

测试报告

No. CANEC1625518702

日期: 2017年01月05日 第1页,共10页

昆山汉品电子有限公司
中国昆山市玉山镇城北五联路698号

以下测试之样品是由申请者所提供及确认: 铜箔

SGS工作编号: CP16-077339 - GZ
测试样品信息: XPH01001
客户参考信息: 见备注
样品接收日期: 2016年12月26日
测试周期: 2016年12月26日 - 2017年01月04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)、邻苯二甲酸酯(如邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务有限公司广州分公司
授权签名

吕爱凤

Merry Lv 吕爱凤
批准签署人

备注: 本报告是编号为CANEC1625518701报告的中文版本。



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测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	CAN16-255187.001	铜色金属

备注:

- (1) 1 mg/kg = 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附录II的修正指令(EU) 2015/863

- 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 62321-7-1:2015, 用紫外-可见分光光度计比色法测定六价铬的含量。
 - (5)参考IEC 62321-6:2015, 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚)的含量。
 - (6)参考IEC 62321-8 :2013(111/321/CD), 用GC-MS测定邻苯二甲酸酯的含量。

测试项目	限值	单位	MDL	001
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	5
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	µg/cm ²	0.10	ND
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



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测试项目	限值	单位	MDL	001
二溴二苯醚	-	mg/kg	5	ND
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
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

备注:

- (1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) ▼=a. 当六价铬的浓度高于0.13 $\mu\text{g}/\text{cm}^2$ 时, 样品为阳性, 即含有六价铬;
 - b. 当六价铬的浓度为ND(低于0.10 $\mu\text{g}/\text{cm}^2$)时, 样品为阴性, 即未检测到六价铬;
 - c. 当六价铬的浓度介于0.10 $\mu\text{g}/\text{cm}^2$ 与0.13 $\mu\text{g}/\text{cm}^2$ 之间时, 无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果;
 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。
 IEC 62321系列等同于 EN 62321系列
http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25

卤素

测试方法: 参考EN 14582:2016, 用 IC分析。

测试项目	单位	MDL	001
氟 (F)	mg/kg	50	ND
氯 (Cl)	mg/kg	50	ND
溴 (Br)	mg/kg	50	ND
碘 (I)	mg/kg	50	ND

元素分析

测试方法: 参考US EPA方法3050B:1996, 用ICP-OES分析。



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测试项目	单位	MDL	001
锑 (Sb)	mg/kg	10	ND



备注:↵

XPH0E091 XPH0E121 XPH0E181 XPH0E351 XPH0E501 XPH0E751 XPH0EA01 XPH0E**1
 XPH0EC01 XPH0C0A1 XPH0Y251 XPH0Y301 XPH0Y501 XPH0Y751 XPH0YA01 XPH0Y**1
 XPH00151 XPH00181 XPH00251 XPH00301 XPH00351 XPH00401 XPH00501 XPH00751
 XPH01001 XPH01251 XPH01501 XPH02001 XPH02501 XPH03001 XPH04001 XPH05001
 XPH0***1 XPH0M101 XPH0M151 XPH0M181 XPH0M251 XPH0M301
 XPH0M351XPH0M401 XPH0M501 XPH0M651 XPH0M751 XPH0MA01 XPH0MA21
 XPH0MA51 XPH0MB01 XPH0MB51 XPH0MC01 XPH0MD01 XPH01 XPH0M**1 XPH00508
 XPH00578 XPH00598 XPH0G701 XPH0G**1 XPH0L001 XPH0T351 XPH0T501 XPH0T701
 XPH0TA01 XPH0T**1 XPH0TS01 XPH0TD01 XPH0T**1 XPH0MS01 XPH0MS11 XPH0E1
 XPH0C1 XPH0CU01 XPH0A01 XPH0B01 XPH0BB1 XPH0A*1 XPH0B*1 XPH0**1
 XPH0Y01 XPH0M01 XPH0H01 XPH0S01 XPH0*01 XPH0Y001 XPH0M001 XPH0H001
 XPH0S001 XPH0*001 XPH0EG21 XPH0E*21 XPH0YG21 XPH0Y*21 XPH0YG1
 XPH0Y*1 XPH00N21 XPH0AN01 XPH0A*01 XPH0AN21 XPH0E091**
 XPH0E121** XPH0E181** XPH0E351** XPH0E501** XPH0E751** XPH0EA01**
 XPH0E**1** XPH0EC01** XPH0C0A1** XPH0Y251** XPH0Y301** XPH0Y501**
 XPH0Y751** XPH0YA01** XPH0Y**1** XPH00151** XPH00181** XPH00251**
 XPH00301** XPH00351** XPH00401** XPH00501** XPH00751** XPH01001**
 XPH01251** XPH01501** XPH02001** XPH02501** XPH03001** XPH04001**
 XPH05001** XPH0***1** XPH0M101** XPH0M151** XPH0M181** XPH0M251**
 XPH0M301** XPH0M351** XPH0M401** XPH0M501** XPH0M651** XPH0M751**
 XPH0MA01** XPH0MA21** XPH0MA51** XPH0MB01** XPH0MB51** XPH0MC01**
 XPH0MD01** XPH01** XPH0M**1** XPH00508** XPH00578** XPH00598**
 XPH0G701** XPH0G**1** XPH0L001** XPH0T351** XPH0T501** XPH0T701**
 XPH0TA01** XPH0T**1** XPH0TS01** XPH0TD01** XPH0T**1** XPH0MS01**
 XPH0MS11** XPH0E1** XPH0C1** XPH0CU01** XPH0A01** XPH0B01**
 XPH0BB1** XPH0A*1** XPH0B*1** XPH0**1** XPH0Y01** XPH0M01**
 XPH0H01** XPH0S01** XPH0*01** XPH0Y001** XPH0M001** XPH0H001**
 XPH0S001** XPH0*001** XPH0EG21** XPH0E*21** XPH0YG21** XPH0Y*21**
 XPH0YG1** XPH0Y*1** XPH00N21** XPH0AN01** XPH0A*01** XPH0AN21**↵

