

检测报告

编号: CANEC25025393840

日期: 2025 年 10 月 24 日

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客户名称: 深圳琦富瑞电子有限公司
客户地址: 深圳市光明新区公明街道楼村社区鲤鱼河工业园振兴路 5 号

样品名称: 氟塑料电线电缆
型号: UL1332 22AWG 黑色 UL1332 18AWG 白色
客户参考信息: 请见附件
以上样品及信息由客户提供。

SGS 工作编号: SZP25-052390
样品接收时间: 2025 年 10 月 16 日
检测周期: 2025 年 10 月 16 日 ~ 2025 年 10 月 23 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 及其修正法规 (EU) 2025/1930- 得克隆 (DP)	见检测结果
欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规	见检测结果

通标标准技术服务有限公司广州分公司
授权签名

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SGS-CS Standards Technical Services Co., Ltd.
Guangzhou Branch Technical Services Co., Ltd. Chemical 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+A2	CAN25-0253938-0005	黑色线皮 + 白色线皮

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 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.	单位	MDL	A1+A2
得克隆 (DP)	13560-89-9 /135821-03-3 /135821-74-8	mg/kg	1	ND

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

欧盟 POPs 法规(EU) 2019/1021 附录 I 及其修正法规

检测方法: SGS 内部方法-采用 GC-MS 或 GC-MS/MS、GC-NCI-MS, GC-ECD 和 HPLC-DAD-MS 或 LC-MS/MS 进行分析。

检测项目	CAS No.	单位	MDL	A1+A2
四溴二苯醚	40088-47-9 和其它	mg/kg	5	ND
五溴二苯醚	32534-81-9 和其它	mg/kg	5	ND
六溴二苯醚	36483-60-0 和其它	mg/kg	5	ND
七溴二苯醚	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*	-	mg/kg	-	ND



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检测项目	CAS No.	单位	MDL	A1+A2
全氟辛酸磺酸 (PFOS), 及其盐 [^]	1763-23-1	mg/kg	0.010	ND
N-乙基全氟辛酸磺酰胺 (N-EtFOSA)	4151-50-2	mg/kg	0.010	ND
N-甲基全氟辛酸磺酰胺 (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
PFOS 相关化合物总和	-	mg/kg	-	ND
4,4-滴滴涕	50-29-3	mg/kg	0.05	ND
氯丹	57-74-9	mg/kg	0.05	ND
六氯环己烷	58-89-9, 319-84-6, 319-85-7, 608-73-1	mg/kg	0.05	ND
狄氏剂	60-57-1	mg/kg	0.05	ND
异狄氏剂	72-20-8	mg/kg	0.05	ND
七氯	76-44-8	mg/kg	0.05	ND
硫丹	115-29-7, 959-98-8, 33213-65-9	mg/kg	0.05	ND
六氯苯	118-74-1	mg/kg	5	ND
十氯酮	143-50-0	mg/kg	0.2	ND
艾氏剂	309-00-2	mg/kg	0.05	ND
五氯苯	608-93-5	mg/kg	5	ND
多氯联苯 (PCBs)	1336-36-3 和其它	mg/kg	0.2	ND
灭蚁灵	2385-85-5	mg/kg	0.05	ND
毒杀芬	8001-35-2	mg/kg	0.2	ND
六溴联苯	36355-01-8	mg/kg	5	ND
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	mg/kg	20	ND
六氯丁二烯	87-68-3	mg/kg	5	ND
五氯苯酚 (PCP) 及其盐和酯	87-86-5 和其它	mg/kg	0.5	ND
多氯萘 (PCNs)	70776-03-3 和其它	mg/kg	5	ND



