

检测报告

编号: SHAEC25013678104

日期: 2025 年 06 月 11 日

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客户名称: 捷捷半导体有限公司
客户地址: 南通市苏通科技产业园井冈山路 6 号

样品名称: TO-220A
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: SHP25-018626
样品接收时间: 2025 年 06 月 09 日
检测周期: 2025 年 06 月 09 日 ~ 2025 年 06 月 11 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
AfPS GS 2019:01 PAK-多环芳香烃 (PAHs)	见检测结果

通标标准技术服务(上海)有限公司
授权签名

倪俊

Tom Ni 倪俊
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	A1	SHA25-0136781-0001.C001	黑色固体

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 方法检出限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

AfPS GS 2019:01 PAK-多环芳香烃 (PAHs)

检测方法: 参考 AfPS GS 2019:01 PAK, 采用 GC-MS 进行分析。

检测项目	CAS No.	单位	MDL	A1
苯并(a)芘 (BaP)	50-32-8	mg/kg	0.1	ND
苯并(e)芘 (BeP)	192-97-2	mg/kg	0.1	ND
苯并(a)蒽 (BaA)	56-55-3	mg/kg	0.1	ND
苯并(b)荧蒽 (BbF)	205-99-2	mg/kg	0.1	ND
苯并(j)荧蒽 (BjF)	205-82-3	mg/kg	0.1	ND
苯并(k)荧蒽 (BkF)	207-08-9	mg/kg	0.1	ND
蒽 (CHR)	218-01-9	mg/kg	0.1	ND
二苯并(a,h)蒽 (DBA)	53-70-3	mg/kg	0.1	ND
苯并(g,h,i)花(二苯并苯) (BPE)	191-24-2	mg/kg	0.1	ND
茚并(1,2,3-c,d)芘 (IPY)	193-39-5	mg/kg	0.1	ND
菲 (PHE)	85-01-8	mg/kg	0.1	ND
芘 (PYR)	129-00-0	mg/kg	0.1	ND
蒽 (ANT)	120-12-7	mg/kg	0.1	ND
荧蒽 (FLT)	206-44-0	mg/kg	0.1	ND
4 项多环芳香烃总和[菲 (PHE), 芘 (PYR), 蒽 (ANT), 荧蒽 (FLT)]	-	mg/kg	-	ND
萘 (NAP)	91-20-3	mg/kg	0.1	ND
15 项多环芳香烃总和	-	mg/kg	-	ND
材料分类	-	-	-	-

备注:

AfPS(德国产品安全委员会): 认证对多环芳香烃的要求

参数	1 类	2 类	3 类
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单位: mg/kg	设计意图为放入口中的材料, 或与皮肤长期接触 (超过 30 秒) 的材料用于 -2009/48/EC 定义的玩具, 或 -供 3 岁以下儿童 ^{a,b} 使用。	不属于第 1 类, 设计意图或可预见 ^d 与皮肤长期接触 (超过 30 秒) 或短期重复接触 ^c 的材料		不属于第 1 和 2 类, 设计意图或可预见与皮肤短期接触 (不超过 30 秒) 材料	
		a. 供儿童使用的产品	b. 其他产品	a. 供儿童使用的产品	b. 其他产品
苯并(a)芘 (BaP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(e)芘 (BeP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(a)蒽 (BaA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(b)荧蒽 (BbF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(j)荧蒽 (BjF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(k)荧蒽 (BkF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
蒽 (CHR), mg/kg	< 0.2	< 0.2	< 0.5	< 0.5	< 1
二苯并(a,h)蒽 (DBA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(g,h,i)花(二苯嵌苯) (BPE)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
茚并(1,2,3-c,d)芘 (IPY)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
菲 (PHE), 芘 (PYR), 蒽 (ANT), 荧蒽 (FLT)	< 1 (总和)	< 5 (总和)	< 10 (总和)	< 20 (总和)	< 50 (总和)
萘 (NAP)	< 1	< 2		< 10	
15 PAH 之和	< 1	< 5	< 10	< 20	< 50

注释:

^a 儿童是指法定年龄未满 14 周岁的人。^b 供儿童使用包括儿童的主动接触或被动接触。^c “短期重复接触”的定义摘自 REACH 附录 XVII 第 50 条修正案 (EC) No. 1272/2013)。^d 根据德国产品安全法 (ProdSG) (第一章第 2 条第 28 款) 的定义, “可预见的使用”是指将产品投放市场的人无意但可以合理预见的方式使用产品。

备注:

德国产品安全委员会 (AfPS) 于 2020 年 4 月 10 日发布了关于多环芳香烃 (PAHs) 的新文件 (AfPS GS 2019:01 PAK), 该文件将于 2020 年 7 月 1 日起用于 GS-MARK 认证。

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。

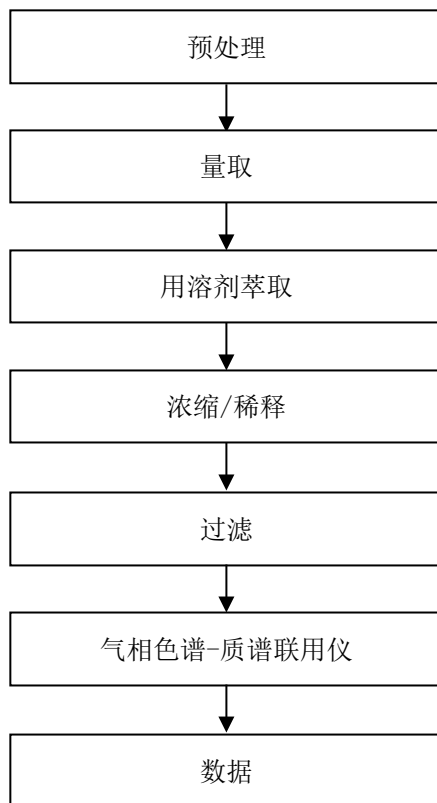


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PAHs 检测流程图



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附件:

402、603、2510、62mm、ABS、DBS、DFN0603-2L、DFN1006-2L、DFN1006-3L、DFN10x15-5L、DFN10x15-5L-XX、DFN1610-2L、DFN1610-6L、DFN2010-5L、DFN2010-8L、DFN2020-2L、DFN2020-3L、DFN2020-6L、DFN2020-6L-XX、DFN2020-8L、DFN2510-10L、DFN2626-10L、DFN2x2-3L、DFN2x2-6L、DFN2x2-6L-D、DFN2x2-6L-XX、DFN3.0x3.0-8L、DFN3.0x3.0-8L-SD (Type、B)、DFN3.3x3.3-8L-XX、DFN3.0x3.0-8L-XX、DFN3.3x3.3-8L、DFN3.3x3.3-8L (Type、B)、DFN3.3x3.3-8L-XX、DFN3020-10L、DFN3030-8L、DFN3030-8L-XX、DFN3030-12L、DFN3333-2L、DFN3333-8L、DFN3810-9L、DFN3x3-8L-XX、DFN4120-10L、DFN5060-8L、DFN5060-8L-XX、DFN5515-18L、DFN5x6-8L、DFN5x6-8L(Dual)、DFN5x6-8L-XX、DFN8080-2L、DFN8080-4L、DFN8x8-2L、DFN8x8-4L、DFN8x8-4L-XX、DIP-4、DIP-5、DO-15、DO-218AB、DO-27、DO-41、DriveJM-34、DriveJM-62、DriveJM-DC、DriveJM-E1、DriveJM-E2、DriveJM-EC、DriveJM-ED、DriveJM-H1、DriveJM-H2、EasyPack1B、EconoDual、ESOP-8、F3、FBP-02C-A、GBJ、GBL、GBU、IGBT-34mm、ITO-247、ITO-247-XX、KBL、KBP、LSOP-4、MBF、MBS、P6、PDFN3.3x3.3-8L、PDFN3.3x3.3-8L-XX、PDFN3x3-8L、PDFN3x3-8L-XX、PDFN5x6-8L、PDFN5x6-8L-XX、PowerJE10x12、PowerJE5x6、PowerJE7x8、PowerJE8x8、PPTC、R6、SGBJ、SGD0201、SGD0402、SMA、SMAF、SMB、SMBF、SMC、SMC-3、SMD-3225、SMD-4032、SMD-5、SMT、SMT-4、SMTF、SMTJ、SMTO-218Tab、SOD-123、SOD-123FL、SOD-123FLT、SOD-323、SOD-323F、SOD-323FL、SOD-523、SOD-723、SOD-923、SOP-10、SOP-16、SOP-4、SOP-5、SOP-7、SOP-8、SOT-143、SOT-143-XX、SOT-223、SOT-223-XX、SOT-227、SOT-227-XX、SOT-23、SOT-23-XX、SOT-323、SOT-323-XX、SOT-353、SOT-353-XX、SOT-363、SOT-363-XX、SOT-523、SOT-523-XX、SOT-563、SOT-563-XX、SOT-723、SOT-723-XX、SOT-82、SOT-89、SOT-89R-XX、SOT-89-XX、SSOP-16、SSOP-4、STOLL7x8-5L、T2B、TO-126、TO-202、TO-202-XX、TO-220A、TO-220A-2D-XX、TO-220AB、TO-220A-XX、TO-220B、TO-220B-XX、TO-220C、TO-220C-XX、TO-220F、TO-220FA、TO-220FA-XX、TO-220FP、TO-220FP-XX、TO-220HF、TO-220H-XX、TO-220MF-3L、TO-220-XX、TO-247、TO-247-XX、TO-247i-XX、TO-247iL-XX、TO-247iPS-XX、TO-247J、TO-247J-XX、TO-247plus、TO-247S、TO-247S-XX、TO-251、TO-251L-XX、TO-251S、TO-251-XX、TO-252、TO-252-XX、TO-262、TO-262-XX、TO-263、TO-263-XX、TO-277B、TO-3P、TO-3P-3L、TO-3PF-3L、TO-3PN-3L、TO-92、TO-92CR、TO-92KR、TO-92KRF、TO-92UR、TO-92-XX、TOLL9.9x10.38-8L、TSSOP-8、TSSOP-8、WSOP-6



