



检测报告

Test Report

报告编号 A2240676971101001E
Report No. A2240676971101001E

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报告抬头公司名称 杭州弘通线缆有限公司
Company Name HANGZHOU HONGTONG CABLES CO.,LTD
shown on Report
地 址 杭州市余杭区仓前街道吴山前村 24 组
Address WUSHANQIAN INDUSTRIAL FUNCTION ZOO, CANGQIAN TOWN, YUHANG DISTRICT, HANGZHOU CITY

以下测试之样品及样品信息由申请者提供并确认

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

样品名称	聚氨酯漆包线
Sample Name	Polyurethane
样品型号	QA UEW
Model No.	QA UEW
样品颜色	本色
Color	Natural
材料名称	聚氨酯
Material	Polyurethane
样品接收日期	2024.10.31
Sample Received Date	Oct. 31, 2024
样品检测日期	2024.10.31-2024.11.06
Testing Period	Oct. 31, 2024 to Nov. 6, 2024

测试内容 Test Conducted:

根据客户的申请要求，具体要求详见下一页。

As requested by the applicant. For details refer to next page(s).



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授权签字人 Lab Authorized Signatory

日 期
Date

2024.11.06

No. R219921809

宁波高新区菁华路 76 号厂区东首第一、二层

Centre Testing International (Ningbo) Co.,Ltd.

1-2F, Eastern Factory, No.76, Jinghua Road, High-Tech Zone, Ningbo, Zhejiang, China

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测试摘要 Executive Summary:

测试要求

TEST REQUEST

- 客户要求
Client's requirement
 - 全氟己基磺酸(PFHxS)及其盐和相关物质
Perfluorohexane-1-sulphonic acid (PFHxS) and its salts & related substances
- 美国环保署有毒物质控制法(TSCA)第 6(h)部分关于持久性、生物累积性和毒性(PBT)化学物质的管控
Persistent, Bioaccumulative, and Toxic (PBT) Chemicals under US EPA Toxic Substances Control Act (TSCA) Section 6(h)
 - 十溴二苯醚
Decabromodiphenyl Ether (DecaBDE) **PASS**
 - 异丙基化磷酸三苯酯
Phenol, Isopropylated Phosphate (PIP (3:1)) **PASS**
 - 2,4,6-三叔丁基苯酚
2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP) **PASS**
 - 六氯丁二烯
Hexachlorobutadiene (HCBd) **PASS**
 - 五氯苯硫酚
Pentachlorothiophenol (PCTP) **PASS**
- 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 邻苯二甲酸酯, 砷(As), 铍(Be), 锑(Sb), 锡(Sn), 六溴环十二烷(HBCDD), 卤素, 全氟辛酸(PFOA), 全氟辛烷磺酸(PFOS)进行测试。
As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates, Arsenic(As), Beryllium(Be), Antimony(Sb), Tin(Sn), Hexabromocyclododecane (HBCDD), Halogen(s), Perfluorooctanoic Acid(PFOA), Perfluorooctane Sulfonates(PFOS) in the submitted sample(s).

测试结果

CONCLUSION

见结果页

See test result(s)

符合

PASS

符合

PASS

符合

PASS

符合

PASS

符合

PASS

见结果页

See test result(s)

*****详细结果, 请见下页*****

***** For further details, please refer to the following page(s) *****

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1.1 客户要求 Client's requirement
全氟己基磺酸(PFHxS)及其盐和相关物质 Perfluorohexane-1-sulphonic acid (PFHxS) and its salts & related substances

测试方法: EN 17681-1:2022&EN 17681-2:2022*1; 测试仪器: LC-MS-MS & GC-MS
Test Method: EN 17681-1:2022&EN 17681-2:2022*1; Test Equipment: LC-MS-MS & GC-MS

