

检测报告

编号: CANEC24012711903

日期: 2024年06月21日

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客户名称: 江苏长晶科技股份有限公司
客户地址: 中国(江苏)自由贸易试验区南京片区研创园腾飞大厦C座13楼

样品名称: 半导体元件
型号: SMAG
客户参考信息: 见附件
以上样品及信息由客户提供。

SGS工作编号: GZP24-019588
参考编号: SHP24-018981
样品接收时间: 2024年06月13日
检测周期: 2024年06月13日~2024年06月20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-铅、汞、镉、六价铬、多溴联苯(PBB)、多溴二苯醚(PBDE)、邻苯二甲酸二(2-乙基己基)酯(DEHP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二丁酯(DBP)和邻苯二甲酸二异丁酯(DIBP) | 符合 |

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授权签名

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批准签署人

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Guangzhou Branch Technical Services Laboratory

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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 | CAN24-0127119-0001.C001 | 带银色金属脚的黑色本体 |

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 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)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。

| 检测项目 | 限值 | 单位 | MDL | A1 |
|------------------|------|-------|-----|--------------------|
| 铅 (Pb) | 1000 | mg/kg | 2 | 10067 [▲] |
| 汞 (Hg) | 1000 | mg/kg | 2 | ND |
| 镉 (Cd) | 100 | mg/kg | 2 | ND |
| 六价铬 (Cr(VI)) | 1000 | mg/kg | 8 | ND |
| 多溴联苯之和 (PBB) | 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 (PBDE) | 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 |



| 检测项目 | 限值 | 单位 | MDL | A1 |
|------------------------|------|-------|-----|----|
| 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(2-乙基己基)酯 (DEHP) | 1000 | mg/kg | 50 | ND |
| 邻苯二甲酸丁苄酯 (BBP) | 1000 | mg/kg | 50 | ND |
| 邻苯二甲酸二丁酯 (DBP) | 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) 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。

备注 1: ▲根据客户提供的声明, 样品中的铅(Pb)被欧盟 RoHS 指令 2011/65/EU 豁免, 相应豁免条文(请以英文原文为准) |ANNEX III 7(a)|: 高熔点型焊料中的铅(如铅含量等于或大于 85%的铅基合金焊料)。

▲根据客户提供的声明, 样品中的铅(Pb)被欧盟 RoHS 指令 2011/65/EU 豁免, 相应豁免条文(请以英文原文为准) |ANNEX III 7(c)-I|: 电子电气元件中玻璃或陶瓷材料(电容中陶瓷介质除外)所含的铅, 如压电设备、玻璃或陶瓷复合元件。

更多豁免相关信息, 可以从以下链接获取:

<https://rohs.sgsonline.com.cn/PDFLinks/zh-cn/RSTS-TP-037%20RoHS%20Exemption%20%28CN%29.pdf>

备注 2: 本报告中的检测结果和照片引用自报告 CANEC24012711901。

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。



附件

元素检测流程图

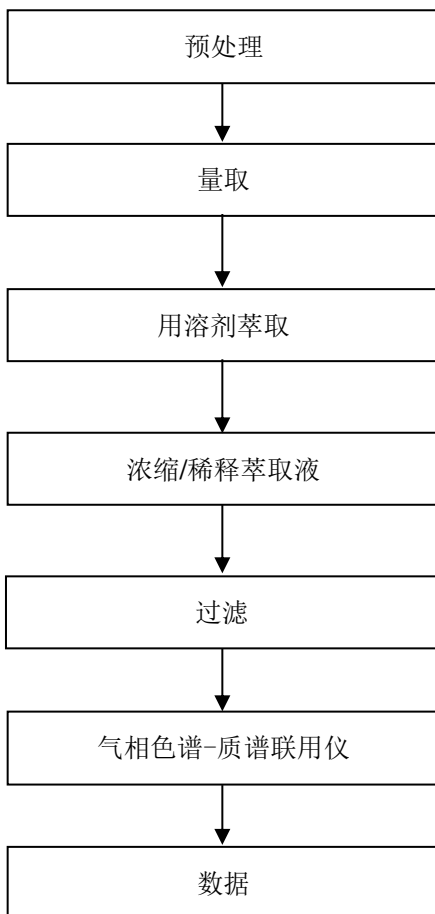
样品按照下述流程被完全消解



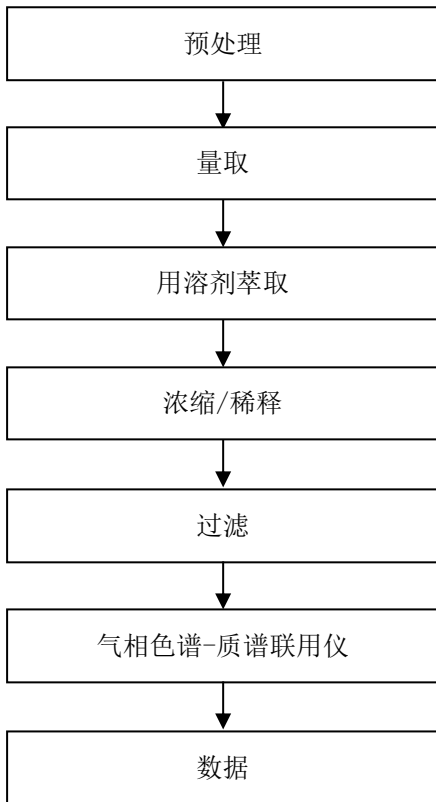
六价铬检测流程图



PBB/PBDE 检测流程图



Phthalates 检测流程图



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附件:

6GBJ、ABS、DB、DBS、GBJ、GBL、GBP、GBU、JBF、JBSL、KBL、KBP、KBU、MBF、MBS、SMA、SMAF、SMAG、SMAJ、SMB、SMBF、SMBG、SMBJ、SMC、SMCG、SMD、SOD-123FL、SOT-89 (-XL) /223、TO-126/220 (-XL) /220A/220F/227/247/251/251S/252/263/277/3P、PDFN、R-1、R-6、A-405、DO-15、DO-27、DO-41、UMSB、SOD-123HE、TO-220F-B、TO-220-2L、TO-220F-2L、TO-247-3L、TO-247-2L、4GBJ、TO-92K/126K/220AK/220BK/220CK/220FK/262K/263K/3PK/247K/252-2LK



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