

检测报告

编号: SHAEC23001593502

日期: 2023 年 02 月 27 日

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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
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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	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), 邻苯二甲酸丁苯酯(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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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。

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 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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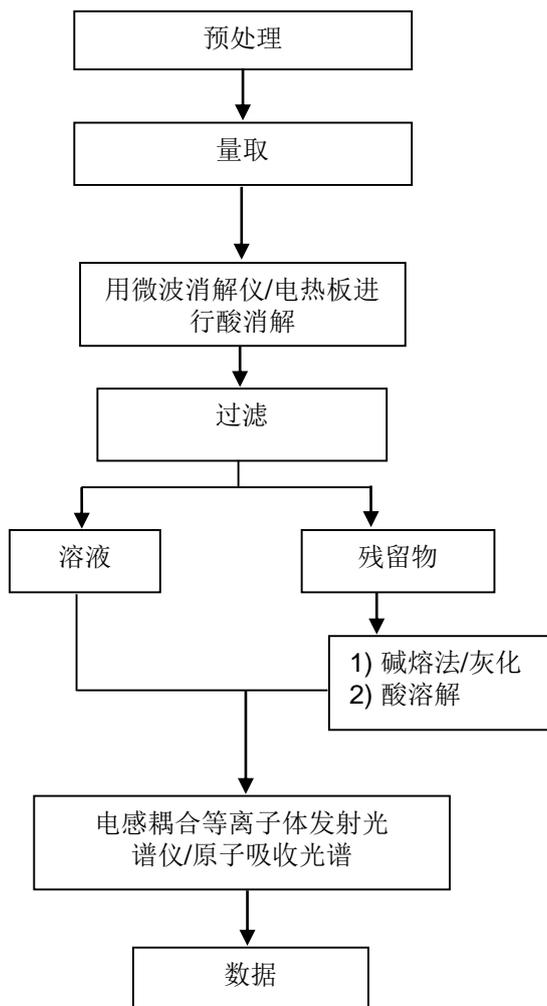
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附件

元素 (IEC62321) 检测流程图

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



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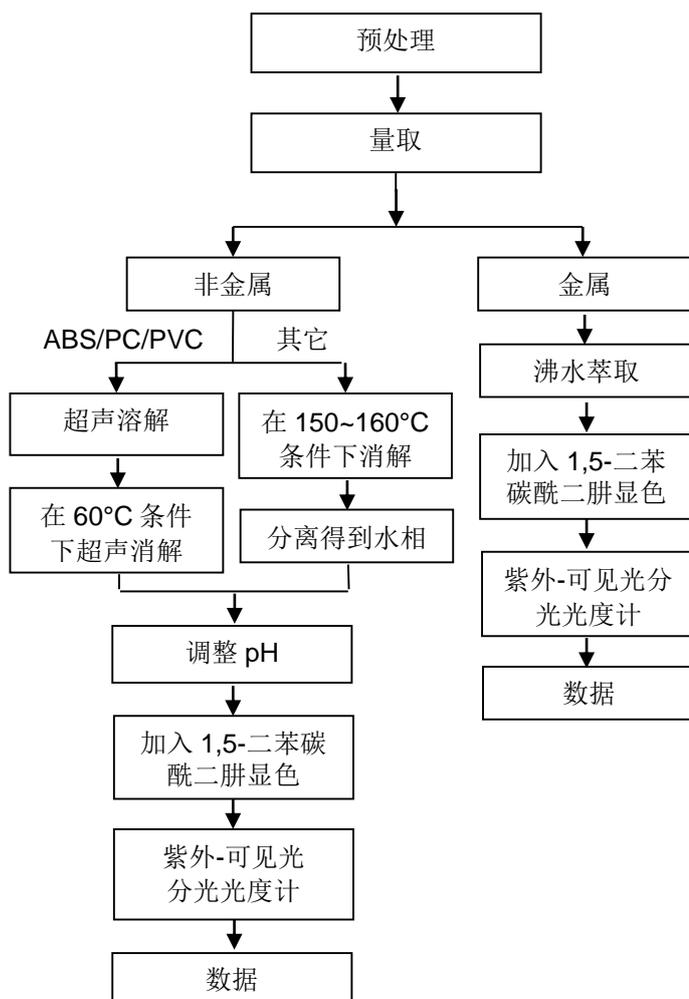
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六价铬检测流程图