序号 No.	测试项目 Tested Item(s)	CAS No.	结果 Result (mg/kg)	方法检出限
			001	MDL (mg/kg)
1	全氟己基磺酸 Perfluorohexanesulfonic acid (PFHxS)	355-46-4	N.D.	0.010
2	全氟己基磺酸钠 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-, sodium salt (PFHxS-Na)*	82382-12-5	N.D.	0.020
3	全氟己基磺酸钾 Potassium perfluorohexane-1-sulphonate (PFHxS-K)*	3871-99-6	N.D.	0.020
4	全氟己基磺酸锂 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, lithium salt(1:1) (PFHxS-Li)*	55120-77-9	N.D.	0.020
5	全氟己基磺酸锌 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, zinc salt (PFHxS-Zn)*	70136-72-0	N.D.	0.025
6	全氟己基磺酸镓盐(9CI) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, gallium salt (9CI) (PFHxS-Ga)*	341035-71-0	N.D.	0.010
7	全氟己基磺酸钪盐(3:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, scandium(3+) salt (3:1) (PFHxS-Sc)*	350836-93-0	N.D.	0.010
8	全氟己基磺酸钕盐(3:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, neodymium(3+) salt (3:1) (PFHxS-Nd)*	41184-65-0	N.D.	0.010
9	全氟己基磺酸钇盐(3:1) 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, yttrium(3+) salt (3:1) (PFHxS-Y)*	41242-12-0	N.D.	0.010
10	全氟己基磺酸铯 Cesium Perfluorohexanesulfonate (PFHxS-Cs)*	92011-17-1	N.D.	0.010
11	全氟己基磺酸铵 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, ammonium salt (1:1) (PFHxS-NH ₄)*	68259-08-5	N.D.	0.020
12	全氟己基磺酰氯 1,1,2,2,3,3,4,4,5,5,6,6,6-Tridecafluorohexane-1-sulphonyl chloride (PFHxS-Cl)*	55591-23-6	N.D.	0.020
13	全氟己烷磺酸盐 Perfluorohexylsulfonate (PFHxS(anion))*	108427-53-8	N.D.	0.010
14	(二-4,1-苯撑硫)双二苯基硫与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸(1:2)的盐 Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:2) (PFHxS-S ₃ (C ₆ H ₅) ₄ (C ₆ H ₄) ₂)*	421555-73-9	N.D.	0.020

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			001	MDL (mg/kg)
15	二[4-(1,1-二甲基丙基)苯基]碘与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸的盐 Iodonium, bis[4-(1,1-dimethylpropyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic (PFHxS-I(C ₆ H ₄) ₂ (C ₅ H ₁₁) ₂)*	421555-74-0	N.D.	0.020
16	三[4-(1,1-二甲基乙基)苯基]硫-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯 Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C ₆ H ₄) ₃ (C ₄ H ₉) ₃)*	425670-70-8	N.D.	0.020
17	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸锌与 N,N-二乙基乙胺(1:1) 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with N,N-diethylethanamine (1:1) (PFHxS-N(C ₂ H ₅) ₃)*	72033-41-1	N.D.	0.020
18	二[(1,1-二甲基乙基)苯基]碘与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸的盐(1:1) (9CI) Iodonium, bis[(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (9CI) (PFHxS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂)*	866621-50-3	N.D.	0.020
19	(4-甲基苯基)二苯基硫-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Sulfonium, (4-methylphenyl)diphenyl-,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C ₆ H ₅) ₂ C ₇ H ₇)*	910606-39-2	N.D.	0.020
20	[4-[(2-甲基-1-氧代-2-丙烯-1-基)氧基]苯基]二苯基硫-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]diphenyl-,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C ₆ H ₅) ₂ C ₁₀ H ₉ O ₂)*	911027-68-4	N.D.	0.020
21	[4-[(2-甲基-1-氧代-2-丙烯基)氧基]苯基]二苯硫与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸的盐与 2-乙基三环[3.3.1.13,7]癸-2-甲基-2-丙烯酸酯、3-羟基三环[3.3.1.13,7]癸-2-甲基-2-丙烯酸酯和四氢呋喃-2-甲基-2-丙烯酸酯的聚合物 Sulfonium, [4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1), polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate,3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate*	911027-69-5	N.D.	0.020

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序号 No.	测试项目 Tested Item(s)	CAS No.	结果 Result (mg/kg)	方法检出限
			001	MDL (mg/kg)
22	二苯并[k,n][1,4,7,10,13]四氧硫酰氯代十六烷基铵, 19-[4-(1,1-二甲基乙基)苯基]-6,7,9,10,12,13-六氢-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Dibenzo[k,n][1,4,7,10,13] tetraoxathiacyclopentadecinium, 19-[4-(1,1-dimethylethyl)phenyl]-6,7,9,10,12,13-hexahydro-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-SC ₂₈ H ₃₁ O ₄)*	928049-42-7	N.D.	0.020
23	三苯基(苯甲基)膦-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Phosphonium, triphenyl (phenylmethyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-P(C ₆ H ₅) ₃ C ₇ H ₇)*	1000597-52-3	N.D.	0.020
24	N,N,N-三丁基-1-丁胺与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸的盐 1-Butanaminium, N,N,N-tributyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (PFHxS-N(C ₄ H ₉) ₄)*	108427-54-9	N.D.	0.020
25	N,N,N-三乙基乙胺与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸(1:1)的盐 Ethanaminium,N,N,N-triethyl-,salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (PFHxS-N(C ₂ H ₅) ₄)*	108427-55-0	N.D.	0.020
26	吡咯烷与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸(1:1)的盐 1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with pyrrolidine (1:1) (PFHxS-NC ₄ H ₉)*	1187817-57-7	N.D.	0.020
27	三苯基硫-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C ₆ H ₅) ₃)*	144116-10-9	N.D.	0.020
28	1-(羧甲基)-4-[2-[4-[4-(2,2-二苯基乙烯基)苯基]-1,2,3,3a,4,8b-六氢旋流器戊烷[b]吡啶-7-基]乙烯基]喹啉-十三氟-1-己基磺酸酯(1:1) Quinolinium,1-(carboxymethyl)-4-[2-[4-[4-(2,2-diphenylethenyl)phenyl]-1,2,3,3a,4,8b-hexahydrocyclopent[b]indol-7-yl]ethenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-C ₄₄ H ₃₇ N ₂ O ₂)*	1462414-59-0	N.D.	0.020
29	二苯基碘-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Iodonium, diphenyl-,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-I(C ₆ H ₅) ₂)*	153443-35-7	N.D.	0.020
30	N,N,N-三甲基甲胺与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸(1:1)的盐 Methanaminium,N,N,N-trimethyl-,salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (PFHxS-N(CH ₃) ₄)*	189274-31-5	N.D.	0.020

