

## 测试报告

No. CANML1518019302

日期: 2015年10月28日 第1页,共7页

东莞普莱格通讯电子有限公司

中国广东省东莞市塘厦镇四村正龙工业区正龙横路4号

以下测试之样品是由申请者所提供及确认: PLUG

SGS工作编号: GZIN1510044584PC - GZ

内部编号: 4.2

样品接收日期: 2015年10月21日

测试周期: 2015年10月21日 - 2015年10月28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: 基于所送样品的指定部位进行的测试, 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

关正孟

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### 测试样品描述:

样品编号	SGS样品ID	描述
SN1	CAN15-180193.001	透明塑料
SN2	CAN15-180193.002	黄铜色金属 (半成品)

### 备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 检测极限值
- (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 62321:2008, 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EN 14372:2004, 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	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	1,000	mg/kg	2	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)	1,000	mg/kg	30	ND
邻苯二甲酸丁苄酯(BBP)	1,000	mg/kg	30	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1,000	mg/kg	30	ND
邻苯二甲酸二异丁酯(DIBP)	1,000	mg/kg	30	ND

备注:

(1) 最大允许限值引用自RoHS指令(EU) 2015/863。

### 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 62321:2008, 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

测试项目	限值	单位	MDL	002
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	24
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	-	-	◇	阴性

备注:

(1) 最大允许限值引用自RoHS指令(EU) 2015/863。

(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 cm<sup>2</sup>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



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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。

### 全氟辛酸(PFOA)和全氟辛烷磺酸(PFOS)

测试方法: 参考CEN/TS15968:2010 方法, 用 LC-MS 分析。

测试项目	CAS NO.	单位	MDL	001
全氟辛酸(PFOA)	335-67-1	mg/kg	10	ND
全氟辛烷磺及其衍生物 (PFOS)^	-	mg/kg	10	ND

备注:

(1) ^全氟辛烷磺酸(PFOS)及其衍生物包含全氟辛烷磺酸(PFOS)、全氟辛基磺酰胺(PFOSA)、2-(N-乙基全氟辛基磺酰胺)乙醇(EtFOSE)、N-甲基全氟辛烷磺酰胺(MeFOSE)、N-乙基全氟辛烷磺酰胺(EtFOSE)和2-(N-甲基全氟辛基磺酰胺)乙醇(MeFOSE)。



