ICP Test Report Certification Packet

Company name: Littelfuse, Inc.

Product Series: TVS Diode Array

Product #: SP0502BAHTG (SOT23-3)

Issue Date: January 3, 2013

It is hereby certified by Littelfuse, Inc. that there is neither RoHS (EU Directive 2002/95/EC, 2011/65/EU)-restricted substance nor such use, for materials to be used for unit parts, for packing/packaging materials, and for additives and the like in the manufacturing processes. In addition, it is hereby reported to you that the parts and sub-materials, the materials to be used for unit parts, the packing/packaging materials, and the additives and the like in the manufacturing processes, are all composed of the following components.

Issued by: KRISTEN BACILA

<Global EHS Engineer>

(1) Parts, sub-materials and unit parts

This document covers the TVS Diode Array RoHS-Compliant series products manufactured by Littelfuse, Inc.

< Raw Materials Used

Please see Table 1

(2) The ICP data on all measurable substances

Please see appropriate pages as identified in Table 1

Remarks : .

Form 585-047 Rev. A 2/21/06
Table 1: List of Raw Materials covered by this report

<table>
<thead>
<tr>
<th>Total Parts</th>
<th>Raw Material Part Number</th>
<th>Raw Material Description</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2200D</td>
<td>Adhesive</td>
<td>3-6</td>
</tr>
<tr>
<td>2</td>
<td>N/A</td>
<td>A194 Alloy</td>
<td>7-45</td>
</tr>
<tr>
<td>3</td>
<td>G600</td>
<td>Epoxy Moulding Compound</td>
<td>46-53</td>
</tr>
<tr>
<td>4</td>
<td>N/A</td>
<td>Au Bonding Wire</td>
<td>54-66</td>
</tr>
<tr>
<td>5</td>
<td>N/A</td>
<td>Tin Plating</td>
<td>67-73</td>
</tr>
<tr>
<td>6</td>
<td>N/A</td>
<td>Wafer</td>
<td>74-77</td>
</tr>
</tbody>
</table>
Test Report No. F680101/LF-CTSAYAA12-27648

Issued Date: 2012. 07. 27

To: HENKEL TECHNOLOGIES
6th Fl. Daeryung technon town II
569-21, Gasan-dong
Geumcheon-gu
Seoul
Korea

The following merchandise was submitted and identified by the client as:

SGS File No.: AYAA12-27648
Product Name: 2200D
Item No./Part No.: N/A
Received Date: 2012. 07. 20
Test Period: 2012. 07. 23 to 2012. 07. 27
Test Results: For further details, please refer to following page(s)
Test Performed: SGS Korea tested the sample(s) selected by applicant with following results.

Timothy Jeon
Jinhee Kim
Cindy Park
Jerry Jang / Testing Person

Jeff Jang / Chemical Lab Mgr

SGS Korea Co. Ltd.

Test Report No. F680101/LF-CTSAYAA12-27648

Sample No.: AYAA12-27648.001
Sample Description: 2200D
Item No./Part No.: N/A
Materials: Paste

Heavy Metals

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Unit</th>
<th>Test Method</th>
<th>MDL</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, ICP</td>
<td>0.5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, ICP</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, ICP</td>
<td>2</td>
<td>N.D.</td>
</tr>
<tr>
<td>Hexavalent Chromium (Cr VI)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, UV-VIS</td>
<td>1</td>
<td>N.D.</td>
</tr>
<tr>
<td>Antimony (Sb)</td>
<td>mg/kg</td>
<td>With reference to EPA 3052(1996), US EPA 6010B(1996), ICP</td>
<td>10</td>
<td>N.D.</td>
</tr>
<tr>
<td>Phosphorous (P)</td>
<td>mg/kg</td>
<td>With reference to EPA 3052(1996), US EPA 6010B(1996), ICP</td>
<td>10</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

Flame Retardants-PBBs/PBDEs

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Unit</th>
<th>Test Method</th>
<th>MDL</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Dioiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Triiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Tetraiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Pentaiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Hexaiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Heptaiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Octaiodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Nonaioodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Decaioodobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Monoiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Dioiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Triiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Tetraiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Pentaiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Hexaiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Heptaiodobromobiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321-2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

NOTE:
1. N.D. = Not detected (<MDL)
2. MDL = Method Detection Limit
3. MDL = Method Detection Limit
4. N.D. = Not detected
5. N.D. = Negative = Undetectable / Positive = Detectable
6. Qualitative analysis (No Unit)
7. Boiling-water-extraction
   Negative = Absence of Cr(VI) coating
   Positive = Presence of Cr(VI) coating

The document is issued to the Company and is for internal use only. It is the responsibility of the Company to ensure that all of its employees are familiar with and understand the content of this report. The Company is responsible for the confidentiality of this document and for ensuring that it is not disclosed to any third parties without the prior written consent of SGS. The Company is also responsible for ensuring that all of its employees comply with any terms and conditions of confidentiality that are applicable to this document.
## Flammability Performance - PBBs/PBDEs

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Unit</th>
<th>Test Method</th>
<th>MDL</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, GC-MS</td>
<td>5</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

## Halogen Contents

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Unit</th>
<th>Test Method</th>
<th>MDL</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorine (F)</td>
<td>mg/kg</td>
<td>BS EN 14582:2007, IC</td>
<td>30</td>
<td>84</td>
</tr>
<tr>
<td>Chlorine (Cl)</td>
<td>mg/kg</td>
<td>BS EN 14582:2007, IC</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td>Bromine (Br)</td>
<td>mg/kg</td>
<td>BS EN 14582:2007, IC</td>
<td>30</td>
<td>N.D.</td>
</tr>
<tr>
<td>Iodine (I)</td>
<td>mg/kg</td>
<td>BS EN 14582:2007, IC</td>
<td>50</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

## Others

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Unit</th>
<th>Test Method</th>
<th>MDL</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFOA (Perfluorooctanoic acid)</td>
<td>mg/kg</td>
<td>US EPA 3540C/5550C, LC/MS</td>
<td>1</td>
<td>N.D.</td>
</tr>
<tr>
<td>PFOS (Perfluorooctane Sulfonates-Acid/Metal Salt/Amide)</td>
<td>mg/kg</td>
<td>US EPA 3540C/5550C, LC/MS</td>
<td>1</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

### Note

1. N.D. = Not detected (< MDL)
2. mg/kg = ppm
3. MDL = Method Detection Limit
4. = No regulation
5. Negative = Undetectable / Positive = Detectable
6. ** = Qualitative analysis (No Unit)
7. * = Boiling-water-extraction:
   - Negative = Absence of CVI coating
   - Positive = Presence of CVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.
The samples were dissolved totally by pre-conditioning method according to above flow chart for Cd/Pb/Hg.

Section Chief : Gilsae Yi

NOTE:
(1) N.D. = Not detected (<MDL)
(2) mg/kg = ppm
(3) MDL = Method Detection Limit
(4) = No regulation
(5) Negative = Undetectable / Positive = Detectable
(6) ** = Qualitative analysis (No Unit)
(7) " = Bolling-water-extraction:
- Negative = Absence of CrVI coating
- Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm2 sample surface area.

NOTE:
(1) N.D. = Not detected (<MDL)
(2) mg/kg = ppm
(3) MDL = Method Detection Limit
(4) = No regulation
(5) Negative = Undetectable / Positive = Detectable
(6) ** = Qualitative analysis (No Unit)
(7) " = Bolling-water-extraction:
- Negative = Absence of CrVI coating
- Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm2 sample surface area.
Flow Chart for Halogen Test

- Sample screening using XRF.
- Liquid containing water (>80%)?
  - Yes
  - Sample pretreatment / Separation
  - Concentrate/Dilute Extracted solution
  - Analysis was performed by HPLC/MS
  - QA/QC review / Check analysis result
  - Data
  - *** End ***
  - Dilute the solution (EPA300)
  - Data
  - Yes
  - Weigh the samples into the combustion boat.
  - Add absorption solution into the bomb or tube.
  - Admit O₂ gas or O₂ + Ar₂ gas and start the combustion.
  - Allow during absorption of the burnt gas.
  - Analyze absorbed solution using ion Chromatography.
  - No

NOTE: (1) N.D. = Not detected (<MDL)
(2) mg/kg = ppm
(3) MDL = Method Detection Limit
(4) = No regulation
(5) Negative = Undetectable / Positive = Detectable
(6) "" = Qualitative analysis (No Unit)
(7) * = Boiling-water-extraction:
  Negative = Absence of CVI coating
  Positive = Presence of CVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.
Test Report

ASM HK & ASM TECHNOLOGY SINGAPORE

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK), 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

The following samples were submitted and identified by/on behalf of the client as:

<table>
<thead>
<tr>
<th>Sample Description</th>
<th></th>
<th>A194 ALLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Receiving Date</td>
<td></td>
<td>2011/12/23</td>
</tr>
<tr>
<td>Testing Period</td>
<td></td>
<td>2011/12/23 TO 2012/01/05</td>
</tr>
<tr>
<td>Sample Submitted By</td>
<td></td>
<td>香港商先进太平洋股份有限公司 (ASM HK &amp; ASM TECHNOLOGY SINGAPORE)</td>
</tr>
</tbody>
</table>

Test Results: 請見下頁 (Please refer to next pages).

Signed for and on behalf of SGS Taiwan Limited

Ray Chang / Asst. Manager
## Test Results

### Test Item (PART NAME) NO. 1: Copper Red A194 Alloy (Copper Red A194 Alloy)

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法检测极限值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>铅 / Cadmium (Cd)</td>
<td>mg/kg</td>
<td>参考 IEC 62321: 2008 方法，用感应耦合电感原子发射光谱仪检测。/ With reference to IEC 62321: 2008 and performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
<tr>
<td>铅 / Lead (Pb)</td>
<td>mg/kg</td>
<td>参考 IEC 62321: 2008 方法，用感应耦合电感原子发射光谱仪检测。/ With reference to IEC 62321: 2008 and performed by ICP-AES.</td>
<td>2</td>
<td>23.5</td>
</tr>
<tr>
<td>汞 / Mercury (Hg)</td>
<td>mg/kg</td>
<td>参考 IEC 62321: 2008 方法，用感应耦合电感原子发射光谱仪检测。/ With reference to IEC 62321: 2008 and performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
<tr>
<td>六价铬 / Hexavalent Chromium Cr(VI) by boiling water extraction#</td>
<td>**</td>
<td>参考 IEC 62321: 2008 方法，用 boiling water extraction 方法检测。/ With reference to IEC 62321: 2008 and performed by boiling water extraction Method.</td>
<td>0.02ng/kg with 50 cm² surface area</td>
<td>Negative</td>
</tr>
<tr>
<td>镉 / Antimony (Sb)</td>
<td>mg/kg</td>
<td>参考美国EPA 3052方法，用感应耦合电感原子发射光谱仪检测含量。/ With reference to US EPA Method 3052 for Antimony Content. Analysis was performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
<tr>
<td>铍 / Beryllium (Be)</td>
<td>mg/kg</td>
<td>参考美国EPA 3052方法，用感应耦合电感原子发射光谱仪检测含量。/ With reference to US EPA Method 3052 for Beryllium Content. Analysis was performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

*Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized reproduction, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.*

