

测试报告

No. CANEC1802628344

日期: 2018年03月01日 第1页,共14页

联冠(中山)胶粘制品有限公司
 广东省中山市东升镇广福大道68号
 联冠(开平)胶粘制品有限公司
 广东省江门市开平市第二(苍城)工业园五区7-8号

以下测试之样品是由申请者所提供及确认: BOPP上光膜

SGS工作编号: CP18-005667 - GZ
 样品接收日期: 2018年02月05日
 测试周期: 2018年02月05日 - 2018年02月22日
 测试要求: 应客户要求,参照美国2008消费品改进法案测定委托样品的指定测试部位:
 - 邻苯二甲酸盐(或酯);
 其它测试根据客户选择。
 测试方法: 请参见下一页
 测试结果: 请参见下一页
 测试结果概要:

测试要求	结论
RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863	符合
欧洲委员会指令94/62/EC及其后续修正指令-总铅、镉、汞和六价铬的含量	符合
EN 71-3:2013+A2:2017 - 可溶性元素含量(类别III :可刮取的玩具材料)	符合
美国材料与试验协会-ASTM F 963-16 - 基材中的总铅含量	见测试结果
卤素	见测试结果
ASTM F 963-16 (目录 4.3.5) & EN 71 Part 3:1994 + A1:2000+ AC:2002可溶性重金属含量	见测试结果
CPSIA section 108 -邻苯二甲酸盐(或酯)	符合
邻苯二甲酸盐(或酯)	见测试结果
全氟辛烷磺酸(PFOS)	见测试结果



测试报告

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通标标准技术服务有限公司广州分公司
授权签名

杨谷毅

Echo Yeung 杨谷毅

批准签署人

备注: 本报告是编号为CANEC1802628343报告的中文版本。



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No. CANEC1802628344

日期: 2018年03月01日 第3页,共14页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	CAN18-026283.017	带粘性透明片

备注:

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

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法: 参考IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015和IEC 62321-8:2017, 采用ICP-OES,UV-Vis和GC-MS进行分析

测试项目	限值	单位	MDL	017
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1000	mg/kg	2	ND
汞 (Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND



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日期: 2018年03月01日 第4页,共14页

测试项目	限值	单位	MDL	017
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	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(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

备注:

(1) 最大允许限值引用自RoHS指令(EU) 2015/863。

IEC 62321系列等同于 EN 62321系列

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25

欧洲委员会指令94/62/EC及其后续修正指令-总铅、镉、汞和六价铬的含量

测试方法: 参考GZTC CHEM-TOP-174-01, 采用ICP-OES分析总铅、镉、汞, 采用紫外-可见分光光度计分析六价铬。

测试项目	限值	单位	MDL	017
镉 (Cd)	-	mg/kg	5	ND
铅 (Pb)	-	mg/kg	5	ND
六价铬 (CrVI)	-	mg/kg	5	ND
汞 (Hg)	-	mg/kg	5	ND
总量 (Pb + Cd + Cr VI + Hg)	100	mg/kg	-	ND

EN 71-3:2013+A2:2017 - 可溶性元素含量(类别III:可刮取的玩具材料)

测试方法: 参考EN 71-3:2013+A2:2017, 采用 ICP-OES进行分析。

测试项目	限值	单位	MDL	017
可溶性铝(Al)	70000	mg/kg	50	ND
可溶性砷(As)	47	mg/kg	10	ND
可溶性硼(B)	15000	mg/kg	50	ND
可溶性钡(Ba)	18750	mg/kg	50	ND
可溶性镉(Cd)	17	mg/kg	5	ND
可溶性钴(Co)	130	mg/kg	10	ND
可溶性三价铬(Cr (III))	460	mg/kg	5	ND
可溶性铜(Cu)	7700	mg/kg	50	ND



