

检测报告

编号: SHAEC26014293208

日期: 2026年05月28日

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客户名称: 江苏捷捷微电子股份有限公司
客户地址: 江苏省启东市经济开发区钱塘江路3000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: SHP26-017926
样品接收时间: 2026年05月20日
检测周期: 2026年05月20日~2026年05月28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 POPs 法规(EU) 2019/1021 附录 I-C ₁₀ -C ₁₃ 氯代烃(短链氯化石蜡)(SCCPs)	符合
欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2024/2570-六溴环十二烷(HBCDD) 及其非对映异构体(α -HBCDD, β -HBCDD, γ -HBCDD)	符合
欧盟 POPs 法规 (EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/718 - 全氟辛酸(PFOA)及其盐, 全氟辛酸(PFOA)相关化合物, 全氟辛烷磺酸(PFOS)及其盐和全氟辛烷磺酸(PFOS)相关化合物	符合
欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2021/277- 五氯苯酚(PCP)及其盐和酯	符合
欧盟 POPs 法规 (EU) 2019/1021 及其修正法规(EU) 2023/1608-全氟己烷磺酸(PFHxS)及其盐和相关化合物	符合
欧盟 POPs 法规(EU) 2019/1021 附录 I-卤代化合物	符合
欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/843- UV-328	符合

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检测要求	结论
欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/1930- 得克隆 (DP)	符合

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	SHA26-0142932-0001.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

欧盟 POPs 法规(EU) 2019/1021 附录 I-C₁₀-C₁₃ 氯代烃(短链氯化石蜡)(SCCPs)

检测方法: 参考 ISO 22818:2021, 采用 GC-NCI-MS 进行分析。

检测项目	CAS No.	限值	单位	MDL	A1
C ₁₀ -C ₁₃ 氯代烃(短链氯化石蜡)(SCCPs)	85535-84-8 及其它	1500	mg/kg	50	ND
结论					符合

欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2024/2570-六溴环十二烷(HBCDD) 及其非对映异构体(α-HBCDD, β-HBCDD, γ-HBCDD)

检测方法: SGS 内部方法, 采用 GC-MS 进行分析。

检测项目	CAS No.	限值	单位	MDL	A1
六溴环十二烷(HBCDD) 及其非对映异构体(α-HBCDD, β-HBCDD, γ-HBCDD)	134237-50-6 /134237-51-7 /134237-52-8 /25637-99-4 /3194-55-6	75	mg/kg	20	ND
结论					符合

备注:

- (1) 委员会应在 2026 年 1 月 1 日前审查和评估规定的豁免。

欧盟 POPs 法规 (EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/718 - 全氟辛酸(PFOA)及其盐, 全氟辛酸(PFOA)相关化合物, 全氟辛烷磺酸(PFOS)及其盐和全氟辛烷磺酸(PFOS)相关化合物

检测方法: 优化的 EN 17681-1:2025, 采用 LC-MS 或 LC-MS/MS 和 GC-MS 或 GC-MS/MS 进行分析。



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检测项目	CAS No.	限值	单位	MDL	A1
PFOS, 及其盐					
全氟辛烷磺酸 (PFOS), 及其盐 [^]	1763-23-1	0.025	mg/kg	0.010	ND
PFOS 相关化合物					
N-乙基全氟辛烷磺酰胺 (N-EtFOSA)	4151-50-2	-	mg/kg	0.010	ND
N-甲基全氟辛烷磺酰胺 (N-MeFOSA)	31506-32-8	-	mg/kg	0.010	ND
2-(N-乙基全氟辛基磺酰胺)乙醇 (N-EtFOSE)	1691-99-2	-	mg/kg	0.010	ND
2-(N-甲基全氟辛基磺酰胺)乙醇 (N-MeFOSE)	24448-09-7	-	mg/kg	0.010	ND
全氟辛基磺酰胺 (PFOSA), 及其盐 [^]	754-91-6	-	mg/kg	0.010	ND
N-(全氟-1-辛烷磺酰基)甘氨酸 (FOSAA), 及其盐 [^]	2806-24-8	-	mg/kg	0.010	ND
N-甲基-N-(全氟-1-辛烷磺酰基)甘氨酸 (N-MeFOSAA), 及其盐 [^]	2355-31-9	-	mg/kg	0.010	ND
N-乙基-N-(全氟-1-辛烷磺酰基)甘氨酸 (N-EtFOSAA), 及其盐 [^]	2991-50-6	-	mg/kg	0.010	ND
2-(N-乙基全氟辛烷磺酰胺基)丙烯酸乙酯 (EtFOSAC)	423-82-5	-	mg/kg	0.200	ND
PFOS 相关化合物总和	-	1	mg/kg	-	ND
PFOA, 及其盐					
全氟辛酸 (PFOA), 及其盐 [^]	335-67-1	0.025	mg/kg	0.010	ND
PFOA 相关化合物					
1H,1H,2H,2H-全氟癸烷磺酸 (8:2 FTS), 及其盐 [^]	39108-34-4	1	mg/kg	0.010	ND
全氟辛酸甲酯 (Me-PFOA)	376-27-2	1	mg/kg	0.200	ND
全氟辛酸乙酯 (Et-PFOA)	3108-24-5	1	mg/kg	0.200	ND
1H,1H,2H,2H-全氟癸基丙烯酸酯 (8:2 FTA)	27905-45-9	1	mg/kg	0.100	ND
1H,1H,2H,2H-甲基丙烯酸全氟癸酯 (8:2 FTMA)	1996-88-9	1	mg/kg	0.100	ND
全氟辛基碘烷 (PFOI)	507-63-1	1	mg/kg	0.200	ND
2H, 2H-全氟癸酸 (8:2 FTCA), 及其盐 [^]	27854-31-5	1	mg/kg	0.010	ND
1H,1H,2H,2H-全氟-1-癸醇 (8:2 FTOH)	678-39-7	1	mg/kg	0.100	ND
1-碘-1H,1H,2H,2H-全氟癸烷 (8:2 FTI)	2043-53-0	1	mg/kg	0.100	ND
1H,1H,2H,2H-全氟癸基三乙氧基硅烷 (8:2 FTSi(OC ₂ H ₅) ₃)	101947-16-4	1	mg/kg	0.100	ND
双[2-(全氟辛基)]乙基磷酸酯(8:2diPAP), 及其盐 [^]	678-41-1	1	mg/kg	0.010	ND
2H, 2H, 3H, 3H-全氟十一烷酸 (8:3 FTCA), 及其盐 [^]	34598-33-9	1	mg/kg	0.010	ND
全氟辛基乙烯 (PFDE)	21652-58-4	1	mg/kg	0.100	ND
3-全氟庚基丙酸 (7:3 FTCA)	812-70-4	1	mg/kg	0.010	ND
1H,1H,2H,2H-全氟癸基三氯硅烷 (8:2 FTSiCl ₃)/	78560-44-8 /83048-65-1	1	mg/kg	0.100	ND



