

测试报告

No. CANEC1500384224

日期: 2015年01月14日 第1页,共8页

云南锡业股份有限公司

中国云南省昆明市高新技术产业开发区昌源中路49号

以下测试之样品是由申请者所提供及确认: 无铅焊料

SGS工作编号: CP15-001097 - GZ

测试样品信息: SnCu

客户参考信息: 丝, 条, 粉, 膏, SnCu3.0, SnCu0.7, SnCu0.5, SnCu0.3 等

样品接收日期: 2015年01月08日

测试周期: 2015年01月08日 - 2015年01月14日

测试要求: 根据客户要求测试

测试方法: 请参见下一页

测试结果: 请参见下一页

结论: 基于所送样品进行的测试, 镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)的测试结果符合欧盟RoHS指令2002/95/EC的重订指令2011/65/EU附录II的限值要求。

通标标准技术服务有限公司

授权签名

杨谷毅

Echo Yeung 杨谷毅

批准签署人

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测试报告

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日期: 2015年01月14日 第2页,共8页

测试结果:

测试样品描述:

| 样品编号 | SGS样品ID | 描述 |
|------|------------------|------|
| SN1 | CAN15-003842.012 | 银色金属 |

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

RoHS指令2011/65/EU

- 测试方法:
- (1)参考IEC 62321-5:2013, 用ICP-OES测定镉的含量
 - (2)参考IEC 62321-5:2013, 用ICP-OES测定铅的含量
 - (3)参考IEC 62321-4:2013, 用ICP-OES测定汞的含量
 - (4)参考IEC 62321:2008, 用点测试法/紫外-可见分光光度计比色法测定六价铬的含量
 - (5)参考IEC 62321:2008, 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚) 的含量

| 测试项目 | 限值 | 单位 | MDL | 012 |
|----------------|-------|-------|-----|-----|
| 镉 (Cd) | 100 | mg/kg | 2 | ND |
| 铅 (Pb) | 1,000 | mg/kg | 2 | 67 |
| 汞 (Hg) | 1,000 | mg/kg | 2 | ND |
| 六价铬(Cr(VI)) | - | - | ◇ | 阴性 |
| 多溴联苯之和(PBBs) | 1,000 | mg/kg | - | ND |
| 一溴联苯 | - | mg/kg | 5 | ND |
| 二溴联苯 | - | mg/kg | 5 | ND |
| 三溴联苯 | - | mg/kg | 5 | ND |
| 四溴联苯 | - | mg/kg | 5 | ND |
| 五溴联苯 | - | mg/kg | 5 | ND |
| 六溴联苯 | - | mg/kg | 5 | ND |
| 七溴联苯 | - | mg/kg | 5 | ND |
| 八溴联苯 | - | mg/kg | 5 | ND |
| 九溴联苯 | - | mg/kg | 5 | ND |
| 十溴联苯 | - | mg/kg | 5 | ND |
| 多溴二苯醚之和(PBDEs) | 1,000 | mg/kg | - | ND |
| 一溴二苯醚 | - | mg/kg | 5 | ND |
| 二溴二苯醚 | - | mg/kg | 5 | ND |



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| 测试项目 | 限值 | 单位 | MDL | 012 |
|-------|----|-------|-----|-----|
| 三溴二苯醚 | - | mg/kg | 5 | ND |
| 四溴二苯醚 | - | mg/kg | 5 | ND |
| 五溴二苯醚 | - | mg/kg | 5 | ND |
| 六溴二苯醚 | - | mg/kg | 5 | ND |
| 七溴二苯醚 | - | mg/kg | 5 | ND |
| 八溴二苯醚 | - | mg/kg | 5 | ND |
| 九溴二苯醚 | - | mg/kg | 5 | ND |
| 十溴二苯醚 | - | mg/kg | 5 | ND |

备注:

(1) 最大允许限值引用自指令2011/65/EU 附录II.

(2) ◇点测试法:

阴性= 未检测到六价铬, 阳性= 检测到六价铬;

(当点测试结果为阴性或无法确定时,将采用沸水萃取法作进一步的结果验证.)

