

Test Report

No.: SHAEC25030278203

Date: Nov 24, 2025

Page 1 of 10

Client Name: HERAEUS ZHAOYUAN (CHANGSHU) ELECTRONIC MATERIALS CO.,LTD

Client Address: No. 180 Huangpujiang Road, Southeast Economic Development Zone, Changshu City, Jiangsu Province, P.R. China, 215500

Sample Name: Solder Wire

Model No.: PbSn2Ag2.5

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

SGS Job No.: TIC1020251114135346T6XI

Sample Receiving Date: Nov 17, 2025

Testing Period: Nov 17, 2025 ~ Nov 24, 2025

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 (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) | Pass |
| Element(s)* | See Results |
| Halogen* | See Results |

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.Dora Hu
Approved Signatory

Scan to see the report



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Test Report

No.: SHAEC25030278203

Date: Nov 24, 2025

Page 2 of 10

Test Result(s):

Test Part Description:

| SN ID | Sample No. | SGS Sample ID | Description |
|-------|------------|-------------------------|--------------------|
| SN1 | A2 | SHA25-0302782-0001.C002 | Silvery metal wire |

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 (PBB), Polybrominated diphenyl ethers (PBDE), 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 62321-7-1:2015 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

| Test Item(s) | Limit | Unit(s) | MDL | A2 |
|---|-------|--------------------|------|----------|
| Lead (Pb) | 1000 | mg/kg | 2 | 885508*▲ |
| Mercury (Hg) | 1000 | mg/kg | 2 | ND |
| Cadmium (Cd) | 100 | mg/kg | 2 | ND |
| Hexavalent Chromium (Cr(VI))▼ | - | µg/cm ² | 0.10 | ND |
| Polybrominated biphenyls (PBB) | 1000 | mg/kg | - | ND |
| Monobrominated biphenyl (MonoBB) | - | mg/kg | 25 | ND |
| Dibrominated biphenyl (DiBB) | - | mg/kg | 25 | ND |
| Tribrominated biphenyl (TriBB) | - | mg/kg | 25 | ND |
| Tetrabrominated biphenyl (TetraBB) | - | mg/kg | 25 | ND |
| Pentabrominated biphenyl (PentaBB) | - | mg/kg | 25 | ND |
| Hexabrominated biphenyl (HexaBB) | - | mg/kg | 25 | ND |
| Heptabrominated biphenyl (HeptaBB) | - | mg/kg | 25 | ND |
| Octabrominated biphenyl (OctaBB) | - | mg/kg | 25 | ND |
| Nonabrominated biphenyl (NonaBB) | - | mg/kg | 25 | ND |
| Decabrominated biphenyl (DecaBB) | - | mg/kg | 25 | ND |
| Polybrominated diphenyl ethers (PBDE) | 1000 | mg/kg | - | ND |
| Monobrominated diphenyl ether (MonoBDE) | - | mg/kg | 25 | ND |
| Dibrominated diphenyl ether (DiBDE) | - | mg/kg | 25 | ND |
| Tribrominated diphenyl ether (TriBDE) | - | mg/kg | 25 | ND |
| Tetrabrominated diphenyl ether (TetraBDE) | - | mg/kg | 25 | ND |
| Pentabrominated diphenyl ether (PentaBDE) | - | mg/kg | 25 | ND |
| Hexabrominated diphenyl ether (HexaBDE) | - | mg/kg | 25 | ND |
| Heptabrominated diphenyl ether (HeptaBDE) | - | mg/kg | 25 | ND |

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Test Report

No.: SHAEC25030278203

Date: Nov 24, 2025

Page 3 of 10

| Test Item(s) | Limit | Unit(s) | MDL | A2 |
|---|-------|---------|-----|----|
| Octabrominated diphenyl ether (OctaBDE) | - | mg/kg | 25 | ND |
| Nonabrominated diphenyl ether (NonaBDE) | - | mg/kg | 25 | ND |
| Decabrominated diphenyl ether (DecaBDE) | - | mg/kg | 25 | ND |
| Bis(2-ethylhexyl) phthalate (DEHP) | 1000 | mg/kg | 50 | ND |
| Butyl benzyl phthalate (BBP) | 1000 | mg/kg | 50 | ND |
| Dibutyl Phthalate (DBP) | 1000 | mg/kg | 50 | ND |
| Diisobutyl Phthalate (DIBP) | 1000 | mg/kg | 50 | 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) ▼ = a. The sample is positive for Cr(VI) if the Cr(VI)concentration is greater than 0.13 µg/cm². The sample coating is considered to contain Cr(VI).
 b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-Cr(VI) based coating.
 c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive-unavoidable coating variations may influence the determination.

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.

(4) ▲According to the declaration from the client, Lead (Pb) is exempted by EU RoHS directive 2011/65/EU based on |ANNEX III 7(a)|: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

More information about exemption can be found via the following link:

<https://rohs.sgs.com.cn/PDFLinks/en/RSTS-TP-037%20RoHS%20Exemption%20%28EN%29.pdf>

(5) *The reported result is for reference only.

