

检测报告

编号: SHAEC23021322532

日期: 2023 年 12 月 27 日

第 1 页, 共 9 页

客户名称: 上海东软载波微电子有限公司
客户地址: 上海市徐汇区古美路 1515 号凤凰园 12 号楼 3 楼

样品名称: LQFP48
型号: LQFP48
客户参考信息: LQFP48

以上样品及信息由客户提供。

SGS 工作编号: TIC1020231214132746O0NL
样品接收时间: 2023 年 12 月 18 日
检测周期: 2023 年 12 月 18 日 ~ 2023 年 12 月 26 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。

通标标准技术服务(上海)有限公司
授权签名

罗萍

Carol Luo 罗萍
批准签署人

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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 | A16 | SHA23-0213225-0001.C016 | 黑色固体本体部分(混合测*) |

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- 铅、汞、镉、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, UV-Vis 和 GC-MS 进行分析。

| 检测项目 | 限值 | 单位 | MDL | A16 |
|-----------------|------|-------|-----|-----|
| 镉 (Cd) | 100 | mg/kg | 2 | ND |
| 铅 (Pb) | 1000 | mg/kg | 2 | ND |
| 汞 (Hg) | 1000 | mg/kg | 2 | ND |
| 六价铬(Cr(VI)) | 1000 | mg/kg | 8 | ND |
| 多溴联苯之和(PBBs) | 1000 | mg/kg | - | ND |
| 一溴联苯(MonoBB) | - | mg/kg | 5 | ND |
| 二溴联苯(DiBB) | - | mg/kg | 5 | ND |
| 三溴联苯(TriBB) | - | mg/kg | 5 | ND |
| 四溴联苯(TetraBB) | - | mg/kg | 5 | ND |
| 五溴联苯(PentaBB) | - | mg/kg | 5 | ND |
| 六溴联苯(HexaBB) | - | mg/kg | 5 | ND |
| 七溴联苯(HeptaBB) | - | mg/kg | 5 | ND |
| 八溴联苯(OctaBB) | - | mg/kg | 5 | ND |
| 九溴联苯(NonaBB) | - | mg/kg | 5 | ND |
| 十溴联苯(DecaBB) | - | mg/kg | 5 | ND |
| 多溴二苯醚之和(PBDEs) | 1000 | mg/kg | - | ND |
| 一溴二苯醚(MonoBDE) | - | mg/kg | 5 | ND |
| 二溴二苯醚(DiBDE) | - | mg/kg | 5 | ND |
| 三溴二苯醚(TriBDE) | - | mg/kg | 5 | ND |
| 四溴二苯醚(TetraBDE) | - | mg/kg | 5 | ND |
| 五溴二苯醚(PentaBDE) | - | mg/kg | 5 | ND |
| 六溴二苯醚(HexaBDE) | - | mg/kg | 5 | ND |
| 七溴二苯醚(HeptaBDE) | - | mg/kg | 5 | ND |
| 八溴二苯醚(OctaBDE) | - | mg/kg | 5 | ND |



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| 检测项目 | 限值 | 单位 | MDL | A16 |
|------------------------|------|-------|-----|-----|
| 九溴二苯醚(NonaBDE) | - | mg/kg | 5 | ND |
| 十溴二苯醚(DecaBDE) | - | 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) 最大允许限值引用自 RoHS 指令(EU) 2015/863。
- (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。

卤素

检测方法: 参考 EN 14582:2016, 采用 IC 进行分析。

| 检测项目 | 单位 | MDL | A16 |
|--------|-------|-----|-----|
| 氟 (F) | mg/kg | 20 | ND |
| 氯 (Cl) | mg/kg | 50 | ND |
| 溴 (Br) | mg/kg | 50 | ND |
| 碘 (I) | mg/kg | 50 | ND |