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			001	
31	2-甲基-2-丙胺与 1,1,2,2,3,3,4,4,5,5,6,6,6- 十三氟-1-己基磺酸(1:1)的盐 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2-methyl-2-propanamine (1:1) (PFHxS-NH ₂ (CH ₃) ₃)*	202189-84-2	N.D.	0.020
32	二[4-(1,1-二甲基乙基)苯基]碘-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂)*	213740-81-9	N.D.	0.020
33	二(4-甲基苯基)苯基硫-1,1,2,2,3,3,4,4,5,5,6,6,6- 十三氟-1-己基磺酸酯(1:1) Sulfonium, bis(4-methylphenyl)phenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C ₇ H ₇) ₂ C ₆ H ₅)*	341548-85-4	N.D.	0.020
34	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-乙基乙胺-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Ethanaminium, N-[4-[[4-(diethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-(NC ₁₀ H ₁₄) ₃ C ₅ H ₄)*	1310480-24-0	N.D.	0.020
35	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-亚甲基]-N-甲基甲铵-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-(NC ₈ H ₁₀) ₂ C ₁₃ H ₁₂)*	1310480-27-3	N.D.	0.020
36	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-甲基甲铵-1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸酯(1:1) Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(phenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-(NC ₈ H ₁₀) ₂ C ₁₇ H ₁₂)*	1310480-28-4	N.D.	0.020
37	β-环糊精与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸根(1-)(1:1)形成的化合物 Beta-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-)(1:1) (PFHxS-C ₄₂ H ₇₀ O ₃₅)*	1329995-45-0	N.D.	0.020
38	γ-环糊精与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸根(1-)(1:1)形成的化合物 Gamma-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-)(1:1) (PFHxS-C ₄₈ H ₈₀ O ₄₀)*	1329995-69-8	N.D.	0.020

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序号 No.	测试项目 Tested Item(s)	CAS No.	结果 Result (mg/kg)	方法检出限
			001	MDL (mg/kg)
39	2,2'-亚氨基二乙醇与 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己基磺酸(1:1)形成的化合物 Tridecafluorohexanesulphonic acid, compound with 2,2'-iminodiethanol (1:1) (PFHxS-NH(C ₂ H ₅ O) ₂)*	70225-16-0	N.D.	0.020
40	全氟己基磺酸四丁基磷 Tetrabutylphosphonium perfluorohexane sulfonate (PFHxS-P(C ₄ H ₉) ₄)*	2310194-12-6	N.D.	0.020
41	全氟己基磺酸(PFHxS)及其盐 Perfluorohexane-1-sulphonic acid (PFHxS) and its salts	--	N.D.	--
42	全氟己基磺酰氟 1-Hexanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro- (PFHxSF)*	423-50-7	N.D.	0.020
43	全氟己基磺酰胺 1-Hexane-sulfonamide,1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro- (FHxSA)	41997-13-1	N.D.	0.010
44	N-甲基全氟己烷磺酰胺 N-methylperfluorohexanesulfonamide (MeFHxSA)	68259-15-4	N.D.	0.200
45	全氟己基磺酸(PFHxS)相关物质 Perfluorohexane-1-sulphonic acid (PFHxS) related substances	--	N.D.	--

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million
- *该物质的结果由其特定化合物的结果换算而来。

Result(s) shown of the substance(s) is/ are converted from the result(s) of certain compound(s).