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测试项目	限值	单位	MDL	017
可溶性汞(Hg)	94	mg/kg	10	ND
可溶性锰(Mn)	15000	mg/kg	50	ND
可溶性镍(Ni)	930	mg/kg	10	ND
可溶性铅(Pb)	160	mg/kg	10	ND
可溶性锑(Sb)	560	mg/kg	10	ND
可溶性硒(Se)	460	mg/kg	10	ND
可溶性锌(Zn)	46000	mg/kg	50	ND
可溶性锶(Sr)	56000	mg/kg	50	ND
可溶性锡(Sn)	180000	mg/kg	4.9	ND
可溶性有机锡	12	mg/kg	-	ND
可溶性六价铬(Cr (VI))	0.2	mg/kg	0.18	ND

备注:

1 可溶性三价铬=可溶性总铬-可溶性六价铬

2.如果可溶性总铬的结果,不超过EN 71-3:2013+A2:2017规定的可溶性三价铬和可溶性六价铬的要求,则不要求做可溶性三价铬和可溶性六价铬的确认性测试。

3.如果可溶性总锡的结果,经过换算后不超过EN 71-3:2013+A2:2017规定的可溶性有机锡的要求,则不要求做可溶性有机锡的确认性测试。

美国材料与试验协会-ASTM F 963-16 – 基材中的总铅含量

测试方法: 参考CPSC-CH-E1002-08.3, 采用ICP-OES分析。

测试项目	限值	单位	MDL	017
总铅 (Pb)	100	mg/kg	20	ND

卤素

测试方法: 参考EN 14582:2016, 用 IC分析。

测试项目	限值	单位	MDL	017
氟 (F)	-	mg/kg	50	ND
氯 (Cl)	900	mg/kg	50	ND
溴 (Br)	900	mg/kg	50	ND
碘 (I)	-	mg/kg	50	ND



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备注:

1. Cl+Br < 1500mg/kg. 限值由客户提供。

ASTM F 963-16 (目录 4.3.5) & EN 71 Part 3:1994 + A1:2000+ AC:2002可溶性重金属含量

测试方法: 参考ASTM F 963-16 (目录8.3)& EN 71 Part 3:1994 + A1:2000+ AC:2002, 采用ICP-OES进行分析。

测试项目	限值	单位	MDL	017
可溶性铅(Pb)	90	mg/kg	5	ND
可溶性铈(Sb)	60	mg/kg	5	ND
可溶性砷(As)	25	mg/kg	2.5	ND
可溶性钡(Ba)	1000	mg/kg	10	ND
可溶性镉(Cd)	75	mg/kg	5	ND
可溶性铬(Cr)	60	mg/kg	5	ND
可溶性汞(Hg)	60	mg/kg	5	ND
可溶性硒(Se)	500	mg/kg	10	ND

备注:

(1) 所示可溶性元素结果为调整后结果。

CPSIA section 108 -邻苯二甲酸盐(或酯)

测试方法: 参照CPSC-CH-C1001-09.3 的方法. 采用GC-MS进行分析。

玩具产品中邻苯二甲酸盐 (或酯)

测试项目	CAS_NO	允许限值	单位	MDL	017
邻苯二甲酸二丁酯 (DBP)	84-74-2	0.1	%(w/w)	0.005	ND
邻苯二甲酸丁苄酯 (BBP)	85-68-7	0.1	%(w/w)	0.005	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	117-81-7	0.1	%(w/w)	0.005	ND

评论 符合

能放入儿童口中的玩具或儿童护理物品中邻苯二甲酸盐 (或酯)



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日期: 2018年03月01日 第7页,共14页

测试项目	CAS NO	允许限值	单位	MDL	017
邻苯二甲酸二异壬酯 (DINP)	28553-12-0 / 68515-48-0	0.1	%(w/w)	0.005	ND
邻苯二甲酸二正辛酯 (DNOP)	117-84-0	0.1	%(w/w)	0.005	ND
邻苯二甲酸二异癸酯 (DIDP)	26761-40-0 / 68515-49-1	0.1	%(w/w)	0.005	ND
评论					符合

邻苯二甲酸盐(或酯)

