The following sample(s) was/were submitted and identified on behalf of the clients as: GOLDEN/SILVER PAPER STRAW

**SGS Job No.:** SHHL1708045577CW - SH

**Buyer:** MAXI PLASTPRODUCTS, S.L.

**Supplier:** GANGZHOU JIURONG PACKAGING CO., LTD

**Date of Sample Received:** 09 Aug 2017

**Testing Period:** 09 Aug 2017 - 29 Aug 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).

### Result Summary:

<table>
<thead>
<tr>
<th>Test Requested</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensorial examination odour and taste test</td>
<td>PASS</td>
</tr>
<tr>
<td>Preserving effect</td>
<td>PASS</td>
</tr>
<tr>
<td>Specific migration of benzophenone</td>
<td>PASS</td>
</tr>
<tr>
<td>Specific migration of 4-methylbenzophenone</td>
<td>PASS</td>
</tr>
<tr>
<td>Extractable heavy metals</td>
<td>PASS</td>
</tr>
<tr>
<td>Extractable formaldehyde</td>
<td>PASS</td>
</tr>
<tr>
<td>Extractable glyoxal</td>
<td>PASS</td>
</tr>
<tr>
<td>Pentachlorophenol (PCP)</td>
<td>PASS</td>
</tr>
</tbody>
</table>
Test Report

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

Serena Wang
Approved Signatory
Test Results:

Test Part Description:

Specimen No. | SGS Sample ID | Description | Material (claimed by the client)
--- | --- | --- | ---
SN1 | SHA17-174467.001 | White paper straw with golden | Paper

Remarks:
- (1) mg/dm² = milligram per square decimeter
- (2) mg/kg = milligram per kilogram
- (3) °C = degree Celsius
- (4) < = less than
- (5) MDL = Method Detection Limit
- (6) ND = Not Detected (< MDL)

Sensorial examination odour and taste test

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, to determine sensorial examination odour and taste.

Test Method: With reference to DIN 10955:2004
Test media: Deionized Water
No. of panelist: 6

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test time (hr(s))</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Temperature(℃)</td>
<td>-</td>
<td>40</td>
</tr>
<tr>
<td>Sensorial examination odour (Point scale)</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>Sensorial examination taste (Point scale)</td>
<td>2.5</td>
<td>0</td>
</tr>
</tbody>
</table>

Conclusion: PASS

Notes:
- Scale evaluation:
  - 0 – no perceptible difference
  - 1 – just perceptible difference
  - 2 – slight difference
  - 3 – marked difference
  - 4 – strong difference

Preserving effect
Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine preserving effect.


Test Item(s): Limit: 001.

| Bacillus subtilis ATCC No. 6633 | ★ | Absent |
| Aspergillus niger ATCC No.6275 | ★ | Absent |

Conclusion: PASS

Notes:
1. ★ = Absence of zone inhibition.
2. Absent denotes absence of Antimicrobic constituents which inhibits the growth of tested bacteria and fungus.

Specific migration of benzophenone

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine specific migration of benzophenone.

Test Method: With reference to EN 13130-1:2004, analysis was performed by GC-MS.

Sample 001

Simulant Used: Rectified olive oil

Test Condition: 40 °C 2.0 hr(s)

Test Item(s) | Max. Permissible Limit | Unit | MDL | Test result
--- | --- | --- | --- | ---
Migration times | - | - | - | First
Area/volume | - | dm²/kg | - | 6.0
Specific migration of benzophenone | 0.6 | mg/kg | 0.2 | ND

Conclusion: PASS

Notes:
1. Test condition & simulant were specified by client.

Specific migration of 4-methylbenzophenone
Test Report

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine specific migration of 4-methylbenzophenone.

Test Method: With reference to EN 13130-1:2004, analysis was performed by GC-MS.

Sample 001

Simulant Used: Rectified olive oil
Test Condition: 40 °C 2.0 hr(s)

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Max. Permissible Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration times</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>First</td>
</tr>
<tr>
<td>Area/volume</td>
<td>-</td>
<td>dm²/kg</td>
<td>-</td>
<td>6.0</td>
</tr>
<tr>
<td>Specific migration of 4-methylbenzophenone</td>
<td>0.2</td>
<td>mg/kg</td>
<td>0.2</td>
<td>ND</td>
</tr>
</tbody>
</table>

Conclusion: PASS

Notes:
(1) Test condition & simulant were specified by client.

Extractable heavy metals

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine extractable heavy metals.

Test Method: With reference to EN 645:1993 (cold water extraction), analysis was performed by UV-Vis and ICP-OES / ICP-MS.

<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>Extractable lead</td>
<td>3</td>
<td>mg/kg</td>
<td>0.1</td>
<td>ND</td>
</tr>
<tr>
<td>Extractable cadmium</td>
<td>0.5</td>
<td>mg/kg</td>
<td>0.05</td>
<td>ND</td>
</tr>
<tr>
<td>Extractable mercury</td>
<td>0.3</td>
<td>mg/kg</td>
<td>0.05</td>
<td>ND</td>
</tr>
<tr>
<td>Extractable chromium (III)</td>
<td>0.004</td>
<td>mg/dm²</td>
<td>0.004</td>
<td>ND</td>
</tr>
<tr>
<td>Extractable chromium (VI)</td>
<td>★</td>
<td>mg/dm²</td>
<td>0.004</td>
<td>ND</td>
</tr>
</tbody>
</table>

Conclusion: PASS

Notes:
(1) ★= Absent.
(2) Permissible Limit is according to BfR Recommendation XXXVI.
**Extractable formaldehyde**

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine extractable formaldehyde.

Test Method: With reference to EN 645:1994 (cold water extraction) and EN 1541:2001, analysis was performed by UV-Vis.

<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>Extractable formaldehyde</td>
<td>1</td>
<td>mg/dm²</td>
<td>0.1</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Conclusion** PASS

**Extractable glyoxal**

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine extractable glyoxal.


<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>Extractable glyoxal</td>
<td>1.5</td>
<td>mg/dm²</td>
<td>0.5</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Conclusion** PASS

**Pentachlorophenol (PCP)**

Test Requested: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments, Council of Europe Resolution AP (2002) 1, BfR recommendation, to determine pentachlorophenol (PCP).

Test Method: With reference to LFGB § 64 BVL B 82.02.8 – 2001, analysis was performed by GC-MS.
<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Limit</th>
<th>Unit</th>
<th>MDL</th>
<th>MDL 001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentachlorophenol (PCP)</td>
<td>0.15</td>
<td>mg/kg</td>
<td>0.05 ND</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion**

PASS

Sample photo:

SGS authenticate the photo on original report only