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Page 8 of 19**2.1 美国环保署有毒物质控制法(TSCA)第 6(h)部分关于持久性、生物累积性和毒性(PBT)化学物质的管控**
Persistent, Bioaccumulative, and Toxic (PBT) Chemicals under US EPA Toxic Substances Control Act
(TSCA) Section 6(h)**▼ 十溴二苯醚 Decabromodiphenyl Ether (DecaBDE)**测试方法: 参考 US EPA 3550C:2007 & US EPA 8270E:2018*¹; 测试仪器: GC-MSTest Method: Refer to US EPA 3550C:2007 & US EPA 8270E:2018*¹; Test Equipment: GC-MS

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
十溴二苯醚 Decabromodiphenyl Ether (DecaBDE)	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

▼ 异丙基化磷酸三苯酯 Phenol, Isopropylated Phosphate (PIP (3:1))测试方法: 参考 US EPA 3550C:2007 & US EPA 8270E:2018*¹; 测试仪器: GC-MSTest Method: Refer to US EPA 3550C:2007 & US EPA 8270E:2018*¹; Test Equipment: GC-MS

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
异丙基化磷酸三苯酯 Phenol, Isopropylated Phosphate (PIP (3:1))	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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Page 9 of 19▼ **2,4,6-三叔丁基苯酚 2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP)**测试方法: 参考 US EPA 3550C:2007 & US EPA 8270E:2018*¹; 测试仪器: GC-MSTest Method: Refer to US EPA 3550C:2007 & US EPA 8270E:2018*¹; Test Equipment: GC-MS

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
2,4,6-三叔丁基苯酚 2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP)	N.D.	5	3000

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

▼ **六氯丁二烯 Hexachlorobutadiene (HCBd)**测试方法: 参考 US EPA 3550C:2007 & US EPA 8270E:2018*¹; 测试仪器: GC-MSTest Method: Refer to US EPA 3550C:2007 & US EPA 8270E:2018*¹; Test Equipment: GC-MS

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
六氯丁二烯 Hexachlorobutadiene (HCBd)	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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▼ **五氯苯硫酚 Pentachlorothiophenol (PCTP)**
测试方法: 参考 US EPA 3550C:2007 & US EPA 8270E:2018*¹; 测试仪器: GC-MS
Test Method: Refer to US EPA 3550C:2007 & US EPA 8270E:2018*¹; Test Equipment: GC-MS

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
五氯苯硫酚 Pentachlorothiophenol (PCTP)	N.D.	5	10000

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

样品/部位描述 Sample/Part Description		
序号	CTI 样品 ID	描述
No.	CTI Sample ID	Description
1	001	铜色漆包线 Cupreous enamelled wire

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3.1 检测依据 Test Method

测试项目 Tested Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017 和/或 IEC 62321-5:2013 测试总铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
多溴联苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
砷 Arsenic(As)	参考 US EPA 3052:1996 & US EPA 6010D:2018* ¹ Refer to US EPA 3052:1996 & US EPA 6010D:2018* ¹	ICP-OES
铍 Beryllium(Be)	参考 US EPA 3052:1996 & US EPA 6010D:2018* ¹ Refer to US EPA 3052:1996 & US EPA 6010D:2018* ¹	ICP-OES
锑 Antimony(Sb)	参考 US EPA 3052:1996 & US EPA 6010D:2018* ¹ Refer to US EPA 3052:1996 & US EPA 6010D:2018* ¹	ICP-OES
锡 Tin(Sn)	参考 US EPA 3052:1996 & US EPA 6010D:2018* ¹ Refer to US EPA 3052:1996 & US EPA 6010D:2018* ¹	ICP-OES
六溴环十二烷 Hexabromocyclododecane (HBCDD)	IEC 62321-9:2021* ¹	GC-MS
卤素 Halogen(s)	EN 14582:2016	IC
邻苯二甲酸酯 Phthalates	IEC 62321-8:2017	GC-MS
全氟辛酸 Perfluorooctanoic Acid(PFOA)	参考 US EPA 3550C:2007 & US EPA 8321B:2007* ¹ Refer to US EPA 3550C:2007 & US EPA 8321B:2007* ¹	LC-MS-MS
全氟辛烷磺酸 Perfluorooctane Sulfonates(PFOS)	参考 US EPA 3550C:2007 & US EPA 8321B:2007* ¹ Refer to US EPA 3550C:2007 & US EPA 8321B:2007* ¹	LC-MS-MS

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3.2 检测结果 Test Result(s)

Table with 3 columns: Tested Item(s), Result, MDL. Rows include Lead (Pb), Cadmium (Cd), Mercury (Hg), and Hexavalent Chromium (Cr(VI)).

Table with 3 columns: Tested Item(s), Result, MDL. Section: 多溴联苯 Polybrominated Biphenyls (PBBs). Rows include Monobromobiphenyl through Decabromobiphenyl.

Table with 3 columns: Tested Item(s), Result, MDL. Section: 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs). Rows include Monobromodiphenyl ether through Decabromodiphenyl ether.

