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

The following sample(s) was/were submitted and identified on behalf of the clients as: Clear PET NTC

SGS Job No.: CP14-017144 - GZ
Date of Sample Received: 10 Apr 2014
Testing Period: 10 Apr 2014 - 17 Apr 2014
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 samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of SGS-CSTC Ltd.

Yan Lee
Approved Signatory
Test Report

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>CAN14-048464.004</td>
<td>Transparent sheet</td>
</tr>
</tbody>
</table>

Remarks:

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

RoHS Directive 2011/65/EU

Test Method:
1. With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
2. With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
3. With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
5. With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>100 mg/kg</td>
<td>2</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>1,000 mg/kg</td>
<td>2</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>1,000 mg/kg</td>
<td>2</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI)</td>
<td>1,000 mg/kg</td>
<td>2</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Sum of PBBs</td>
<td>1,000 mg/kg</td>
<td>-</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Monobromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Dibromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Tribromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Tetrabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Pentabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Hexabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Heptabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Octabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Nonabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Decabromobiphenyl</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Sum of PBDEs</td>
<td>1,000 mg/kg</td>
<td>-</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Monobromodiphenyl ether</td>
<td>- mg/kg</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
</tbody>
</table>
Test Report

Test Item(s) | Limit | Unit  | MDL | 004
---|---|---|---|---
Dibromodiphenyl ether | - | mg/kg | 5 | ND
Tribromodiphenyl ether | - | mg/kg | 5 | ND
Tetrabromodiphenyl ether | - | mg/kg | 5 | ND
Pentabromodiphenyl ether | - | mg/kg | 5 | ND
Hexabromodiphenyl ether | - | mg/kg | 5 | ND
Heptabromodiphenyl ether | - | mg/kg | 5 | ND
Octabromodiphenyl ether | - | mg/kg | 5 | ND
Nonabromodiphenyl ether | - | mg/kg | 5 | ND
Decabromodiphenyl ether | - | mg/kg | 5 | ND

Notes:
(1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II.

Halogen

Test Method: With reference to EN 14582: 2007, analysis was performed by Ion Chromatograph (IC).

Test Item(s) | Unit | MDL | 004
---|---|---|---
Fluorine (F) | mg/kg | 50 | ND
Chlorine (Cl) | mg/kg | 50 | ND
Bromine (Br) | mg/kg | 50 | ND
Iodine (I) | mg/kg | 50 | ND

Elementary Analysis

Test Method: With reference to US EPA Method 3052:1996, analysis was performed by ICP-OES.

Test Item(s) | Unit | MDL | 004
---|---|---|---
Beryllium (Be) | mg/kg | 5 | ND
Antimony (Sb) | mg/kg | 10 | 115

Hexabromocyclododecane (HBCDD)

**Test Report**

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### Hexabromocyclododecane (HBCDD)

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>mg/kg</td>
<td>10</td>
<td>ND</td>
<td>(1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance restriction.</td>
</tr>
</tbody>
</table>

**PFOS (Perfluorooctane Sulfonates)**

Test Method: With reference to US EPA 3550C: 2007, analysis was performed by HPLC-MS.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>mg/kg</td>
<td>10</td>
<td>ND</td>
<td>(1) Reference: commission regulation (EU) No 757/2010 amending regulation (EC) No 850/2004: (1) For the purposes of this entry, Article 4(1) (b) shall apply to concentrations of PFOS equal to or below 10 mg/kg (0.001 % by weight) when it occurs in substances or in preparations. (2) For the purposes of this entry, Article 4(1) (b) shall apply to concentrations of PFOS in semi-finished products or articles, or parts thereof, if the concentration of PFOS is lower than 0,1 % by weight calculated with reference to the mass of structurally or micro-structurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is lower than 1μg /m2 of the coated material.</td>
</tr>
</tbody>
</table>

**Phthalate**


<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>CAS NO.</th>
<th>Unit</th>
<th>MDL</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl Phthalate (DBP)</td>
<td>84-74-2</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
<tr>
<td>Benzylbutyl Phthalate (BBP)</td>
<td>85-68-7</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
<tr>
<td>Bis-(2-ethylhexyl) Phthalate (DEHP)</td>
<td>117-81-7</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
</tbody>
</table>
## Test Report