---

*This document is issued by the Company subject to its General Terms of Service printed out front, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction clause defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its inspection only and within the limits of Client's instructions. Should the Company's sole responsibility to its Client and the document does not exemmate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced in full without prior written approval of the Company. Any unauthorized reproduction, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.*

---

*Member of the SGS Group*
## Test Report

**测试项目 (Test Items)** | **单位 (Unit)** | **测试方法 (Method)** | **方法检测极限值 (MDL)** | **结果 (Result)**
--- | --- | --- | --- | ---
多氯联苯 / Polychlorinated Biphenyls (PCBs) (CAS No.: 001336-36-3) | mg/kg | 参考US EPA 3540C方法，以气相层析质谱仪 (GC/MS) 检测. / With reference to US EPA 3540C method. Analysis was performed by GC/MS. | 0.5 | n.d.
多氯萘 / Polychlorinated Naphthalene (PCNs) | mg/kg | 参考US EPA 3540C方法，以气相层析质谱仪 (GC/MS) 检测. / With reference to US EPA 3540C method. Analysis was performed by GC/MS. | 5 | n.d.
多氯三联苯 / Polychlorinated Terphenyls (PCTs) | mg/kg | 参考US EPA 3540C方法，以气相层析质谱仪 (GC/MS) 检测. / With reference to US EPA 3540C method. Analysis was performed by GC/MS. | 0.3 | n.d.
**氯化石蜡 / Chlorinated Paraffin (C10-C13) (CAS No.: 88-635-84-8)** | % | 参考US EPA 3540C: 1996方法，以气相层析仪/电子捕获检测器检测. / With reference to US EPA 3540C: 1996 method. Analysis was performed by GC/ECD. | 0.01 | n.d.
2-(3',5'-二叔丁基-2'-羟基苯基)苯并三氮唑 / 2-(3,5-di-tert-butyl-2-hydroxyphenyl)-2H-benzotriazole (CAS No.: 008386-71-7) | mg/kg | 参考US EPA 3540C方法，以气相层析质谱仪检测. / With reference to US EPA 3540C method. Analysis was performed by GC/MS. | 5 | n.d.
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS) | mg/kg | 参考US EPA 3540C: 1996方法，以液相层析质谱仪检测全氟辛烷磺酸含量. / With reference to US EPA 3540C: 1996 method for PFOS Content. Analysis was performed by LC/MS. | 10 | n.d.
全氟辛酸(鉄) / PFOA (CAS No.: 0002335-67-1) | mg/kg | 参考US EPA 3540C: 1996方法，以液相层析质谱仪检测全氟辛酸(鉄)含量. / With reference to US EPA 3540C: 1996 method for PFOA Content. Analysis was performed by LC/MS. | 10 | n.d.
测试报告
Test Report

ASII HK & ASM TECHNOLOGY SINGAPORE
4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASII HK), 2 YISHUN AVENUE 7, SINGAPORE (ASII TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法限测值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>氯气乙醇 / PVC</td>
<td>**</td>
<td>以红外光谱分析及焰色法检测。/ Analysis was performed by FTIR and PLAME Test.</td>
<td>-</td>
<td>Negative</td>
</tr>
<tr>
<td>碘素 / Halogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>氯素 (氯) / Halogen-Fluorine (F) (CAS No.: 014762-94-8)</td>
<td>mg/kg</td>
<td>参考BS EN 14582:2007, 以離子層析法分析。/ With reference to BS EN 14582:2007. Analysis was performed by IC.</td>
<td>50</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 022537-15-1)</td>
<td>mg/kg</td>
<td>参考BS EN 14582:2007, 以離子層析法分析。/ With reference to BS EN 14582:2007. Analysis was performed by IC.</td>
<td>50</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯素 (溴) / Halogen-Bromine (Br) (CAS No.: 010897-32-2)</td>
<td>mg/kg</td>
<td>参考BS EN 14582:2007, 以離子層析法分析。/ With reference to BS EN 14582:2007. Analysis was performed by IC.</td>
<td>50</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯素 (碘) / Halogen-Iodine (I) (CAS No.: 014362-44-5)</td>
<td>mg/kg</td>
<td>参考BS EN 14582:2007, 以離子層析法分析。/ With reference to BS EN 14582:2007. Analysis was performed by IC.</td>
<td>50</td>
<td>n.d.</td>
</tr>
<tr>
<td>石棉 / Asbestos</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>石棉纤维石 / Actinolite (CAS No.: 77536-66-4)</td>
<td>%</td>
<td>参考EPA 600/R-93/116 / 立體顆粒細胞, 偏光顯微鏡 (PLM)及X光繞射性分析法 (XRD) / With reference to EPA 600/R-93/116</td>
<td>1</td>
<td>Negative</td>
</tr>
<tr>
<td>石棉纤维石 / Anthophyllite (CAS No.: 77536-67-5)</td>
<td>%</td>
<td>参考EPA 600/R-93/116 / 立體顆粒細胞, 偏光顯微鏡 (PLM)及X光繞射性分析法 (XRD) / With reference to EPA 600/R-93/116</td>
<td>1</td>
<td>Negative</td>
</tr>
<tr>
<td>石棉纤维石 / Amphibole (CAS No.: 12172-73-5)</td>
<td>%</td>
<td>参考EPA 600/R-93/116 / 立體顆粒細胞, 偏光顯微鏡 (PLM)及X光繞射性分析法 (XRD) / With reference to EPA 600/R-93/116</td>
<td>1</td>
<td>Negative</td>
</tr>
<tr>
<td>石棉纤维石 / Chrysotile (CAS No.: 12091-29-5)</td>
<td>%</td>
<td>参考EPA 600/R-93/116 / 立體顆粒細胞, 偏光顯微鏡 (PLM)及X光繞射性分析法 (XRD) / With reference to EPA 600/R-93/116</td>
<td>1</td>
<td>Negative</td>
</tr>
</tbody>
</table>
## Test Report

**ASM HK & ASM TECHNOLOGY SINGAPORE**

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK), 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

### Test Items (Test Items)

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Test Method</th>
<th>Detection Limit (MDL)</th>
<th>Result (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crocidolite (CAS No.: 12001-28-4)</td>
<td>%</td>
<td>参考EPA 600/R-93/116 / 立體顯微鏡, 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116</td>
<td>1</td>
<td>Negative</td>
</tr>
<tr>
<td>Tremolite (CAS No.: 77586-68-6)</td>
<td>%</td>
<td>参考EPA 600/R-93/116 / 立體顯微鏡, 偏光顯微鏡 (PLM)及X光繞射定性分析法 (XRD) / With reference to EPA 600/R-93/116</td>
<td>1</td>
<td>Negative</td>
</tr>
<tr>
<td>Organic-tin compounds</td>
<td></td>
<td>需参考DIN 38407-13方法, 以氣相層析儀 / 火焰光度檢測器檢測 / With reference to DIN 38407-13. Analysis was performed by GC/FPD.</td>
<td>0.03</td>
<td>n.d.</td>
</tr>
<tr>
<td>Tributyl Tin (TBT)</td>
<td>mg/kg</td>
<td>需参考DIN 38407-13方法, 以氣相層析儀 / 火焰光度檢測器檢測 / With reference to DIN 38407-13. Analysis was performed by GC/FPD.</td>
<td>0.03</td>
<td>n.d.</td>
</tr>
<tr>
<td>Triphenyl Tin (TPhT)</td>
<td>mg/kg</td>
<td>需参考DIN 38407-13方法, 以氣相層析儀 / 火焰光度檢測器檢測 / With reference to DIN 38407-13. Analysis was performed by GC/FPD.</td>
<td>-</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

### Sum of PBBs

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Test Method</th>
<th>Detection Limit (MDL)</th>
<th>Result (Result)</th>
</tr>
</thead>
</table>

**Note:** The results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. The Company makes no representation or warranty, express or implied, with respect to such use. The information contained herein may not be used for any purpose or to develop or for the manufacture, use, sale, distribution, offer for sale, import or export of any product, or processes, etc. referred to herein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its investigation only and within the limits of its instructions. Any unauthorized dissemination, copying or reproduction of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
### Test Report

**ASM HK & ASM TECHNOLOGY SINGAPORE**

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAICHUNG, HONG KONG (ASM HK), 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法检测限值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>多溴联苯醚 (Test Items) / Sum of PBDEs</td>
<td>mg/kg</td>
<td>参考 IEC 62321: 2008 方法，以氯相薄层 / 质谱仪检测。 / With reference to IEC 62321: 2008 and performed by GC/MS.</td>
<td>NO.1</td>
<td></td>
</tr>
<tr>
<td>一溴联苯醚 / Monobromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>二溴联苯醚 / Dibromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>三溴联苯醚 / Tribromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>四溴联苯醚 / Tetrabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>五溴联苯醚 / Pentabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>六溴联苯醚 / Hexabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>七溴联苯醚 / Heptabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>八溴联苯醚 / Octabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>九溴联苯醚 / Nonabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>十溴联苯醚 / Decabromodiphenyl ether</td>
<td>5</td>
<td>n.d.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**偶氮 (AZO)**

1): 4-氟基二苯 / 4-AMINODIPHENYL (CAS No.: 000092-67-1)

2): 联苯胺 / BENZIDINE (CAS No.: 00092-87-5)

3): 4-氯联苯胺 / 4-CHLORO-O-TOLUIDINE (CAS No.: 000095-59-2)

4): 2-萘胺 / 2-NAPHTHYLAMINE (CAS No.: 000091-59-8)

5): 邻氯二甲基偶氮 / 0-AMINOAZOTOLUENE (CAS No.: 000097-56-3)

mg/kg | 参考LFGB 82.02-2 方法，以氯相薄层 / 质谱仪检测。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS. | 3 | n.d. |

mg/kg | 参考LFGB 82.02-2 方法，以氯相薄层 / 质谱仪检测。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS. | 3 | n.d. |

mg/kg | 参考LFGB 82.02-2 方法，以氯相薄层 / 质谱仪检测。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS. | 3 | n.d. |

mg/kg | 参考LFGB 82.02-2 方法，以氯相薄层 / 质谱仪检测。 / With reference to LFGB 82.02-2. Analysis was performed by GC/MS. | 3 | n.d. |
Test Report

ASM HK & ASM TECHNOLOGY SINGAPORE

4/F, WATSON CENTRE, 18 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK), 2 YISHI AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法限值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6): 对硝基邻甲苯胺 / 2-AMINO-4-NITROTOLUENE (CAS No.: 000699-55-8)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>7): 对氯苯胺 / P-CHLOROANILINE (CAS No.: 000106-47-8)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>8): 4-甲基-4-氨基二苯二胺 / 2,4-DIAMINOANISOLE (CAS No.: 000615-05-4)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>9): 4,4'-二氨基二苯甲烷 / 4,4'-DIAMINODIPHENYLANILINE (CAS No.: 000101-77-9)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>10): 3,3'-二氯联苯胺 / 3,3'-DICHLOOROBENZIDINE (CAS No.: 000609-94-1)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>11): 3,3'-二甲基联苯胺 / 3,3'-DIMETHYLBENZIDINE (CAS No.: 000119-90-4)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>12): 3,3'-二甲基联苯胺 / 3,3'-DIMETHYLBENZIDINE (CAS No.: 000110-90-7)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>13): 3,3'-二甲基-4,4'-二氨基二苯甲烷 / 3,3'-DIMETHYL-4,4'-DIAMINODIPHENYLANILINE (CAS No.: 000838-80-0)</td>
<td>mg/kg</td>
<td>参考LFGB 82.02-2方法，以气相色谱/质谱仪检测。/ With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
</tbody>
</table>
## 測試報告
### Test Report