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)		
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
砷 Arsenic (As)	N.D.	10 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
铍 Beryllium (Be)	N.D.	10 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
锑 Antimony (Sb)	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
锡 Tin (Sn)	N.D.	10 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
六溴环十二烷 Hexabromocyclododecane (HBCDD)	N.D.	20 mg/kg

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
卤素 Halogen(s)		
氟 Fluorine (F)	N.D.	10 mg/kg
氯 Chlorine (Cl)	N.D.	10 mg/kg
溴 Bromine (Br)	N.D.	10 mg/kg
碘 Iodine (I)	N.D.	10 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
邻苯二甲酸酯 Phthalates		
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
邻苯二甲酸二正辛酯 Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	50 mg/kg
邻苯二甲酸二异壬酯 Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	50 mg/kg
邻苯二甲酸二异癸酯 Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	50 mg/kg
邻苯二甲酸二戊酯 Dipentyl phthalate (DPP/DPENP)* ¹ CAS#:131-18-0	N.D.	50 mg/kg
邻苯二甲酸二己酯 Di-n-hexyl phthalate (DNHP/DHEXP)* ¹ CAS#:84-75-3	N.D.	50 mg/kg

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
全氟辛酸 Perfluorooctanoic Acid (PFOA)	N.D.	0.01 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
全氟辛烷磺酸 Perfluorooctane Sulfonates (PFOS)	N.D.	0.01 mg/kg

样品/部位描述 Sample/Part Description

序号	CTI 样品 ID	描述
No.	CTI Sample ID	Description
1	001	铜色漆包线 Cupreous enamelled wire

备注: 对于检测铅, 镉, 汞, 砷, 铍, 锑, 锡之样品已消解完全。
-N.D. = 未检出 (小于方法检出限)
-mg/kg = ppm = 百万分之一

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Arsenic, Beryllium, Antimony, Tin.
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million

注释: 本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。
“*1”表示该项目/方法不在 CNAS 认可范围内。

Note: The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.
“*1” indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.

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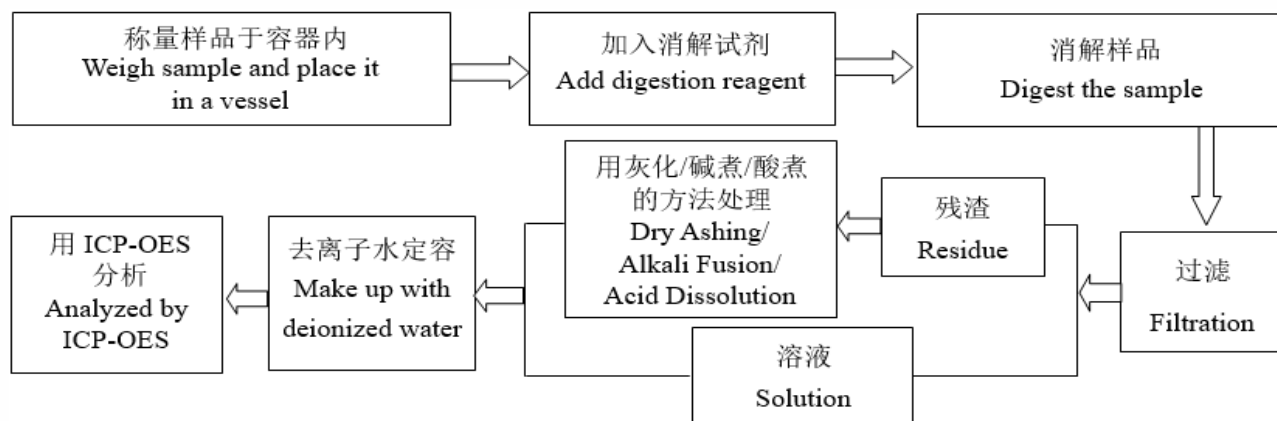
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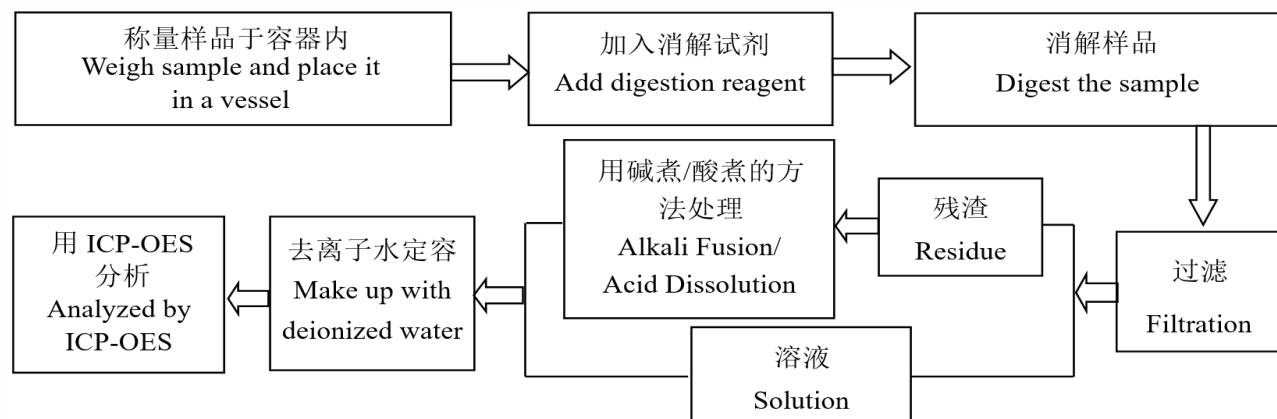
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3.3 检测流程 Test Process