**No.** CANEC1404846404  **Date:** 18 Apr 2014  **Page 5 of 12**

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>CAS NO.</th>
<th>Unit</th>
<th>MDL</th>
<th>004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diisobutyl Phthalate (DIBP)</td>
<td>84-69-5</td>
<td>%(w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Notes:**

1. Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.
ATTACHMENTS

RoHS Testing Flow Chart

1) Name of the person who made testing: Michael Tso / Cutey Yu
2) Name of the person in charge of testing: Adams Yu / Yolanda Wei
3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr⁶⁺ and PBBs/PBDEs test method excluded).

Sample Preparation

Sample Measurement

Pb/Cd/Hg

Acid digestion with microwave/ hotplate

Filtration

Solution

1) Alkali Fusion / Dry Ashing
2) Acid to dissolve

Residue

Concentration/ Dilution of extraction solution

Filtration

GC-MS

DATA

ICP-OES/AAS

DATA

PBBs/PBDEs

Sample solvent extraction

Nonmetallic material

Adding digestion reagent

Heating to 90~95°C for extraction

Filtration and pH adjustment

Adding 1,5-diphenylcarbazide for color development

Cr⁶⁺

Positive

Spot test

Negative

Boiling water extraction

Adding 1,5-diphenylcarbazide for color development

A red color indicates the presence of Cr⁶⁺. If necessary, confirm with UV-Vis.

UV-Vis

DATA

DATA

Metallic material

Nonmetallic material
ATTACHMENTS

Phthalates Testing Flow Chart

1) Name of the person who made testing: Liu Qiong
2) Name of the person in charge of testing: Yolanda Wei

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: Cutey Yu
2) Name of the person in charge of testing: Yolanda Wei

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

DATA
ATTACHMENTS

Halogen Testing Flow Chart

1) Name of the person who made testing: Bella Wang
2) Name of the person in charge of testing: Adams Yu

- 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: Tina Zhao
2) Name of the person in charge of testing: Yolanda Wei

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

Elementary Testing Flow Chart

1) Name of the person who made testing: Bella Wang
2) Name of the person in charge of testing: Adams Yu

Sample cutting / preparation

Sample Measurement

Acid digestion

Filtration

Solution

ICP-OES/AAS

DATA
Sample photo:

SGS authenticate the photo on original report only

*** End of Report ***
The following sample(s) was/were submitted and identified on behalf of the clients as: Glassine Paper

SGS Job No.: CP13-049566 - GZ
Date of Sample Received: 17 Sep 2013
Testing Period: 17 Sep 2013 - 25 Sep 2013
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 Ltd.

Merry Lv
Approved Signatory
Test Report

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>1</td>
<td>CAN13-146264.001</td>
<td>White sheet</td>
</tr>
</tbody>
</table>

Remarks:

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

Elementary Analysis & Flame Retardants

Test Method:
(1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
(2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
(3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
(5) With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI)</td>
<td>mg/kg</td>
<td>2</td>
<td>ND</td>
</tr>
<tr>
<td>Sum of PBBs</td>
<td>mg/kg</td>
<td>-</td>
<td>ND</td>
</tr>
<tr>
<td>Monobromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Dibromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tribromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tetrabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Pentabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Hexabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Heptabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Octabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Nonabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Decabromobiphenyl</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Sum of PBDEs</td>
<td>mg/kg</td>
<td>-</td>
<td>ND</td>
</tr>
<tr>
<td>Monobromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
</tbody>
</table>
### Test Report

No. CANEC1314626401  Date: 25 Sep 2013  Page 3 of 10

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tribromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tetrabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Hexabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Heptabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Octabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Halogen**

Test Method : With reference to EN 14582:2007, analysis was performed by Ion Chromatograph (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>124</td>
<td></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>

**Phthalate**


<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>CAS NO.</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl Phthalate (DBP)</td>
<td>84-74-2</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
<tr>
<td>Benzybutyl Phthalate (BBP)</td>
<td>85-68-7</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
<tr>
<td>Bis-(2-ethylhexyl) Phthalate (DEHP)</td>
<td>117-81-7</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
<tr>
<td>Diisobutyl Phthalate (DIBP)</td>
<td>84-69-5</td>
<td>% (w/w)</td>
<td>0.003</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Notes :**

1. Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC:
   Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.
Hexabromocyclododecane (HBCDD)


<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexabromocyclododecane (HBCDD)</td>
<td>mg/kg</td>
<td>10</td>
<td>ND</td>
</tr>
</tbody>
</table>

Notes:
1. Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance restriction.

