

# Test Report

No.: CANEC23009889813

Date: Sep 22, 2023

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Client Name: GUANGZHOU TIANXIN PHOTOELECTRIC CO.,LTD

Client Address: #15-1, JINGU ROAD SOUTH,XIUTANG,HUADONG TOWN,HUADU DISTRICT,GUANGZHOU

Sample Name: Multi-Color COB LED

The above sample(s) and information were provided by the client.

SGS Job No.: GZP23-013561

Sample Receiving Date: Sep 13, 2023

Testing Period: Sep 13, 2023 ~ Sep 21, 2023

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

| Test Requirement   | Conclusion |
|--|------------|
| EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) | Pass       |

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Jessie Li

Jessie-JX Li  
Approved Signatory

scan to see the report



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SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Standards Technical Services Co., Ltd. Guangzhou Branch

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**Test Result(s):**

Test Part Description:

| SN ID | Sample No. | SGS Sample ID           | Description  |
|-------|------------|-------------------------|--|
| SN1   | A23        | CAN23-0098898-0001.C023 | Colorless transparent/white/yellow soft material w/ chip         |
| SN2   | A24        | CAN23-0098898-0001.C024 | Silvery sheet w/ grey and white surface & chip and soft material |

**Remarks:**

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) “-“ = Not Regulated

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

**Test Method:** With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES, UV-Vis and GC-MS.

| Test Item(s)                       | Limit | Unit(s) | MDL | A23 | A24 |
|------------------------------------|-------|---------|-----|-----|-----|
| Cadmium(Cd)                        | 100   | mg/kg   | 2   | ND  | ND  |
| Lead (Pb)                          | 1000  | mg/kg   | 2   | ND  | 10  |
| Mercury (Hg)                       | 1000  | mg/kg   | 2   | ND  | ND  |
| Hexavalent Chromium (Cr(VI))       | 1000  | mg/kg   | 8   | ND  | ND  |
| Polybromobiphenyl (PBBs)           | 1000  | mg/kg   | -   | ND  | ND  |
| Monobromobiphenyl (MonoBB)         | -     | mg/kg   | 5   | ND  | ND  |
| Dibromobiphenyl (DiBB)             | -     | mg/kg   | 5   | ND  | ND  |
| Tribromobiphenyl (TriBB)           | -     | mg/kg   | 5   | ND  | ND  |
| Tetrabromobiphenyl (TetraBB)       | -     | mg/kg   | 5   | ND  | ND  |
| Pentabromobiphenyl (PentaBB)       | -     | mg/kg   | 5   | ND  | ND  |
| Hexabromobiphenyl (HexaBB)         | -     | mg/kg   | 5   | ND  | ND  |
| Heptabromobiphenyl (HeptaBB)       | -     | mg/kg   | 5   | ND  | ND  |
| Octabromobiphenyl (OctaBB)         | -     | mg/kg   | 5   | ND  | ND  |
| Nonabromobiphenyl (NonaBB)         | -     | mg/kg   | 5   | ND  | ND  |
| Decabromobiphenyl (DecaBB)         | -     | mg/kg   | 5   | ND  | ND  |
| Polybromodiphenyl ether(PBDEs)     | 1000  | mg/kg   | -   | ND  | ND  |
| Monobromodiphenylether (MonoBDE)   | -     | mg/kg   | 5   | ND  | ND  |
| Dibromodiphenylether (DiBDE)       | -     | mg/kg   | 5   | ND  | ND  |
| Tribromodiphenylether (TriBDE)     | -     | mg/kg   | 5   | ND  | ND  |
| Tetrabromodiphenylether (TetraBDE) | -     | mg/kg   | 5   | ND  | ND  |
| Pentabromodiphenylether (PentaBDE) | -     | mg/kg   | 5   | ND  | ND  |
| Hexabromodiphenylether (HexaBDE)   | -     | mg/kg   | 5   | ND  | ND  |
| Heptabromodiphenylether (HeptaBDE) | -     | mg/kg   | 5   | ND  | ND  |
| Octabromodiphenylether (OctaBDE)   | -     | mg/kg   | 5   | ND  | ND  |
| Nonabromodiphenylether (NonaBDE)   | -     | mg/kg   | 5   | ND  | ND  |