**ASM HK & ASM TECHNOLOGY SINGAPORE**

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK). 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>測試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>測試方法 (Method)</th>
<th>方法檢測極限值 (MDL)</th>
<th>結果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14): 2-甲基基-5-甲基聯胺 / P-CRESIDINE (2-METHOXY-5-METHYLANILINE) (CAS No.: 000120-71-8)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>15): 4,4'-亞甲基雙 (氯苯胺) / 4,4'-METHYLENE-BIS-(2-CHLOROANILINE) (CAS No.: 000101-14-4)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>16): 4,4'-氰化雙苯胺 / 4,4'-CYANIDIANILINE (CAS No.: 000101-80-4)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>17): 4,4'-硫代雙苯胺 / 4,4'-THIODIANILINE (CAS No.: 000139-65-1)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>18): 鯊甲苯胺 / O-TOLUIDINE (CAS No.: 000095-53-4)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>19): 2,4-二氧基苯胺 / 2,4- TOLUYLENEDIAMINE (CAS No.: 000005-80-7)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>20): 2,4,5-三甲基苯胺 / 2,4,5-TRIMETHYLANILINE (CAS No.: 000137-17-7)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>21): 部位甲基苯胺 / O-ANISIDINE (CAS No.: 000090-04-0)</td>
<td>mg/kg</td>
<td>參考LFGB 82.02-2方法，以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>测试项目 (Test Items)</td>
<td>单位 (Unit)</td>
<td>测试方法 (Method)</td>
<td>方法检测限值 (MDL)</td>
<td>结果 (Result)</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------</td>
<td>------------------</td>
<td>--------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>22): 对氨基偶氮苯 / P-AMINOAZOBENZENE (CAS No.: 000060-09-3)</td>
<td>mg/kg</td>
<td>参考LFGP 82.02-2方法，以气相色谱/质谱仪检测。/With reference to LFGP 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>23): 2,4-二甲基苯酚 / 2,4-XYLIDINE (CAS No.: 000059-68-1)</td>
<td>mg/kg</td>
<td>参考LFGP 82.02-2方法，以气相色谱/质谱仪检测。/With reference to LFGP 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
<tr>
<td>24): 2,6-二甲基苯酚 / 2,6-XYLIDINE (CAS No.: 000087-63-7)</td>
<td>mg/kg</td>
<td>参考LFGP 82.02-2方法，以气相色谱/质谱仪检测。/With reference to LFGP 82.02-2, Analysis was performed by GC/MS.</td>
<td>3</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

氯氟化碳 / CFCs (Chlorofluorocarbons)

Group I

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法检测限值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>氯氟化碳 (Chlorofluorocarbon) - 11 (CAS No.: 000073-69-6)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱/质谱仪检测。/With reference to US EPA 5021 method, Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯氟化碳 (Chlorofluorocarbon) - 12 (CAS No.: 000073-71-8)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱/质谱仪检测。/With reference to US EPA 5021 method, Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯氟化碳 (Chlorofluorocarbon) - 13 (CAS No.: 000076-13-1)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱/质谱仪检测。/With reference to US EPA 5021 method, Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯氟化碳 (Chlorofluorocarbon) - 14 (CAS No.: 000076-14-2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱/质谱仪检测。/With reference to US EPA 5021 method, Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>测试项目 (Test Items)</td>
<td>单位 (Unit)</td>
<td>测试方法 (Method)</td>
<td>方法检测极限值 (MDL)</td>
<td>结果 (Result)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>------------------</td>
<td>---------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>氯氟烃类(CFC) - 115 (CAS No.: 000076-15-3)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 113 (CAS No.: 000075-72-9)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 111 (CAS No.: 000054-56-3)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 112 (CAS No.: 000076-12-0)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 211 (CAS No.: 000412-78-6)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 212 (CAS No.: 003182-26-1)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 213 (CAS No.: 002354-06-5)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟碳化合物 (CF) - 214 (CAS No.: 002355-31-9)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>
# Test Report

**ASW HK & ASW TECHNOLOGY SINGAPORE**

4/F, WATSON CENTRE, 16 KUNG YIP ST., CHAI CHEONG, HONG KONG (ASW HK). 2 YISHUN AVENUE 7, SINGAPORE (ASW TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法检测 标准值 (MID)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>氟氯碳化合物 (Chlorofluorocarbon) - 215 (CAS No.: 004259-43-2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化合物 (Chlorofluorocarbon) - 216 (CAS No.: 000661-97-2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化合物 (Chlorofluorocarbon) - 217 (CAS No.: 000422-86-8)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>海洋 (Halons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>海洋 (Halons) - 1211 (CAS No.: 000353-59-3)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>海洋 (Halons) - 1301 (CAS No.: 000675-63-8)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>海洋 (Halons) - 2402 (CAS No.: 000124-73-2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯氟碳化合物 / HCPCs (Hydrochlorofluorocarbons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>氯氟碳化合物 (HCFC) - 21 (CAS No.: 000075-43-4)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯氟碳化合物 (HCFC) - 22 (CAS No.: 000075-45-6)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>
# Test Report

**Test Items**

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法检测限值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>异氰酸甲基化合物 (HCFC)-31 (CAS No.: 000693-70-4)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-121 (CAS No.: 000354-14-3)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-122 (CAS No.: 000354-21-2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-123 (CAS No.: 000306-83-2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-124 (CAS No.: 002837-89-0)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-131 (CAS No.: 000359-28-1)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-132b (CAS No.: 001649-08-7)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>异氰酸甲基化合物 (HCFC)-133a (CAS No.: 000075-88-7)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱质谱仪 (GC/MS)检测. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

*Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company.*

*This document is issued by the Company subject to its General Conditions of Service, printed or not, and is subject to exclusion from liability or jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its verification only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not purport to be a representation of or guarantee of any information herein.*
### Test Items

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Unit</th>
<th>Method</th>
<th>MDL</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexafluorocarbon (HFC-141b)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorocarbon (HFC-142b)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorobutane (HFC-221)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorobutane (HFC-222)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorobutane (HFC-223)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorobutane (HFC-224)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorobutane (HFC-225a)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexafluorobutane (HFC-225b)</td>
<td>mg/kg</td>
<td>US EPA 5021 method, with reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

Unless otherwise stated the results shown in this test report refer only to the samples tested. The test report cannot be reproduced, except in full, without prior written permission of the Company. A full copy of the test report is available on request.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or downloadable at www.sgs.com/services_and_conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company’s findings at the time of its intervention only and within the limits of Client’s instructions, if any. The Company’s sole responsibility is to its Client and this document does not constitute nor is it intended to be a transaction from which all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written permission of the Company. All unauthorized distribution, copying or reproduction of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 

SGS LTD in Hong Kong

MEMBER OF THE SGS GROUP
<table>
<thead>
<tr>
<th>测試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>测試方法 (Method)</th>
<th>方法檢測極限值 (MDL)</th>
<th>結果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>氟氰菊酯化物 (HCFC)-226 (CAS No.: 000431-87-8)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-231 (CAS No.: 000421-94-3)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-232 (CAS No.: 000460-89-9)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-233 (CAS No.: 000460-84-0)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-234 (CAS No.: 000425-94-5)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-235 (CAS No.: 000460-92-4)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-241 (CAS No.: 000656-27-3)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氰菊酯化物 (HCFC)-242 (CAS No.: 000460-63-9)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>
## Test Report

### ASM HK & ASM TECHNOLOGY SINGAPORE

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK), 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法测定极值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>氟氯二氯乙烷 (HCFC)-243 (CAS No.: 000468-69-5)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氟甲烷 (HCFC)-244</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氟乙烷 (HCFC)-251 (CAS No.: 000421-41-0)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氯乙烷 (HCFC)-252 (CAS No.: 000819-06-1)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氟甲烷 (HCFC)-253 (CAS No.: 000469-35-5)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氯乙烷 (HCFC)-256 (CAS No.: 000440-97-3)</td>
<td>ug/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氟甲烷 (HCFC)-262 (CAS No.: 000421-02-03)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯二氯乙烷 (HCFC)-271 (CAS No.: 000430-55-7)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021方法，以氢相薄层液相法 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

Unless otherwise stated the results shown in this test report refer only to the sampled items. This test report cannot be reproduced, except in full, without prior written permission of the Company. This document is issued by the Company subject to its General Conditions of Service printed overhead. It is available on request or accessible at www.asx.com/terms_and_conditions.html and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.asx.com/terms_and_conditions.html. Attention is drawn to the limitation of liability and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's entire responsibility is to its Client and this document does not constitute advice or a transaction from exercising all its rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Client. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be proceeded to the fullest extent of the law.
<table>
<thead>
<tr>
<th>测试项目 (Test Items)</th>
<th>单位 (Unit)</th>
<th>测试方法 (Method)</th>
<th>方法检测极限值 (MDL)</th>
<th>结果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>不完全卤化氟烷烃 (Hydrobromofluorocarbons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 21B2 (CHFBr2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 22B1 (CHF2Br)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 51B1 (CH2FBr)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 121B4 (C2HFBr4)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 122B3 (C2HF2Br3)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 123B2 (C2HF3Br2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 124B1 (C2HF4Br)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HFBCa) - 131B3 (C2HF2Br3)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相色谱-质谱法 (GC/MS)检测，/ With reference to US EPA 5021 method, Analysis was performed by GC/MS。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>测试项目 (Test Items)</td>
<td>单位 (Unit)</td>
<td>测试方法 (Method)</td>
<td>方法检测极限值 (MDL)</td>
<td>结果 (Result)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>------------------</td>
<td>----------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 13B2 (C2H2F2Br2)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 13B1 (C2H2F3Br)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 14B2 (C2H3F2Br)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 14B1 (C2H3FBr)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 15B1 (C2H4FBr)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 22B6 (C3HFBr6)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 22B5 (C3HF2Br5)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氟烷烃 (HBFC) - 22B4 (C3HF3Br4)</td>
<td>mg/kg</td>
<td>参考US EPA 5021方法，以气相层析质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>測試項目 (Test Items)</td>
<td>單位 (Unit)</td>
<td>測試方法 (Method)</td>
<td>方法偵測極限值 (MDL)</td>
<td>結果 (Result)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>------------------</td>
<td>----------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-224B3 (C3HF4Br3)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-225B2 (C3H5F5Br2)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-226B1 (C3H6F6Br)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-231B5 (C3H2F4Br5)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-232B4 (C3H2F2Br4)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-233B3 (C3H2F3Br3)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-234B2 (C3H2F4Br2)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全卤化氣體化合物 (HBFC)-235B1 (C3H2F5Br)</td>
<td>mg/kg</td>
<td>參考 EPA 5021方法，以氣相色譜質量譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>
# 测试报告

**Test Report**

**测试项目** (Test Items) | 单位 (Unit) | 测试方法 (Method) | 方法检测极限值 (MDL) | 结果 (Result) 
--- | --- | --- | --- | --- 
不完全多卤化氟代化合物 (HCFC) - 241B4 (C3H3FBr4) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 242B3 (C3H3F2Br3) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 243B2 (C3H3FBr2) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 244B1 (C3H3FBr) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 251B3 (C3H4FB3) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 252B2 (C3H4FB2) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 253B1 (C3H4FBr) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 
不完全多卤化氟代化合物 (HCFC) - 261B2 (C3H5FBr2) | mg/kg | 参考US EPA 5021方法，以气相质谱联用仪 (GC/MS)检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. 

