Test Report

No. SHAMLP2001727603  Date: 27 Feb 2020  Page 1 of 9

AEM Components (Suzhou) Co., Ltd
461 Zhongnan Street, Suzhou Industrial Park, Jiangsu, P.R.C.

The following sample(s) was/were submitted and identified on behalf of the clients as: SOLIDMATRIX CHIP FUSES

SGS Job No.: SHIN2002005405PC - SH
Date of Sample Received: 21 Feb 2020
Testing Period: 21 Feb 2020 - 27 Feb 2020
Test Requested: Selected test(s) as requested by client.
Test Method: Please refer to next page(s).
Test Results: Please refer to next page(s).

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

Helen Liu
Approved Signatory
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Test Results:

Test Part Description:

Specimen No. SGS Sample ID Description
SN1 SHA20-017276.003 Sliver metal with white/black print

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


<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>100</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>1000</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>1000</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Hexavalent Chromium (Cr(VI))</td>
<td>1000</td>
<td>mg/kg</td>
<td>8</td>
<td>ND</td>
</tr>
<tr>
<td>Sum of PBBs</td>
<td>1000</td>
<td>mg/kg</td>
<td>-</td>
<td>ND</td>
</tr>
<tr>
<td>Monobromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Dibromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tribromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tetra bromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Pentabromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Hexabromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Heptabromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Octabromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Nonabromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Decabromobiphenyl</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Sum of PBDEs</td>
<td>1000</td>
<td>mg/kg</td>
<td>-</td>
<td>ND</td>
</tr>
<tr>
<td>Monobromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Dibromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tribromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tetrabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
</tbody>
</table>
## Test Report

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Hexabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Heptabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Octabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Di-butyl Phthalate (DBP)</td>
<td>1000</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Benzyl Butyl Phthalate (BBP)</td>
<td>1000</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Di-2-Ethyl Hexyl Phthalate (DEHP)</td>
<td>1000</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Diisobutyl Phthalates (DIBP)</td>
<td>1000</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
</tbody>
</table>

Notes:


2. 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.

3. The restriction of DEHP, BBP, DBP and DIBP shall not apply to toys which are already subject to the restriction of DEHP, BBP, DBP and DIBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.

### Halogen

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

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorine (F)</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Chlorine (Cl)</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Bromine (Br)</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Iodine (I)</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
</tbody>
</table>
Elements (IEC62321) Testing Flow Chart

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

- **Sample Preparation**
- **Sample Measurement**
- **Acid digestion with microwave/ hotplate**
- **Filtration**
- **Solution**
- **Residue**
  - 1) Alkali Fusion / Dry Ashing
  - 2) Acid to dissolve
- **ICP-OES/AAS**
- **DATA**
Hexavalent Chromium (Cr(VI)) Testing Flow Chart

1. **Sample Preparation**
   - **Nonmetallic material**
     - ABS/PC/PVC
       - Dissolving by ultrasonication
     - Others
       - Digested at 60°C by ultrasonication
   - **Metallic material**
     - Boiling water extraction
     - Adding 1,5-diphenylcarbazide for color development

2. **Sample Measurement**
   - **Nonmetallic material**
     - pH adjustment
     - Adding 1,5-diphenylcarbazide for color development
     - UV-Vis
     - DATA
   - **Metallic material**
     - UV-Vis
     - DATA

Separating to get aqueous phase
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ATTACHMENTS

PBBs/PBDEs Testing Flow Chart

1. Sample cutting/preparation
2. Sample measurement
3. Solvent extraction
4. Concentration/ Dilution of extraction solution
5. Filtration
6. GC-MS
7. DATA
Phthalates Testing Flow Chart

1. Sample cutting/preparation
2. Sample measurement
3. Solvent extraction
4. Concentration/Dilution
5. Filtration
6. GC-MS
7. DATA
ATTACHMENTS

Halogen Testing (oxygen bomb) Flow Chart

1. Sample cutting/preparation
2. Sample measurement
3. Combustion in oxygen bomb
4. Dissolved in an absorption solution
5. Filtration
6. Analyzed by ion chromatography. Double confirm by other instruments, if necessary

DATA
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Sample photo: SHAMPLP2001727603

SGS authenticate the photo on original report only

*** End of Report ***