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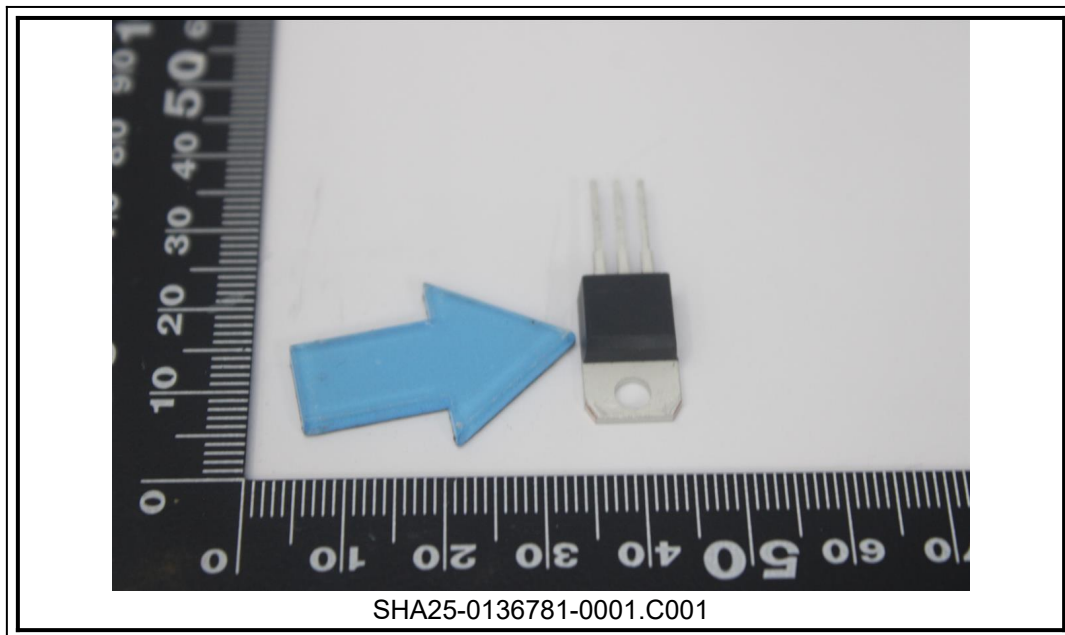
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