## 注意

除非另行说明，本测试报告中的结果仅适用于本报告中列出的样品。本报告不得复制，除非在书面说明中明确授权。本报告中的所有信息已按相关法规、标准、指南和条件提供，但本公司不对其准确性、完整性和适用性作出任何保证。任何用户在使用本报告时，应自行分析和判断其适用性。
### Test Report

**ASM HK & ASM TECHNOLOGY SINGAPORE**

**4/F, NATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK), 2 YISHUN AVENUE 7, SINGAPORN (ASM TECHNOLOGY SINGAPORE)**

<table>
<thead>
<tr>
<th>測試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>測試方法 (Method)</th>
<th>方法檢測 橫限值 (MDL)</th>
<th>結果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>不完全氯化氟烷烴物 (CFC) - 262H1 (C₃H₅F₂Br)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>不完全氯化氟烷烴物 (CFC) - 271B1 (C₃H₆FBr)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

**氫氯氟烷烴 / HFCs (Hydrofluorocarbon)**

| 氫氯氟烷烴物 (HFC) - 23 (CHF₃) (CAS No.: 000075-46-7) | mg/kg | 參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |
| 氫氯氟烷烴物 (HFC) - 32 (CH₂F₂) (CAS No.: 000075-10-5) | mg/kg | 參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |
| 氫氯氟烷烴物 (HFC) - 41 (CHF₃) (CAS No.: 000075-53-3) | mg/kg | 參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |
| 氫氯氟烷烴物 (HFC) - 43-10me (C₅H₂F₁₀) | mg/kg | 參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |
| 氫氯氟烷烴物 (HFC) - 125 (C₂HF₅) | mg/kg | 參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |
| 氫氯氟烷烴物 (HFC) - 134 (C₂HF₄) | mg/kg | 參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測，/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized reproduction or use of this report in whole or in part, without the prior written permission of the Company, is strictly prohibited and will result in legal action.

The Company is not responsible for any loss or damages arising from the use of this report.

This document is issued by the Company subject to its General Conditions of Service printed herein. Available on request or accessible at www.sgs.com/terms_and_conditions.html and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_and_conditions_electron.html. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the contents or appearance of this document is unlawful and offenders may be proceeded to the fullest extent of the law.
<table>
<thead>
<tr>
<th>測試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>測試方法 (Method)</th>
<th>方法偵測極限值 (NDL)</th>
<th>結果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>氟氯碳化物 (HFC-134a (CH2FCF3) (CAS No.: 000811-97-2)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-143 (CH3F3))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-143a (CH3F3))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-152a (C2H4F2) (CAS No.: 000075-37-0))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-227ea (C3HF7) (CAS No.: 000431-89-0))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-236ca (C3HF6) (CAS No.: 000431-63-0))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-236fa (C3HF6))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化物 (HFC-245ca (C3HF5))</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>测试项目 (Test Items)</td>
<td>单位 (Unit)</td>
<td>测试方法 (Method)</td>
<td>方法检测限值 (MDL)</td>
<td>结果 (Result)</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>氟氯碳化合物 (HFC)-245fa (C3H3F5)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氟氯碳化合物 (HFC)-365mfc (C4H5F5)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>全氟化碳 / PFCs (Perfluorocarbon)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>四氟化碳 / F14 (CAS No.: 000075-73-0)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>六氟乙烷 / Fluorocarbon 116 (CAS No.: 000076-16-4)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>八氟丙烷 / Freon 218 (CAS No.: 000076-19-4)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>十氟丁烷 / Decafluorobutane (CAS No.: 000355-25-9)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>八氟环丁烷 / Freon C318 (CAS No.: 000115-25-3)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>全氟-1-丁烯 / Perfluor-1-butene (CAS No.: 000357-26-6)</td>
<td>mg/kg</td>
<td>参考 US EPA 5021 方法，以气相质谱仪 (GC/MS) 检测。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>
测试报告

Test Report

ASME HK & ASM TECHNOLOGY SINGAPORE

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAI CHUNG, HONG KONG (ASM HK), 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

<table>
<thead>
<tr>
<th>測試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>測試方法 (Method)</th>
<th>方法檢測極限值 (MDL)</th>
<th>結果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>全氟異丁烯 / perfluorosbutene (CAS No.: 000382-21-8)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>1,4-二氟異丁烯 / 1,4-diiodo-octafluorobutane (CAS No.: 000377-36-6)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>2-全氟甲基烷 / nonfluor-2- (trifluoromethyl)butane (CAS No.: 000394-51-2)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>全氟戊烷 / perfluoro-pentane (CAS No.: 0006678-25-2)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>2-全氟甲基戊烷 / 2-perfluoroethylpentane (CAS No.: 000355-64-4)</td>
<td>ng/kg</td>
<td>參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>全氟己烷 / perfluorohexane (CAS No.: 000355-42-0)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

氯化碳氫化合物 / CHCs (Chlorinate hydrocarbon)

| 異丁烷 / 1,1,1,2-四氯乙烷 / 1,1,1,2-Tetrachloroethane (CAS No.: 000630-20-6) | mg/kg | 參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |
| 1,1-三氯乙烷 / 1,1,1-Trichloroethane (CAS No.: 000071-55-6) | mg/kg | 參考US EPA 5021方法，以氣相相質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS. | 1 | n.d. |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. Any reproduction of the work contained herein violates the rights of the Company. This document may not be reproduced, except in full, without prior written approval of the Company. Any alteration of the document is unlawful and offenders may be prosecuted to the fullest extent of the law.
<table>
<thead>
<tr>
<th>測試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>測試方法 (Method)</th>
<th>方法檢測極限值 (MDL)</th>
<th>結果 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,2,2-四氯乙烷 / 1,1,2,2-Tetrachloroethane (CAS No.: 000079-34-5)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>1,1,2-三氯乙烷 / 1,1,2-Trichloroethane (CAS No.: 000079-00-5)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>1,1-二氯乙烷 / 1,1-Dichloroethane (CAS No.: 000075-34-3)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>1,1-二氯乙烯 / 1,1-Dichloroethene (CAS No.: 000075-35-4)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>1,1-二氧乙烯 / 1,1-Dichloroethylene (CAS No.: 000078-87-5)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

除非另有指明，否則本報告所列結果係於所採樣的數值。此報告僅供內部使用，不得用於任何出版、商業或其他用途。
<table>
<thead>
<tr>
<th>測試項目 (Test Items)</th>
<th>單位 (Unit)</th>
<th>測試方法 (Method)</th>
<th>方法檢測極限值 (MDL)</th>
<th>方法 (Result)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-二氯丙烷 / 1,3-Dichloropropane (CAS No.: 000142-28-9)</td>
<td>ng/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>2,2-二氯丙烷 / 2,2-Dichloropropane (CAS No.: 000594-20-7)</td>
<td>ng/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>四氯化碳 (四氯化碳) / Carbon tetrachloride (CAS No.: 000056-23-5)</td>
<td>ng/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>二氯乙烷 / Chloroethane (CAS No.: 000075-00-3)</td>
<td>ng/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯仿 / Chloroform (CAS No.: 000067-66-3)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>氯甲烷 / Chloromethane (CAS No.: 000074-87-3)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>硝-1,2-二氯乙烯 / cis-1,2-Dichloroethene (CAS No.: 000156-59-2)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>硝-1,3-二氯丙烯 / cis-1,3-Dichloropropene (CAS No.: 010061-01-5)</td>
<td>ng/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS) 檢測。</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>測試項目 (Test Items)</td>
<td>單位 (Unit)</td>
<td>測試方法 (Method)</td>
<td>方法檢測 檢限值 (MDL)</td>
<td>結果 (Result)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>------------------</td>
<td>----------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>六氯丁二烯 / Hexachlorobutadiene (CAS No.: 000087-68-3)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>二氯甲烷 / Dichloromethane (CAS No.: 000075-82-2)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>四氯乙烯 / Tetrachloroethene (CAS No.: 000127-18-4)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>及1,2-二氯乙烯 / trans-1,2-Dichloroethene (CAS No.: 001156-60-5)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>及1,3-二氯丙烯 / trans-1,3-Dichloropropene (CAS No.: 010061-02-6)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>三氯乙烯 / Trichloroethylene (CAS No.: 000079-01-6)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
<tr>
<td>溴甲烷 / Bromomethane (CAS No.: 000074-83-3)</td>
<td>mg/kg</td>
<td>參考US EPA 5021方法，以氣相層析質譜儀 (GC/MS)檢測。/ With reference to US EPA 5021 method. Analysis was performed by GC/MS.</td>
<td>1</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

備注(Note):
1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法檢測検限值)
4. "=" = Not Regulated (無規格值)
Test Report

4/F, WATSON CENTRE, 16 KUNG YIP ST., KWAICHUNG, HONG KONG (ASM HK). 2 YISHUN AVENUE 7, SINGAPORE (ASM TECHNOLOGY SINGAPORE)

5. ** Qualitative analysis (No unit) 定性分析(無單位)
6. Negative = Undetectable 隱性(未偵測到); Positive = Detectable 陽性(已偵測到)
7. Negative = 隱性 (< 1.0 %), Positive = 陽性 (> 1.0 %)
8. 聚氯乙烯測試由SGS其他實驗室執行 (The PVC test was subcontracted to other SGS Laboratory.)
9. 石棉測試由SGS其他實驗室執行 (The Asbestos test was subcontracted to other SGS Laboratory.)
10. **: 該物質是由“三丁基錫”, 之測試結果計算得知。其MDL是針對“三丁基錫”之估計。
    (The substance was calculated by the test results of Tributyl Tin.
    The MDL is evaluated for Tributyl Tin, Triphenyl Tin.)

11. # = a. Positive means the presence of CrVI on the tested areas
    (Positive 表示測試區域偵測到六價錳)
    b. Negative means the absence of CrVI on the tested areas
    (Negative 表示測試區域未偵測到六價錳)

   The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² tested areas.
   (該溶液濃度≥0.02 mg/kg with 50 cm² (tested areas)

PPoS參考資料(Reference Information) : 指令 2006/122/EC (Directive 2006/122/EC)
(1) 該物質不可於市場上或使用於特殊物質或配置成分重量濃度等於或大於0.005 %。
    (May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.)
(2) 該物質不可於市場上的半成品或商品或其物件; 假若零件上明顯地具有PPoS並参照結構上及微細構造上計算
    PPOS重量濃度等於或大於0.1 %, 而防絨品或其他覆置物質, 如果PPoS在覆置物質中含量等於或大於1μg/m²,
    (May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PPOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PPOS or, for textiles or other coated materials, if the amount of PPOS is equal to or higher than 1 μg/m² of the coated material.)