测试方法: 参照EN 14372: 2004的方法测定, 采用GC-MS进行分析。

测试项目	CAS NO.	单位	MDL	017
邻苯二甲酸二丁酯 (DBP)	84-74-2	%(w/w)	0.003	ND
邻苯二甲酸丁苄酯 (BBP)	85-68-7	%(w/w)	0.003	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	117-81-7	%(w/w)	0.003	ND
邻苯二甲酸二异壬酯 (DINP)	28553-12-0 / 68515-48-0	%(w/w)	0.010	ND
邻苯二甲酸二正辛酯 (DNOP)	117-84-0	%(w/w)	0.003	ND
邻苯二甲酸二异癸酯 (DIDP)	26761-40-0 / 68515-49-1	%(w/w)	0.010	ND
邻苯二甲酸二正己酯 (DnHP)	84-75-3	%(w/w)	0.003	ND

备注:

- (1) DBP, BBP, DEHP参考信息: 1907/2006/EC Reach附录XVII的修正指令——552/2009/EC第51条 (前身为2005/84/EC) 的要求:
 - i) 不允许DBP, BBP, DEHP质量浓度高于0.1%的可塑性物料用于玩具和儿童护理品.
 - ii) 当玩具和儿童护理品中的可塑性物料含DBP, BBP, DEHP质量浓度高于0.1%时,不得投放市场. 详细信息请参见Regulation (EC) No 552/2009
- (2) DINP, DNOP, DIDP参考信息: 1907/2006/EC Reach附录XVII的修正指令——552/2009/EC第52条 (前身为2005/84/EC) 的要求:
 - i) 不允许DINP, DNOP, DIDP质量浓度高于0.1%的可塑性物料用于可放入儿童口中的玩具和儿童护理品.
 - ii) 当可放入儿童口中的玩具和儿童护理品中的可塑性物料含DINP, DNOP, DIDP质量浓度高于0.1%时,不得投放市场. 详细信息请参见Regulation (EC) No 552/2009.
- (3) DBP+BBP+DEHP < 1000mg/kg, DINP+DNOP+DIDP < 1000mg/kg. 限值由客户提供。



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全氟辛烷磺酸(PFOS)

测试方法: 参考CEN/TS15968:2010方法, 用 LC-MS分析。

测试项目	CAS NO.	限值	单位	MDL	017
全氟辛烷磺酸及其衍生物 (PFOS) [^]	-	1000	mg/kg	10	ND

备注:

(1) [^]全氟辛烷磺酸(PFOS)及其衍生物包含全氟辛烷磺酸(PFOS)、全氟辛基磺酰胺(PFOSA)、2-(N-乙基全氟辛基磺酰胺)乙醇(EtFOSE)、N-甲基全氟辛烷磺酰胺(MeFOSA)、N-乙基全氟辛烷磺酰胺(EtFOSA)和2-(N-甲基全氟辛基磺酰胺)乙醇(MeFOSE)。