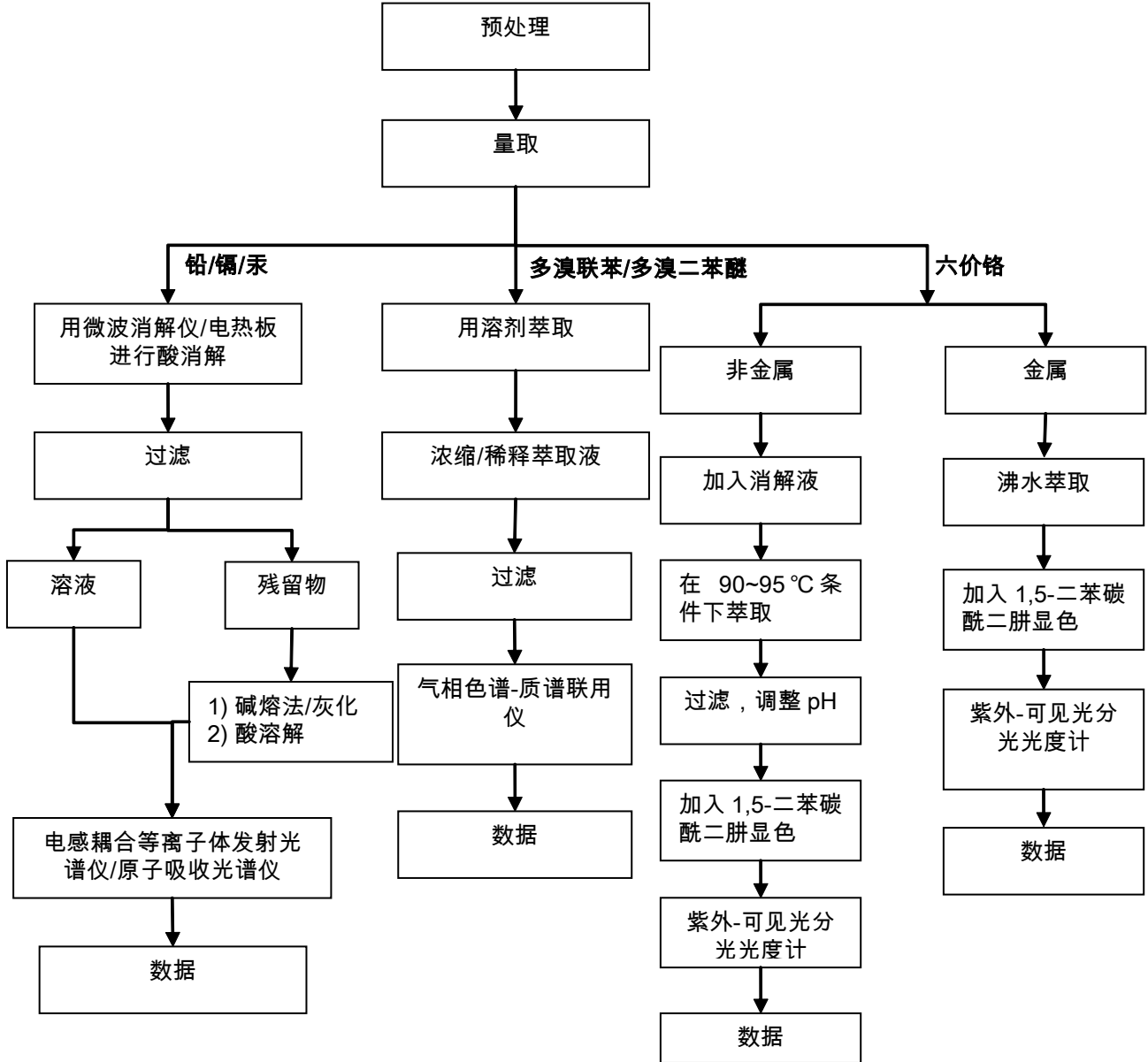
备注: **表示 0~9 或 A~Z 中的任意一个↵



附件

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs 测试流程图

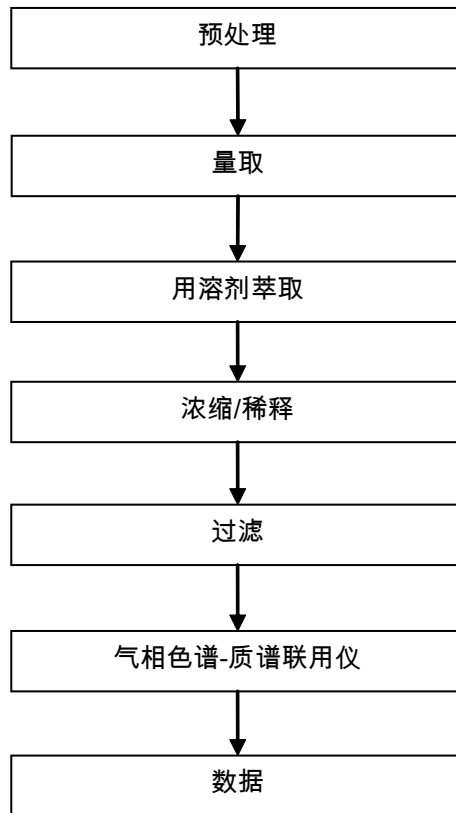
- 1) 分析人员: 张梓路 / 胡香云
- 2) 项目负责人: 汪丹 / 刘琼
- 3) 样品按照下述流程被完全消解 (六价铬和多溴联苯/多溴二苯醚测试除外)。



附件

Phthalates 测试流程图