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| Test Item(s)                       | Limit | Unit(s) | MDL | A23 | A24 |
|------------------------------------|-------|---------|-----|-----|-----|
| Decabromodiphenylether (DecaBDE)   | -     | mg/kg   | 5   | ND  | ND  |
| Dibutyl Phthalate(DBP)             | 1000  | mg/kg   | 50  | ND  | ND  |
| Benzyl Butyl Phthalate(BBP)        | 1000  | mg/kg   | 50  | ND  | ND  |
| Bis-(2-ethylhexyl) Phthalate(DEHP) | 1000  | mg/kg   | 50  | ND  | ND  |
| Diisobutyl Phthalate(DIBP)         | 1000  | mg/kg   | 50  | ND  | ND  |

**Notes:**

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

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.



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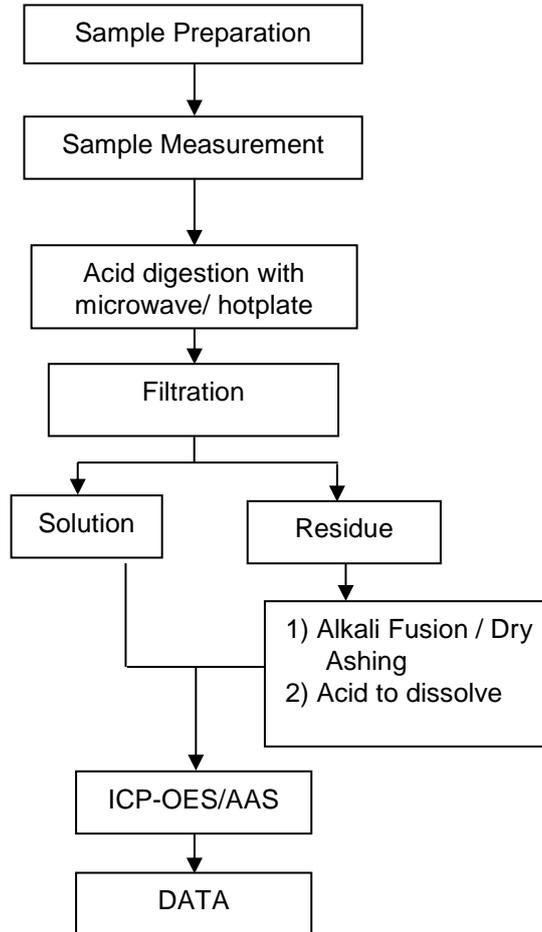
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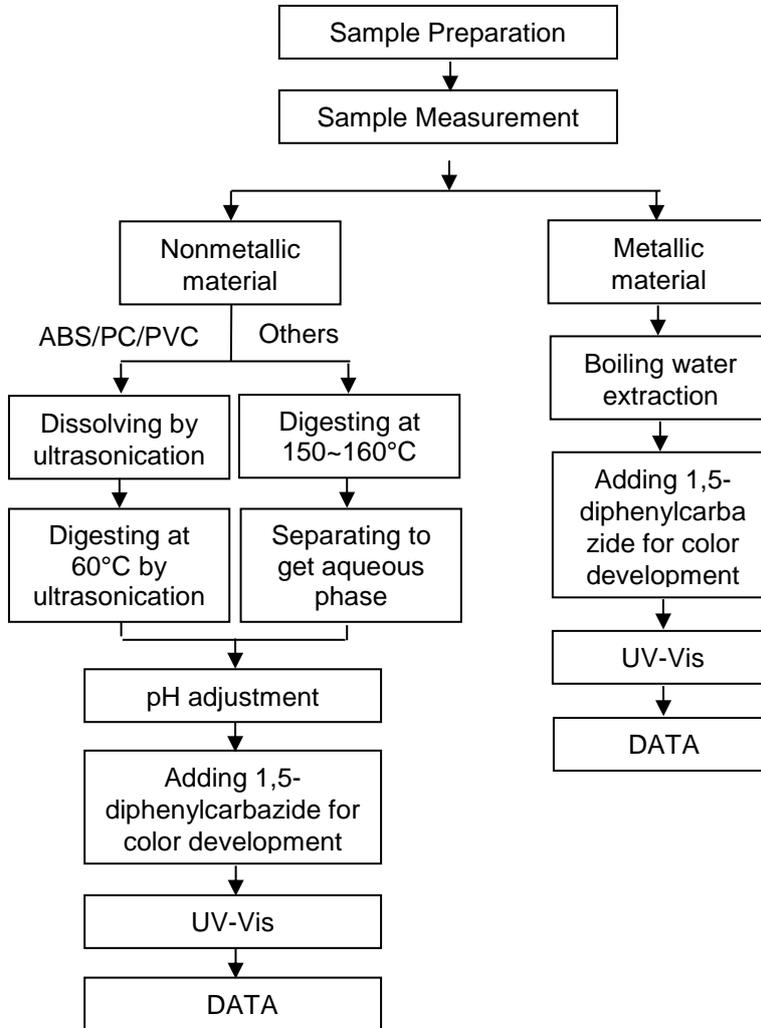
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### Elements Testing Flow Chart

