



Test Report

No.: GZ0906052646/CHEM

Date: JUN 11, 2009

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YANGZHOU ARK COMPONENT IMP&EXP CO., LTD
A-528 ROOM, HUAYUAN INTERNATIONAL MANSION, WEST WENHUI ROAD, YANGZHOU, JIANGSU CHINA

This report is to supersede test report CANEC0902802301

The following sample(s) was/were submitted and identified on behalf of the applicant as Diode

SGS Job No. : GZ11885090EC

Client Reference Information : Diode,bridge rectifiers, transistor,thyristor
R-1,A-405,DO-41,DO-15,DO-201AD/DO-27,R-6(P600),TO-220,TO220AB/AC,
ITO-220, ITO-220AB,ITO-220AC,TO-3P(TO-247AD),SMA(DO-214AC),
SMB(DO-214AA),SMC(DO-214AB), SMD, MELF (DL41) ,MINIMELF,HVM,
AR/ARS, CELL, DO-35(GLASS CASE),DO-41(GLASS CASE);LL-34(SOD-
80),LL-41,TO-92,TO-126,TO-220,TO-251/TO-252,TO-3P,SOD-123,SOD-
323,SOD-523,SOD-723,SOT-223,SOT-23,SOT-323,SOT-523,SOT-363,
SOT-89,MBM,MBS,DB,DBS,DF,DFS,KBP,GBP,RS,KBL,GBL,KBU,GBU,KBJ,
GBJ,WOB,WOM,KBPC3,KBPC6,KBPC8,KBPC10(PLASTIC), BR/BR-W/BR-
L, SKBPC/SKBPC-W,FMB,RB, GBPC/GBPC-W,MB15/25/35/50,
KBPC15/25/35/50

Date of Sample Received : MAY 30, 2009

Testing Period : MAY 30, 2009 TO JUN 04, 2009

Test Requested : Selected test (s) as requested by client.

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

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

Signed for and on behalf of
SGS-CSTC Ltd.

Sunny Huang
Lab Sr. Supervisor

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Guangzhou Testing Service Center Chemical Laboratory

138 Kizhu Road, Sointech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075125 | www.cn.sgs.com
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 | (86-20) 82155555 | (86-20) 82075125 | e sgs.china@sgs.com

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Test Results:

Description for specimen 1 : Silvery metal

Elementary Analysis

| Test Item(s) | Unit | Test Method (Reference) | Result | MDL |
|--------------|-------|--------------------------|--------|-----|
| Lead (Pb) | mg/kg | IEC 62321: 2008, ICP-OES | 43 | 2 |

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

Description for specimen 2 : Copper-colored metal

Elementary Analysis

| Test Item(s) | Unit | Test Method (Reference) | Result | MDL |
|--|-------|--------------------------|----------|-----|
| Cadmium (Cd) | mg/kg | IEC 62321: 2008, ICP-OES | N.D. | 2 |
| Lead (Pb) | mg/kg | IEC 62321: 2008, ICP-OES | N.D. | 2 |
| Mercury (Hg) | mg/kg | IEC 62321: 2008, ICP-OES | N.D. | 2 |
| Hexavalent Chromium (CrVI) by boiling water extraction | - | IEC 62321: 2008, UV-Vis | Negative | ◇ |

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit
4. ◇ = Spot test:

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

(The tested sample should be further verified by boiling water extraction method if the spot test result is negative or cannot be confirmed.)

Boiling 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.

Storage conditions and production date of the tested sample are unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

5. "-" = Not regulated

PFOS (Perfluorooctane sulfonates)

| Test Item(s) | Unit | Test Method (Reference) | Result | MDL |
|-----------------------------------|-------|-------------------------|--------|-----|
| Perfluorooctane sulfonates (PFOS) | | | | |
| PFOS – Acid | mg/kg | EPA 3550C: 2007, LC-MS | N.D. | 10 |
| PFOS – Metal Salt | | | | |
| PFOS – Amide | | | | |

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Guangzhou Environmental Chemical Laboratory

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Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

Reference Information: Directive 2006/122/EC

- (1) 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) May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than $1\mu\text{g}/\text{m}^2$ of the coated material.

Description for specimen 3 : Dk-gray solid material

Elementary Analysis

| Test Item(s) | Unit | Test Method (Reference) | Result | MDL |
|---|-------|--------------------------|--------|-----|
| Cadmium (Cd) | mg/kg | IEC 62321: 2008, ICP-OES | N.D. | 2 |
| Lead (Pb) | mg/kg | IEC 62321: 2008, ICP-OES | N.D. | 2 |
| Mercury (Hg) | mg/kg | IEC 62321: 2008, ICP-OES | N.D. | 2 |
| Hexavalent Chromium (CrVI) by alkaline extraction | mg/kg | IEC 62321: 2008, UV-Vis | N.D. | 2 |

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

Flame Retardants

| Test Item(s) | Unit | Test Method (Reference) | Result | MDL |
|--------------------|-------|-------------------------|--------|-----|
| Sum of PBBs | mg/kg | - | N.D. | - |
| Monobromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Dibromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Tribromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Tetrabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Pentabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Hexabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Heptabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Octabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Nonabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Decabromobiphenyl | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Sum of PBDEs | mg/kg | - | N.D. | - |