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项目负责人: 杨小龙



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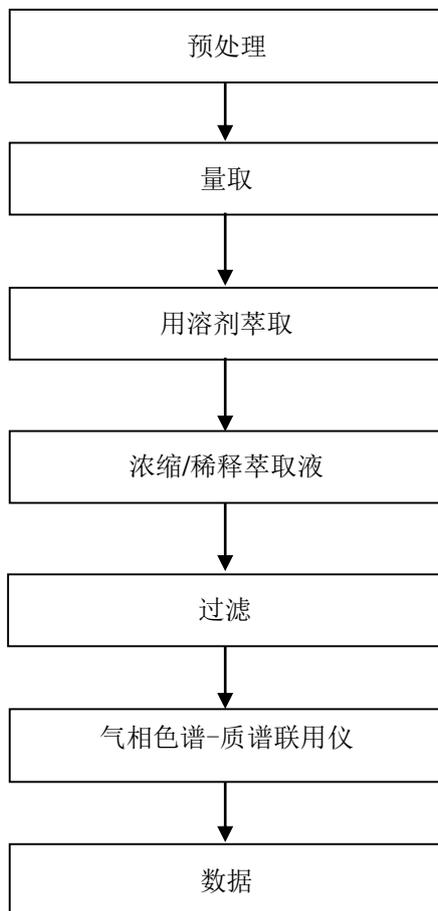
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分析人员: 徐刚
项目负责人: 张玉明

PBBs/PBDEs 检测流程图



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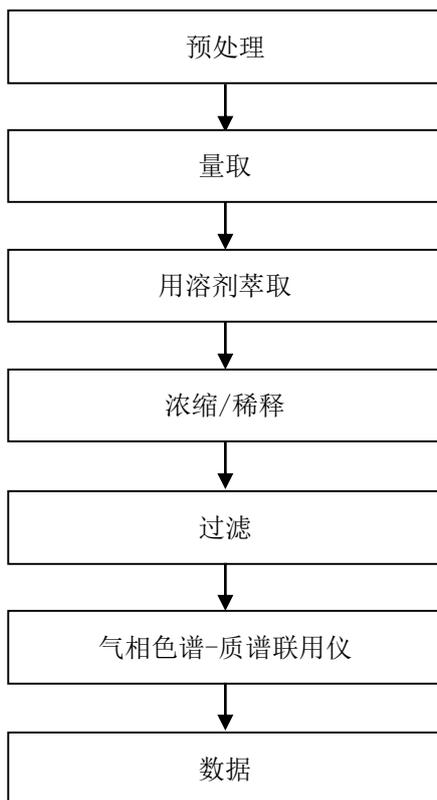
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分析人员: 韩晓春
项目负责人: 张玉明

Phthalates 检测流程图



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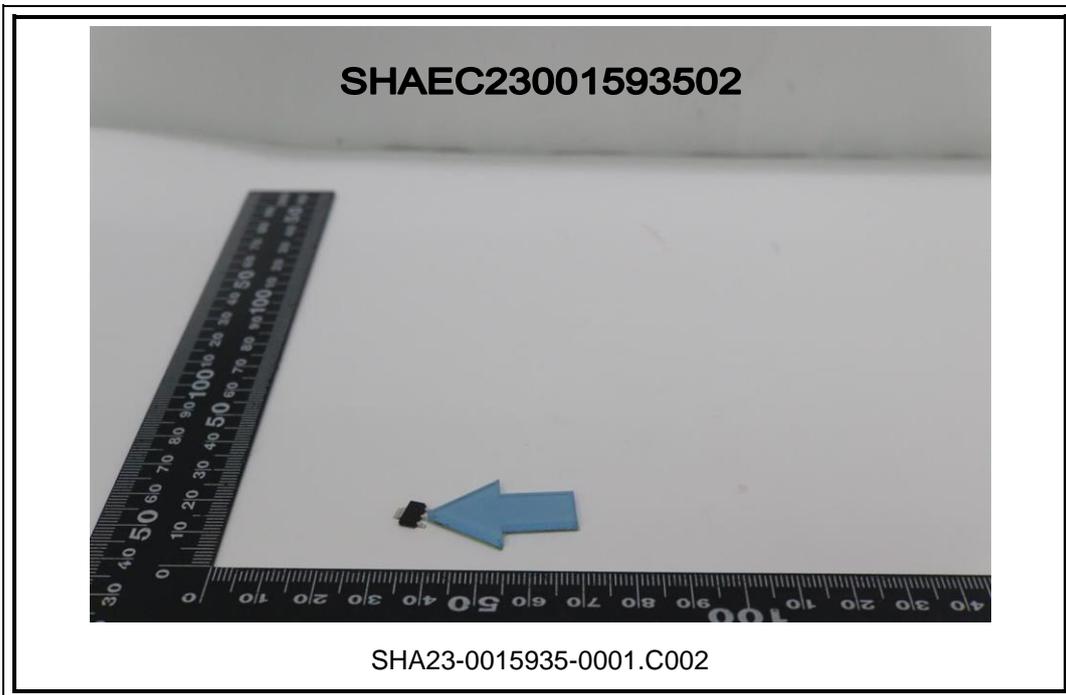
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