



Test Report

Report No. A224012263810107R1

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Company Name DONG GUAN BRIGHT LED ELECTRONICS LTD
shown on Report
Address NO.8,GAO LONG EAST RD ,GAOBU TOWN,DONG GUAN CTY,GUANG DONG PROVINCE,CHINA 523283

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

| CTI Sample ID | Sample Name(s) |
|---------------|----------------|
| 018 | Axial 支架 |
| 019 | Axial 树脂 |

Final Product Name SMD
Sample Received Date Mar. 12, 2024
Testing Period Mar. 12, 2024 to Mar. 27, 2024

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

Apr. 1, 2024

Hill Zheng
Technical Manager

No. R262627125

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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| CTI Sample ID | Reference Report No. - CTI Sample ID |
|---------------|--------------------------------------|
| 019 | A224012263810106R1-016 |

Remark:

The samples with the reference information in the table above are non-tested in this report. Test results and the photos of the " CTI Sample ID " column reference to " Reference Report No. - CTI Sample ID " column.

Conclusion

| <u>Tested Sample</u> | <u>According to standard/directive</u> | <u>Result</u> |
|----------------------|--|---------------|
| 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 |
|------------------------------|--------|------|----------------------------------|------------|
| | 018 | 019 | | |
| Lead (Pb) | N.D. | N.D. | 2 mg/kg | 1000 mg/kg |
| Cadmium (Cd) | N.D. | N.D. | 2 mg/kg | 100 mg/kg |
| Mercury (Hg) | N.D. | N.D. | 2 mg/kg | 1000 mg/kg |
| Hexavalent Chromium (Cr(VI)) | -- | N.D. | 8 mg/kg | 1000 mg/kg |
| | N.D. ▼ | -- | 0.10 µg/cm ² (LOQ) | 1000 mg/kg |

| Tested Item(s) | Result | | MDL | Limit |
|--|--------|--|---------|------------|
| | 019 | | | |
| Polybrominated Biphenyls (PBBs) | | | | |
| Monobromobiphenyl | N.D. | | 5 mg/kg | 1000 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 | Limit |
|---|--------|--|---------|------------|
| | 019 | | | |
| Polybrominated Diphenyl Ethers (PBDEs) | | | | |
| Monobromodiphenyl ether | N.D. | | 5 mg/kg | 1000 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 | |

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| Tested Item(s) | Result | MDL | Limit |
|---|--------|----------|------------|
| | 019 | | |
| Phthalates (DBP, BBP, DEHP, DIBP) | | | |
| Dibutyl phthalate (DBP) CAS#:84-74-2 | N.D. | 50 mg/kg | 1000 mg/kg |
| Butyl benzyl phthalate (BBP) CAS#:85-68-7 | 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 |
| Diisobutyl phthalate (DIBP) CAS#:84-69-5 | N.D. | 50 mg/kg | 1000 mg/kg |

Sample/Part Description

| No. | CTI Sample ID | Description |
|-----|---------------|----------------------------------|
| 1 | 018 | Metal with silvery white plating |
| 2 | 019 | Transparent solid |

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. 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.

Note: This testing report revised the full text based on the original report of No. A224012263810107. This testing report displaces the original one which was invalid since the date of this testing report released.