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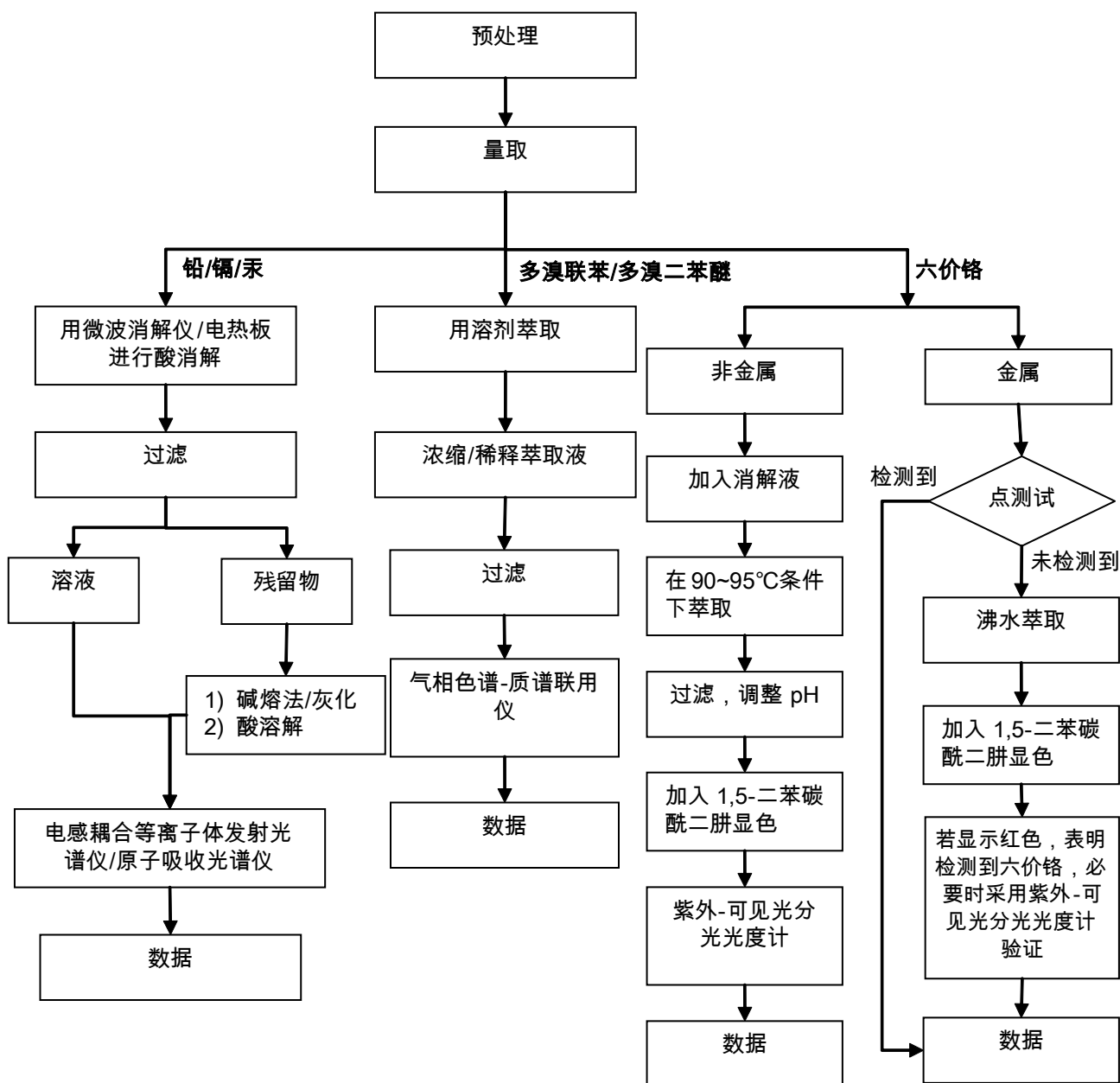
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### 附件

### RoHS 测试流程图

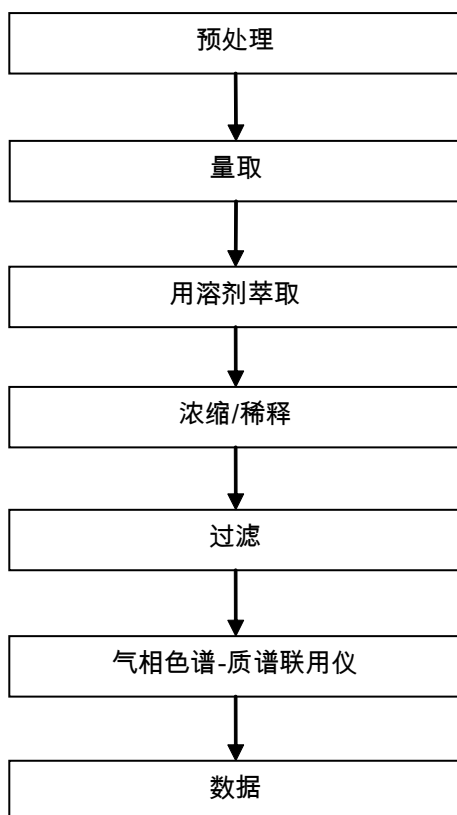
- 1) 分析人员：肖戈 / 胡香云
- 2) 项目负责人：汪丹 / 余晓璐
- 3) 样品按照下述流程被完全消解（六价铬和多溴联苯 / 多溴二苯醚测试除外）。



