

## Test Report

No. : CE/2011/B4559

Date : 2011/12/01

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THE BERGQUIST COMPANY  
301 WASHINGTON STREET WEST, CANNON FALLS, MN 55009, USA



The following sample(s) was/were submitted and identified by/on behalf of the client as:

Sample Description : TIC 4000  
Buyer/Order No. : RICK STEWART  
Other Info. : REPORT PER REQUEST FOR QUOTE, DATED 10/5/11  
Sample Receiving Date : 2011/11/24  
Testing Period : 2011/11/24 TO 2011/12/01

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

**Conclusion** : Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Hexavalent Chromium Cr(VI), PBBs and PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

  
  
Chenyu Kung / Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory – Taipei

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## Test Result(s)

PART NAME No.1 : GRAY PASTE

| Test Item(s)               | Unit  | Method  | MDL | Result | Limit |
|----------------------------|-------|---|-----|--------|-------|
|                            |       |   |     | No.1   |       |
| Cadmium (Cd)               | mg/kg | With reference to IEC 62321: 2008 and performed by ICP-AES. | 2   | n.d.   | 100   |
| Lead (Pb)                  | mg/kg | With reference to IEC 62321: 2008 and performed by ICP-AES. | 2   | n.d.   | 1000  |
| Mercury (Hg)               | mg/kg | With reference to IEC 62321: 2008 and performed by ICP-AES. | 2   | n.d.   | 1000  |
| Hexavalent Chromium Cr(VI) | mg/kg | With reference to IEC 62321: 2008 and performed by UV-VIS.  | 2   | n.d.   | 1000  |
| <b>Sum of PBBs</b>         |       |   | -   | n.d.   | 1000  |
| Monobromobiphenyl          |       |   | 5   | n.d.   | -     |
| Dibromobiphenyl            |       |   | 5   | n.d.   | -     |
| Tribromobiphenyl           |       |   | 5   | n.d.   | -     |
| Tetrabromobiphenyl         |       |   | 5   | n.d.   | -     |
| Pentabromobiphenyl         |       |   | 5   | n.d.   | -     |
| Hexabromobiphenyl          |       |   | 5   | n.d.   | -     |
| Heptabromobiphenyl         |       |   | 5   | n.d.   | -     |
| Octabromobiphenyl          |       |   | 5   | n.d.   | -     |
| Nonabromobiphenyl          |       |   | 5   | n.d.   | -     |
| Decabromobiphenyl          |       |   | 5   | n.d.   | -     |
| <b>Sum of PBDEs</b>        |       |   | -   | n.d.   | 1000  |
| Monobromodiphenyl ether    |       |   | 5   | n.d.   | -     |
| Dibromodiphenyl ether      |       |   | 5   | n.d.   | -     |
| Tribromodiphenyl ether     |       |   | 5   | n.d.   | -     |
| Tetrabromodiphenyl ether   |       |   | 5   | n.d.   | -     |
| Pentabromodiphenyl ether   |       |   | 5   | n.d.   | -     |
| Hexabromodiphenyl ether    |       |   | 5   | n.d.   | -     |
| Heptabromodiphenyl ether   |       |   | 5   | n.d.   | -     |
| Octabromodiphenyl ether    |       |   | 5   | n.d.   | -     |
| Nonabromodiphenyl ether    |       |   | 5   | n.d.   | -     |
| Decabromodiphenyl ether    |       |   | 5   | n.d.   | -     |

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| Test Item(s)                                   | Unit  | Method   | MDL | Result | Limit |
|--|-------|--|-----|--------|-------|
|  |       |  |     | No.1   |       |
| <b>Halogen</b>                                 |       |  |     |        |       |
| Halogen-Fluorine (F)<br>(CAS No.: 14762-94-8)  | mg/kg | With reference to BS EN 14582:2007.<br>Analysis was performed by IC. | 50  | n.d.   | -     |
| Halogen-Chlorine (Cl)<br>(CAS No.: 22537-15-1) |       |  | 50  | n.d.   | -     |
| Halogen-Bromine (Br)<br>(CAS No.: 10097-32-2)  |       |  | 50  | n.d.   | -     |
| Halogen-Iodine (I)<br>(CAS No.: 14362-44-8)    |       |  | 50  | n.d.   | -     |