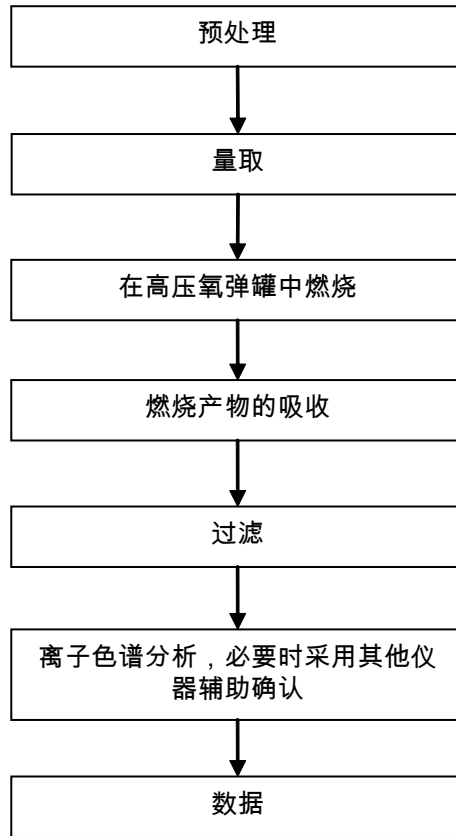
- 1) 分析人员: 胡香云
- 2) 项目负责人: 刘琼



附件

Halogen 测试流程图

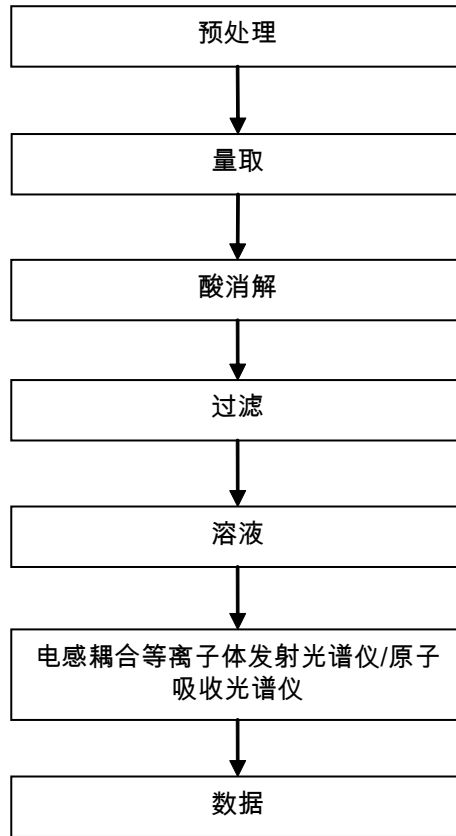
- 1) 分析人员: 肖戈
- 2) 项目负责人: 汪丹



附件

元素测试流程图

- 1) 分析人员: 张梓路
- 2) 项目负责人: 汪丹



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*** 报告完 ***