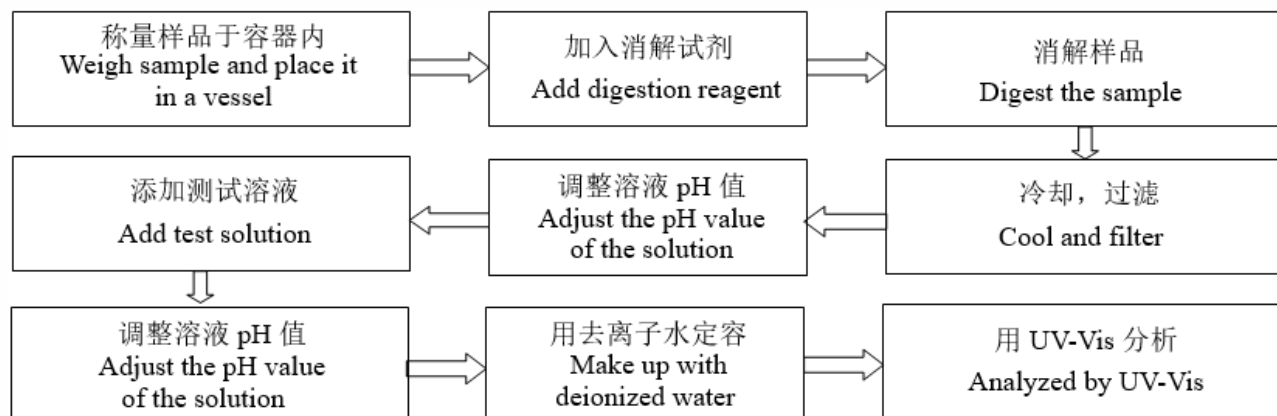
3.3.1. 铅 Lead (Pb), 镉 Cadmium (Cd), 铬 Chromium(Cr)



3.3.2. 汞 Mercury (Hg)



3.3.3. 六价铬 Hexavalent Chromium (Cr(VI))