PFOS (Perfluorooctane Sulfonates)

Test Method: With reference to US EPA 3550C: 2007, analysis was performed by HPLC-MS.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfluorooctane Sulfonates (PFOS) and related Acid, Metal Salt and Amide</td>
<td>mg/kg</td>
<td>10</td>
<td>ND</td>
</tr>
</tbody>
</table>

Notes:
   (1) For the purposes of this entry, Article 4(1) (b) shall apply to concentrations of PFOS equal to or below 10 mg/kg (0.001 % by weight) when it occurs in substances or in preparations.
   (2) For the purposes of this entry, Article 4(1) (b) shall apply to concentrations of PFOS in semi-finished products or articles, or parts thereof, if the concentration of PFOS is lower than 0.1 % by weight calculated with reference to the mass of structurally or micro-structurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is lower than 1 μg/m² of the coated material.
ATTACHMENTS

RoHS Testing Flow Chart

1) Name of the person who made testing: Michael Tso / Cutey Yu
2) Name of the person in charge of testing: Adams Yu / Yolanda Wei
3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr⁶⁺ and PBBs/PBDEs test method excluded).

![Flow Chart Image]

- Sample Preparation
- Sample Measurement
- Pb/Cd/Hg
  - Acid digestion with microwave/ hotplate
    - Filtration
      - Solution
      - 1) Alkali Fusion / Dry Ashing
        - 2) Acid to dissolve
      - Residue
        - ICP-OES/AAS
          - DATA
    - Pb/Cd/Hg
      - Nonmetallic material
        - Concentration/
          - Dilution of extraction solution
            - Filtration
              - GC-MS
                - DATA
          - Metallic material
            - Heating to 90~95°C for extraction
              - Filtration and pH adjustment
                - Adding digestion reagent
                  - adding 1,5-diphenylcarbazide for color development
                    - A red color indicates the presence of Cr⁶⁺. If necessary, confirm with UV-Vis.
          - Positive
            - Spot test
              - Boiling water extraction
                - Adding 1,5-diphenylcarbazide for color development
                  - A red color indicates the presence of Cr⁶⁺. If necessary, confirm with UV-Vis.
        - Negative
          - DATA

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ATTACHMENTS

HBCDD Testing Flow Chart

1) Name of the person who made testing: Cutey Yu
2) Name of the person in charge of testing: Yolanda Wei

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

DATA
ATTACHMENTS

Phthalates Testing Flow Chart

1) Name of the person who made testing: Liu Qiong
2) Name of the person in charge of testing: Yolanda Wei

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

DATA
ATTACHMENTS

Halogen Testing Flow Chart

1) Name of the person who made testing: Bella Wang
2) Name of the person in charge of testing: Adams Yu

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: Tina Zhao
2) Name of the person in charge of testing: Yolanda Wei

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Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

LC-MS

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Sample photo:

CANEC1314626401

SGS authenticate the photo on original report only

*** End of Report ***
Test Report

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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 : S692N

SGS Job No. : CP14-017145 - GZ
Date of Sample Received : 10 Apr 2014
Testing Period : 10 Apr 2014 - 17 Apr 2014
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 samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of SGS-CSTC Ltd.