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检测项目	CAS No.	单位	MDL	A1+A2
C ₁₀ -C ₁₃ 氯代烃(短链氯化石蜡)(SCCPs)	85535-84-8 和其它	mg/kg	50	ND
全氟辛酸 (PFOA), 及其盐 [^]	335-67-1	mg/kg	0.010	ND
1H,1H,2H,2H-全氟癸烷磺酸 (8:2 FTS), 及其盐 [^]	39108-34-4	mg/kg	0.010	ND
全氟辛酸甲酯 (Me-PFOA)	376-27-2	mg/kg	0.200	ND
全氟辛酸乙酯 (Et-PFOA)	3108-24-5	mg/kg	0.200	ND
1H,1H,2H,2H-全氟癸基丙烯酸酯 (8:2 FTA)	27905-45-9	mg/kg	0.100	ND
1H,1H,2H,2H-甲基丙烯酸全氟癸酯 (8:2 FTMA)	1996-88-9	mg/kg	0.100	ND
全氟辛基碘烷 (PFOI)	507-63-1	mg/kg	0.200	ND
2H, 2H-全氟癸酸 (8:2 FTCA), 及其盐 [^]	27854-31-5	mg/kg	0.010	ND
1H,1H,2H,2H-全氟-1-癸醇 (8:2 FTOH)	678-39-7	mg/kg	0.100	ND
1-碘-1H,1H,2H,2H-全氟癸烷 (8:2 FTI)	2043-53-0	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	mg/kg	0.100	ND
双[2-(全氟辛基)]乙基磷酸酯(8:2diPAP), 及其盐 [^]	678-41-1	mg/kg	0.010	ND
2H, 2H, 3H, 3H-全氟十一烷酸 (8:3 FTCA), 及其盐 [^]	34598-33-9	mg/kg	0.010	ND
全氟辛基乙烯 (PFDE)	21652-58-4	mg/kg	0.100	ND
3-全氟庚基丙酸 (7:3 FTCA)	812-70-4	mg/kg	0.010	ND
1H,1H,2H,2H-全氟癸基三氯硅烷 (8:2 FTSiCl ₃)/ 1H,1H,2H,2H-全氟癸基三甲氧基硅烷 (8:2 FTSi(OCH ₃) ₃)	78560-44-8 /83048-65-1	mg/kg	0.100	ND
2H-全氟-2-癸烯酸 (8:2 FTUCA)	70887-84-2	mg/kg	0.010	ND
6:8 全氟次膦酸 (6:8 PFPI)	610800-34-5	mg/kg	0.010	ND
8:8 全氟次膦酸 (8:8 PFPI, 及其盐 [^])	40143-79-1	mg/kg	0.010	ND
1H,1H,2H,2H-全氟十二烷基乙酸酯(8:2 FTOAc)	37858-04-1	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	mg/kg	0.100	ND
PFOA 相关化合物总和	-	mg/kg	-	ND
三氯杀螨醇	115-32-2	mg/kg	0.05	ND
全氟己基磺酸 (PFHxS), 及其盐 [^]	355-46-4	mg/kg	0.010	ND
N-甲基全氟-1-己磺酰胺 (N-Me-PFHxSA)	68259-15-4	mg/kg	0.010	ND
全氟己烷磺酰胺 (PFHxSA)	41997-13-1	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	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	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	mg/kg	0.200	ND



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2-[乙基[(十三氟己基)磺酰基]氨基]乙基甲基丙烯酸酯	67906-70-1	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	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	mg/kg	0.010	ND
PFHxS 相关化合物总和	-	mg/kg	-	ND
甲氧滴滴涕	72-43-5 和其它	mg/kg	0.01	ND
UV-328	25973-55-1	mg/kg	1	ND
得克隆 (DP)	13560-89-9 /135821-03-3 /135821-74-8	mg/kg	1	ND

备注:

- (1) 欧盟POPs法规(EU) 2019/1021, 附录I 中的物质禁用在混合物及物品中使用, 除非法规有特殊豁免。
- (2) 豁免: 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在物质中的法规限值是10 mg/kg, 混合物和物品中四溴、五溴、六溴、七溴和十溴二苯醚的总和不得超过500 mg/kg, 该限制应在2021年7月16日之前由委员会审查和评估。
- (3) 豁免: RoHS指令(2011/65/EU)定义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。
- (4) 豁免: C10-13 氯代烃(短链氯化石蜡)在混合物中的法规限值是1.0% (w/w), 在物品中的法规限值为0.15% (w/w)。
- (5) 豁免: HBCDD 做为无意添加的微量污染物, 在物质, 混合物, 物品或者物品的阻燃剂中不能超出75mg/kg, 委员会应在2026年1月1日前审查和评估规定的豁免。
- (6) 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。
- (7) 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。
- (8) [^]=物质是指下表PFOS, PFOA和PFOA相关化合物列出的盐/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
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