**Note :**

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated

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## Test Report

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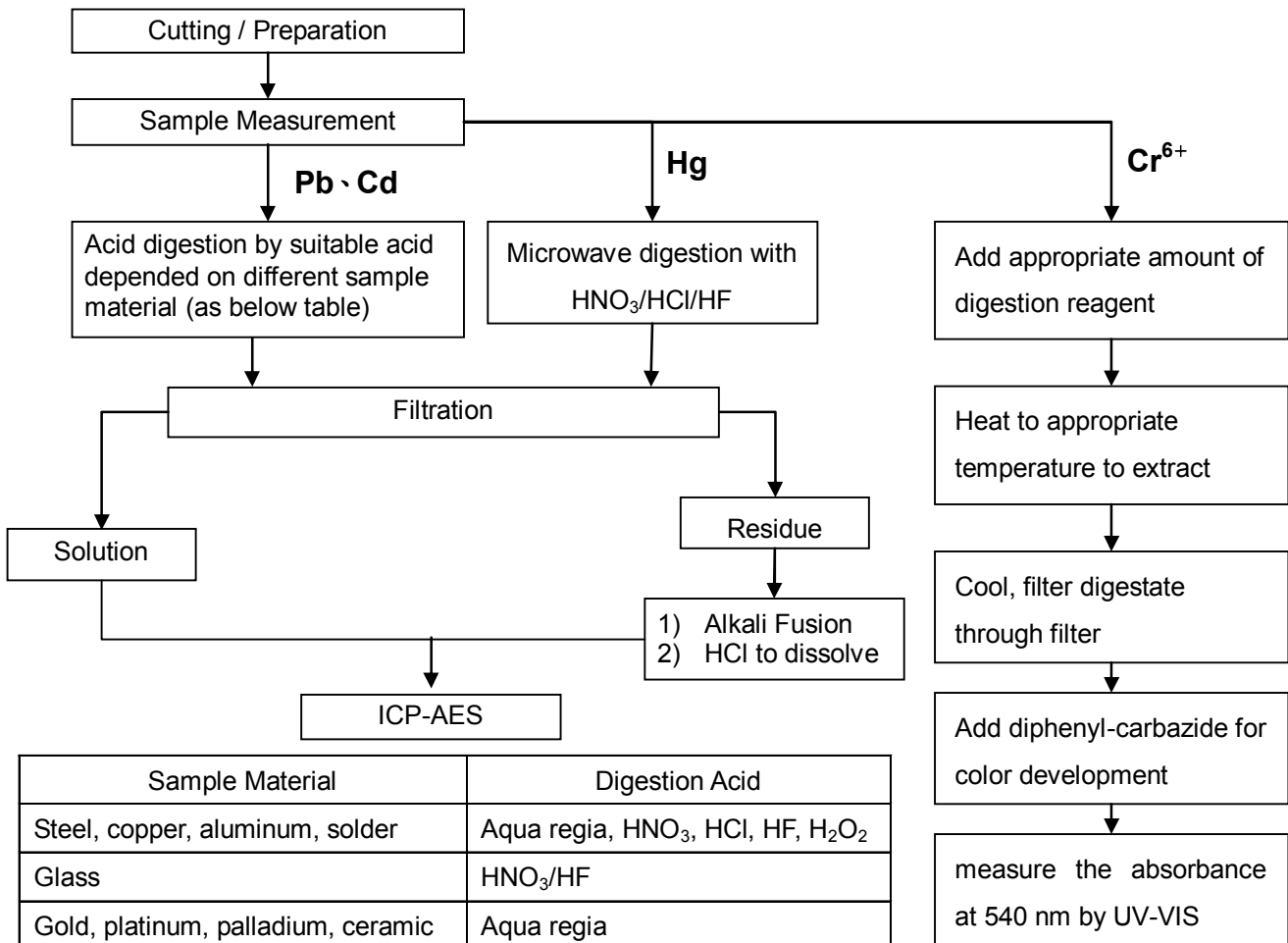
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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)
- 2) Name of the person who made measurement: Climbgreat Yang
- 3) Name of the person in charge of measurement: Troy Chang



| Sample Material                    | Digestion Acid  |
|------------------------------------|---|
| Steel, copper, aluminum, solder    | Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>                   |
| Glass                              | HNO <sub>3</sub> /HF  |
| Gold, platinum, palladium, ceramic | Aqua regia  |
| Silver                             | HNO <sub>3</sub>  |
| Plastic                            | H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl |
| Others                             | Any acid to total digestion   |

