Test Report

Avery Dennison(China) Co., Ltd.
No.608,kunjia Road, Kun shan Economic&Technological Zone Jiangsu Province,P.R.China

The following sample(s) was/were submitted and identified on behalf of the clients as: Matte black PI TC

SGS Job No.: CP17-060884 - GZ

Date of Sample Received: 09 Nov 2017
Testing Period: 09 Nov 2017 - 15 Nov 2017
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).

Conclusion: Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

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

Merry Lv
Approved Signatory
Test Results:

Test Part Description:

<table>
<thead>
<tr>
<th>Specimen No.</th>
<th>SGS Sample ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN1</td>
<td>CAN17-223615.001</td>
<td>Black sheet</td>
</tr>
</tbody>
</table>

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>001</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>1,000</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>1,000</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI)</td>
<td>1,000</td>
<td>mg/kg</td>
<td>8</td>
<td>ND</td>
</tr>
<tr>
<td>Sum of PBDEs</td>
<td>1,000</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 PBDs</td>
<td>1,000</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>Tetra bromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>-</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
</tbody>
</table>
## Test Report

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### Limit

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<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>Dibutyl phthalate (DBP)</td>
<td>1000</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Butyl benzyl phthalate (BBP)</td>
<td>1000</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
<tr>
<td>Bis (2-ethylhexyl) 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:


### 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>001</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>

### Elementary Analysis

Test Method: SGS in-house method (GZTC CHEM-TOP-004-01, with reference to US EPA Method 3052:1996), analysis was performed by ICP-OES.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony (Sb)</td>
<td>mg/kg</td>
<td>10</td>
<td>ND</td>
</tr>
<tr>
<td>Beryllium (Be)</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
</tbody>
</table>

### Hexabromocyclododecane (HBCDD)
Test Report

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Test Method:  With reference to IEC 62321:2008, analysis was performed by GC-MS.

Test Item(s)    Unit    MDL    001
Hexabromocyclododecane (HBCDD)    mg/kg    10    ND

PFOA & PFOS (Perfluorooctanoic acid & Perfluorooctane sulfonates)

Test Method:  With reference to CEN/TS15968:2010, analysis was performed by LC-MS.

Test Item(s)    CAS NO.    Unit    MDL    001
Perfluorooctanoic acid (PFOA)    335-67-1    mg/kg    10    ND
Perfluorooctane Sulfonates (PFOS)^    -    mg/kg    10    ND

Notes:
(1) ^ PFOS refer to Perfluorooctanesulfonic acid and its derivatives including Perfluorooctanesulfonic acid, Perfluorooctane sulfonamide, N-Methylperfluorooctane sulfonamide, N-Ethylperfluorooctane sulfonamide, N-Methylperfluorooctane sulfonamidoethanol and N-Ethylperfluorooctane sulfonamidoethanol.
ATTACHMENTS

Pb/Cd/Hg/Cr\textsuperscript{6+}/PBBs/PBDEs Testing Flow Chart

1) Name of the person who made testing: Edith Zhang / Sunny Hu
2) Name of the person in charge of testing: Bella Wang / Qiong Liu
3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr\textsuperscript{6+} and PBBs/PBDEs test method excluded).

- **Sample Preparation**
  - Pb/Cd/Hg
    - Acid digestion with microwave / hotplate
    - Filtration
    - Solution
      - 1) Alkali Fusion / Dry Ashing
      - 2) Acid to dissolve
    - ICP-OES/AAS
      - DATA
  - PBBs/PBDEs
    - Sample solvent extraction
    - Concentration/Dilution of extraction solution
      - Filtration
      - GC-MS
      - DATA
  - Cr\textsuperscript{6+}
    - Metallic material
      - Boiling water extraction
      - Adding 1,5-diphenylcarbazide for color development
      - UV-Vis.
      - DATA
- **Sample Measurement**
  - Pb/Cd/Hg
    - Nonmetallic material
      - Dissolving by ultrasonication
      - Digesting at 150~160°C
      - Separating to get aqueous phase
      - pH adjustment
        - Adding 1,5-diphenylcarbazide for color development
        - UV-Vis.
        - DATA
ATTACHMENTS

Phthalates Testing Flow Chart

1) Name of the person who made testing: Sunny Hu
2) Name of the person in charge of testing: Qiong Liu

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

DATA
ATTACHMENTS

HBCDD Testing Flow Chart

1) Name of the person who made testing: Sunny Hu
2) Name of the person in charge of testing: Qiong Liu

```
Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

DATA
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ATTACHMENTS

Halogen Testing Flow Chart

1) Name of the person who made testing: Bruce Xiao
2) Name of the person in charge of testing: Bella Wang

Sample cutting / preparation

Sample Measurement

Combustion in oxygen bomb

Dissolved in an absorption solution

Filtration

Analyzed by ion chromatography. Double confirm by other instruments, if necessary

DATA
ATTACHMENTS

PFOA / PFOS Testing Flow Chart

1) Name of the person who made testing: Zhihong Wang
2) Name of the person in charge of testing: Qiong Liu

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

LC-MS

DATA
ATTACHMENTS

Elementary Testing Flow Chart

1) Name of the person who made testing: Edith Zhang
2) Name of the person in charge of testing: Bella Wang

Sample cutting / preparation

Sample Measurement

Acid digestion

Filtration

Solution

ICP-OES/AAS

DATA
SGS authenticate the photo on original report only

*** End of Report ***