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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-N(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)铊	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
PFOSA, 及其盐	
全氟辛基磺酰胺(PFOSA)	754-91-6



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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
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
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



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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全氟次膦酸 (8:8 PFPI)	40143-79-1
8:8 全氟次膦酸钠盐 (8:8 PFPI-Na)	500776-69-2
8:8 全氟次膦酸铈(3+)盐 (8:8 PFPI-Er)	500776-70-5
8:8 全氟次膦酸镱(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

(9) 全氟己烷磺酸(PFHxS)及其盐和相关化合物

(a). 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)
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)

(b). 本报告中检测的全氟己烷磺酸(PFHxS)及其盐类和PFHxS相关化合物来自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
[List of substances proposed as POPs - ECHA \(europa.eu\)](https://european-union.europa.eu/list-of-substances-proposed-as-pops)



(c). ^=物质是指下表PFHxS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]吡啶-7-基]乙烷基]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-(1,1-二甲基乙基)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
全氟己基磺酸钪(PFHxS-Sc)	350836-93-0
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-	421555-74-0



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I(C ₆ H ₄) ₂ (C ₅ H ₁₁) ₂	
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'-亚氨基二乙醇络合物(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

(10)针对纺织品和皮革, ^^物质是指附表中甲醇/氢氧化钠溶液提取时会水解的PFAS物质。

物质名称	CAS No.
N-EtFOSE, 及可能来源	
2- (N-乙基全氟辛基磺酰胺)乙醇 (N-EtFOSE)	1691-99-2
2- (N-乙基全氟辛烷磺酰胺基)丙烯酸乙酯 (EtFOSAC) ^^	423-82-5
PFOA, 及其可能来源	
全氟辛酸 (PFOA)	335-67-1
全氟辛酸乙酯 (Et-PFOA) ^^	3108-24-5
全氟辛酸甲酯 (Me-PFOA) ^^	376-27-2
8:2 FTOH, 及其可能来源	
1H, 1H, 2H, 2H-全氟-1-癸醇 (8:2 FTOH)	678-39-7
1H, 1H, 2H, 2H-甲基丙烯酸全氟癸酯 (8:2 FTMA) ^^	1996-88-9
1H, 1H, 2H, 2H-全氟癸基丙烯酸酯 (8:2 FTA) ^^	27905-45-9
1H,1H,2H,2H-全氟十二烷基乙酸酯 (8:2 FTOAc) ^^	37858-04-1
MeFHxSE, 及其可能来源	



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十三氟-N-(2-羟基乙基)-N-甲基己烷磺酰胺 (MeFHxSE)	68555-75-9
2-[甲基[(十三氟己基)磺酰基]氨基]乙基甲基丙烯酸酯^^	67584-61-6
2-[甲基[(十三氟己基)磺酰基]氨基]丙烯酸乙酯 (N-MeFHSEA) ^^	67584-57-0

- (11) 当用甲醇/氢氧化钠溶液提取时, 化合物被水解并释放出相关的PFAS物质。由于所列PFAS会降解为未知化合物和/或无法通过甲醇/NaOH溶液提取进行分析, 因此只能通过溶剂提取方法检测和定量可提取的含量。通过溶剂提取和随后的GC-MS或GC-MS/MS或HPLC-MS/MS分析得到的结果仅反映了可提取的PFAS。
- (12) 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)。
- (13) 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

- (14) 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, 为德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