(6) Test item PBB,PBDE,Phthalates are not included in CNAS Accredited Scope for our laboratory.

Element(s)*

Test Method: With reference to US EPA 3050B:1996, analysis was performed by ICP-OES/AAS.

| Test Item(s) | Unit(s) | MDL | A2 |
|---------------|---------|-----|----|
| Antimony(Sb) | mg/kg | 10 | ND |
| Beryllium(Be) | mg/kg | 5 | ND |

Halogen*

Test Method: With reference to EN 14582:2016, analysis was performed by IC.

| Test Item(s) | Unit(s) | MDL | A2 |
|--------------|---------|-----|----|
| Fluorine(F) | mg/kg | 20 | ND |
| Chlorine(Cl) | mg/kg | 50 | ND |
| Bromine(Br) | mg/kg | 50 | ND |
| Iodine(I) | mg/kg | 50 | ND |

Remark:

Test item marked** in this report are not included in CNAS Accredited Scope for our laboratory.



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Test Report

No.: SHAEC25030278203

Date: Nov 24, 2025

Page 4 of 10

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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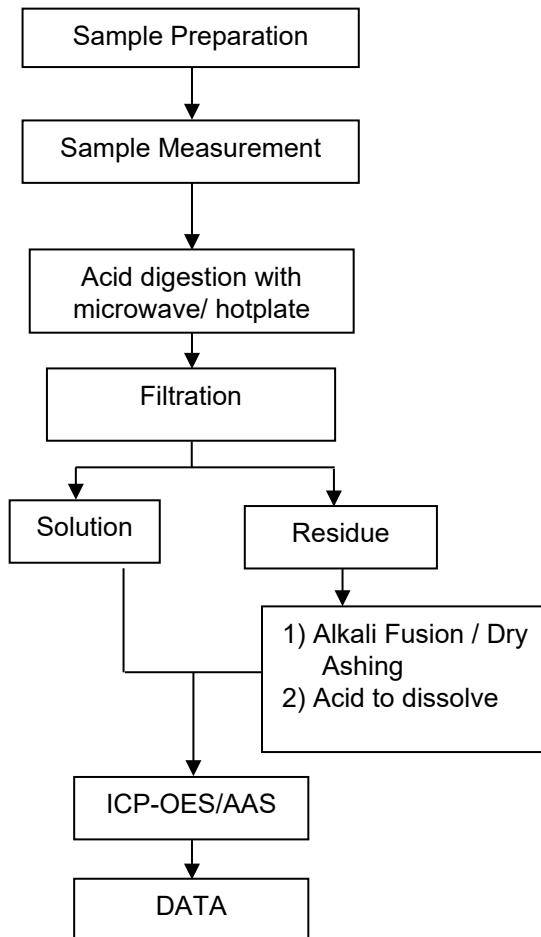
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Page 5 of 10

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Elements Testing Flow Chart

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



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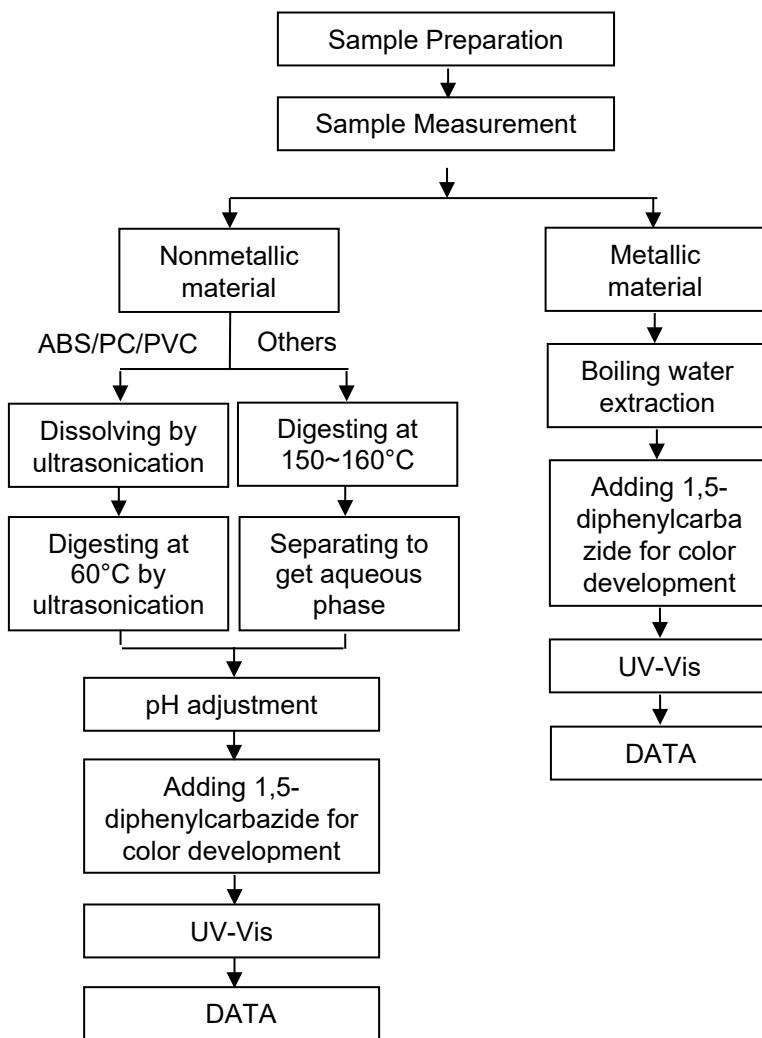
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Test Report