The substance was calculated by the test results of Tributyl Tin. The MDL is evaluated for Tributyl Tin, Triphenyl Tin.)
Test Report

I. Test Information

1. Test Report Name: Test Report
3. Date: 2012/01/05
4. Page: 28 of 39

II. Test Details

1. Lab: SGS HK & SGS Technology Singapore
2. Address: 4/F, Watson Centre, 16 Kung Yip St., Kwai Chung, Hong Kong (SGS HK), 2 Yishun Avenue 7, Singapore (SGS Technology Singapore)
3. Preconditioning Method: According to below flow chart. (Cr²⁺ test method excluded)
4. Sample Preparation: Samples were dissolved totally by acid digestion (as shown in Figure 1) and then treated with suitable acids. The dissolution method used for different materials is shown in Table 1.
5. Measurement: The absorbance at 540 nm was measured using a spectrophotometer.

III. Test Methodology

1. Acid Digestion: Samples were dissolved using suitable acids, as shown in Table 1.
2. Microwave Digestion: Samples were digested using a microwave digestion system with HNO₃/HCl/HF.
3. Filtration: Samples were filtered through a filter using an appropriate filter.
4. Analysis: The absorbance at 540 nm was measured using a spectrophotometer.

IV. Analytical Results

1. Results: The results obtained for different samples are shown in Table 2.
2. Conclusion: The results indicate that the methodology used is effective for the analysis of the samples.

V. References

1. Literature: The following references were used in the preparation of this report:
2. Other: Any other necessary references are included in the report.

VI. Acknowledgments

1. Acknowledgments: The authors wish to thank the following individuals for their contributions to this report:
2. Other: Any other necessary acknowledgments are included in the report.
Test Report

1) Name of the person who made measurement: Anson Tsao
2) Name of the person in charge of measurement: Ray Chang

Sample

Sample pretreatment

Screen analysis

Sample extraction

Concentrate/Dilute Extracted solution

Filter

Analysis by GC/MS

Issue Report
1) 根据以下的流程图之条件，样品已完全溶解。
2) 测试人员：张俊雄
3) 测试负责人：张伯宏

元素以 ICP-AES 分析的消化流程图

(Flow Chart of digestion for the elements analysis performed by ICP-AES)

1) 硝酸溶液 / HNO₃ to dissolve
2) 热解法 / Alkali Fusion

<table>
<thead>
<tr>
<th>材料</th>
<th>试剂</th>
</tr>
</thead>
<tbody>
<tr>
<td>钢, 钢, 银, 铜锡</td>
<td>硝酸, 氢氟酸 / HNO₃/HF</td>
</tr>
<tr>
<td>玻璃</td>
<td>硝酸, 氢氟酸 / HNO₃/HF</td>
</tr>
<tr>
<td>金, 锌, 铜, 陶瓷</td>
<td>王水 / Aqua regia</td>
</tr>
<tr>
<td>银</td>
<td>硝酸 / HNO₃</td>
</tr>
<tr>
<td>塑料</td>
<td>硝酸, 硫酸, 硝酸, 硝酸 / H₂SO₄, H₂O₂, HNO₃, HCl</td>
</tr>
<tr>
<td>其他</td>
<td>加入任何酸至完全溶解 / Any acid to total digestion</td>
</tr>
</tbody>
</table>

除非另有声明，此检测报告为测试报告（仅限与样品的测试）。此测试报告不可复制或复制，除非在无申请的情况下，或者在 www.sgs.com/terms_and_conditions.html 上所载明的条件。未经公司事先书面同意，不得以任何形式复制或分发此报告。任何持有此报告的人都应认识到此报告仅供参考，不作为任何法律文件。任何使用或分发行为可能会导致法律责任。
Chlorinated Flame retardant analytical flow chart

1) 测试人员：曾嘉 / Name of the person who made measurement: Anson Tsao
2) 测试负责人：张伯 / Name of the person in charge of measurement: Ray Chang

- 参考方法(Reference method): USEPA 3540
- 测试项目(Test Items): PCBs, CP, MCCP / 多氯联苯，氯化石蜡，中链氯化石蜡

Sample pretreatment

Sample extraction by organic solvent

Concentrate/Dilute the extracted solution

Analysis was performed by GC/ECD

データ / Data
Chlorinated Flame retardant analytical flow chart

1) 进行测量的人：Anson Tsao
2) 负责测量的人：Ray Chang

- 参考方法：US EPA 8270D, US EPA 3540
- 测试项目：PCNs, PCTs, Mirex, 多氯萘, 多氯三联苯, 单氯化三联苯,
Sample pretreatment

Sample extraction by soxhlet method
(Reference method US EPA 3540)

Concentrate/Dilute Extracted solution

Analysis was performed by GC/MS

Data
Analytical flow chart of PFOA/PFOS content

1) 試驗人員: 曹嘉琪 / Name of the person who made measurement: Anson Tsao

2) 試驗負責人: 張偉春 / Name of the person in charge of measurement: Ray Chang
Analysis flow chart for determination of PVC in material

1. 樣品前處理 / Sample pre-treatment
2. 烧色法檢測 / Flame test
3. 紅外光譜分析 / Sample analyzed by FTIR
4. 頻譜C-Cl鍵波数 / Check wave-number of C-Cl bonding
5. 數據 / Data

分析人员：Joyce Chiu

安放负责人：Roger Lin
Analytical flow chart of halogen content

1) Name of the person who made measurement: Jean Hung
2) Name of the person in charge of measurement: Ray Chang

Sample picture and report number

Sample pretreatment/separation

Weighting and putting sample in cell

Oxygen Bomb Combustion / Absorption

Dilution to fixed volume

Analysis was performed by IC
Analysis flow chart for determination of Asbestos

1) Name of the person who made measurement: Victor Kao
2) Name of the person in charge of measurement: Wendy Wei

【参考方法(Reference method): EPA 600/R-93/116】

采样 / Sampling
→ 分样及保存 / Transportation and Storage

分析样品的制备 / Preparation of primary analytical sample

立体显微镜检测 / SM

石棉显微镜镜检 / PLM Asbestos identification by dispersion staining polarization light microscopy
→ 偏光显微镜检查疑点时可进一步确认

继续进行普利光镜检查 / Continue when problems are encountered with PLM and/or for quality assurance purposes

移除干扰基质 / Interference matrix removal

石棉显微镜镜检 / Asbestos identification by dispersion staining polarization light microscopy

石棉X射线衍射检测 / Asbestos identification by X-ray diffraction method

含有石棉纤维 / Asbestos fiber is present
→ 含有石棉纤维 / Containing Asbestos / 阳性 / Positive

不含有石棉纤维 / Asbestos fiber is absent
→ 不含有石棉纤维 / Not containing Asbestos / 阴性 / Negative
有機錫分析流程圖 / Analytical flow chart of Organic-Tin content

1) 測試人員：鄧嘉琪 / Name of the person who made measurement: Anson Tsao
2) 測試負責人：張柏霖 / Name of the person in charge of measurement: Ray Chang

樣品前處理 / Sample pretreatment

有機溶劑萃取 / Sample extraction by organic solvent

四乙基亞銅衍生物 / Derived by Sodium tetraethylborate

萃取液濃縮/稀釋 / Concentrate/Dilute Extracted solution

氣相高解析質譜分析 / Analysis was performed by GC/FPD

數據 / Data
The tested sample / part is marked by an arrow if it's shown on the photo.

**報告結尾 (End of Report)**
Test Report No. 10263664(2)R1  Date: 28-Mar-12  Page 1 of 8

Sumitomo Bakelite Singapore Pte Ltd
1 Senoko South Road, Singapore

THIS REPORT IS TO SUPERSEDE TEST REPORT NO.: 10263664(2) DATED 07-Mar-12

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

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Type</th>
<th>Lot No.</th>
<th>Manufacturing Date</th>
<th>Contact Name</th>
<th>Contact Tel</th>
<th>Contact Email</th>
<th>Sample Receiving Date</th>
<th>Testing Period</th>
<th>Test Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>EME-G600</td>
<td></td>
<td>2012024</td>
<td>18-01-12</td>
<td>Wong Mun Wei</td>
<td>+65-67503782</td>
<td><a href="mailto:munwei@sbs.sumibe.co.jp">munwei@sbs.sumibe.co.jp</a></td>
<td>02-Mar-12</td>
<td>05-Mar-12 to 07-Mar-12</td>
<td>In accordance with the RoHS Directive 2011/65/EU Annex II.</td>
</tr>
</tbody>
</table>

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

Conclusion : Based on the performed tests on submitted sample(s), the results comply with the RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of
SGS Testing & Control Services Singapore Pte Ltd

Y C Tham (Ms)
Laboratory Manager

Test Location: 26 Ayer Rajah Crescent, #07-06, Singapore 139944
This document is issued by the Company subject to its General Conditions of Service accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained here on reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
## Test Result(s):

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>EME-G600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Type</td>
</tr>
<tr>
<td>Lot No.</td>
<td>2012024</td>
</tr>
<tr>
<td>Manufacturing Date</td>
<td>18-01-12</td>
</tr>
</tbody>
</table>

### Test Item(s):

<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, Ed1:2008. 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, Ed1:2008. 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, Ed1:2008. Analysis was performed by ICP/AES</td>
<td>n.d.</td>
<td>2</td>
<td>1000</td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI)</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>
</tbody>
</table>

**Sum of PBBs**

<table>
<thead>
<tr>
<th>Sum of PBBs</th>
<th>mg/kg</th>
<th>Method</th>
<th>Results</th>
<th>MDL</th>
<th>RoHS Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.d.</td>
<td>-</td>
<td>With reference to IEC62321, Ed1:2008. Analysis was performed by GC/MS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sum of PBDE**

<table>
<thead>
<tr>
<th>Sum of PBDE</th>
<th>mg/kg</th>
<th>Method</th>
<th>Results</th>
<th>MDL</th>
<th>RoHS Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.d.</td>
<td>-</td>
<td>With reference to IEC62321, Ed1:2008. Analysis was performed by GC/MS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Test Report
No. 10263664(2)R1
Date: 28-Mar-12

Test Result(s):

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>EME-G600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>Lot No.</td>
<td>2012024</td>
</tr>
<tr>
<td>Manufacturing Date</td>
<td>18-01-12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>Method</th>
<th>Result</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony (Sb)</td>
<td>mg/kg</td>
<td>With reference to US EPA Method 3051A for Antimony Content. Analysis was performed by ICP/AES</td>
<td>n.d.</td>
<td>2</td>
</tr>
<tr>
<td>Halogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Halogen - Bromine (Br)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC.</td>
<td>n.d.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen - Chlorine (Cl)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC.</td>
<td>n.d.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen - Fluorine (F)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC.</td>
<td>n.d.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen - Iodine (I)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC.</td>
<td>n.d.</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: (1) mg/kg = ppm ; 0.1 wt% = 1000ppm
(2) n.d. = Not Detected
(3) MDL = Method Detection Limit
(4) "-" = Not regulated
(5) "E" : Exceeds limit

Remarks: Sample received was totally dissolved by preconditioning method.
Lab Analyst: Jay, Jenny and Jojo
<table>
<thead>
<tr>
<th>Sample Description</th>
<th>EME-G600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Type</td>
</tr>
<tr>
<td>Lot No.</td>
<td>2012024</td>
</tr>
<tr>
<td>Manufacturing Date</td>
<td>18-01-12</td>
</tr>
<tr>
<td>Sample Submission Qty</td>
<td>30gm</td>
</tr>
</tbody>
</table>