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| | | | | |
|----------------------------|-------|------------------------|------|---|
| Monobromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Dibromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Tribromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Tetrabromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Pentabromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Hexabromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Heptabromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Octabromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Nonabromodiphenyl ether | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |
| Decabromodiphenyl ether ## | mg/kg | IEC 62321: 2008, GC-MS | N.D. | 5 |

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit
4. ## = The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE is included in the sum of PBDE after 01.07.2008
5. "-" = Not regulated

PFOS (Perfluorooctane sulfonates)

| Test Item(s) | Unit | Test Method (Reference) | Result | MDL |
|-----------------------------------|-------|-------------------------|--------|-----|
| Perfluorooctane sulfonates (PFOS) | | | | |
| PFOS – Acid | | | | |
| PFOS – Metal Salt | mg/kg | EPA 3550C: 2007, LC-MS | N.D. | 10 |
| PFOS – Amide | | | | |

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

Reference Information: Directive 2006/122/EC

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- (2) May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than 1µg /m² of the coated material.

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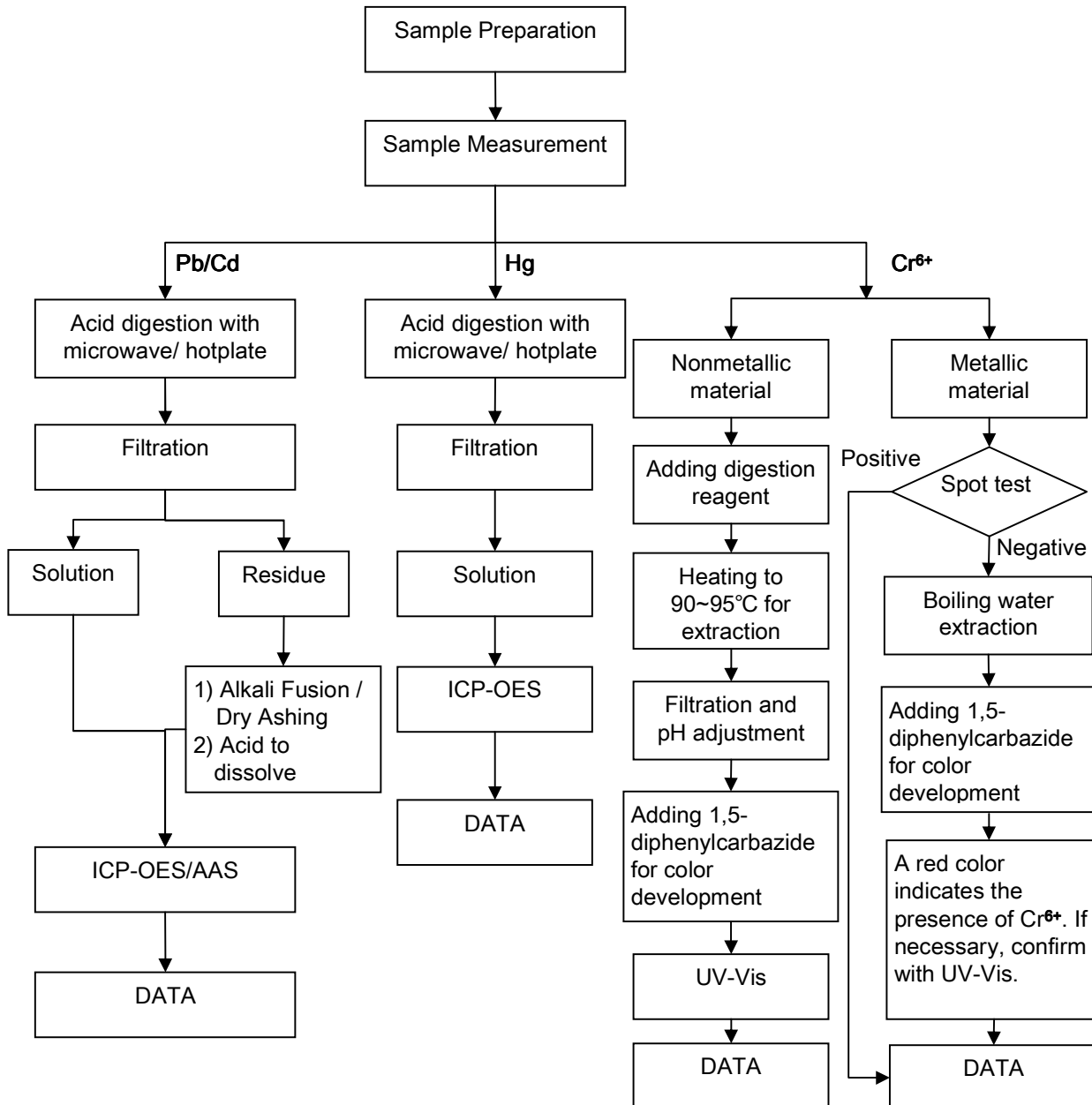
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Testing Flow Chart

- 1) Name of the person who made measurement: Luke Xu / Lily Lee
- 2) Name of the person in charge of measurement: Adams Yu / Leo Wang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr⁶⁺ test method excluded).