No.: SHAEC25030278203

Date: Nov 24, 2025

Page 6 of 10

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

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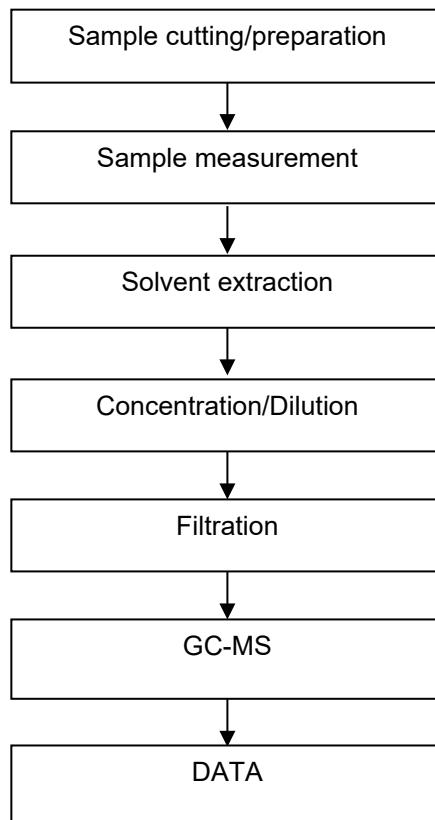
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Date: Nov 24, 2025

Page 7 of 10

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PBB(s)/PBDE(s)/Phthalates Testing Flow Chart



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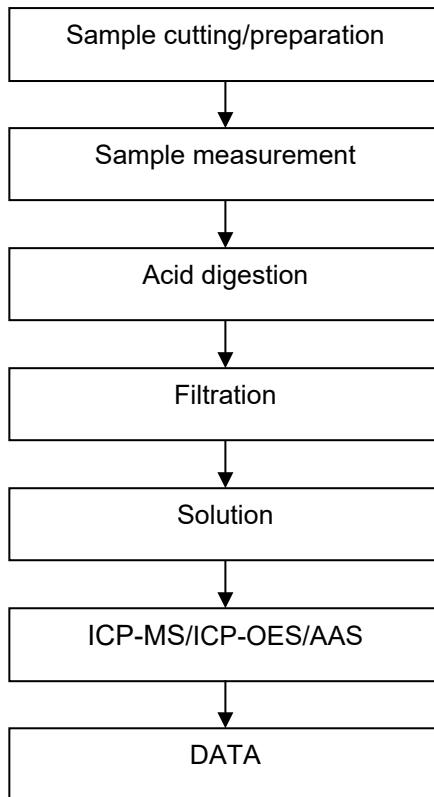
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Page 8 of 10

ATTACHMENTS**Elements Testing Flow Chart**

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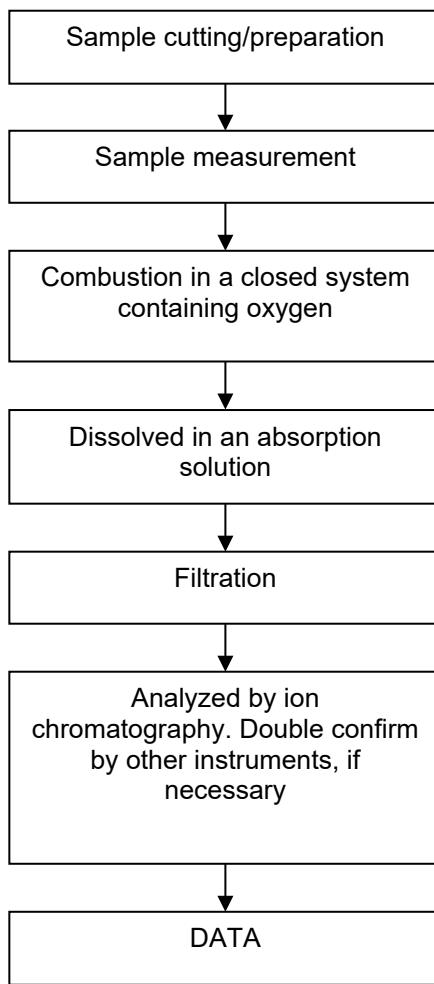
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Test Report

No.: SHAEC25030278203

Date: Nov 24, 2025

Page 9 of 10

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Date: Nov 24, 2025

Page 10 of 10

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