

检测报告

编号: SHAEC23001593502

日期: 2023 年 02 月 27 日

第 1 页, 共 8 页

客户名称: 杭州士兰微电子股份有限公司

客户地址: 杭州市黄姑山路 4 号

样品名称: SOT
型号: SA1117BH-3.3 SOT-223-3L
料号: 11201406000442
客户参考信息: SDH21695 SOT-23-6L
SA1117BH-3.3 SOT-223-3L
买家: 美的
以上样品及信息由客户提供。

SGS 工作编号: SP23-004203
样品接收时间: 2023 年 02 月 21 日
检测周期: 2023 年 02 月 21 日 ~ 2023 年 02 月 24 日
检测要求: 根据客户要求检测。
检测方法: 见后续页。
检测结果: 见后续页。

| 检测要求 | 结论 |
|--|----|
| 欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863 和客户要求-镉, 铅, 汞和六价铬 | 符合 |
| 欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863 和客户要求-镉, 铅, 汞, 六价铬, 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 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) | 符合 |

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盛雯舒

Sue Sheng 盛雯舒
批准签署人

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第 2 页, 共 8 页

检测结果:

检测部件外观描述:

| 样品序号 | 样品编号 | SGS 样品 ID | 样品描述 |
|------|------|-------------------------|------|
| SN1 | A1 | SHA23-0015935-0001.C001 | 黑色本体 |
| SN2 | A2 | SHA23-0015935-0001.C002 | 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

欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863 和客户要求-镉, 铅, 汞和六价铬

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013 和 IEC 62321-7-1:2015, 采用 ICP-OES, AAS 和 UV-Vis 进行分析。

| 检测项目 | 限值 | 单位 | MDL | A2 |
|--------------|-----|--------------------|------|----|
| 镉(Cd) | 75 | mg/kg | 2 | ND |
| 铅(Pb) | 600 | mg/kg | 2 | 13 |
| 汞(Hg) | 600 | mg/kg | 2 | ND |
| 六价铬(Cr(VI))▼ | - | µg/cm ² | 0.10 | ND |

备注:

- (1) 最大允许限值来源于客户要求。
 (2) IEC 62321 系列等同于 EN 62321 系列。
 (3) ▼ = a. 当六价铬的浓度高于 0.13 µg/cm² 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 µg/cm²) 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 µg/cm² 与 0.13 µg/cm² 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, 样品的六价铬检测结果仅能代表测试时样品含六价铬的状态。

欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863 和客户要求-镉, 铅, 汞, 六价铬, 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 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)

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES, AAS, UV-Vis 和 GC-MS 进行分析。



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第 3 页, 共 8 页

| 检测项目 | 限值 | 单位 | MDL | A1 |
|-----------------------|-----|-------|-----|----|
| 镉(Cd) | 75 | mg/kg | 2 | ND |
| 铅(Pb) | 600 | mg/kg | 2 | ND |
| 汞(Hg) | 600 | mg/kg | 2 | ND |
| 六价铬(Cr(VI)) | 600 | mg/kg | 8 | ND |
| 多溴联苯(PBBs)之和 | 600 | 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) | 600 | mg/kg | - | ND |
| 一溴二苯醚 | - | mg/kg | 5 | ND |
| 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) | 600 | mg/kg | 50 | ND |
| 邻苯二甲酸丁苄酯(BBP) | 600 | mg/kg | 50 | ND |
| 邻苯二甲酸二异丁酯(DIBP) | 600 | mg/kg | 50 | ND |
| 邻苯二甲酸二(2-乙基己基)酯(DEHP) | 600 | mg/kg | 50 | ND |

备注:

(1) 最大允许限值来源于客户要求。

(2) IEC 62321 系列等同于 EN 62321 系列。

(3) 2021 年 7 月 22 号开始, DEHP, BBP, DBP 和 DIBP 的限制适用于医疗器械, 包括体外医疗器械, 监控仪表, 包括工业监测和控制仪器。