◇沸水萃取法:

阴性= 未检测到六价铬

阳性= 检测到六价铬; 表明50 cm²表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于0.02 mg/kg

由于未获知样品的存储条件和生产日期, 样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

六溴环十二烷(HBCDD)

测试方法: 参考IEC 62321:2008, 用GC-MS分析。

| 测试项目 | 单位 | MDL | 012 |
|---------------|-------|-----|-----|
| 六溴环十二烷(HBCDD) | mg/kg | 10 | ND |

备注:

(1) 参考信息: RoHS指令2002/95/EC的重订指令2011/65/EU:

六溴环十二烷(HBCDD) 被列为需优先进行风险评估和考虑进行限制的物质。

邻苯二甲酸盐(或酯)

测试方法: 参考EN 14372: 2004的方法测定, 采用GC-MS进行分析。

| 测试项目 | CAS NO. | 单位 | MDL |
|------|---------|----|-----|
|------|---------|----|-----|



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| 测试项目 | CAS NO. | 单位 | MDL | 012 |
|------------------------|----------|--------|-------|-----|
| 邻苯二甲酸二丁酯 (DBP) | 84-74-2 | %(w/w) | 0.003 | ND |
| 邻苯二甲酸丁苄酯 (BBP) | 85-68-7 | %(w/w) | 0.003 | ND |
| 邻苯二甲酸二(2-乙基己基)酯 (DEHP) | 117-81-7 | %(w/w) | 0.003 | ND |

备注:

(1) 参考信息: RoHS指令2002/95/EC的重订指令2011/65/EU:

邻苯二甲酸二(2-乙基己基)酯(DEHP), 邻苯二甲酸丁苄酯(BBP)和邻苯二甲酸二丁酯(DBP) 被列为需优先进行风险评估和考虑进行限制的物质。



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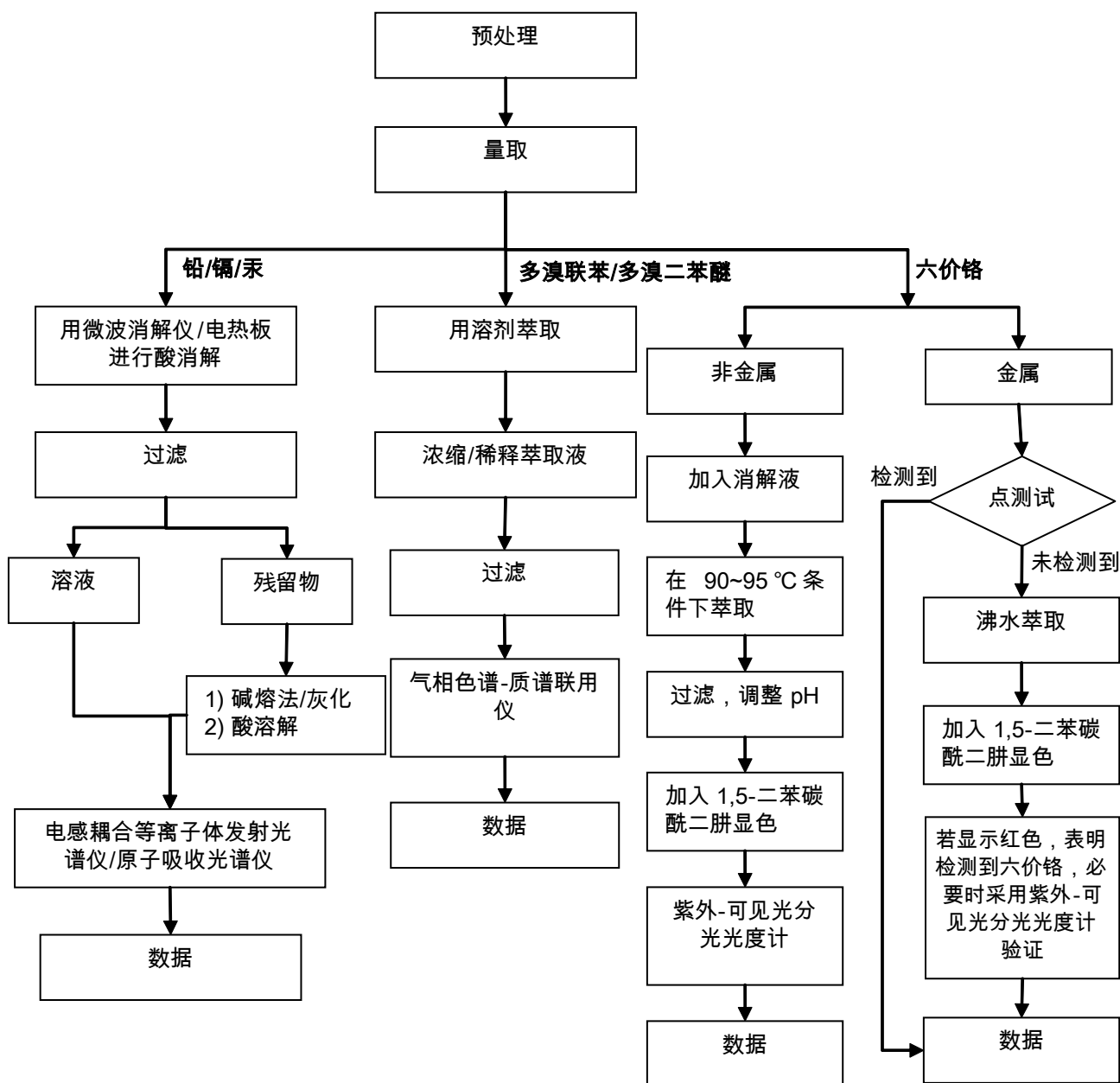
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附件

