Test Report  
No: 10388527(3)  
Date: 16-Feb-16  
Page 1 of 7

Kester Inc  
800W Thorndale Avenue Itasca IL 60143-1341 USA

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

Sample Name :  Kester 145  
Sample Receiving Date : 04-Feb-16  
Testing Period : 04-Feb-16 to 16-Feb-16  

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

Conclusion : Based on the performed tests on submitted sample(s), the results comply with the Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of  
SGS Testing & Control Services Singapore Pte Ltd  
Y.C. Tham  
Laboratory Manager

Test Location: 3 Toh Tuck Link, #01-02, Singapore 596228  
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SGS Testing & Control Services Singapore Pte Ltd  
3 Toh Tuck Link, #01-02/03, Singapore 596228 t +65 6379 0111 f+65 6777 2914 www.sgs.com  
Member of SGS Group
**Test Result(s):**

Sample Description : Colorless liquid

<table>
<thead>
<tr>
<th>Test Item(s):</th>
<th>Unit</th>
<th>Method</th>
<th>Results</th>
<th>MDL</th>
<th>RoHS Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium(Cd)</td>
<td>mg/kg</td>
<td>With reference to IEC62321-5:2013. Analysis was performed by ICP/AES</td>
<td>n.d.</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>mg/kg</td>
<td>With reference to IEC62321-5:2013. Analysis was performed by ICP/AES</td>
<td>n.d.</td>
<td>2</td>
<td>1000</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>mg/kg</td>
<td>With reference to IEC62321-4:2013. Analysis was performed by ICP/AES</td>
<td>n.d.</td>
<td>2</td>
<td>1000</td>
</tr>
<tr>
<td>Hexavalent Chromium (Cr(VI))</td>
<td>mg/kg</td>
<td>With reference to IEC62321, Ed1:2008. Analysis was performed by UV/Vis Spectrometry</td>
<td>n.d.</td>
<td>2</td>
<td>1000</td>
</tr>
<tr>
<td>Sum of PBBs</td>
<td>mg/kg</td>
<td>With reference to IEC62321-6:2015. Analysis was performed by GC/MS</td>
<td>n.d.</td>
<td>-</td>
<td>1000</td>
</tr>
<tr>
<td>Monobromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Dibromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Tribromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Tetrabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Hexabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Pentabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Heptabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Octabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Nonabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Decabromobiphenyl</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Sum of PBDEs</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>-</td>
<td>1000</td>
</tr>
<tr>
<td>Monobromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Dibromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Tribromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Tetrabromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Heptabromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Octabromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>mg/kg</td>
<td></td>
<td>n.d.</td>
<td>5</td>
<td>-</td>
</tr>
</tbody>
</table>

**Test Location:** 3 Toh Tuck Link, #01-02, Singapore 596228

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Test Result(s):
Sample Description: Colorless liquid

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<thead>
<tr>
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<th>Results</th>
<th>MDL</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBP (Benzyl butyl phthalate)</td>
<td>mg/kg</td>
<td>With reference to USEPA 3540C &amp; 8270D. Analysis was performed by GC/MS</td>
<td>n.d.</td>
<td>30</td>
<td>1000</td>
</tr>
<tr>
<td>DBP (Di-butyl phthalate)</td>
<td>mg/kg</td>
<td>With reference to USEPA 3540C &amp; 8270D. Analysis was performed by GC/MS</td>
<td>n.d.</td>
<td>30</td>
<td>1000</td>
</tr>
<tr>
<td>DEHP (Di-(2-ethylhexyl) phthalate)</td>
<td>mg/kg</td>
<td>With reference to USEPA 3540C &amp; 8270D. Analysis was performed by GC/MS</td>
<td>n.d.</td>
<td>30</td>
<td>1000</td>
</tr>
<tr>
<td>DIBP (Di-isobutyl Phthalate)</td>
<td>mg/kg</td>
<td>With reference to USEPA 3540C &amp; 8270D. Analysis was performed by GC/MS</td>
<td>n.d.</td>
<td>30</td>
<td>1000</td>
</tr>
</tbody>
</table>

Note:  
(1) mg/kg = ppm ; 0.1wt% = 1000ppm  
(2) n.d. = Not Detected  
(3) MDL = Method Detection Limit  
(4) "-" = Not regulated  
(5) * : Exceeds limit  
(6) Reference information: The limits of Benzyl butyl phthalate (BBP), Di-butyl phthalate (DBP), Di-(2-ethylhexyl) phthalate (DEHP), Di-isobutyl phthalate (DIBP) as set by G/TBT/N/EU/256 of WTO/TBT.

Remarks: Sample received was totally dissolved by preconditioning method.
Lab Analyst(s): Chin, Pheng and ZH
Sample photo:
Sample Description : Colorless liquid

SGS authenticate the photo on original report only
Process Flow of IEC 62321 (Pb, Cd, Hg & Cr(VI))

Cutting / Preparation

Sample Measurement

Pb, Cd

Acid digestion by suitable acid depended on different sample material

Microwave digestion with HNO3/HCl/HF

Hg

Add appropriate amount of digestion reagent

Heat to appropriate temperature to extract

Residue

Cool, filter digestate through filter

Add diphenyl-carbazide for color development

Measure the absorbance at 540 nm by UV-VIS

Filtration

Solution

1) Alkali Fusion
2) HCl to dissolve

ICP-AES

Remarks: Sample received was totally dissolved by preconditioning method. (Cr(VI) method excluded)
Process Flow of PBBs and PBDEs by GC/MS (IEC 62321)

First Testing Process →  Optional screen process ……  Confirmation process ...

1. Cutting/Preparation
2. Sample Pre-treatment
3. Screening Analysis
4. Solvent Extraction
5. Concentrate/Dilute extracted solution
6. Filter
7. High Mass Range GC/MS
8. Data
Process Flow of Phthalate Analysis

1. Cutting/Preparation
2. Sample Measurement
3. Soxhlet Extraction
4. Concentrate and dilute the extracted solvent
5. Filter
6. Analyze by high-mass range GC/MS

***End of Report***