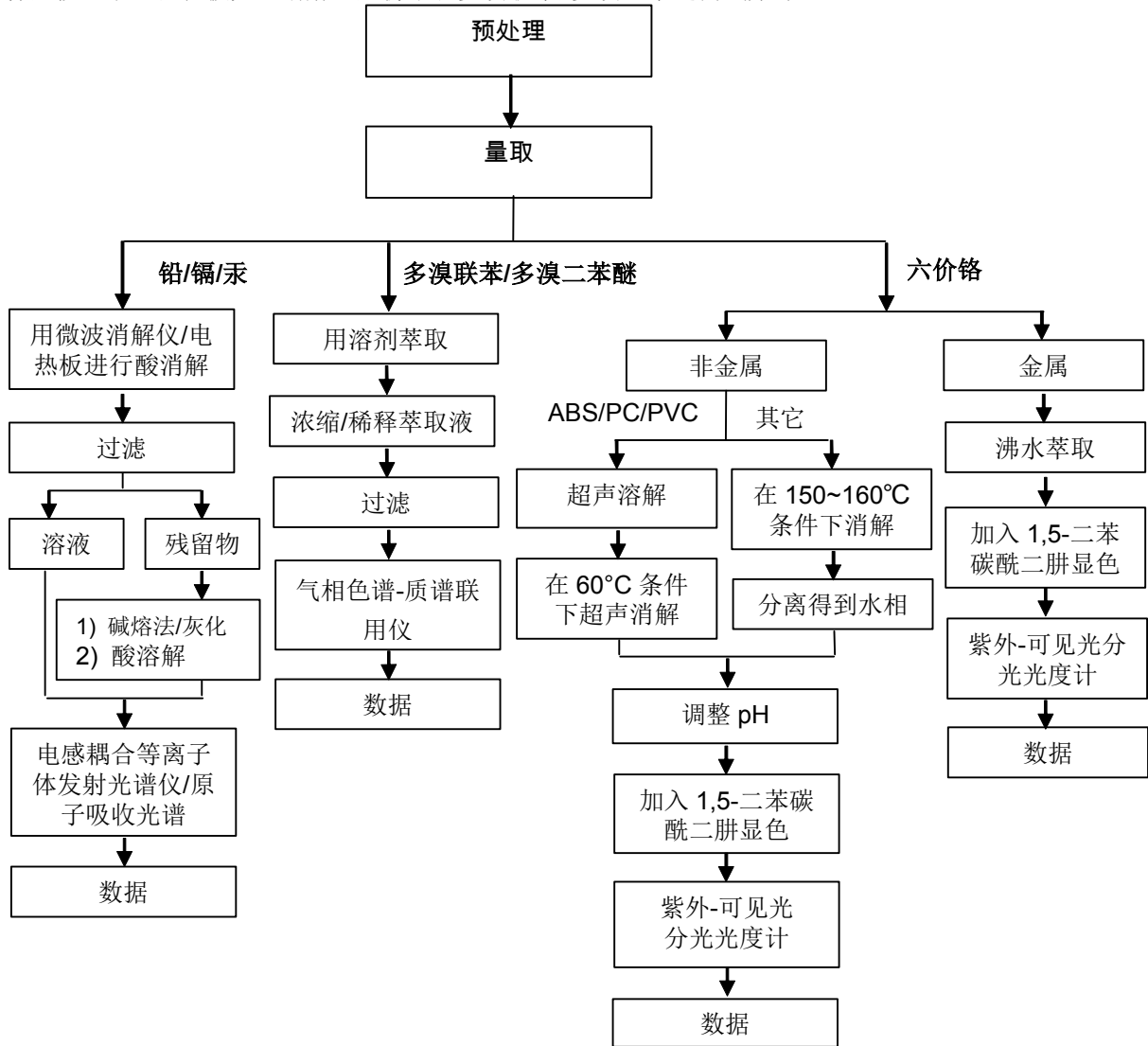
(2) 限值由客户提供。



附件

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs 测试流程图

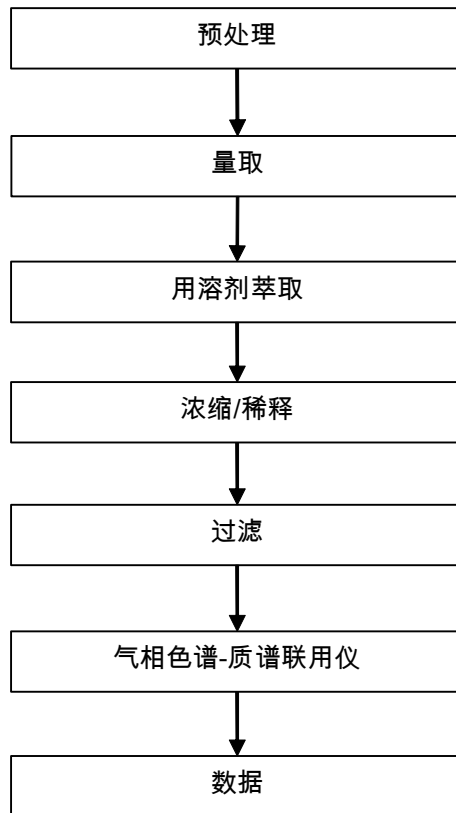
- 1) 分析人员: 张梓路 / 胡香云
- 2) 项目负责人: 汪丹 / 刘琼
- 3) 样品按照下述流程被完全消解 (六价铬和多溴联苯/多溴二苯醚测试除外)。