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检测项目	CAS No.	限值	单位	MDL	A1
1H,1H,2H,2H-全氟癸基三甲氧基硅烷 (8:2 FTSi(OCH ₃) ₃)					
2H-全氟-2-癸烯酸 (8:2 FTUCA)	70887-84-2	1	mg/kg	0.010	ND
6:8 全氟次磷酸 (6:8 PFPI)	610800-34-5	1	mg/kg	0.010	ND
8:8 全氟次磷酸 (8:8 PFPI), 及其盐 [^]	40143-79-1	1	mg/kg	0.010	ND
1H,1H,2H,2H-全氟十二烷基乙酸酯(8:2 FTOAc)	37858-04-1	1	mg/kg	0.100	ND
单[2-(全氟辛基)乙基]磷酸盐 (8:2 monoPAP), 及其盐 [^]	57678-03-2	1	mg/kg	0.100	ND
1H,1H,2H,2H-全氟-1-十二烷醇 (10:2 FTOH)	865-86-1	1	mg/kg	0.100	ND
1,1,2,2-四氢全氟-1-十四醇 (12:2 FTOH)	39239-77-5	1	mg/kg	0.100	ND
1H,1H,2H,2H-全氟十二烷磺酸 (10:2 FTS), 及其盐 [^]	120226-60-0	1	mg/kg	0.100	ND
双[2-(全氟癸基)乙基]磷酸盐 (10:2 diPAP), 及其盐 [^]	1895-26-7	1	mg/kg	0.100	ND
2H-全氟-2-十二烯酸 (10:2 FTUCA)	70887-94-4	1	mg/kg	0.010	ND
2-全氟癸基乙酸 (10:2 FTCA)	53826-13-4	1	mg/kg	0.010	ND
单[2-(全氟癸基)乙基]磷酸酯 (10:2 monoPAP), 及其盐 [^]	57678-05-4	1	mg/kg	0.100	ND
1H,1H,2H,2H-全氟十二烷基丙烯酸酯 (10:2 FTA)	17741-60-5	1	mg/kg	0.100	ND
1H,1H,2H,2H-全氟十二烷基甲基丙烯酸酯 (10:2 FTMA)	2144-54-9	1	mg/kg	0.100	ND
全氟癸基乙基碘 (10:2 FTI)	2043-54-1	1	mg/kg	0.100	ND
1H,1H,2H,2H-全氟十四烷基碘 (12:2 FTI)	30046-31-2	1	mg/kg	0.100	ND
1-碘全氟癸烷 (PFDI)	423-62-1	1	mg/kg	0.100	ND
全氟碘代十二烷 (PFDoDI)	307-60-8	1	mg/kg	0.100	ND
PFOA 相关化合物总和	-	1	mg/kg	-	ND
结论					符合

备注:

- 依据欧盟POPs法规 (EU) 2019/1021 附录I 及其修正法规 (EU) 2025/718, 在物质, 混合物或物品中, 全氟辛烷磺酸 (PFOS)及其盐的浓度等于或低于0.025 mg/kg(0,000025 %), PFOS相关化合物总和的浓度等于或低于1 mg/kg(0,0001%), 适用日期: 2025年12月3日起。
- [^]=物质是指下表中列出的盐/衍生物。

物质名称	CAS No.
PFOS, 及其盐&衍生物	
全氟辛烷磺酸(PFOS)	1763-23-1
全氟辛基磺酸钾(PFOS-K)	2795-39-3
全氟辛基磺酸锂(PFOS-Li)	29457-72-5
全氟辛基磺酸钠(PFOS-Na)	4021-47-0
全氟辛基磺酸铵(PFOS-NH ₄)	29081-56-9