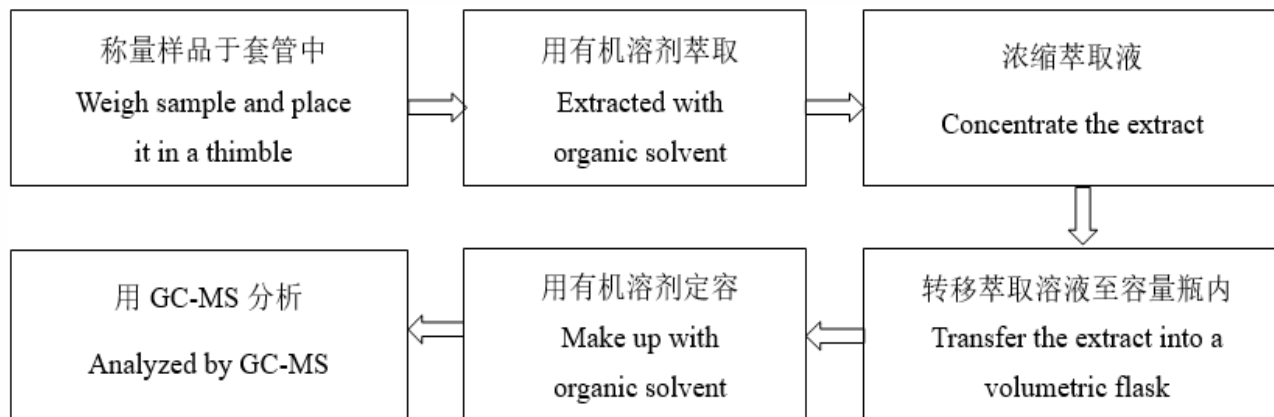


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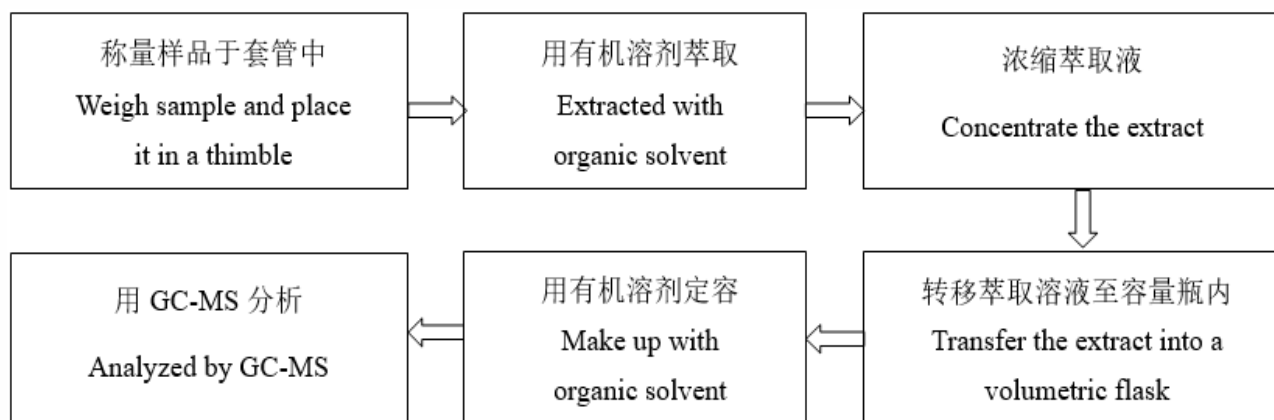
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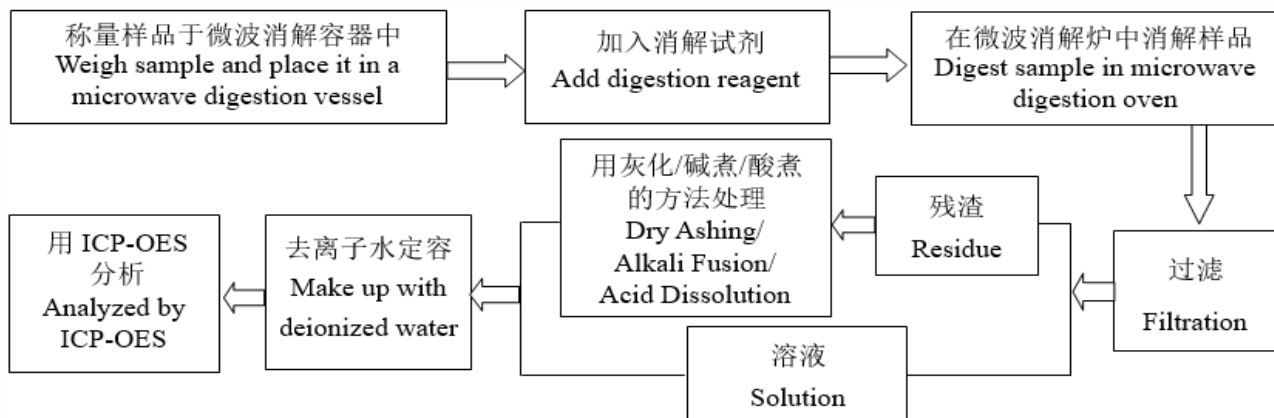
3.3.4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



3.3.5. 邻苯二甲酸酯 Phthalates



3.3.6. 砷 Arsenic(As), 铍 Beryllium(Be), 锑 Antimony(Sb), 锡 Tin(Sn)