除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 ($w=0$) 的二元判定规则进行符合性判定。

除非另有说明, 此报告结果仅对检测的样品负责。本报告未经本公司书面许可, 不可部分复制。

检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考。



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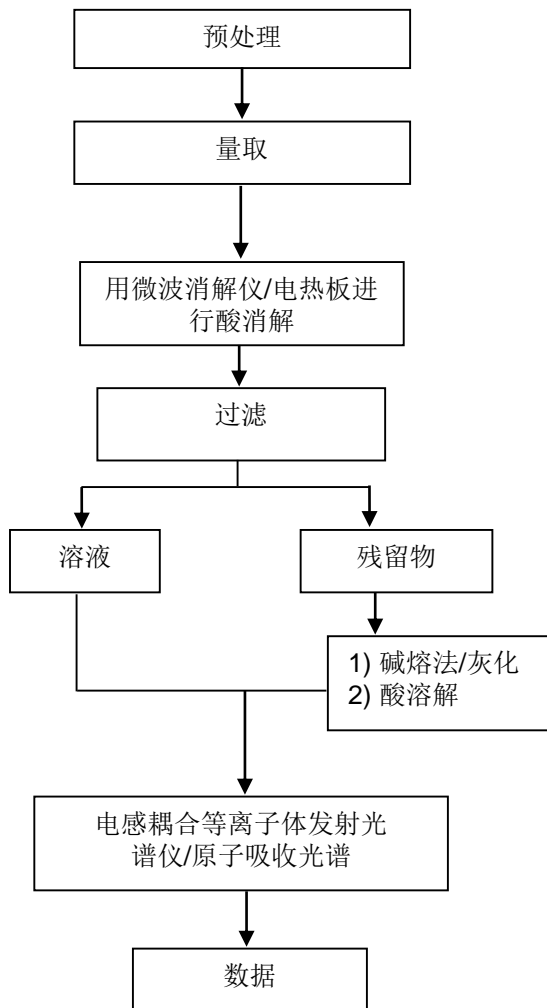
第 4 页, 共 8 页

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分析人员: 金叶/宋珂静
项目负责人: 徐亮/张小波

样品按照下述流程被完全消解

元素 (IEC62321) 检测流程图



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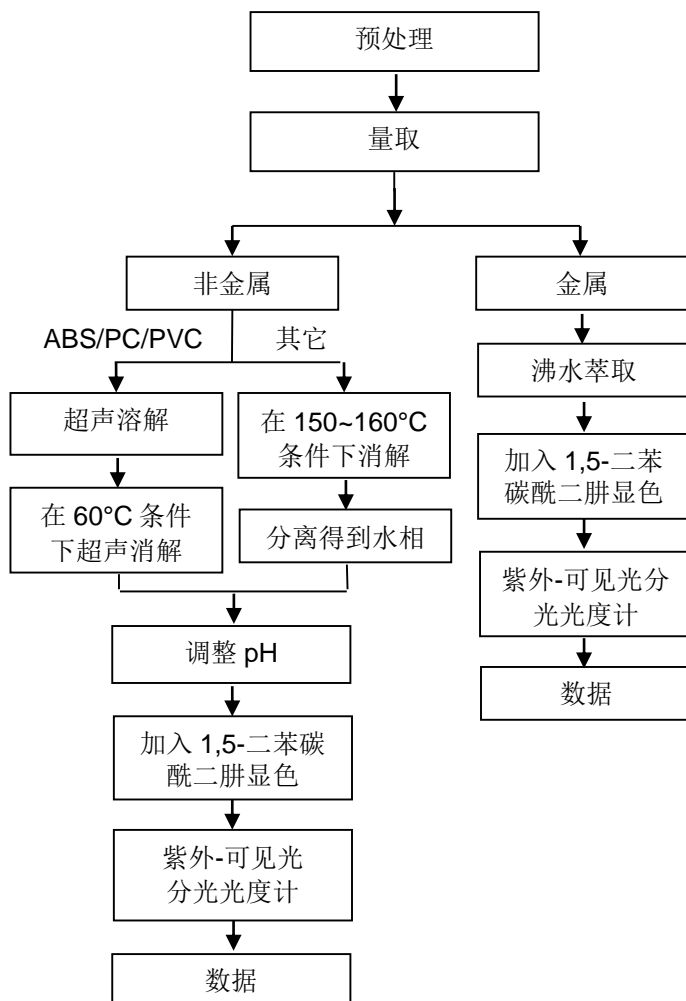
日期: 2023 年 02 月 27 日