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全氟辛基磺酸二乙醇铵(PFOS-NH ₂ (C ₂ H ₄ OH) ₂)	70225-14-8
全氟辛基磺酸四乙基铵(PFOS-N(C ₂ H ₅) ₄)	56773-42-3
全氟辛基磺酸二癸二甲基铵(PFOS-N(C ₁₀ H ₂₁) ₂ (CH ₃) ₂)	251099-16-8
全氟辛基磺酸四丁基铵(PFOS-N(C ₄ H ₉) ₄)	111873-33-7
全氟辛基磺酰氟(PFOS-F)	307-35-7
双[十七氟辛烷磺酸]镁(PFOS-Mg)	91036-71-4
全氟辛烷磺酸吡啶	71463-74-6
全氟辛烷磺酸盐	45298-90-6
全氟辛烷磺酸三乙基铵(PFOS-NH(C ₂ H ₅) ₃)	54439-46-2
全氟辛烷磺酸四甲基铵(PFOS-N(CH ₃) ₄)	56773-44-5
N,N,N-三丙基戊烷-1-七氟辛烷-1-磺酸铵(PFOS-N(C ₃ H ₇) ₃ (C ₅ H ₁₁))	56773-56-9
N,N-二丁基-N-甲基丁烷-1-胺十七氟辛烷-1-磺酸酯(PFOS-N(C ₄ H ₉) ₃ (CH ₃))	124472-68-0
双[4-(1,1-二甲基乙基)苯基]-碘鎓与全氟-1-辛烷磺酸的盐(1:1)	213740-80-8
全氟-1-辛烷磺酸二苯基(2,4,6-三甲基苯基)鎓	258341-99-0
全氟-1-辛烷磺酸1-十六烷基吡啶鎓	334529-63-4
N,N,N-三乙基癸-1-胺十七氟辛烷-1-磺酸盐	773895-92-4
全氟辛烷磺酸四丁基磷 (PFOS-P (C ₄ H ₉) ₄)	2185049-59-4
全氟辛基磺酸二乙胺 (PFOS-C ₄ H ₁₁ N)	2205029-08-7
全氟辛基磺酸庚基二甲基-[2-(2-甲基丙-2-烯酰氧基)乙基]胺 (PFOS-C ₁₅ H ₃₀ NO ₂)	1203998-97-3
全氟辛基磺酸酐(PFOSAN)	423-92-7
全氟辛基磺酰氯(PFOS-Cl)	423-60-9
FOSAA, 及其盐	
N-(全氟-1-辛烷磺酰基)甘氨酸(FOSAA)	2806-24-8
全氟辛烷磺酰氨基乙酸盐 (FOSAA(anion))	909405-47-6
全氟辛烷磺酰氨基乙酸钾 (FOSAA-K)	75260-69-4
全氟辛烷磺酰氨基乙酸钠 (FOSAA-Na)	115716-87-5
N-MeFOSAA, 及其盐	
N-甲基-N-(全氟-1-辛烷磺酰基)甘氨酸 (N-MeFOSAA)	2355-31-9
N-(十七氟辛基磺酰基)-N-甲基甘氨酸盐 (N-Me-FOSAA(anion))	909405-48-7
N-(十七氟辛基磺酰基)-N-甲基甘氨酸钾 (N-Me-FOSAA-K)	70281-93-5
N-EtFOSAA, 及其盐	
N-乙基-N-(全氟-1-辛烷磺酰基)甘氨酸(N-EtFOSAA)	2991-50-6
N-乙基-N-[(十七烷氟辛基)磺酰基]-甘氨酸钾盐 (N-Et-FOSAA-K)	2991-51-7
N-乙基-N-((十七氟辛基)磺酰基)甘氨酸盐 (N-Et-FOSAA(anion))	909405-49-8
N-乙基-N-((十七氟辛基)磺酰基)甘氨酸铵 (N-Et-FOSAA-NH ₄)	2991-52-8
N-乙基-N-((十七氟辛基)磺酰基)甘氨酸钠 (N-Et-FOSAA-Na)	3871-50-9