SGS authenticate the photo on original report only
Process Flow of US EPA 3050B/3051A/3052 (Antimony Analysis)

Cutting / Preparation

Sample measurement

Open Digestion (EPA3050B) / Microwave Digestion with HNO3 or HF

Solution

Dry Ashing

Add HNO3

No residue

Residue

ICP/AES

Data
Process Flow of BS EN 14582 (Halogen Analysis)

1. Cutting / Preparation
2. Sample Measurement (0.1g - 1g)
3. Put the sample on sample cell
4. Transfer to Combustion Unit (with absorbent) and fill with oxygen
5. Burn the sample and transfer the absorbent to 100mL flask
6. Analyse by Ion-Chromatography
Process Flow of IEC 62321 (Pb, Cd, Hg & Cr<sup>6+</sup>)

1. Cutting / Preparation
2. Sample Measurement
   - Pb, Cd
   - Microwave digestion with HNO<sub>3</sub>/HCl/HF
   - Acid digestion by suitable acid depended on different sample material
3. Filtration
4. Solution
5. Residue
   - 1) Alkali Fusion
   - 2) HCl to dissolve
6. Cr<sup>6+</sup>
7. Hg
8. Add appropriate amount of digestion reagent
   - Heat to appropriate temperature to extract
   - Cool, filter digestate through filter
   - Add diphenyl-carbazide for color development
   - Measure the absorbance at 540 nm by UV-VIS

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

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

Sample

Screen Analysis by XRF

Sample pretreatment

Soxhlet Extraction

Concentrate/Dilute Extracted solution

Filter

High Mass Range GC/MS

Issue Report

***End of Report***
TANAKA ELECTRONICS (M) SDN BHD  
PLOT 11, PHASE IV, BAYAN LEPAS FREE INDUSTRIAL ZONE  
11900 PENANG, MALAYSIA

The following merchandise was (were) submitted and identified by the client as:

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Au BONDING WIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Receiving Date</td>
<td>16/10/2012</td>
</tr>
<tr>
<td>Testing Period</td>
<td>16/10/2012 to 19/11/2012</td>
</tr>
</tbody>
</table>

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).
Analysts: Teh Pui Sean, Tay Siam Pine, Lim Meng Hoe, Eileen Tan Yi Pin & Yee Sook Wai
## Test Report

No. CTSSA/22961(B)/12-KA/2012/A1244  Date: 19/11/2012  Page: 2 of 13

CTS Ref. CTSSA/12/3702/Tanaka

### Test Part Description:

Sample Description: Au BONDING WIRE

### RoHS Directive 2011/65/EU Annex II

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>Test Method</th>
<th>Results</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI)</td>
<td>mg/kg</td>
<td>With reference to JIS H 8625, and performed by UV-VIS Spectrophotometery</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI) by Spot test / boiling water extraction (optional) #</td>
<td>---</td>
<td>With reference to IEC 62321:2008</td>
<td>Negative</td>
<td>-</td>
</tr>
<tr>
<td>Sum of PBBs</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>-</td>
</tr>
<tr>
<td>Monobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Dibromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Tribromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Tetra bromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Pentabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Hexabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Heptabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Octabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Nonabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Decabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
</tbody>
</table>

Sgs Laboratory Services (M) Sdn. Bhd.

CHONG KIEN LEN
B.Sc.(HONS) AMIC SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service [www.sgs.com/en/services/sgs-conditions-of-service.html] and Terms and Conditions for Electronic Documents [www.sgs.com/en/services/sgs-conditions-of-service.html]. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 5(c). The authenticity of the document may be verified at [www.sgs.com/en/contactus]. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not constitute a warranty of any transaction. The results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.
Test Report

<table>
<thead>
<tr>
<th>Sum of PBDEs</th>
<th>mg/kg</th>
<th>With reference to IEC 62321:2008, and performed by GC-MS</th>
<th>N.D.</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monobromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Dibromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Trichlorodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Tetrabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Hexabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Heptabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Octabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
</tbody>
</table>

Note:
(a) mg/kg = ppm ; (0.1 wt% = 1000 ppm)
(b) N.D. = Not Detected
(c) MDL = Method Detection Limit
(d) # = Spot-Test:
   a. Negative means the absence of Cr(VI) on the tested areas
   b. Positive means the presence of Cr(VI) on the tested areas
      (The tested sample should be further verified by boiling-water-extraction method if the spot test result is negative or cannot be confirmed)
   c. Boiling water extraction:
      a. Negative means the absence of Cr(VI) on the tested areas
      b. Positive means the presence of Cr(VI) on the tested areas
         The detected concentration in 50 mL boiling water extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.
         For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.
   (e) - = Not regulated

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B. Sc. (HONS) AMIC SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service and Terms and Conditions. The authenticity of this document or the data it contains may be verified as an electronic record under the requirements of the Electronic Transactions Act, 2000. Any holder or user of this document is advised that information contained herein reflects the Company's findings at the time of its intervention and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not entertain parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.
# Test Report

No. CTSSA/22961(B)/12+KA/2012/A1244  Date: 19/11/2012  Page: 4 of 13

**CTS Ref. CTSSA/12/3702/Tanaka**

## Test results by chemical method:

<table>
<thead>
<tr>
<th>Test Item(s):</th>
<th>Unit</th>
<th>Method</th>
<th>Result</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony (Sb)</td>
<td>mg/kg</td>
<td>With reference to EPA Method 3051A, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Magnesium (Mg)</td>
<td>mg/kg</td>
<td>With reference to EPA Method 3051A, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Beryllium (Be)</td>
<td>mg/kg</td>
<td>With reference to EPA Method 3051A, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Polyvinylchloride (PVC)</td>
<td>**</td>
<td>Analysis was performed by FT-IR/ATR</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>Halogen</td>
<td></td>
<td>With reference to BS EN 14582. Analysis was performed for Fluorine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen-Fluorine (F)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed for Chlorine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen-Chlorine (Cl)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed for Bromine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen-Bromine (Br)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed for Iodine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
</tbody>
</table>

## Test Part Description:

Sample Description: Au BONDING WIRE

**Note:**
- (a) mg/kg = ppm
- (b) N.D. = Not Detected
- (c) MDL = Method Detection Limit
- (d) --- = Not Conducted
- (e) ** = Qualitative analysis (no unit)
- (f) Negative = Undetectable / Positive = Detectable

---

**SGS LABORATORY SERVICES (M) SDN. BHD.**

**CHONG KIEN LEN**
B.Sc. (HONS) AMIC
SENIOR LAB MANAGER
## Test Report

No. CTSSA/22961(B)/12+KA/2012/A1244  Date: 19/11/2012  Page: 5 of 13

CTS Ref. CTSSA/12/3702/Tanaka

### Test results by chemical method:

<table>
<thead>
<tr>
<th>Test Item (s):</th>
<th>Unit</th>
<th>Method</th>
<th>Result</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexabromocyclododecane (HBCDD)</td>
<td>mg/kg</td>
<td>Based on EPA 3540C, and performed by GC-MS</td>
<td>N.D.</td>
<td>10</td>
</tr>
<tr>
<td><strong>Phthalates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBP (Di-butyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.003</td>
</tr>
<tr>
<td>DEHP (Di-(2-ethylhexyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.003</td>
</tr>
<tr>
<td>BBP (Benzyl Butyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.003</td>
</tr>
<tr>
<td>DINP (Di-isoneonyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.01</td>
</tr>
<tr>
<td>DIDP (Di-isodecyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.01</td>
</tr>
<tr>
<td>DNOP (Di-n-octyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.003</td>
</tr>
<tr>
<td>DNHP (Di-n-hexyl phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.003</td>
</tr>
<tr>
<td>DMEP (Bis(2-methoxyethyl)phthalate)</td>
<td>%</td>
<td>With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC-MS.</td>
<td>N.D.</td>
<td>0.003</td>
</tr>
</tbody>
</table>

### Test Part Description:

Sample Description: Au BONDING WIRE

Note:
(a) mg/kg = ppm
(b) N.D. = Not Detected
(c) MDL = Method Detection Limit
(d) --- = Not Conducted

---

SGS LABORATORY SERVICES (M) SDN. BHD.

[Signature]

CHONG KIEN LEN
B.Sc. (HONS) AMIC
SENIOR LAB MANAGER

---

This document is issued by the Company subject to its General Conditions of Service and Terms and Conditions for Electronic Documents. By accessing, printing and/or downloading this document from the SGS website, you accept these General Conditions of Service and Terms and Conditions for Electronic Documents. The authenticity of this document may be verified at www.sgs.com/verification. Any party who downloads or otherwise uses this document accepts certain risks and the Company will accept no liability for any use thereof or any consequences thereof. The Company will not be liable to any party in respect of any losses or damages howsoever arising (whether caused by negligence or otherwise) from (a) accessing, printing, downloading or using this document, or (b) any inability to access, print, download or use this document or any consequences thereof. The Company will not be liable to any person for any content not obtained from the SGS website in respect of any losses or damages however caused including, without limitation, those caused by reason of any negligence, error or omissions of the Company, the SGS website, or any third parties or related to content accessible through or obtained from the SGS website. The Company's liability in contract, tort (including negligence) or otherwise shall be limited to the total fees paid by the Client for the services rendered by the Company to the Client under the terms of this document and the Client agrees to accept the exclusion of all other rights and remedies. Neither this document nor any other document prepared by the Company shall be used as evidence in proceedings without the prior written agreement of the Company.
## Test Report

**Test Part Description:**

Sample Description: Au BONDING WIRE

### Test results:

<table>
<thead>
<tr>
<th>Test Item (a)</th>
<th>Unit</th>
<th>Method</th>
<th>Result</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Fumarate (CAS No. 624-49-7)</td>
<td>mg/kg</td>
<td>With reference to US EPA 3550C method. Analysis was performed by GC/MS.</td>
<td>N.D.</td>
<td>0.1</td>
</tr>
<tr>
<td>Perfluorooctane sulfonates (PFOS) PFOS – Acid, Metal Salt, Amide</td>
<td>mg/kg</td>
<td>With reference to US EPA 3550C: 1996 method for PFOS content. Analysis was performed by LC/MS.</td>
<td>N.D.</td>
<td>10</td>
</tr>
<tr>
<td>PFOA (CAS No.: 000335-67-1)</td>
<td>mg/kg</td>
<td>With reference to US EPA 3550C: 1996 method for PFOA content. Analysis was performed by LC/MS.</td>
<td>N.D.</td>
<td>10</td>
</tr>
<tr>
<td><em>Phosphorus (P)</em></td>
<td>mg/kg</td>
<td>With reference to US EPA Method 3052 for Phosphorus Content. Analysis was performed by ICP-AES.</td>
<td>N.D.</td>
<td>2</td>
</tr>
</tbody>
</table>

Note:  
(a) mg/kg = ppm  
(b) N.D. = Not Detected  
(c) MDL = Method Detection Limit  
(d) --- = Not Conducted  
(e) The sample(s) was/were analysed on behalf of the applicant as mixing sample in one testing.  
(f) *The above tests were subcontracted to SGS Taiwan based on report no. KA/2012/A1244

### PFOS Reference Information: POPs – (EU) 757/2010

Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1% (1000ppm), in textiles or other coated materials above 1µg/m².

SGS LABORATORY SERVICES (M) SDN. BHD.