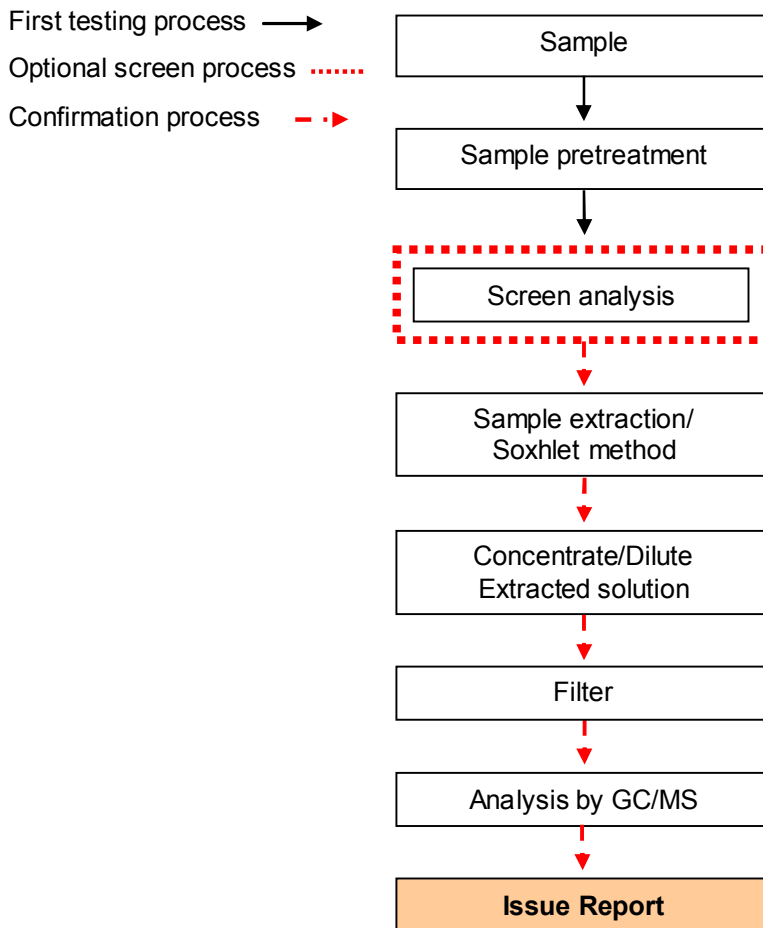
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### PBB/PBDE analytical FLOW CHART

- 1) Name of the person who made measurement: Roman Wong
- 2) Name of the person in charge of measurement: Troy Chang



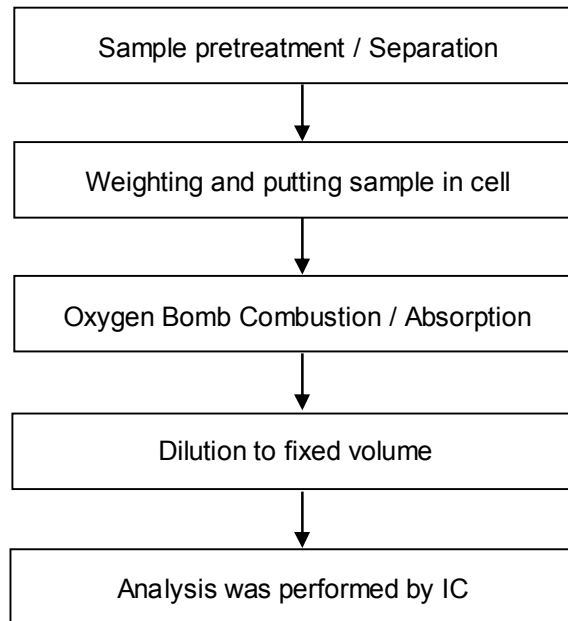
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### Analytical flow chart of halogen content

- 1) Name of the person who made measurement: Rita Chen
- 2) Name of the person in charge of measurement: Troy Chang



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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

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\*\* End of Report \*\*

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