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PFOSA, 及其盐	
全氟辛基磺酰胺(PFOSA)	754-91-6
全氟辛基磺酰胺锂盐(1:1)(PFOSA-Li)	76752-79-9
全氟辛基磺酰胺钠盐 (1:1) (PFOSA-Na)	76752-78-8
全氟辛基磺酰胺钾盐 (1:1) (PFOSA-K)	76752-70-0
全氟辛基磺酰胺铵盐 (1:1) (PFOSA-NH ₄)	76752-72-2
全氟辛基磺酰胺三乙胺 (PFOSA-C ₆ H ₁₅ N)	76752-82-4
PFOA, 及其盐&衍生物	
全氟辛酸(PFOA)	335-67-1
全氟辛酸钠(PFOA-Na)	335-95-5
全氟辛酸钾(PFOA-K)	2395-00-8
全氟辛酸银(PFOA-Ag)	335-93-3
全氟辛酰氟(PFOA-F)	335-66-0
全氟辛酸铵(APFO)	3825-26-1
全氟辛酸锂(PFOA-Li)	17125-58-5
全氟辛酸钴(PFOA-Co)	35965-01-6
全氟辛酸铯(PFOA-Cs)	17125-60-9
全氟辛酸铬(3+) (PFOA-Cr(3+))	68141-02-6
全氟辛酸-哌嗪(2:1) (PFOA-NH(C ₄ H ₁₀ N))	423-52-9
全氟辛酸盐	45285-51-6
全氟辛酸酐	33496-48-9
全氟辛酸四乙基胺	98241-25-9
全氟辛酸四甲基胺	32609-65-7
全氟辛酸四丙基胺	277749-00-5
全氟辛酸钾水合物 (PFOA-K(H ₂ O) ₂)	98065-31-7
全氟辛酸乙胺 (PFOA-C ₂ H ₇ N)	1376936-03-6
全氟辛酸吡啶 (PFOA-C ₅ H ₅ N)	95658-47-2
全氟辛酸苯基哌嗪 (PFOA-C ₁₀ H ₁₄ N ₂)	1514-68-7
全氟辛酸辛基三甲基铵 (PFOA-C ₁₁ H ₂₆ N)	927835-01-6
全氟辛酰氯 (PFOA-Cl)	335-64-8
全氟辛酰溴(PFOA-Br)	222037-87-8
8:2 FTS, 及其盐	
1H,1H,2H,2H-全氟癸烷磺酸(8:2 FTS)	39108-34-4
1H,1H,2H,2H-全氟癸磺酸钾(8:2 FTS-K)	438237-73-1
1H,1H,2H,2H-全氟癸磺酸铵(8:2 FTS-NH ₄)	149724-40-3
1H,1H,2H,2H-全氟癸磺酸钠(8:2 FTS-Na)	27619-96-1
1H,1H,2H,2H-全氟癸磺酸盐 (8:2 FTS(anion))	481071-78-7
1H,1H,2H,2H-全氟癸磺酰氯 (8:2 FTS-Cl)	27619-90-5



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8:2 FTCA, 及其盐	
2H,2H-全氟癸酸(8:2 FTCA)	27854-31-5
四丁基磷2H,2H-全氟癸酸酯(8:2 FTCA-P(C ₄ H ₉) ₄)	882489-14-7
8:2diPAP, 及其盐	
双[2-(全氟辛基)]乙基磷酸酯(8:2diPAP)	678-41-1
双[2-(全氟辛基)]乙基磷酸酯钠(8:2diPAP-Na)	114519-85-6
双(2-羟乙基)铵双(全氟辛基)乙基磷酸氢	57677-97-1
双[2-(全氟辛基)]乙基磷酸酯铵盐(8:2 diPAP-NH ₄)	93776-20-6
8:2氟调聚物磷酸二酯离子	1411713-91-1
8:3 FTCA, 及其盐	
2H,2H,3H,3H-全氟十一烷酸(8:3 FTCA)	34598-33-9
2H,2H,3H,3H-全氟十一烷酸钾(8:3 FTCA-K)	83310-58-1
2H,2H,3H,3H-全氟十一酸锂(8:3 FTCA-Li)	67304-23-8
8:8 PFPI,及其盐	
8:8全氟次磷酸(8:8 PFPI)	40143-79-1
8:8 全氟次磷酸钠盐(8:8 PFPI-Na)	500776-69-2
8:8 全氟次磷酸铟(3+)盐(8:8 PFPI-Er)	500776-70-5
8:8 全氟次磷酸镱(3+)盐(8:8 PFPI-Yb)	500776-71-6
8:2 monoPAP, 及其盐	
单[2-(全氟辛基)乙基]磷酸盐(8:2 monoPAP)	57678-03-2
8:2氟调聚物磷酸二铵盐	93857-44-4
8:2氟调聚物磷酸钠盐	438237-75-3
双[2-(全氟辛基)乙基]磷酸铵盐	1764-95-0
单[2-(全氟辛基)乙基]磷酸铵盐	92401-44-0
单[2-(全氟辛基)乙基]磷酸单钠盐	144965-22-0
单[2-(全氟辛基)乙基]磷酸单钾盐	150033-28-6
单[2-(全氟辛基)乙基]磷酸氢铵盐	2353-52-8
10:2 FTS, 及其盐	
1H,1H,2H,2H-全氟十二烷磺酸(10:2 FTS)	120226-60-0
1H,1H,2H,2H-全氟十二烷磺酸钠(10:2 FTS-Na)	108026-35-3
1H,1H,2H,2H-全氟十二烷磺酰氯(10:2 FTS-Cl)	27619-91-6
10:2 diPAP, 及其盐	
双[2-(全氟癸基)乙基]磷酸盐(10:2 diPAP)	1895-26-7
2,2'-亚氨基二乙醇双[2-(全氟癸基)乙基]磷酸盐(10:2 diPAP-C ₄ H ₁₁ O ₂)	57677-98-2
10:2 monoPAP, 及其盐	
单[2-(全氟癸基)乙基]磷酸酯(10:2 monoPAP)	57678-05-4
单[2-(全氟癸基)乙基]磷酸双铵盐	93857-45-5
二十一氟十二烷基磷酸二氢酯环己铵盐	2514858-66-1