---

**CHONG KIEN LEN**  
B.Sc.(HONS) AMIC  
SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/terms_and_conditions.pdf) and Terms and Conditions for Electronic Documents (www.sgs.com/terms.e_document.html). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20a. The authenticity of this document may be verified at www.sgs.com/verifiesign. Any holder of this document is advised that information contained herein reflects the Company’s findings at the time of its intervention only and within the limits of client’s instructions, if any. The Company’s sole responsibility is to its Client and this document does not constitute part of a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.

SGS Laboratory Services (M) Sdn. Bhd.  
(Company No. 63973-M)  
No.26 Jalan Anggerek Vanilara 31/3 Kota Kemuning 40460 Shah Alam, Selangor Darul Ehsan, Malaysia  
Tel: +6(03) 5121 2320  
Fax: +6(03) 5121 2319  
www.sgs.com

Member of the SGS Group (SGS SA)
Test Report

No. CTSSA/22961(B)/12+KA/2012/A1244 Date: 19/11/2012 Page: 7 of 13
CTS Ref. CTSSA/12/3702/Tanaka

Test Part Description:

Sample Description: Au BONDING WIRE

TANAKA ELECTRONICS (M) SDN BHD
CTSSA/22961(B)/12+KA/2012/A1244

SGS authenticate the photo on original report only

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/terms_and_conditions.html) and Terms and Conditions for Electronic Documents (www.sgs.com/terms_e-document.html). The authenticity of this document may be verified at www.sgs.com/verify. Any footer of this document is a security feature to protect the Company's interests if the document is in the hands of an unauthorized person. The information and data contained herein reflect the Company's findings at the time of its intervention only and within the limits of the client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. However, unless stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.

SGS Laboratory Services (M) Sdn. Bhd.
(Company No. 62577-M)
No.26 Jalan Anggerik Varsila 31/93 Kota Kemuning 40460 Shah Alam, Selangor Darul Ehsan, Malaysia
+6(60) 5121 2320 f+6(60) 5121 9082 www.sgs.com

Member of the SGS Group (SGS SA)
## 1. Determination of Cadmium Content by IEC 62321:2008

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Receiving and Registration</td>
<td>↓</td>
</tr>
<tr>
<td>Cut sample in small pieces</td>
<td>↓</td>
</tr>
<tr>
<td>Weight sample (0.2-0.5g) into digestion vessel</td>
<td>↓</td>
</tr>
<tr>
<td>Acid digestion (Microwave)</td>
<td>↓</td>
</tr>
<tr>
<td>&quot;Totally Dissolved&quot;</td>
<td>↓</td>
</tr>
<tr>
<td>Filtration</td>
<td>↓</td>
</tr>
<tr>
<td>Analyses by ICP</td>
<td>↓</td>
</tr>
</tbody>
</table>

## 2. Determination of Lead Content by IEC 62321:2008

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Receiving and Registration</td>
<td>↓</td>
</tr>
<tr>
<td>Cut sample in small pieces</td>
<td>↓</td>
</tr>
<tr>
<td>Weight sample (0.2-0.5g) into digestion vessel</td>
<td>↓</td>
</tr>
<tr>
<td>Acid digestion (Microwave)</td>
<td>↓</td>
</tr>
<tr>
<td>&quot;Totally Dissolved&quot;</td>
<td>↓</td>
</tr>
<tr>
<td>Filtration</td>
<td>↓</td>
</tr>
<tr>
<td>Analyses by ICP</td>
<td>↓</td>
</tr>
</tbody>
</table>

## 3. Determination of Mercury Content by IEC 62321:2008

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Receiving and Registration</td>
<td>↓</td>
</tr>
<tr>
<td>Cut sample in small pieces</td>
<td>↓</td>
</tr>
<tr>
<td>Weight sample (0.2-0.5g) into digestion vessel</td>
<td>↓</td>
</tr>
<tr>
<td>Acid digestion (Microwave)</td>
<td>↓</td>
</tr>
<tr>
<td>&quot;Totally Dissolved&quot;</td>
<td>↓</td>
</tr>
<tr>
<td>Filtration</td>
<td>↓</td>
</tr>
<tr>
<td>Analyses by ICP</td>
<td>↓</td>
</tr>
</tbody>
</table>

## 4. Microwave Assisted Acid Digestion of Organically Based Metrices (US EPA 3051A)

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut sample in small pieces</td>
<td>↓</td>
</tr>
<tr>
<td>Weight sample (0.2-0.5g) into digestion vessel</td>
<td>↓</td>
</tr>
<tr>
<td>Acid digestion (HNO₃ – Microwave)</td>
<td>↓</td>
</tr>
<tr>
<td>&quot;Totally Dissolved&quot;</td>
<td>↓</td>
</tr>
<tr>
<td>Filtration</td>
<td>↓</td>
</tr>
<tr>
<td>Analyses by ICP</td>
<td>↓</td>
</tr>
</tbody>
</table>

## 5. Determination of PBBr/PBDE with GC-MS by IEC 62321:2008

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut sample in small pieces</td>
<td>↓</td>
</tr>
<tr>
<td>Weight sample (0.5-4.0g) into extraction thimble</td>
<td>↓</td>
</tr>
<tr>
<td>Soxhlet Extraction with Toluene</td>
<td>↓</td>
</tr>
<tr>
<td>Filter through 0.45 um membrane filter</td>
<td>↓</td>
</tr>
<tr>
<td>Analyses by GC-MS (with appropriate dilution)</td>
<td>↓</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Receiving and Registration</td>
<td>↓</td>
</tr>
<tr>
<td>Sample Preparation</td>
<td>↓</td>
</tr>
<tr>
<td>Spot-test (Qualitative)</td>
<td>↓</td>
</tr>
<tr>
<td>Boiling-water-extraction</td>
<td>↓</td>
</tr>
<tr>
<td>Analyses by UV Spectrophotometer</td>
<td>↓</td>
</tr>
<tr>
<td>Test Report</td>
<td>↓</td>
</tr>
</tbody>
</table>

---

Sgs Laboratory Services (M) Sdn. Bhd.

*CHONG KIEN LEN*
B.Sc.(HONS) AMIC
SENIOR LAB MANAGER

---

Note: This document is issued by the Company subject to its General Conditions of Service. Any use of this document is to be treated as an original. Any alteration to the instruction of liability, indemnification and jurisdictional issues established herein, shall be made by the Chief Executive or his representative only. The authenticity of this document may be verified at SGS Lab再也s.com/documents. Any other parties do not have the right to reproduce the same. The Company’s only responsibility is to its Client and this document does not exonerate parties to a transaction from determining and adhering to their duties and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such results are retained for three months only.
7. DETERMINATION OF HALOGEN CONTENT

- Sample pretreatment
- Weighting and putting sample in cell
- Combustion / Absorption
- Dilution to fixed volume
- Analyses by IC

8. DETERMINATION OF HEXAVALENT CHROMIUM BY JIS H 8625

- Sample Preparation
- Hot water extraction
- Add colour-developing reagent
- Let stand for 5-10 min
- Analyses by UV- Spectrophotometer (540 nm)

9. ANALYTICAL FLOW CHART FOR PVC DETECTION WITH FTIR

- Sample preparation (apply ATR for analysis)
- FT-IR Scanning
- Report

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (see www.sgs.com/gcs/en). General Terms and Conditions for Electronic Documents (see www.sgs.com/en/e-document-text).

Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed, this electronic document is to be treated as an original within the meaning of UCP 500 Article 36b. The authenticity of this document may be verified at www.sgs.com/en/services. Any holder of this document is advised that information contained herein retransmits the Company’s findings at the time of its intervention only and within the limits of client’s instructions, if any. The Company’s sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.

SGS Laboratory Services (M) Sdn. Bhd.
(Company No. 63972-M)
No. 26 Jalan Angguni Vanalla 31930 Kota Kemuning 40460 Shah Alam, Selangor Darul Ehsan, Malaysia
t +60(3) 5121 2326  f +60(3) 5121 9082  www.sgs.com

Member of the SGS Group (SGS SA)
Test Report

Flow Chart of digestion for the elements analysis performed by ICP-AES

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
2) Name of the person who made measurement: Alex Chang
3) Name of the person in charge of measurement: Ray Chang

<table>
<thead>
<tr>
<th>Cutting / Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Measurement</td>
</tr>
<tr>
<td>Acid digestion by suitable acid depended on different sample material (as below table)</td>
</tr>
<tr>
<td>Filtration</td>
</tr>
<tr>
<td>Solution</td>
</tr>
<tr>
<td>ICP-AES</td>
</tr>
<tr>
<td>Steel, copper, aluminium, solder</td>
</tr>
<tr>
<td>Glass</td>
</tr>
<tr>
<td>Gold, platinum, palladium, ceramic</td>
</tr>
<tr>
<td>Silver</td>
</tr>
<tr>
<td>Plastic</td>
</tr>
<tr>
<td>Others</td>
</tr>
</tbody>
</table>

1) Alkali Fusion
2) HCl to dissolve

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/en/services-and-conditions-of-service) and Terms and Conditions for Electronic Documents (www.sgs.com/en/services-and-conditions-of-service). Any reproduction of this document is prohibited without the written consent of the Company. This document is intended for information purposes only and shall not constitute a contract. The Company reserves the right to make changes to this document at any time without notice. The information contained herein is the Company's intellectual property and is protected by copyright laws. Reproduction or use of this document in whole or in part is strictly prohibited without the written consent of the Company. The Company is not responsible for any errors or omissions in this document. All rights reserved. Copyright © SGS Laboratory Services (M) Sdn. Bhd. (Company No. 63972-M) 2021.
Analytical Flow Chart of PFOS & PFOA Content

1. Sample pre-treatment/separation
2. Sample extraction by soxhlet method
3. Concentrate/Dilute Extracted solution
4. Analysis was performed by LC/MS
5. Data

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service and Terms and Conditions for Electronic Documents. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 Article 33b. The authenticity of this document may be verified at [verification link]. The Company's sole responsibility is to its Client and this document does not constitute advice to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.

SGS Laboratory Services (M) Sdn. Bhd.
(Company No. 63973-M)
No. 26 Jalan Anggunia Vanilla 31900 Kota Kemuning 40480 Shah Alam, Selangor Darul Ehsan, Malaysia
+60(3) 5121 2320  +60(3) 5121 9822 www.sgs.com
Analytical Flow Chart for Dimethyl Fumarate

1. Sample pre-treatment/separation
2. Sample extraction by organic solvent
3. Concentrate/Dilute Extracted solution
4. Analysis was performed by GC/MS
5. Data
Analytical flow chart of Phthalates Content

1. Sample pre-treatment/separation
2. Sample extraction by soxhlet method
3. Concentrate/Dilute Extracted solution
4. Analysis was performed by GC/MS
5. Data

**** End of Report ****
Test Report

No. LPCI/27864/11
Date: 03/01/2012
Page: 1 of 7

CTS Ref. CTS/11/5009/Redring

REDRING SOLDER (M) SDN. BHD.
LOT 17486, JALAN DUA, TAMAN SELAYANG BARU
68100 BATU CAVES, SELANGOR DARUL EHSAN, MALAYSIA

The following merchandise was (were) submitted and identified by the client as:

Sample Description: Pure Tin Solder
Sample Receiving Date: 27/12/2011
Testing Period: 27/12/2011 to 03/01/2012

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).
Analysts: Teh Pui Sean, Tay Slam Pine & Eileen Tan Yi Pin

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/services.html) and Terms and Conditions for Electronic Documents (www.sgs.com/documents.html). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this document is to be treated as an original within the meaning of UCP 500 article 85. The authenticity of this document may be verified at www.sgs.com/authentication. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its issues, without guarantee or warranty. The Company can take no responsibility only and within the limits of clients instructions, if any. The Company's sole responsibility is to its Client and this document does not constitute a party to a transaction thus exempting all other rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.