*样品基于申请人要求为混合检测。报告中的混合检测结果不代表其中个别单一材质的含量, 该检测数据仅供参考

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。



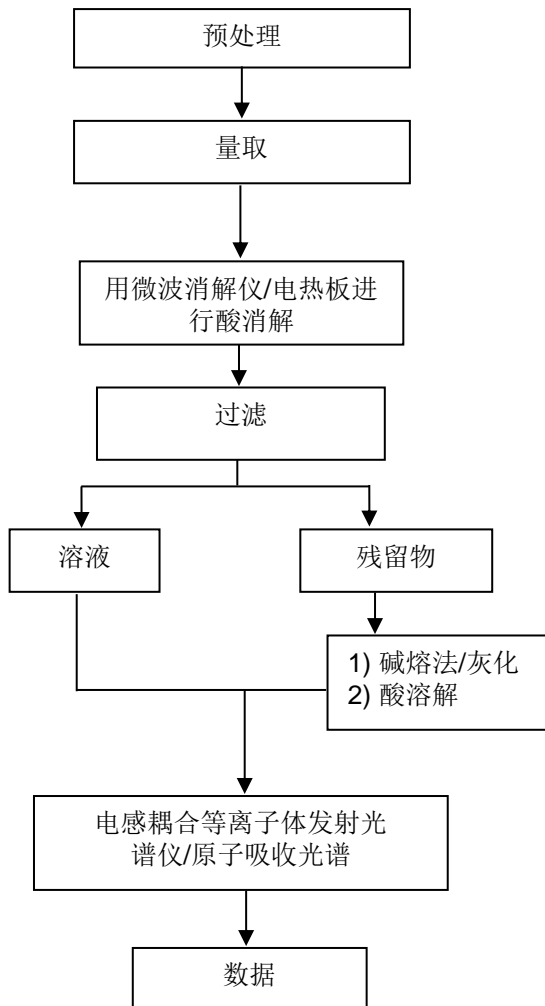
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元素检测流程图

样品按照下述流程被完全消解



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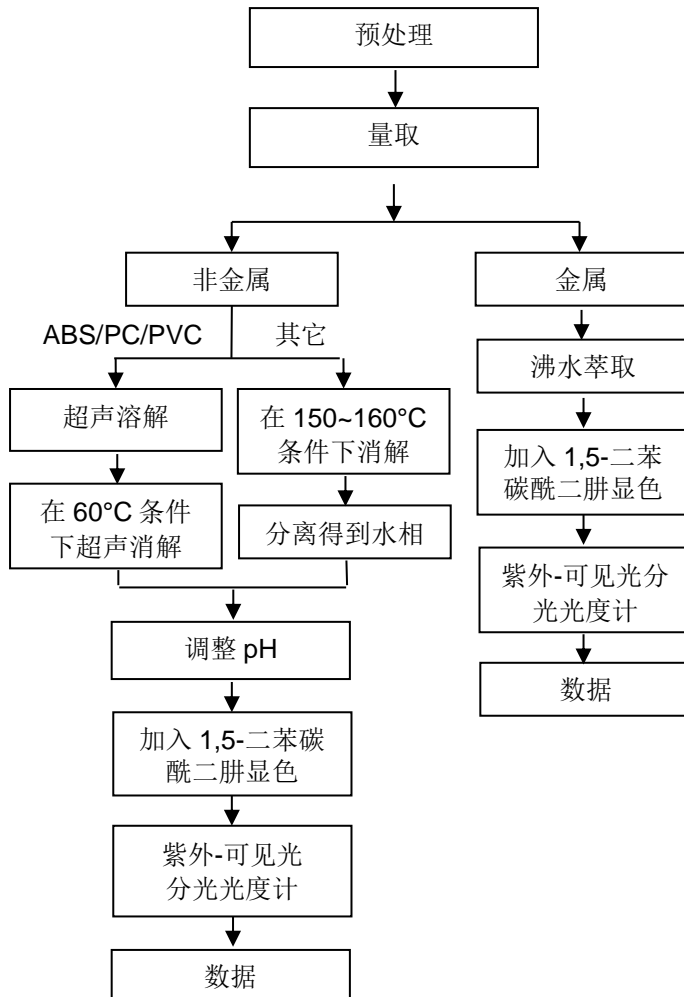
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六价铬检测流程图



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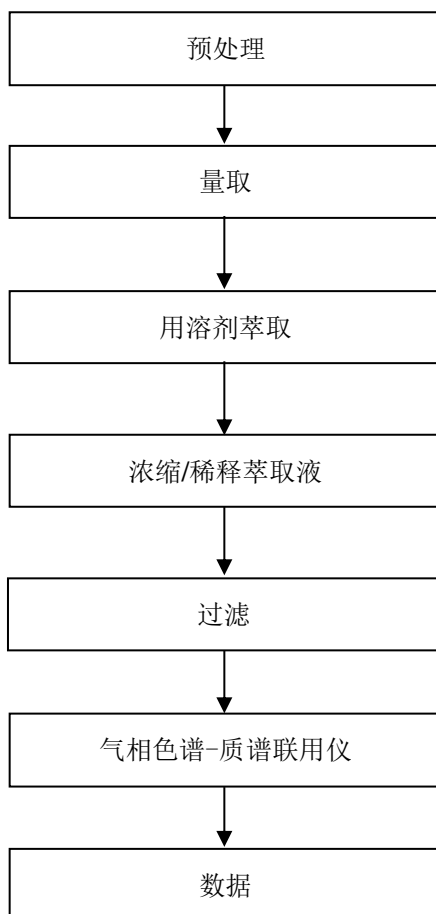
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PBBs/PBDEs 检测流程图