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(3) 结论仅针对报告上的物质清单。

欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2021/277- 五氯苯酚(PCP)及其盐和酯

检测方法: 参考 EN 17134-2:2023, 采用 GC-MS 进行分析。

检测项目	CAS No.	限值	单位	MDL	A1
五氯苯酚(PCP)及其盐和酯	87-86-5 和其它	5	mg/kg	0.5	ND
结论					符合

欧盟 POPs 法规 (EU) 2019/1021 及其修正法规(EU) 2023/1608-全氟己烷磺酸(PFHxS)及其盐和相关化合物

检测方法: 优化的 EN 17681-1:2025, 采用 LC-MS 或 LC-MS/MS 和 GC-MS 或 GC-MS/MS 进行分析。

检测项目	CAS No.	限值	单位	MDL	A1
PFHxS, 及其盐					
全氟己基磺酸 (PFHxS), 及其盐^	355-46-4	0.025	mg/kg	0.010	ND
PFHxS 相关化合物					
N-甲基全氟-1-己磺酰胺 (N-Me-PFHxSA)	68259-15-4	1	mg/kg	0.010	ND
全氟己烷磺酰胺 (PFHxSA)	41997-13-1	1	mg/kg	0.010	ND
N-[3-(二甲基氨基)丙基]十三氟己烷磺酰胺 (N-AP-FHxSA)	50598-28-2	1	mg/kg	0.010	ND
2-[甲基[(十三氟己基)磺酰基]氨基]乙基丙烯酸酯 (N-MeFHSEA)	67584-57-0	1	mg/kg	0.200	ND
2-[甲基[(十三氟己基)磺酰基]氨基]乙基甲基丙烯酸酯	67584-61-6	1	mg/kg	0.200	ND
2-[乙基[(十三氟己基)磺酰基]氨基]乙基甲基丙烯酸酯	67906-70-1	1	mg/kg	0.200	ND
十三氟-N-(2-羟基乙基)-N-甲基己烷磺酰胺 (MeFHxSE)	68555-75-9	1	mg/kg	0.010	ND
N-乙基-N-[(十三氟己基)磺酰基]甘氨酸 (EtFHxSAA), 及其盐^	68957-32-4	1	mg/kg	0.010	ND
PFHxS 相关化合物总和	-	1	mg/kg	-	ND
结论					符合

备注:

(1) 2023年8月8日, 欧盟委员会于欧盟官方公报发布(EU)2023/1608法规, 修订了2023年5月30日发布的法规(EU)2019/1021附件I中关于全氟己烷磺酸(PFHxS)、其盐和PFHxS相关化合物清单。

物质	范围	中间用途或其他规范的特殊豁免
PFHxS 及其盐	物质或混合物, 物品	≤ 0.025 mg/kg
PFHxS相关物质	物质或混合物, 物品	≤ 1 mg/kg (单项或PFHxS相关物质总和)



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PFHxS 及其盐和 PFHxS 相关化合物	浓缩消防泡沫混合物	≤ 0.1 mg/kg (3年内进行审查以降低限值)
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(2) 本报告中检测的全氟己烷磺酸(PFHxS)及其盐类和PFHxS相关化合物参考欧洲化学品管理局的“持久性有机污染物官方清单”, 请通过以下网络链接查找更多信息:

<https://echa.europa.eu/list-of-substances-proposed-as-pops>

(3) ^=物质是指下表列出的盐/衍生物

物质名称	CAS No.
PFHxS, 及其盐&衍生物	
全氟己基磺酸(PFHxS)	355-46-4
全氟己基磺酸钠(PFHxS-Na)	82382-12-5
全氟己基磺酸钾(PFHxS-K)	3871-99-6
全氟己基磺酸锂(1:1)(PFHxS-Li)	55120-77-9
全氟己基磺酸铵(PFHxS-NH ₄)	68259-08-5
全氟己基磺酸三苯基(苯基甲基)-磷鎓盐(PFHxS-BTPP)	1000597-52-3
N,N,N-三丁基丁烷-1-胺全氟己基磺酸盐(PFHxS-N(C ₄ H ₉) ₄)	108427-54-9
N,N,N-三乙基乙胺全氟己基磺酸盐(PFHxS-N(C ₂ H ₅) ₄)	108427-55-0
全氟己基磺酸与四氢吡咯络合物(PFHxS-NC ₄ H ₉)	1187817-57-7
全氟-1-己基磺酸-N-[4-[[4-(二乙氨基)苯基][4-(乙氨基)-1-萘基]亚甲基]-2,5-环己二烯-1-亚基]-N-乙基-乙铵盐(PFHxS-(NC ₁₀ H ₁₄) ₃ C ₅ H ₄)	1310480-24-0
全氟-1-己基磺酸-N-[4-[[4-(二甲氨基)苯基][4-(乙氨基)-1-萘基]亚甲基]-2,5-环己二烯-1-亚基]-N-甲基-甲基铵盐(PFHxS-(NC ₈ H ₁₀) ₂ C ₁₃ H ₁₂)	1310480-27-3
全氟-1-己基磺酸-N-[4-[[4-(二甲氨基)苯基][4-(苯基氨基)-1-萘基]亚甲基]-2,5-环己二烯-1-亚基]-N-甲基-甲基铵盐(PFHxS-(NC ₈ H ₁₀) ₂ C ₁₇ H ₁₂)	1310480-28-4
全氟己基磺酸与β-环糊精络合物(PFHxS-C ₄₂ H ₇₀ O ₃₅)	1329995-45-0
全氟己基磺酸与γ-环糊精络合物(PFHxS-C ₄₈ H ₈₀ O ₄₀)	1329995-69-8
全氟己基磺酸三苯基硫鎓盐(TPS-PFHxS)	144116-10-9
全氟己基磺酸喹啉, 1-(羧甲基)-4-[2-[4-[4-(2,2-二苯基噁吩基)苯基]-1,2,3a,4,8b-六氢环戊并[b]呋啉-7-基]乙烯基]盐(PFHxS-C ₄₄ H ₃₇ N ₂ O ₂)	1462414-59-0
全氟己基磺酸二苯基碘鎓盐(PFHxS-I(C ₆ H ₅) ₂)	153443-35-7
N,N,N-三甲基-全氟己基磺酸甲基铵盐(PFHxS-TMA)	189274-31-5
全氟己基磺酸与2-甲基-2-丙胺络合物(1:1)(PFHxS-NH ₂ (CH ₃) ₃)	202189-84-2
全氟己基磺酸双[4-(1,1-二甲ethyl)苯基]碘鎓盐(PFHxS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂)	213740-81-9
全氟己基磺酸镓(9Cl)(PFHxS-Ga)	341035-71-0
全氟己基磺酸双(4-甲基苯基)苯基硫鎓盐(1:1)(PFHxS-S(C ₇ H ₇) ₂ C ₆ H ₅)	341548-85-4
全氟己基磺酸铈(PFHxS-Sc)	350836-93-0



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全氟己基磺酸钕(PFHxS-Nd)	41184-65-0
全氟己基磺酸钇(PFHxS-Y)	41242-12-0
全氟己基磺酸(硫代二-4,1-亚苯基)双[二苯基]硫鎓盐(PFHxS-S ₃ (C ₆ H ₅) ₄ (C ₆ H ₄) ₂)	421555-73-9
全氟己基磺酸双[4-(1,1-二甲基丙基)苯基]碘鎓盐(PFHxS-I(C ₆ H ₄) ₂ (C ₅ H ₁₁) ₂)	421555-74-0
全氟己基磺酰氟(PFHxS-F)	423-50-7
全氟己基磺酸三[4-(1,1-二甲基乙基)苯基]硫鎓盐(PFHxS-S(C ₆ H ₄) ₃ (C ₄ H ₉) ₃)	425670-70-8
全氟己基磺酸锌(PFHxS-Zn)	70136-72-0
全氟己基磺酸与2,2'-亚氮二乙醇络合物(PFHxS-NH(C ₂ H ₅ O) ₂)	70225-16-0
全氟己基磺酸与三乙胺络合物(1:1)(PFHxS-N(C ₂ H ₅) ₃)	72033-41-1
全氟己基磺酸双[(1,1-二甲基乙基)苯基]碘鎓盐(PFHxS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂)	866621-50-3
全氟己基磺酸(4-甲基苯基)二苯硫鎓盐(PFHxS-S(C ₆ H ₅) ₂ C ₇ H ₇)	910606-39-2
全氟己基磺酸[4-[(2-甲基-1-氧代-2-丙烯酰)氧基]苯基]二苯基硫鎓盐(PFHxS-S(C ₆ H ₅) ₂ C ₁₀ H ₉ O ₂)	911027-68-4
全氟己基磺酸铯(1:1)(PFHxS-Cs)	92011-17-1
二苯并[k,n][1,4,7,13]四氧杂硫环戊二烯,19-[4-(1,1-二甲基乙基)苯基]-6,7,9,10,12,13-六氢-,全氟己基磺酸盐(PFHxS-SC ₂₈ H ₃₁ O ₄)	928049-42-7
全氟己基磺酰氯(PFHxS-Cl)	55591-23-6
PFHxS-磺酸酯聚合物	911027-69-5
全氟己基磺酸盐	108427-53-8
全氟己基磺酸四丁基磷(PFHxS-P(C ₄ H ₉) ₄)	2310194-12-6
EtFHxSAA, 及其盐	
N-乙基-N-[(十三氟己基)磺酰基]甘氨酸(EtFHxSAA)	68957-32-4
N-乙基-N-[(十三氟己基)磺酰基]甘氨酸钾(EtFHxSAA-K)	67584-53-6
N-乙基-N-[(十三氟己基)磺酰基]甘氨酸钠(EtFHxSAA-Na)	68555-70-4

(4) 结论仅针对报告上的物质清单。

欧盟 POPs 法规(EU) 2019/1021 附录 I-卤代化合物

检测方法: SGS 内部方法, 采用 GC-ECD 或 GC-MS 进行分析。

检测项目	CAS No.	限值	单位	MDL	A1
六氯丁二烯	87-68-3	禁用	mg/kg	5	ND
五氯苯	608-93-5	禁用	mg/kg	5	ND
多氯联苯 (PCBs)	1336-36-3 和其它	禁用	mg/kg	0.2	ND
多氯萘(PCNs)	70776-03-3	禁用	mg/kg	5	ND