- (15) 对POPs物质的分析检测是基于现有的技术, 根据客户要求进行检测。

- (16) 结论仅针对报告上的物质清单。

备注: 样品的检测是基于申请人要求混合检测, 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。

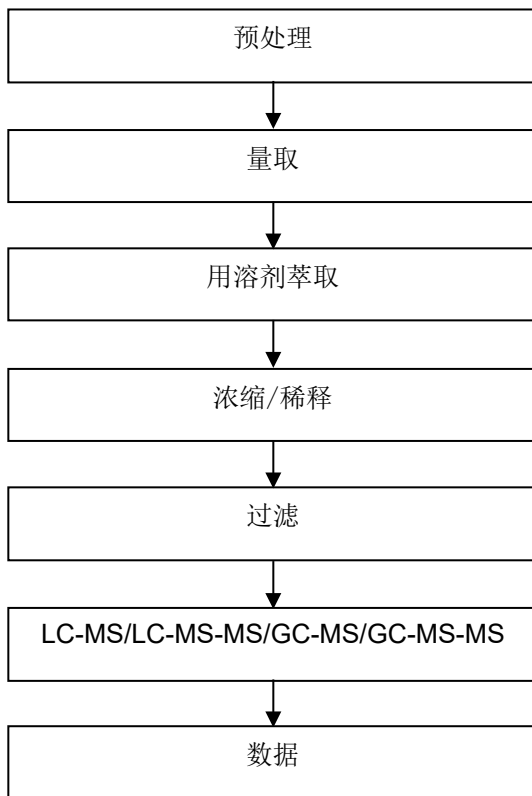
除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 (w=0) 的二元判定规则进行符合性判定。

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。

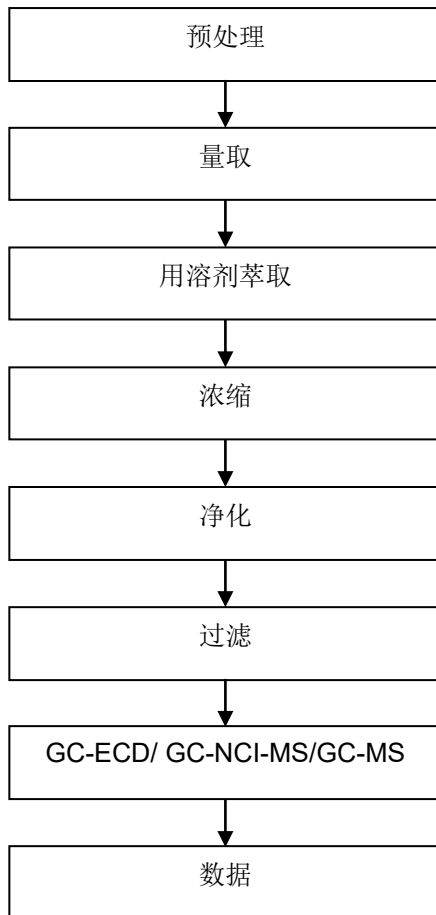
检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考。



PFASs/ PFOS/PFOA 检测流程图



氯化石蜡检测流程图



附件:

UL1108、1419、1458、1524、1559、1091、1588、10156、10142、10396、10485、1858、1675、1694、1726、1727、10326、10362、10371、1750、1756、1707、1708、1857、1859、1860、1882、1929、1930、1933、10011、10110、10129、10486、1757、1824、1835、1960、5311、10034、10051、10058、10287、1589、1709、10304、10409、10552、10554、1636、1653、1655、1656、1657、1659、1817、1710、10101、1199、1862、1863、1864、1517、1586、1609、1814、1513、1523、1558、1610、1643、1670、1671、1827、1829、1867、1868、1905、1988、1989、1990、3482、10371、1508、1658、1354、1212、1213、1286、1330、1331、1332、1333、1538、1716、1887、1901、1914、10007、10072、10111、10311、10491、1371、1375、1609、1394、1481、1512、1516、1828、1637、1721、1745、1832、1875、1894、1589、10503、1927、10020、10064、10069、10086、10088、10212、10102、10393、10245、10248、10298、10101、10109、10125、10126、10442、10447、10481、10499、10507、10518、1164、1180、1198、1199、10212、10277、10278、10279、10443、1570、1577、1723、1815、1659、1584、1911、10132、10241、10312、10518、1859、1644、1815、1858、3557、10464、10504、16878/4C、16878-4E、16878-6、16878-5、16878-11C、16878-12、81822/6A、22759/11F、22759-1、22759-2、22759-3、22759-7、22759-8、22759-9、22759-11、22759-12、22759-16、22759-18、22759-19、MIL-W-22759-22、22759-32、22759-33、22759-34、MIL-W-22759-41、QFR-0815、AF-250、AFP-250、QFR-CFN1、QFR-CFN2、QFR-CFN3、QFR-CKF1、QFR-CKF2、QFR-CKF3、AF-200、QFR-0921、VDE-R EG.Nr.8191、FLU7Y、VDE-REG.Nr.8192、MIL-W-22759-46、QFR-2412、MIL-W-22759-16、MIL-W-22759-35、MIL-W-16878-4C(NAVY)、VDE-REG.Nr.8193、FLR51Y、FLR5Y、FLR5Y-A、FLR6Y、FLR7Y、QFR-0919、QFR-0921、QFR-EFK1、QFR-EFK2、QFR-EFK3、QFR-EFN1、QFR-EFN2、QFR-EFN3、QFR-10364、QFR-11092、QFR-FK1、QFR-FK2、QFR-FK3、QFR-FN1、QFR-FN2、QFR-FN3、QFR-TFN6、QFR-TFNK、QFR-CFK1、QFR-CFK2、QFR-CFK3、QFR-EFK1、QFR-EFK2、QFR-EFK3、QFR-FK1、QFR-FK2、QFR-FK3、QFR-1018、QFR-11092、VDE-R EG.Nr.8194、VDE-REG.Nr.8195、VDE-REG.Nr.8196、VDE Fluorplastic wires、N6YAF、QB-F、E-200/TX/FEP 150V,300V,600V、E-200/TN/PFA 150V,300V,600V、E-250/TN/PTFE 150V,300V,600V、CQC Fluoroplastic wire and Fluoroplastic tube



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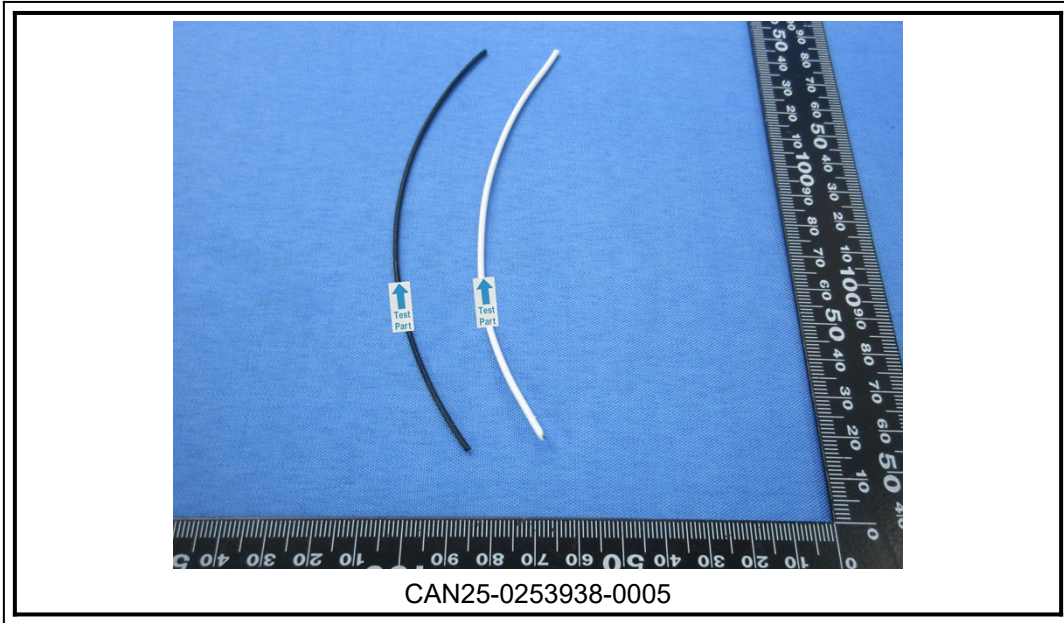
检测报告

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