

# 检测报告 Test Report

报告编号 SCL03H003971001E  
Report No. SCL03H003971001E

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申请单位 佛山市南海新英华五金矿产化工有限公司  
Applicant FO SHAN NANHAI SUN YING WAH METAL&CHEMICAL LTD  
地 址 佛山市南海区大沥镇盐步横江江心窝工业区5号  
Address NO.5 JIANGXINWO INDUSTRIAL ZONE,HENGJIANG,YANBU,DALI,NANHAI DISTRICT, FOSHAN, GUANGDONG PROVINCE, P.R.CHINA

以下测试之样品及样品信息由申请者提供并确认

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

样品名称 锡球  
Sample Name TIN BALL ANODE  
样品型号  $\text{Sn} \geq 99.98$   
Part No.  $\text{Sn} \geq 99.98$   
样品颜色 银白色  
Color Silver white  
材料名称 金属  
Material METAL  
客户 FENGHUA  
Buyer FENGHUA  
供应商 SUN YING WAH  
Supplier SUN YING WAH  
样品接收日期 2015.07.07  
Sample Received Date Jul. 7, 2015

样品检测日期 2015.07.07-2015.07.10  
Testing Period Jul. 7, 2015 to Jul. 10, 2015

检测要求 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs)进行测试。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyl(PBBs), Polybrominated Diphenyl Ethers(PBDEs) in the submitted sample(s).

检测依据/检测结果 请参见下页。

Test Method/Test Result(s) Please refer to the following page(s).

主 检  
Tested by Tao Chen

审 核  
Reviewed by Wenjun Wang

批准  
Approved by Qinghong Wan

日 期  
Date 2015.07.10

Qinghong Wan  
Technical Manager

No. R106101346

华测检测认证集团股份有限公司顺德分公司

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Centre Testing International Group Co., Ltd. Shunde Branch

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## 结论 Conclusion

| 测试样品<br>Tested Sample    | 依据指令<br>According to directive | 结果<br>Result |
|--------------------------|--------------------------------|--------------|
| 提交样品<br>Submitted Sample | 2011/65/EU*                    | 合格 Pass      |

\*2011/65/EU为欧盟RoHS指令(2002/95/EC)的重订指令。该指令对电子电器产品中的特定有毒有害物质(铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs))限制使用。  
合格表示检测结果不超过欧盟RoHS指令2011/65/EU要求的限值。

\*2011/65/EU is a new version of RoHS Directive (2002/95/EC), which focuses on restriction of the use of certain hazardous substances (Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs)) in electrical and electronic equipment.  
Pass means that the results shown on the report do not exceed the limits set by RoHS Directive 2011/65/EU.

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## 检测依据 Test Method

| 测试项目<br>Test Item(s)                                  | 测试方法<br>Test Method         | 测试仪器<br>Measured<br>Equipment(s) |
|-------------------------------------------------------|-----------------------------|----------------------------------|
| 铅(Pb) Lead (Pb)                                       | IEC 62321-5:2013 Ed.1.0     | ICP-OES                          |
| 镉(Cd) Cadmium (Cd)                                    | IEC 62321-5:2013 Ed.1.0     | ICP-OES                          |
| 汞(Hg) Mercury (Hg)                                    | IEC 62321-4:2013 Ed.1.0     | ICP-OES                          |
| 六价铬(Cr(VI)) Hexavalent<br>Chromium(Cr(VI))            | IEC 62321:2008 Ed.1 Annex B | UV-Vis                           |
| 多溴联苯(PBBs) Polybrominated<br>Biphenyl(PBBs)           | IEC 62321:2008 Ed.1 Annex A | GC-MS                            |
| 多溴二苯醚(PBDEs) Polybrominated<br>Diphenyl Ethers(PBDEs) | IEC 62321:2008 Ed.1 Annex A | GC-MS                            |