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检测报告

编号: SHAEC26014293208

日期: 2026年05月28日

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检测项目	CAS No.	限值	单位	MDL	A1
	和其它				
六溴联苯	36355-01-8	禁用	mg/kg	5	ND
四溴二苯醚 (TetraBDE)	40088-47-9 和其它	-	mg/kg	5	ND
五溴二苯醚 (PentaBDE)	32534-81-9 和其它	-	mg/kg	5	ND
六溴二苯醚 (HexaBDE)	36483-60-0 和其它	-	mg/kg	5	ND
七溴二苯醚 (HeptaBDE)	68928-80-3 和其它	-	mg/kg	5	ND
十溴二苯醚 (DecaBDE)	1163-19-5	-	mg/kg	5	ND
多溴二苯醚总和*	-	10	mg/kg	-	ND
结论					符合

备注:

- (1) 多溴二苯醚总和*是指四溴二苯醚、五溴二苯醚、六溴二苯醚、七溴二苯醚和十溴二苯醚的总和。
- (2) 豁免: RoHS指令(2011/65/EU)定义的电子电器产品中四溴二苯醚、五溴二苯醚、六溴二苯醚、七溴二苯醚和十溴二苯醚豁免于 POPs 法规。
- (3) 依据欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/1482, 为加强《持久性有机污染物重新预测条例》的应用和执行, 当化学物质存在于物质、混合物和物品中时, 为 5 种多溴联苯醚 (PBDE) 阻燃剂设定了无意痕量污染物(UTC)值。

物质	范围	中间用途或其他规范的特殊豁免	生效日期
四溴二苯醚 五溴二苯醚 六溴二苯醚 七溴二苯醚 十溴二苯醚	混合物 ¹ 物品 ¹	≤ 10 mg/kg (总和)	2025.11.17
	含有回收材料或由回收材料制成的混合物或物品 ¹	≤ 500 mg/kg (总和)	2025.11.17
		≤ 350 mg/kg (总和)	2025.12.30
		≤ 200 mg/kg (总和)	2027.12.30
	以下产品含有回收材料或由回收材料制成: -玩具 ^{1, 2} -方便儿童就座、睡眠、放松、卫生、更衣和一般身体护理、喂养、吮吸、运输和保护的产品 ¹	≤ 500 mg/kg (总和)	2025.11.17
		≤ 350 mg/kg (总和)	2025.12.30
		≤ 10 mg/kg (总和)	2027.5.17
¹ 豁免受(EC) No 1935/2004 法规管控的食品接触材料			
² 2009/48/EC 指令范围内的玩具			

(4) 在不影响指令 96/59/EC 的情况下, 允许使用在本法规生效时已经使用的物品。成员国应尽快但不迟于 2025 年 12 月 31 日确定并停止使用多氯联苯含量超过 0.005%且体积大于 0.05 立方分米的设备 (如变压器、电容器或其他含有液体库存的容器)。

欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/843- UV-328

检测方法: SGS 内部方法, 采用 GC-MS 进行分析。



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检测项目	CAS No.	限值	单位	MDL	A1
UV-328	25973-55-1	100	mg/kg	1	ND
结论					符合

备注:

(1) 依据欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/843, 为加强《持久性有机污染物重新预测条例》的应用和执行, 当化学物质存在于物质、混合物和物品中时, 为 UV-328 设定了无意痕量污染物 (UTC)值, 这一 UTC 限制值将在四年内得到加强。

物质	范围	中间用途或其他规范的特殊豁免	生效日期
UV-328	物质、混合物和物品	≤ 100 mg/kg	2025.8.4
		≤ 10 mg/kg	2027.8.4
		≤ 1.0 mg/kg	2029.8.4

欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/1930- 得克隆 (DP)

检测方法: SGS 内部方法, 采用 GC-MS 进行分析。

检测项目	CAS No.	限值	单位	MDL	A1
得克隆 (DP)	13560-89-9 /135821-03-3 /135821-74-8	1000	mg/kg	1	ND
结论					符合

备注:

(1) 依据欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规 (EU) 2025/1930, 为加强《持久性有机污染物重新预测条例》的应用和执行, 当化学物质存在于物质、混合物和物品中时, 为得克隆设定了无意痕量污染物 (UTC)值。

物质	范围	中间用途或其他规范的特殊豁免	生效日期
得克隆 (DP)	物质、混合物和物品	≤ 1000 mg/kg	到 2028.4.15
		≤ 1 mg/kg	2028.4.15 之后