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>CAN14-048666.009</td>
<td>White liquid</td>
</tr>
</tbody>
</table>

**Remarks:**

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

**RoHS Directive 2011/65/EU**

#### Test Method:

1. With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
2. With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
3. With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
5. With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>009</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>2</td>
<td>ND</td>
</tr>
<tr>
<td>Sum of PBBs</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>Tetrabromobiphenyl</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>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>
</tbody>
</table>
### Test Report

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**Date:** 18 Apr 2014  
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<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tribromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Tetrabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Hexabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Heptabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Octabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>mg/kg</td>
<td>5</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Notes:**

1. The maximum permissible limit is quoted from directive 2011/65/EU, Annex II

**Halogen**

**Test Method:** With reference to EN 14582: 2007, analysis was performed by Ion Chromatograph (IC).

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>009</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>100</td>
</tr>
<tr>
<td>Iodine (I)</td>
<td>mg/kg</td>
<td>50</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Hexabromocyclododecane (HBCDD)**

**Test Method:** Determination of HBCDD by GC-MS based on IEC 62321:2008.

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>MDL</th>
<th>009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexabromocyclododecane (HBCDD)</td>
<td>mg/kg</td>
<td>10</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Notes:**

1. Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance restriction.

**PFOS (Perfluorooctane Sulfonates)**

**Test Method:** With reference to US EPA 3550C: 2007, analysis was performed by HPLC-MS.
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Test Item(s)                          Unit  MDL  009
Perfluorooctane Sulfonates (PFOS) and related Acid, Metal Salt and Amide

Notes:

(1) For the purposes of this entry, Article 4(1) (b) shall apply to concentrations of PFOS equal to or below 10 mg/kg (0.001 % by weight) when it occurs in substances or in preparations.
(2) For the purposes of this entry, Article 4(1) (b) shall apply to concentrations of PFOS in semi-finished products or articles, or parts thereof, if the concentration of PFOS is lower than 0.1 % by weight calculated with reference to the mass of structurally or micro-structurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is lower than 1μg /m2 of the coated material.

Phthalate


Test Item(s)                CAS NO.         Unit      MDL  009
Dibutyl Phthalate (DBP)      84-74-2          % (w/w)   0.003 ND
Benzylbutyl Phthalate (BBP)  85-68-7          % (w/w)   0.003 ND
Bis-(2-ethylhexyl) Phthalate (DEHP) 117-81-7    % (w/w)   0.003 ND
Diisobutyl Phthalate (DIBP)  84-69-5          % (w/w)   0.003 ND

Notes:

(1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.

Remark: The result(s) shown is/are of the total weight of dried sample.
ATTACHMENTS

RoHS Testing Flow Chart

1) Name of the person who made testing: Michael Tso / Cutey Yu
2) Name of the person in charge of testing: Adams Yu / Yolanda Wei
3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr⁶⁺ and PBBs/PBDEs test method excluded).

Sample Preparation

Sample Measurement

Pb/Cd/Hg

Acid digestion with microwave/ hotplate

Filtration

Solution

Residue

1) Alkali Fusion / Dry Ashing
2) Acid to dissolve

1) PBBs/PBDEs

Sample solvent extraction

Concentration/ Dilution of extraction solution

Filtration

GC-MS

ICP-OES/AAS

DATA

DATA

Cr⁶⁺

Nonmetallic material

Metallic material

Positive

Spot test

Negative

Boiling water extraction

Adding 1,5-diphenylcarbazide for color development

A red color indicates the presence of Cr⁶⁺. If necessary, confirm with UV-Vis.

Adding digestion reagent

Heating to 90~95℃ for extraction

Filtration and pH adjustment

Adding 1,5-diphenylcarbazide for color development

UV-Vis

DATA
ATTACHMENTS

HBCDD Testing Flow Chart

1) Name of the person who made testing: Cutey Yu
2) Name of the person in charge of testing: Yolanda Wei

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

DATA
ATTACHMENTS

Phthalates Testing Flow Chart

1) Name of the person who made testing: Liu Qiong
2) Name of the person in charge of testing: Yolanda Wei

```
Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

GC-MS

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Halogen Testing Flow Chart

1) Name of the person who made testing: Bella Wang
2) Name of the person in charge of testing: Adams Yu

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

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PFOA / PFOS Testing Flow Chart

1) Name of the person who made testing: Tina Zhao
2) Name of the person in charge of testing: Yolanda Wei

Sample cutting / preparation

Sample Measurement

Solvent extraction

Concentration/Dilution

Filtration

LC-MS

DATA
Sample photo:

SGS authenticate the photo on original report only

*** End of Report ***