## 附件

### Phthalates 测试流程图

- 1) 分析人员：胡香云
- 2) 项目负责人：余晓璐

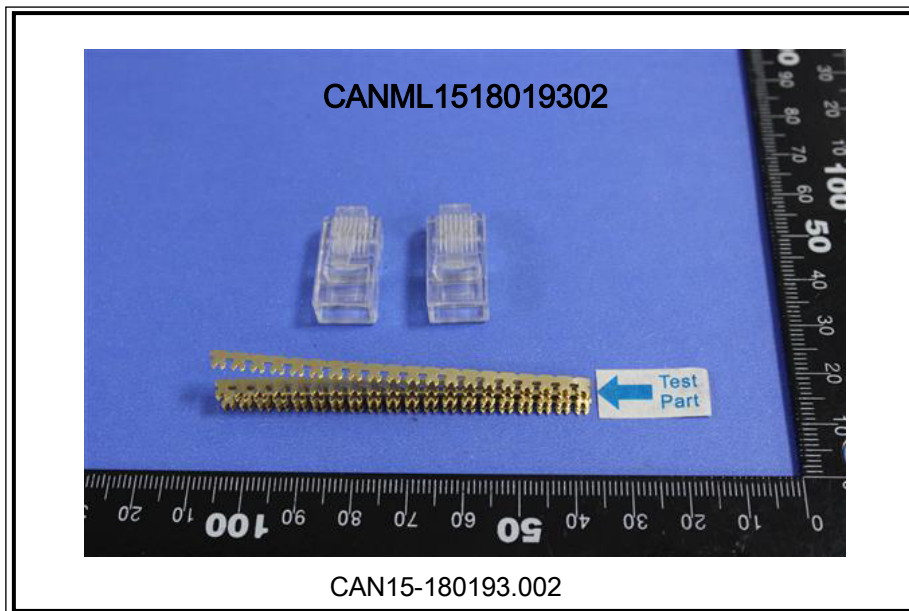
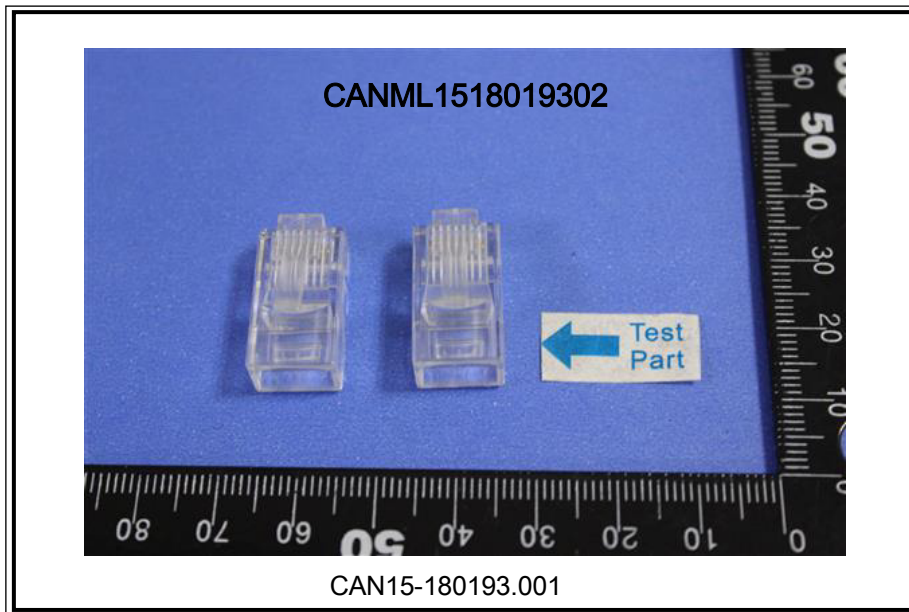


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