## 检测结果 Test Result(s)

| 测试项目 Test Item(s)                          | 结果 Result   | 方法检出限<br>MDL | 2011/65/EU指令限值<br>Limit of Directive<br>2011/65/EU |
|--------------------------------------------|-------------|--------------|----------------------------------------------------|
| 铅(Pb)<br>Lead (Pb)                         | 75 mg/kg    | 2 mg/kg      | 1000 mg/kg                                         |
| 镉(Cd)<br>Cadmium (Cd)                      | N.D.        | 2 mg/kg      | 100 mg/kg                                          |
| 汞(Hg)<br>Mercury (Hg)                      | N.D.        | 2 mg/kg      | 1000 mg/kg                                         |
| 六价铬(Cr(VI))<br>Hexavalent Chromium(Cr(VI)) | 阴性 Negative | /            | 1000 mg/kg                                         |

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| 测试项目 Test Item(s)                               | 结果 Result | 方法检出限 MDL | 2011/65/EU指令限值<br>Limit of Directive<br>2011/65/EU |
|-------------------------------------------------|-----------|-----------|----------------------------------------------------|
| <b>多溴联苯(PBBs) Polybrominated Biphenyl(PBBs)</b> |           |           |                                                    |
| 一溴联苯<br>Monobromobiphenyl                       | N.D.      | 5 mg/kg   | 1000 mg/kg                                         |
| 二溴联苯<br>Dibromobiphenyl                         | N.D.      | 5 mg/kg   |                                                    |
| 三溴联苯<br>Tribromobiphenyl                        | N.D.      | 5 mg/kg   |                                                    |
| 四溴联苯<br>Tetrabromobiphenyl                      | N.D.      | 5 mg/kg   |                                                    |
| 五溴联苯<br>Pentabromobiphenyl                      | N.D.      | 5 mg/kg   |                                                    |
| 六溴联苯<br>Hexabromobiphenyl                       | N.D.      | 5 mg/kg   |                                                    |
| 七溴联苯<br>Heptabromobiphenyl                      | N.D.      | 5 mg/kg   |                                                    |
| 八溴联苯<br>Octabromobiphenyl                       | N.D.      | 5 mg/kg   |                                                    |
| 九溴联苯<br>Nonabromobiphenyl                       | N.D.      | 5 mg/kg   |                                                    |
| 十溴联苯<br>Decabromobiphenyl                       | N.D.      | 5 mg/kg   |                                                    |



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| 测试项目 Test Item(s)                                         | 结果 Result | 方法检出限 MDL | 2011/65/EU指令限值<br>Limit of Directive<br>2011/65/EU |
|-----------------------------------------------------------|-----------|-----------|----------------------------------------------------|
| <b>多溴二苯醚(PBDEs) Polybrominated Diphenyl Ethers(PBDEs)</b> |           |           |                                                    |
| 一溴二苯醚<br>Monobromodiphenyl ether                          | N.D.      | 5 mg/kg   | 1000 mg/kg                                         |
| 二溴二苯醚<br>Dibromodiphenyl ether                            | N.D.      | 5 mg/kg   |                                                    |
| 三溴二苯醚<br>Tribromodiphenyl ether                           | N.D.      | 5 mg/kg   |                                                    |
| 四溴二苯醚<br>Tetrabromodiphenyl ether                         | N.D.      | 5 mg/kg   |                                                    |
| 五溴二苯醚<br>Pentabromodiphenyl ether                         | N.D.      | 5 mg/kg   |                                                    |
| 六溴二苯醚<br>Hexabromodiphenyl ether                          | N.D.      | 5 mg/kg   |                                                    |
| 七溴二苯醚<br>Heptabromodiphenyl ether                         | N.D.      | 5 mg/kg   |                                                    |
| 八溴二苯醚<br>Octabromodiphenyl ether                          | N.D.      | 5 mg/kg   |                                                    |
| 九溴二苯醚<br>Nonabromodiphenyl ether                          | N.D.      | 5 mg/kg   |                                                    |
| 十溴二苯醚<br>Decabromodiphenyl ether                          | N.D.      | 5 mg/kg   |                                                    |