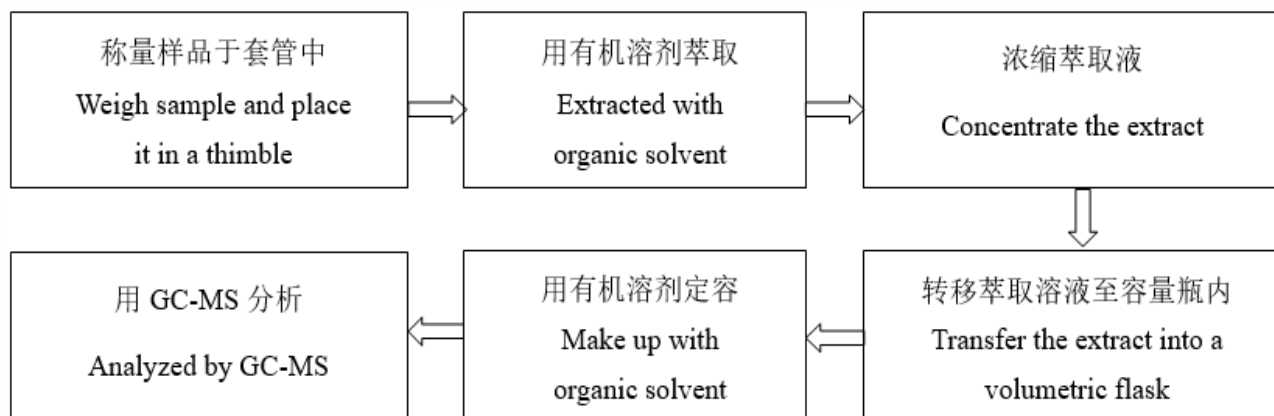
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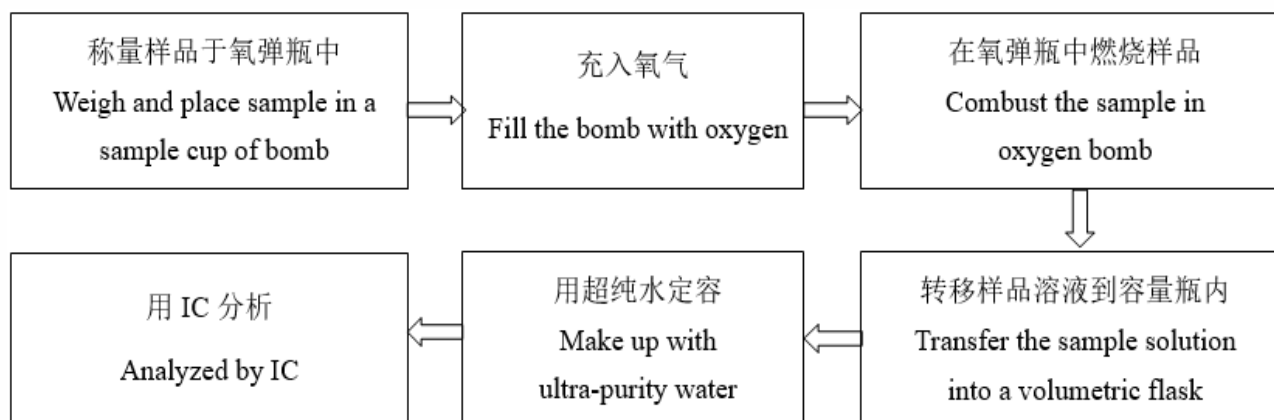
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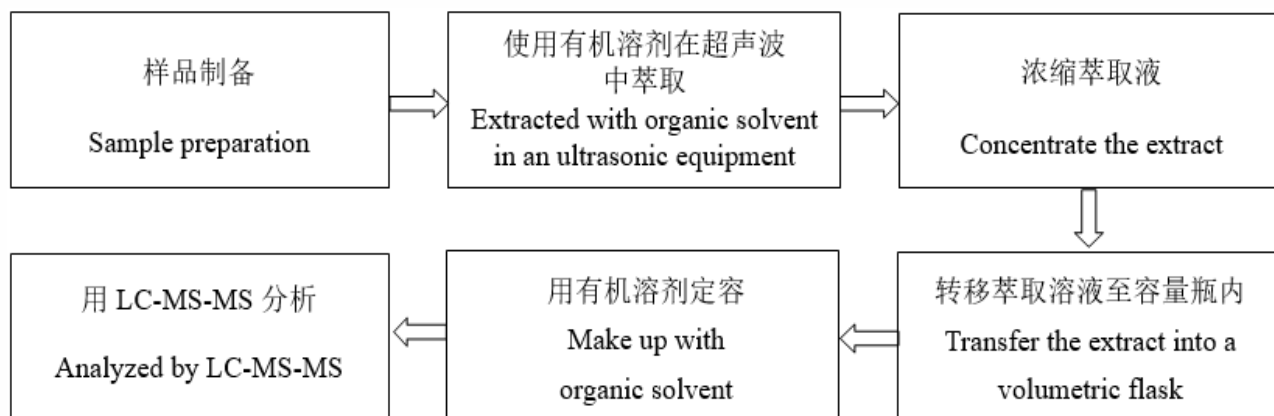
3.3.7. 六溴环十二烷 Hexabromocyclododecane (HBCDD)



3.3.8. 卤素 Halogen(s)



3.3.9. 全氟辛酸(PFOA)Perfluorooctanoic Acid(PFOA), 全氟辛烷磺酸(PFOS)Perfluorooctane Sulfonates(PFOS)



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样品图片

Photo(s) of the sample(s)



声明 Statement:

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效;
This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 报告抬头公司名称及地址、样品及样品信息由申请者提供, 申请者应对其真实性负责, CTI 未核实其真实性;
The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. 本报告检测结果仅对受测样品负责;
The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 除非另有说明, 报告参照 ILAC-G8:09/2019 / CNAS-GL015:2022 使用简单接受 (w=0) 二元判定规则进行符合性判定;
Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. 未经 CTI 书面同意, 不得部分复制本报告;
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In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** 报告结束 ***
*** End of Report ***

附录 Appendix

客户参考信息 Client Reference Information

130 级、155 级、180 级

130、155、180

声明 Statement:

1. 附录内容由申请者提供，申请者应对其真实性负责，CTI 未核实其真实性。

The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

2. 附录内容为 A2240676971101001E 报告的补充。

The Appendix Information is/are the supplement(s) for the Report A2240676971101001E.