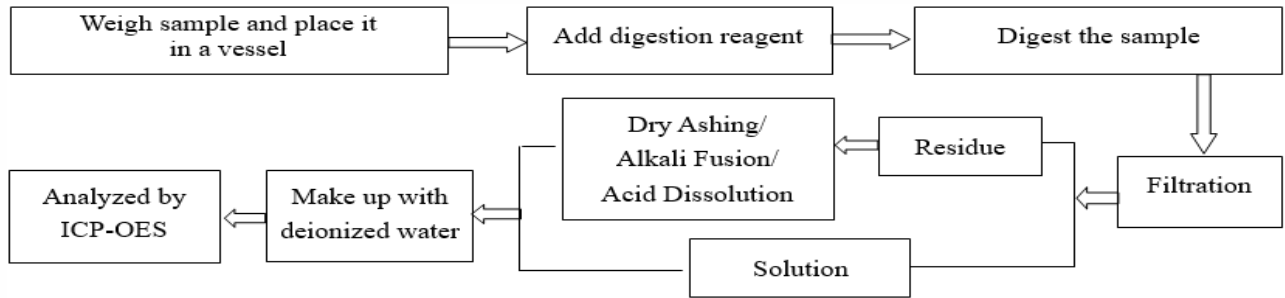
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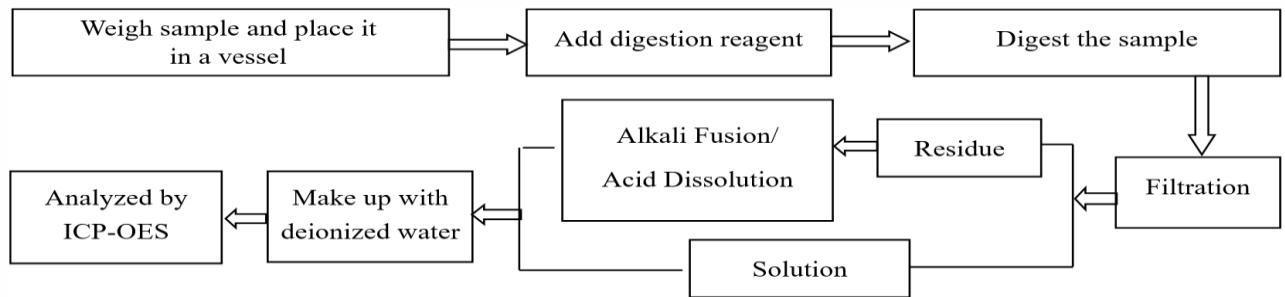
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Test Process