测试样品/部位描述 银白色金属  
Tested Sample/Part Description Silver-white metal

备注: 对于检测铅, 镉, 汞之样品已完全溶解。

-N.D. = 未检出 (小于方法检出限)

-mg/kg= ppm = 百万分之一

-阴性表示不含有六价铬, 即由表面积为50cm<sup>2</sup>的样品所萃取出来的溶液中的六价铬的浓度小于0.02mg/kg

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL)

-mg/kg = ppm = parts per million

-Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm<sup>2</sup> sample surface area used.

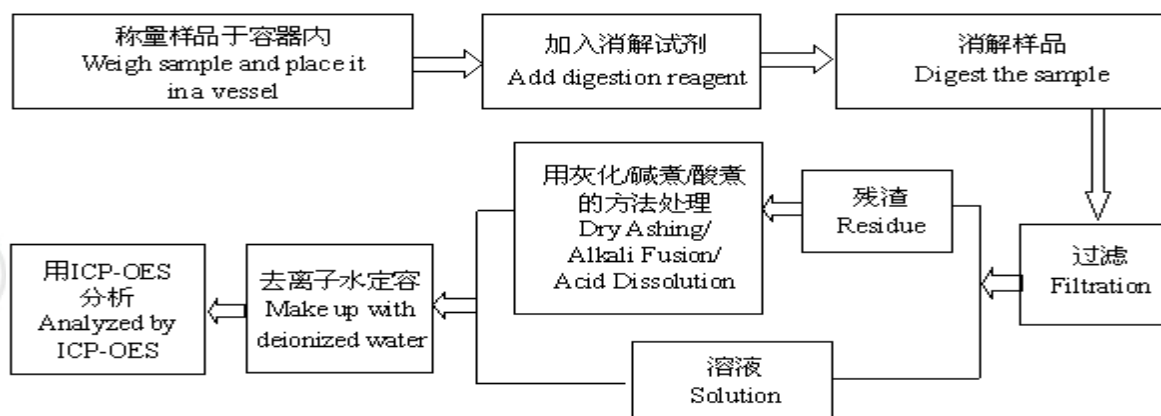
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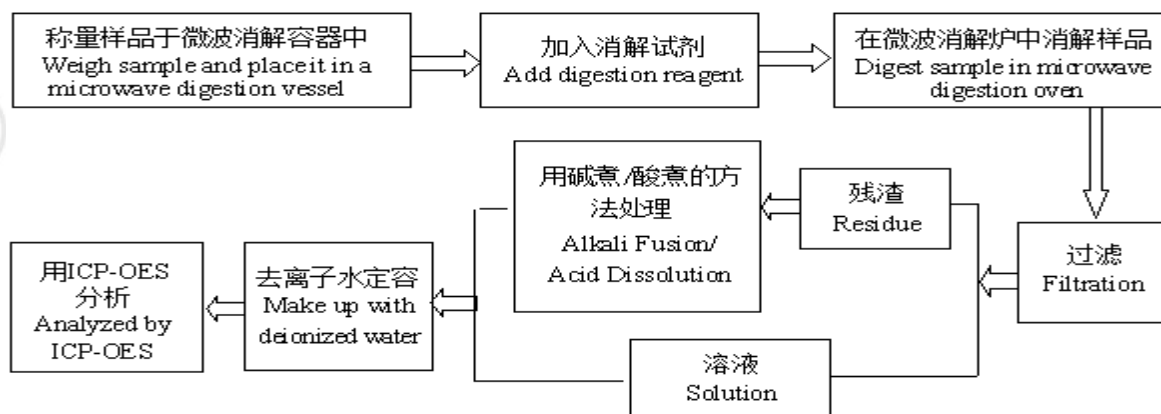
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## 检测流程 Test Process