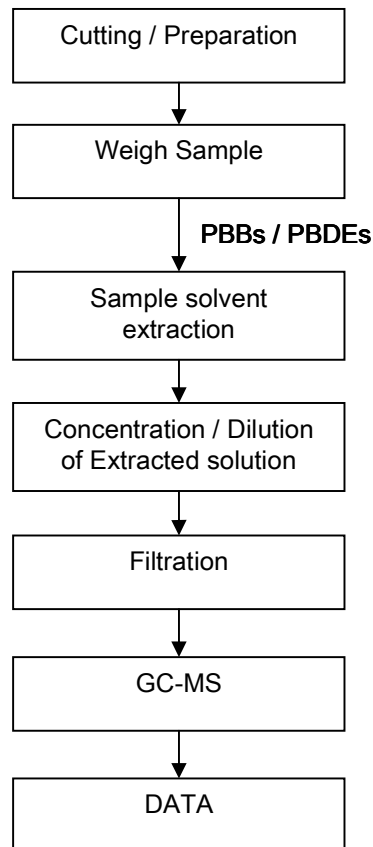


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Testing Flow Chart

- 1) Name of the person who made measurement: Lina Tang
- 2) Name of the person in charge of measurement: Tina Zhao



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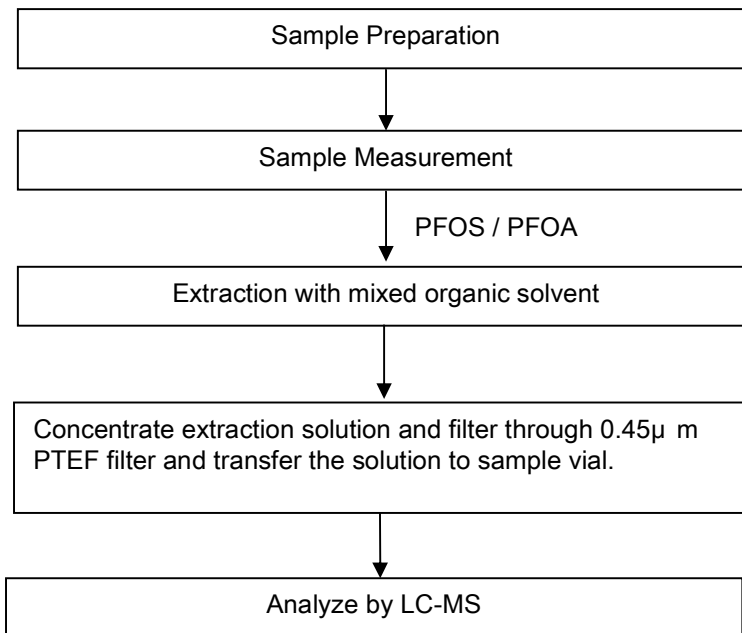
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Testing Flow Chart

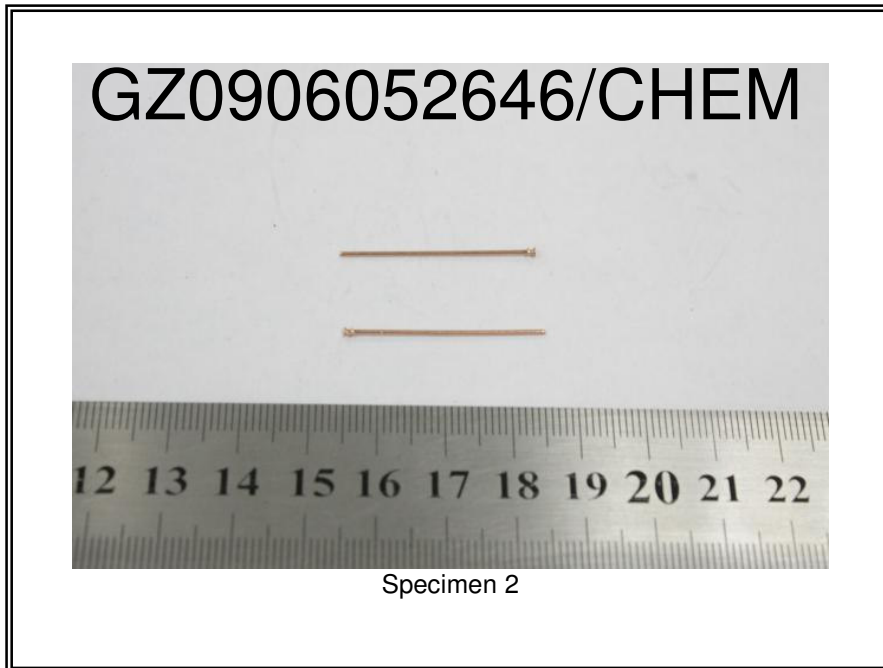
- 1) Name of the person who made measurement: Cindy Huang
- 2) Name of the person in charge of measurement: Rain Qiao



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Sample photo :



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