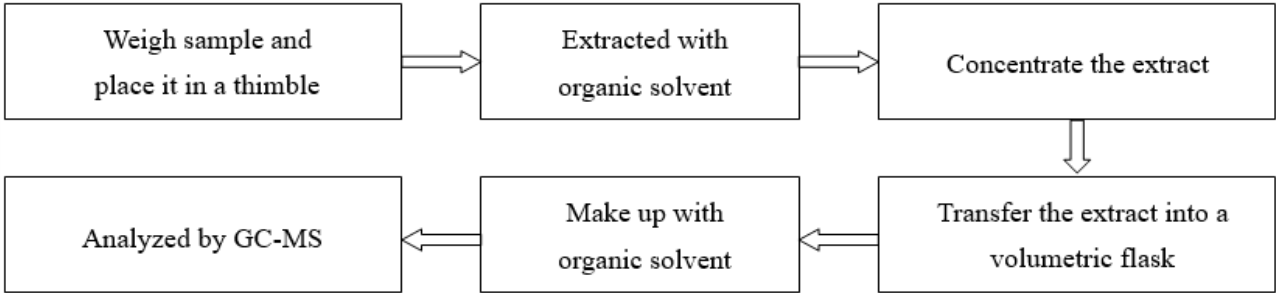


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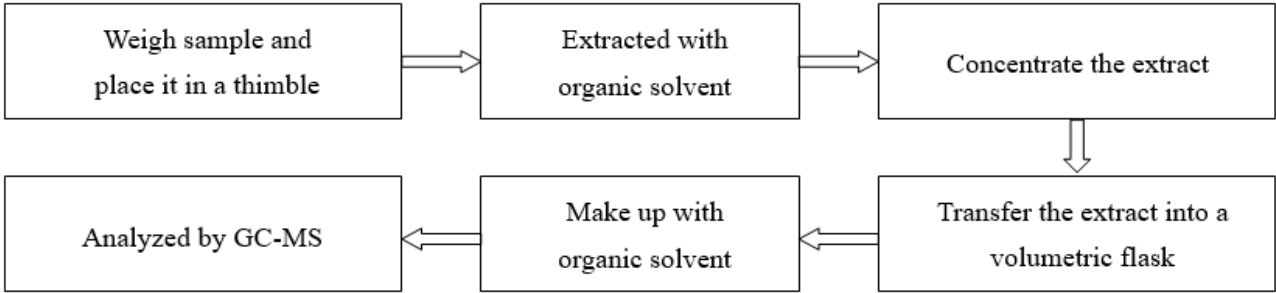
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4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



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



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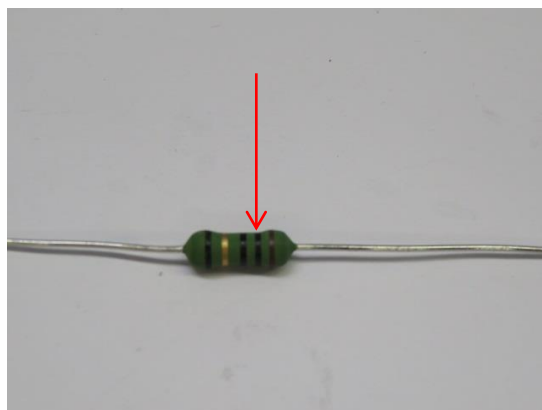
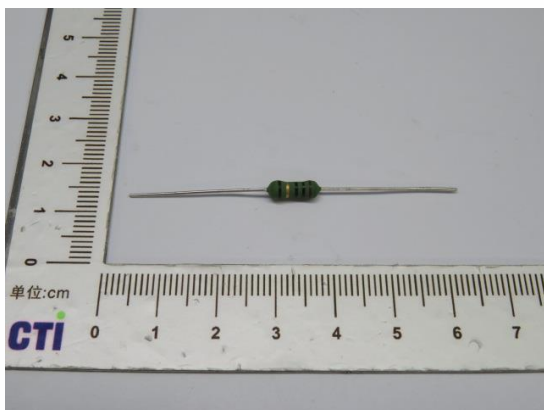
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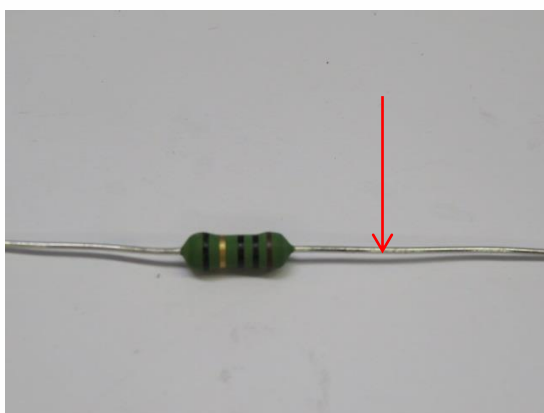
Photo(s) of the sample(s)

Final Product

1



2



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. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;
6. 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 ***