RoHS 测试流程图

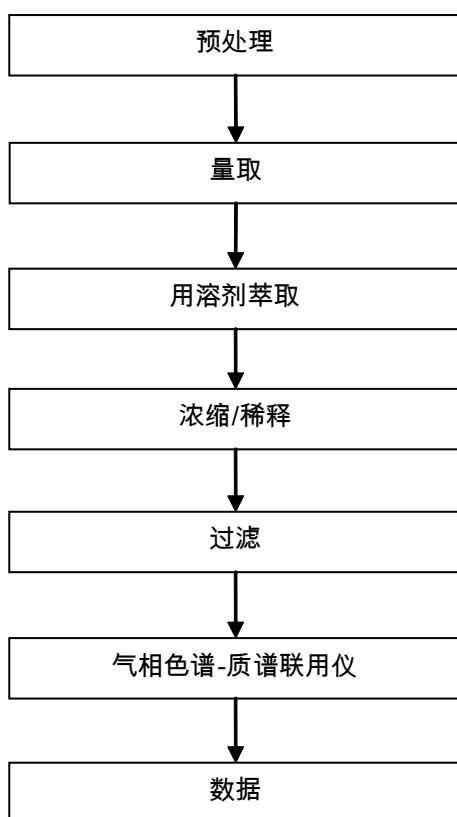
- 1) 分析人员：肖戈 / 胡香云
- 2) 项目负责人：汪丹 / 余晓璐
- 3) 样品按照下述流程被完全消解（六价铬和多溴联苯 / 多溴二苯醚测试除外）。



附件

HBCDD 测试流程图

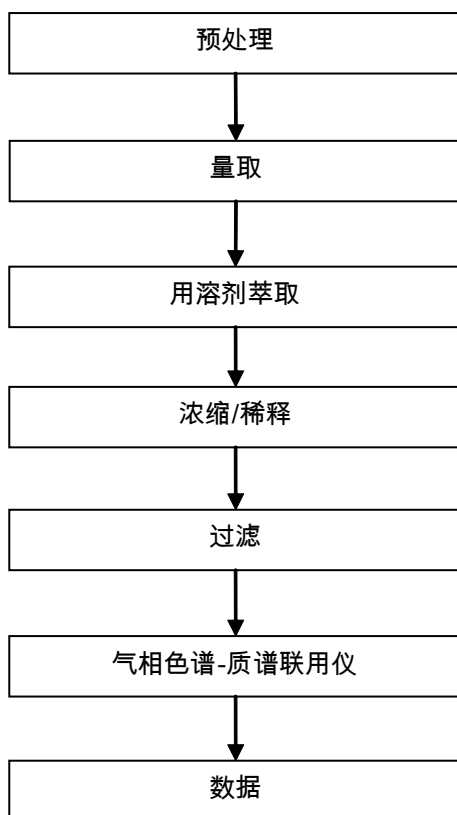
- 1) 分析人员：胡香云
- 2) 项目负责人：余晓璐



附件

Phthalates 测试流程图

- 1) 分析人员：胡香云
- 2) 项目负责人：余晓璐



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