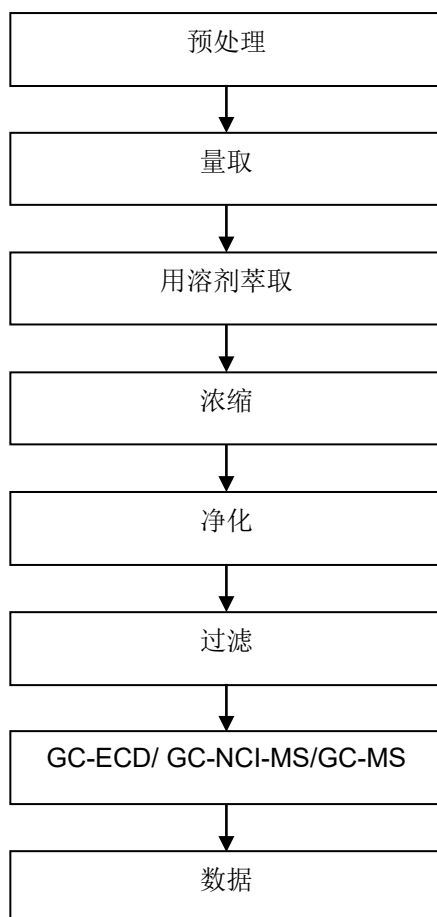
除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 ($w=0$) 的二元判定规则进行符合性判定。

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。



氯化石蜡检测流程图



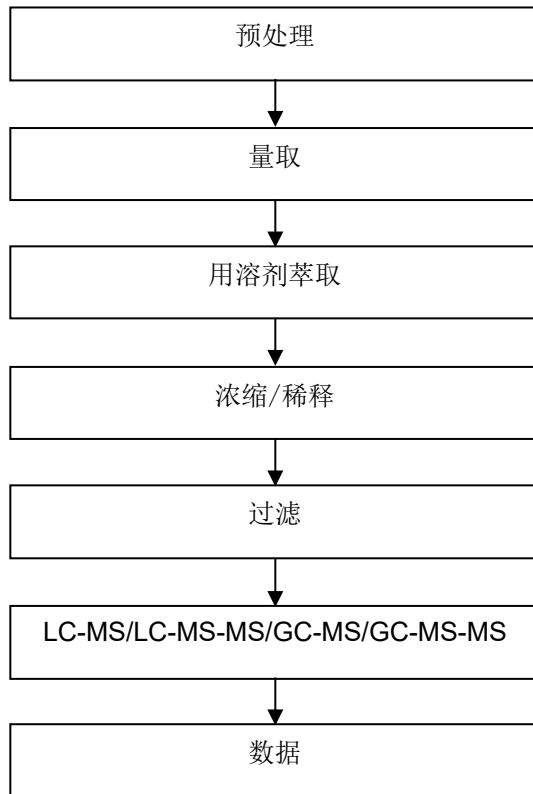
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PFASs/ PFOS/PFOA 检测流程图



检测报告

编号: SHAEC26014293208

日期: 2026年05月28日

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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、LFPK5x6-8L、LSOP-4、MBF、MBS、P6、PDFN3.3x3.3-8L、PDFN3.3x3.3-8L-XX、PDFN3x3-8L、PDFN3x3-8L-XX、PDFN5x6-8L、PDFN5x6-8L-XX、PDFN5x7-10L-XX、PowerJE10x12、PowerJE5x6、PowerJE7x8、PowerJE8x8、PPTC、R6、SGBJ、SGD0201、SGD0402、SMA、SMAF、SMAW、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、SOP-8-XX、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、TOLT、TSSOP-8、TSSOP-8、WSOP-6



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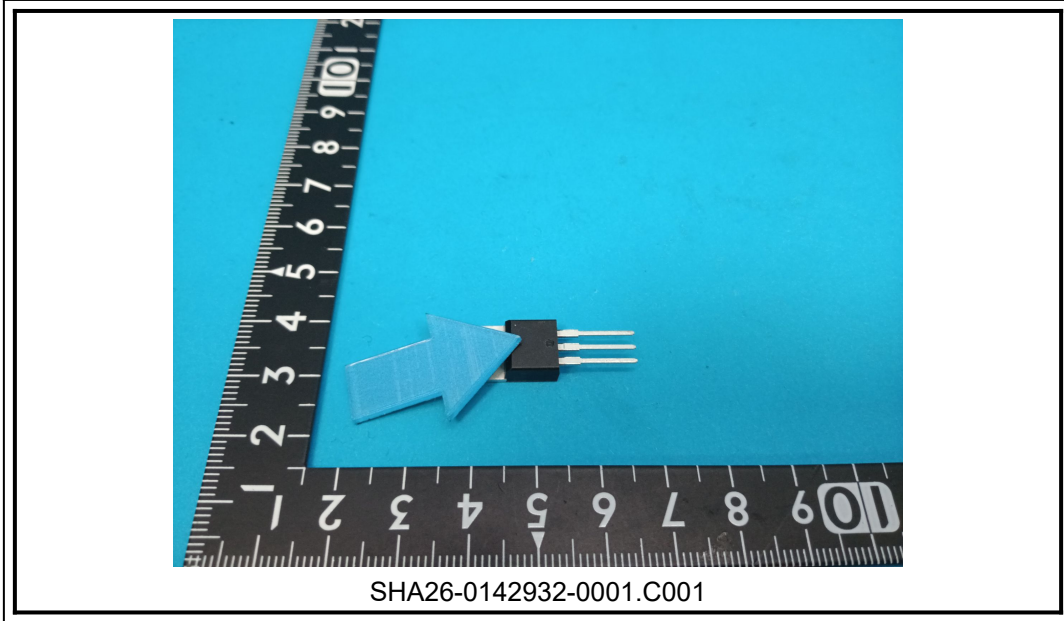
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编号: SHAEC26014293208

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