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

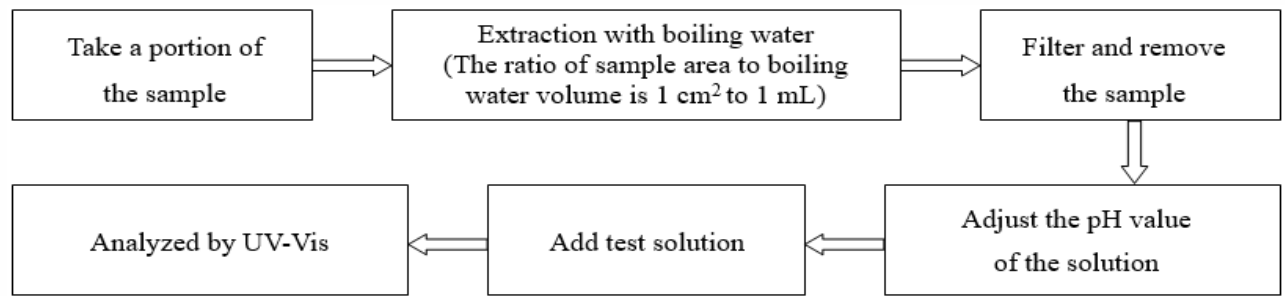


2. Mercury (Hg)

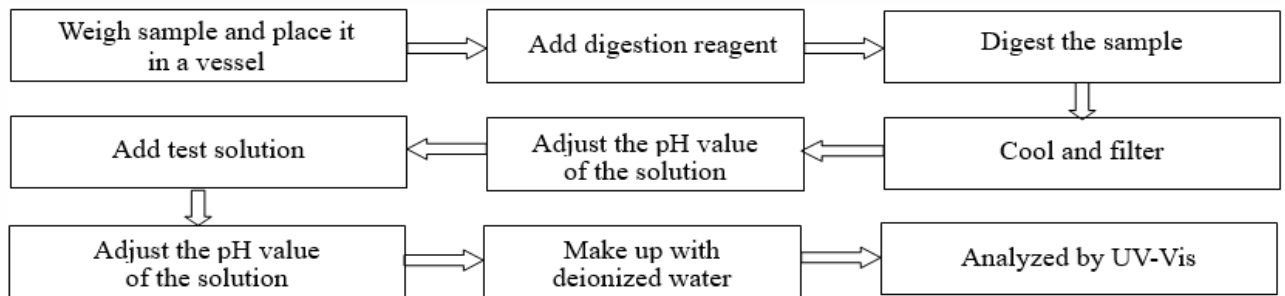


3. Hexavalent Chromium (Cr(VI))

(1) IEC 62321-7-1:2015



(2) IEC 62321-7-2:2017

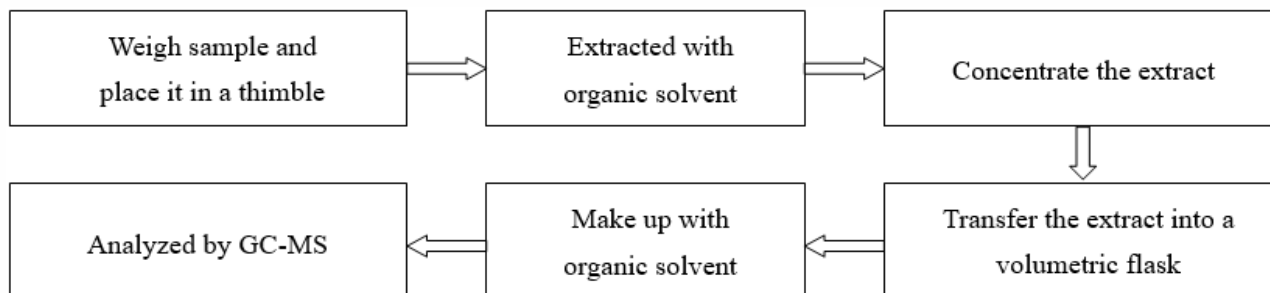


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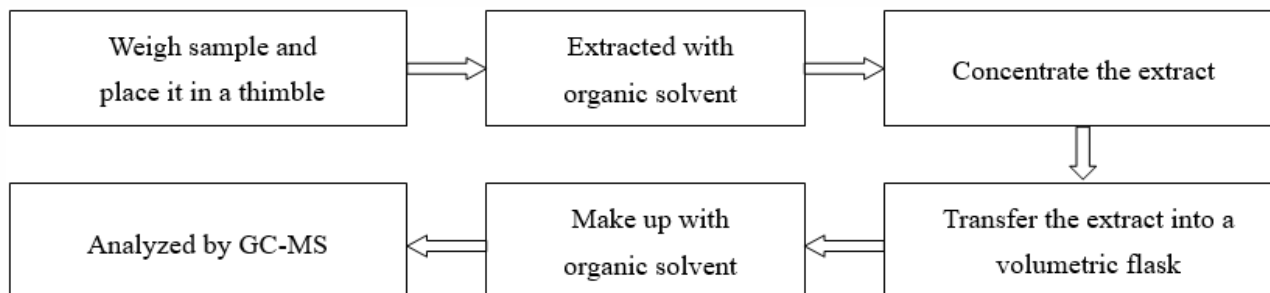
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4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



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

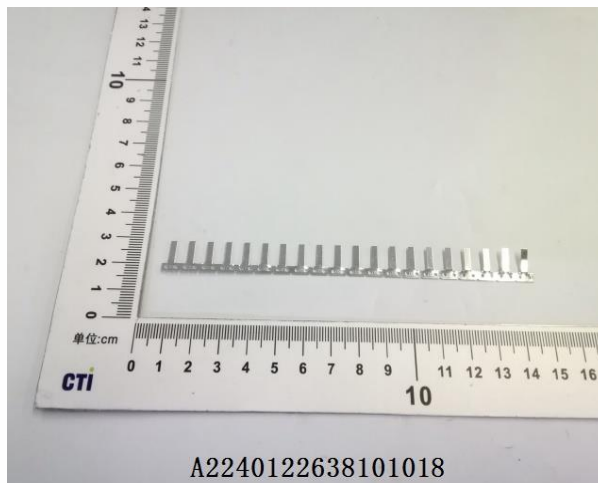


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Photo(s) of the sample(s)



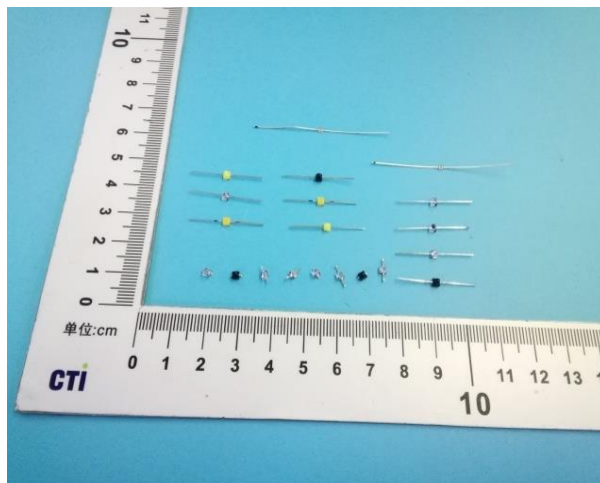
Statement:

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 ***

Appendix

Client Reference Photo (Non-tested sample)



Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A224012263810107R1.