SGS Laboratory Services (M) Sdn. Bhd.
(Company No. 63972-M)
No.26 Jalan Anggerik Vanilla 31630 Kota Kemuning 40460 Selangor Darul Ehsan, Malaysia
t +6(03) 5121 2220 f +6(03) 5121 9082 www.sgs.com

Member of the SGS Group (SGS SA)
Test Report

CIS Ref. CTS/11/5009/Redring

Test results:

Test Part Description:

Sample Description: Pure Tin Solder

RoHS Directive 2011/65/EU Annex II

<table>
<thead>
<tr>
<th>Test Item(s):</th>
<th>Unit</th>
<th>Test Method</th>
<th>Results</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by ICP-OES</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Hexavalent Chromium (CrVI) by Spot test / boiling water extraction (optional)</td>
<td>---</td>
<td>With reference to IEC 62321:2008, and performed by UV-VIS Spectrophotometry (boiling water extraction only)</td>
<td>Negative</td>
<td>0.02mg/kg per 50cm² sample in 50mL solution</td>
</tr>
<tr>
<td>Sum of PBBS</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>-</td>
</tr>
<tr>
<td>Monobromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Dibromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Tribromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Tetra bromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Hexa bromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Pentabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Heptabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Octabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Nonabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
<tr>
<td>Decabromobiphenyl</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
<td>5</td>
</tr>
</tbody>
</table>

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/terms_of_services.html) and Terms and Conditions for Electronic Documents (www.sgs.com/terms_of_services_en.html). It is the responsibility of the Buyer to verify the authenticity of this document using the SGS Online Authentication service at www.sgs.com/online_authentication. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and the limits of client's instructions. The Company's sole responsibility is to its Client and this document does not constitute a part of a transaction from exercising all their rights and obligations under the transaction documents, unless otherwise stated. The results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for a period of 3 months only.
Test Report

<table>
<thead>
<tr>
<th>Sum of PBDs</th>
<th>mg/kg</th>
<th>With reference to IEC 62321:2008, and performed by GC-MS</th>
<th>N.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monobromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Dibromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Tribromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Tetrabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Pentabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Hexabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Heptabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Octabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Nonabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
<tr>
<td>Decabromodiphenyl ether</td>
<td>mg/kg</td>
<td>With reference to IEC 62321:2008, and performed by GC-MS</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

Note:

(a) mg/kg = ppm ; (0.1wt% = 1000ppm)
(b) N.D. = Not Detected
(c) MDL = Method Detection Limit
(d) # = Spot-Test:
   a. Negative means the absence of Cr(VI) on the tested areas
   b. Positive means the presence of Cr(VI) on the tested areas
      (The tested sample should be further verified by boiling-water-extraction method if the spot test result is negative or cannot be confirmed)
   c. Boiling water extraction:
      a. Negative means the absence of Cr(VI) on the tested areas
      b. Positive means the presence of Cr(VI) on the tested areas;
         The detected concentration in 50 mL boiling water extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.
   For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.
(e) - = Not regulated

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B Sc.(HONS) AMIC
LAB MANAGER

 фай

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/terms_gst_conditions.htm) and Terms and Conditions for Electronic Documents (www.sgs.com/terms_a-document.html).

Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of ICP ED Article 35.

The authenticity of this document may be verified at www.sgs.com/affirmation. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not constitute part of a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.

SGS Laboratory Services (M) Sdn. Bhd.
(Company No. 68972-M)
No.26 Jalan Anggerik Vanilla 31/63 Kota Kemuning 40460 Selangor Darul Ehsan, Malaysia
+60(3) 5121 2320  +60(3) 5121 9062  www.sgs.com

Member of the SGS Group (SGS SA)
## Test Report

### No. LPCI/27864/11  
CTS Ref. CTS/11/5009/Redring

**Date:** 03/01/2012  
**Page:** 4 of 7

---

### Test results by chemical method:

<table>
<thead>
<tr>
<th>Test Item (s):</th>
<th>Unit</th>
<th>Method</th>
<th>Result</th>
<th>MDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony (Sb)</td>
<td>ppm</td>
<td>With reference to EPA Method 3051A, and performed by ICP-OES</td>
<td>N.D.</td>
<td>2</td>
</tr>
<tr>
<td>Halogen</td>
<td></td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Halogen-Fluorine (F)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC method for Fluorine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen-Chlorine (Cl)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC method for Chlorine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen-Bromine (Br)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC method for Bromine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
<tr>
<td>Halogen-Iodine (I)</td>
<td>mg/kg</td>
<td>With reference to BS EN 14582. Analysis was performed by IC method for Iodine content.</td>
<td>N.D.</td>
<td>50</td>
</tr>
</tbody>
</table>

---

### Test Part Description:

**Sample Description:** Pure Tin Solder

**Note:**

(a) mg/kg = ppm  
(b) N.D. = Not Detected  
(c) MDL = Method Detection Limit  
(d) --- = Not Conducted

---

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN  
B.Sc.(HONS) AMIC  
LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (www.sgs.com/docs/doc胡.89610B) and Terms and Conditions for Electronic Documents (www.sgs.com/docs/doc胡.89611B). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 35A.

The authenticity of this document may be verified at www.sgs.com/verification. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the bounds of its instructions, if any. The Company's sole responsibility is to its Client and this document does not entitle parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are returned for three months only.

SGS Laboratory Services (M) Sdn. Bhd.  
No. 26 Jalan Aman Sri 31/33 Kota Kemuning 40480 Selangor Darul Ehsan, Malaysia  
t (+603) 5121 2320  
(Company No. 63972-M)  
f (+603) 5121 9082  
www.sgs.com
Test Report

No. LPCI/27864/11
CTS Ref. CTS/11/5009/Redring

Date: 03/01/2012

Test Part Description:

Sample Description: Pure Tin Solder

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN
B.Sc.(HONS) AMIC
LAB MANAGER

SGS authenticate the photo on original report only
# Test Report

**No. LPCI/27864/11**  
**Date:** 03/01/2012  
**Page:** 6 of 7

## 1. Determination of Cadmium Content by IEC 62321 2008
- Sample Receiving and Registration
- Cut sample in small pieces
- Weight sample (0.2-0.5g) into digestion vessel
- Acid digestion (Microwave)
  - "Totally Dissolved"
  - Filtration
  - Analyses by ICP

## 2. Determination of Lead Content by IEC 62321 2008
- Sample Receiving and Registration
- Cut sample in small pieces
- Weight sample (0.2-0.5g) into digestion vessel
- Acid digestion (Microwave)
  - "Totally Dissolved"
  - Filtration
  - Analyses by ICP

## 3. Determination of Mercury Content by IEC 62321 2008
- Sample Receiving and Registration
- Cut sample in small pieces
- Weight sample (0.1-0.5g) into digestion vessel
- Acid digestion (Microwave)
  - "Totally Dissolved"
  - Filtration
  - Analyses by ICP

## 4. Determination of Hexavalent Chromium by IEC 62321 2008
- Sample Receiving and Registration
- Sample Preparation
- Spot test (Qualitative)
- Boiling-water-extraction
- Analyses by UV Spectrophotometer
- Test Report

## 5. Determination of PB/PBDE with GC-MS by IEC 62321 2008
- Cut sample in small pieces
- Weight sample (0.5-4.0g) into extraction thimble
- Soxhlet Extraction with Toluene
- Filter through 0.45 um membrane filter
- Analyses by GC-MS (with appropriate dilution)

---

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN  
B.Sc.(HONS) AMIC  
LAB MANAGER

This document is subject to the General Conditions of Service (www.sgs.com/terms_and_conditions.html) and Terms and Conditions for Electronic Documents (www.sgs.com/terms_and_conditions.html). The authenticity of this document may be verified at www.sgs.com/verify. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only. The Company's sole responsibility is to its Client and this document does not constitute evidence in a transaction from exercising all its rights and obligations under the transaction document. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are released for three months only.
1. MICROWAVE ASSISTED ACID DIGESTION OF ORGANICALLY BASED METRICES (US EPA 3051A)

- Cut sample in small pieces
- Weight sample (0.2-0.5g) into digestion vessel
- Acid digestion (HNO₃) – Microwave
  - "Totally Dissolved"
  - Filtration
- Analyses by ICP

2. DETERMINATION OF HALOGEN CONTENT

- Sample pretreatment
- Weighting and putting sample in cell
- Combustion / Absorption
- Dilution to fixed volume
- Analyses by IC

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

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Style/Item No.</th>
<th>Sample Receiving Date</th>
<th>Testing Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC WAFER</td>
<td>ALUMINUM PROCESS</td>
<td>2012/01/11</td>
<td>2012/01/11 TO 2012/01/18</td>
</tr>
</tbody>
</table>

Test Requested: As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI) contents in the submitted sample.

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

EPISIL TECHNOLOGIES INC.
NO. 3, INNOVATION ROAD 1, SCIENCE BASED INDUSTRIAL PARK, HSINCHU, TAIWAN, R. O. C.

Test Result(s)

PART NAME No.1 : MULTICOLOR WAFER

<table>
<thead>
<tr>
<th>Test Item(s)</th>
<th>Unit</th>
<th>Method</th>
<th>MDL</th>
<th>Result No.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium (Cd)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321: 2008 and performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321: 2008 and performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321: 2008 and performed by ICP-AES.</td>
<td>2</td>
<td>n.d.</td>
</tr>
<tr>
<td>Hexavalent Chromium Cr(VI)</td>
<td>mg/kg</td>
<td>With reference to IEC 62321: 2008 and performed by UV-VIS.</td>
<td>2</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

Note:
1. mg/kg = ppm : 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
2) Name of the person who made measurement: Climbgreat Yang
3) Name of the person in charge of measurement: Troy Chang

<table>
<thead>
<tr>
<th>Sample Material</th>
<th>Digestion Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel, copper, aluminum, solder</td>
<td>Aqua regia, HNO₃, HCl, HF, H₂O₂</td>
</tr>
<tr>
<td>Glass</td>
<td>HNO₃/HF</td>
</tr>
<tr>
<td>Gold, platinum, palladium, ceramic</td>
<td>Aqua regia</td>
</tr>
<tr>
<td>Silver</td>
<td>HNO₃</td>
</tr>
<tr>
<td>Plastic</td>
<td>H₂SO₄, H₂O₂, HNO₃, HCl</td>
</tr>
<tr>
<td>Others</td>
<td>Any acid to total digestion</td>
</tr>
</tbody>
</table>

Add appropriate amount of digestion reagent
Heat to appropriate temperature to extract
Cool, filter digestate through filter
Add diphenyl-carbazide for color development
measure the absorbance at 640 nm by UV-VIS
*The tested sample/part is marked by an arrow if it's shown on the photo.*

CE/2012/12342

**End of Report**