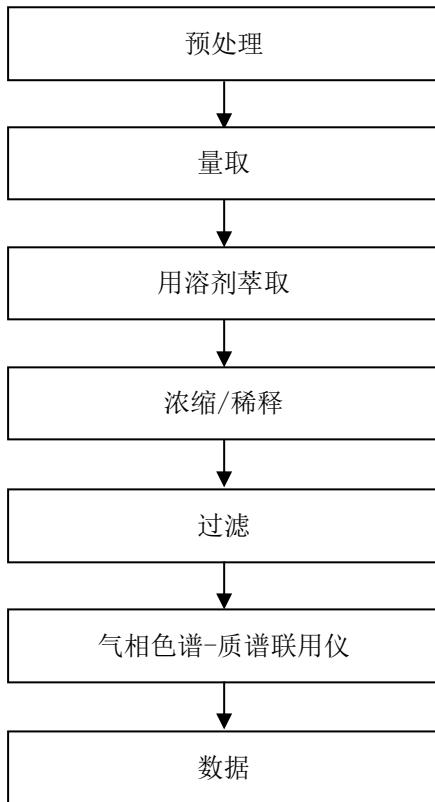
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Phthalates 检测流程图



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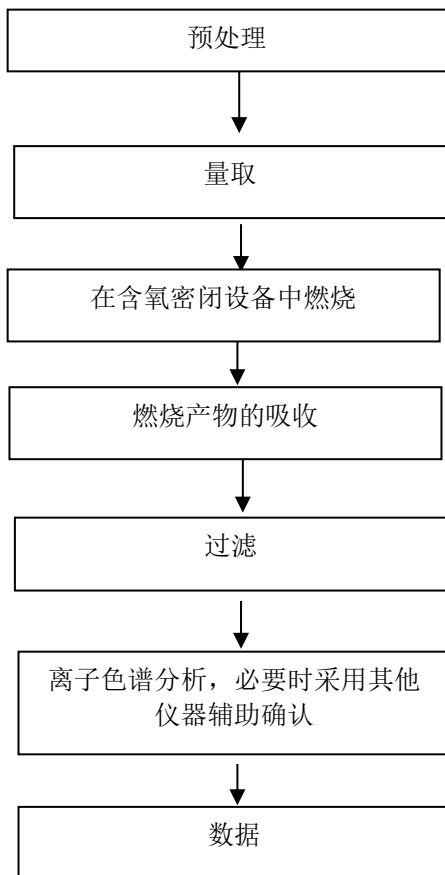
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卤素检测流程图



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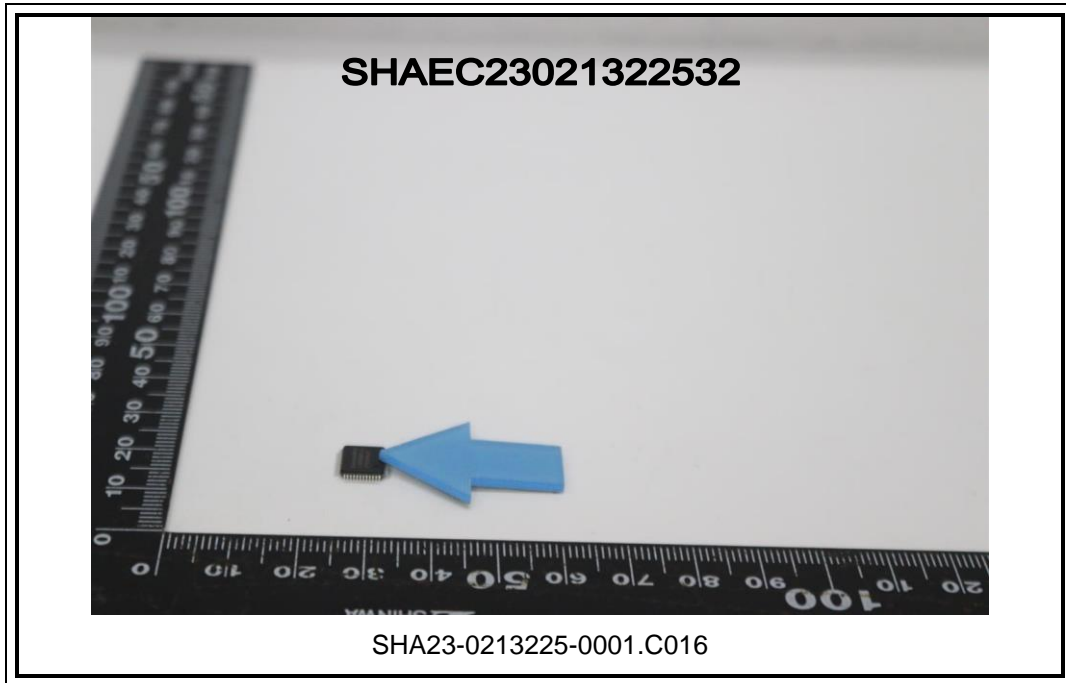
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