### 1. 铅(Pb), 镉(Cd) Lead (Pb), Cadmium (Cd)



### 2. 汞(Hg) Mercury (Hg)

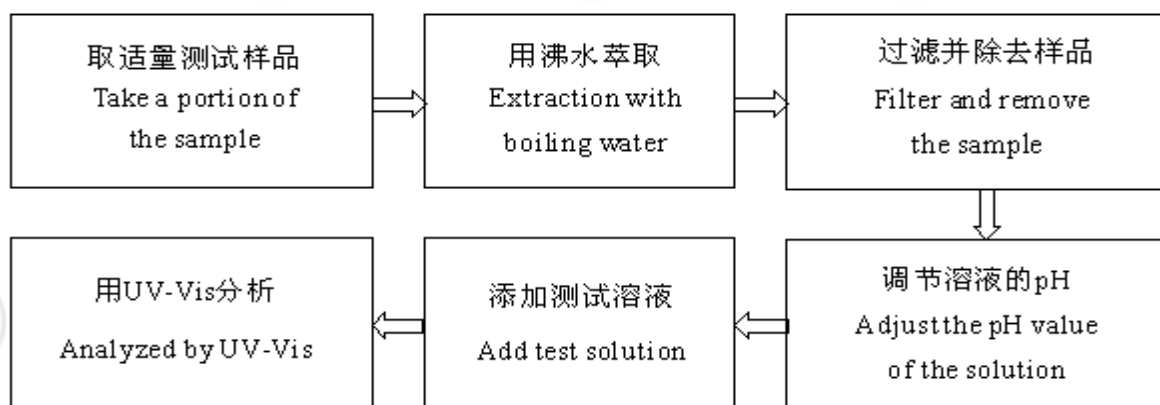


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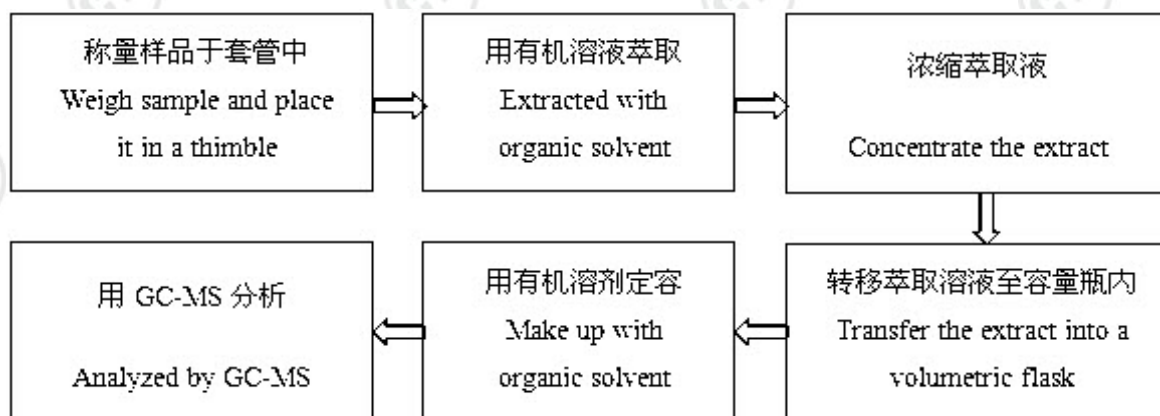
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## 3. 六价铬(Cr(VI)) Hexavalent Chromium(Cr(VI))



## 4. 多溴联苯(PBBs), 多溴二苯醚(PBDEs) Polybrominated Biphenyl(PBBs), Polybrominated Diphenyl Ethers(PBDEs)



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## 样品图片 Photo(s) of the sample(s)



\*\*\*报告结束\*\*\*  
\*\*\* End of report \*\*\*

检测报告无批准人签字及“报告专用章”无效，本报告检测结果仅对受测样品负责。未经CTI书面同意，不得部分复制本报告。

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