第 5 页, 共 8 页

附件

六价铬检测流程图

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项目负责人: 杨小龙



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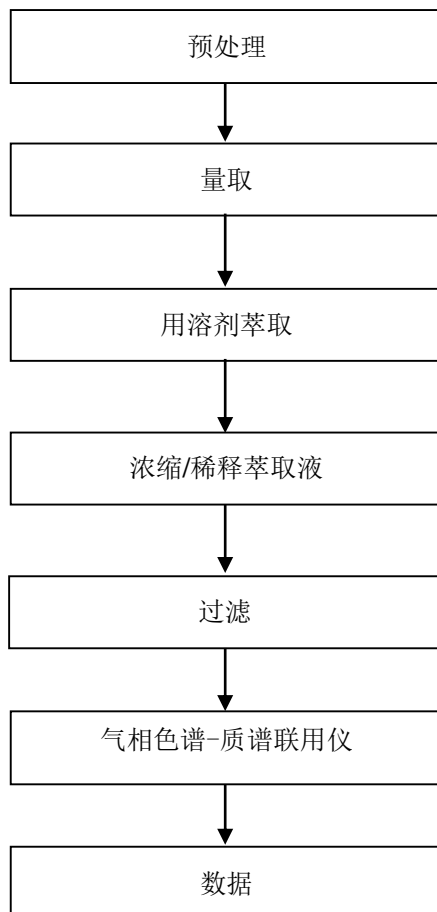
第 6 页, 共 8 页

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PBBs/PBDEs 检测流程图

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项目负责人: 张玉明



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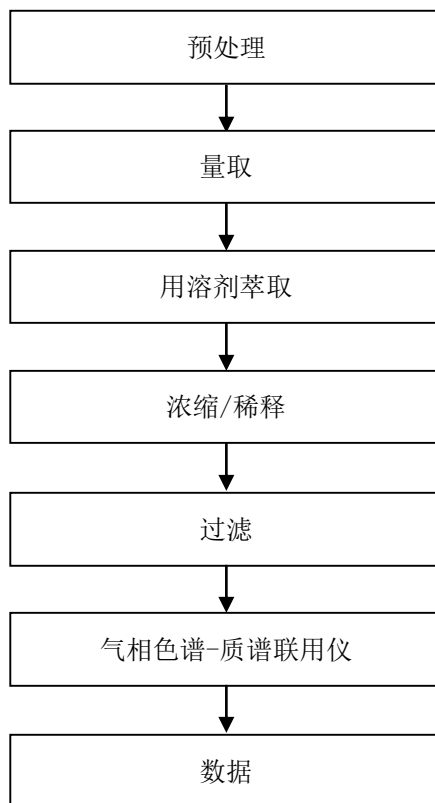
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分析人员: 韩晓春

项目负责人: 张玉明

Phthalates 检测流程图



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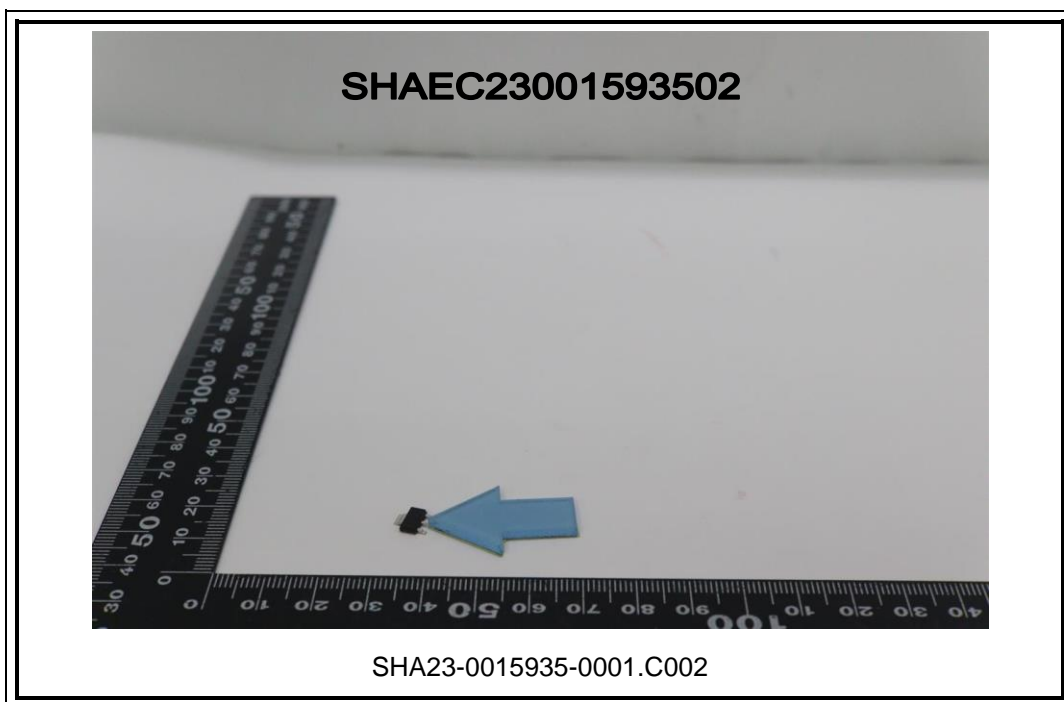
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第 8 页, 共 8 页

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