These samples were dissolved totally by pre-conditioning method according to below flow chart.

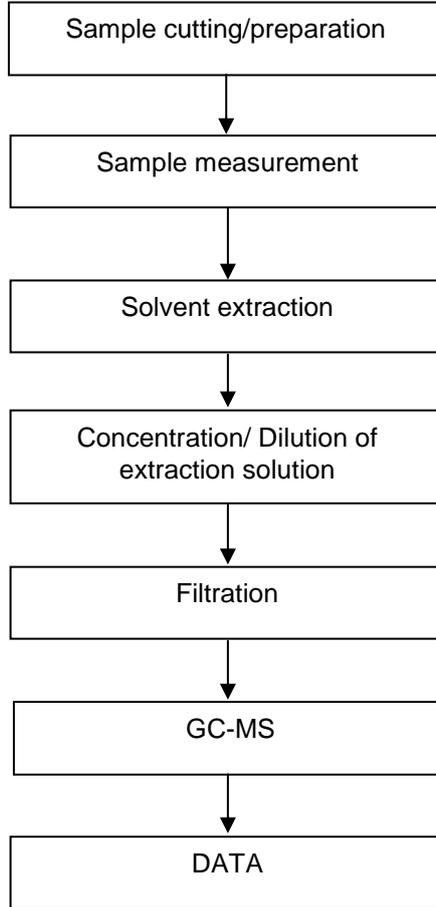


**Hexavalent Chromium (Cr(VI)) Testing Flow Chart**

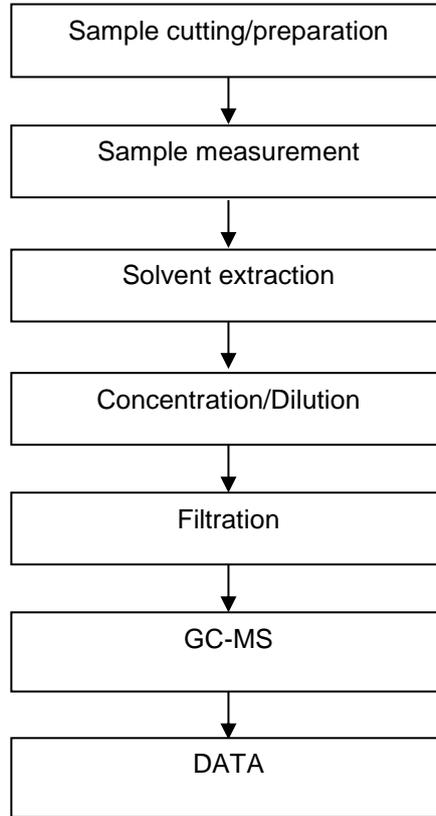


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### PBBs/PBDEs Testing Flow Chart



### Phthalates Testing Flow Chart



**Sample Photo:**



SGS authenticate the photo on original report only  
 \*\*\* End of Report \*\*\*