附件

Phthalates 测试流程图

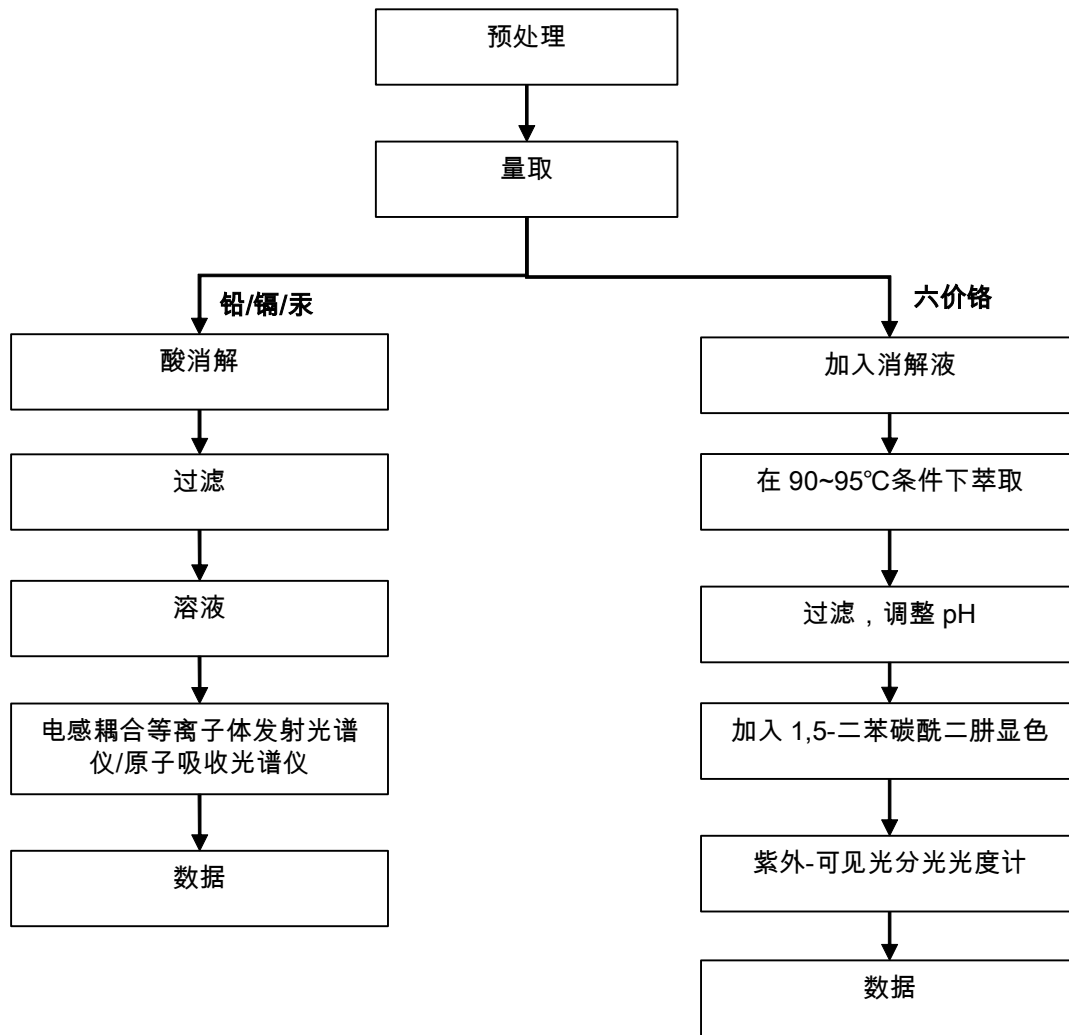
- 1) 分析人员: 胡香云
- 2) 项目负责人: 刘琼



附件

Pb/Cd/Hg/Cr⁶⁺ 测试流程图

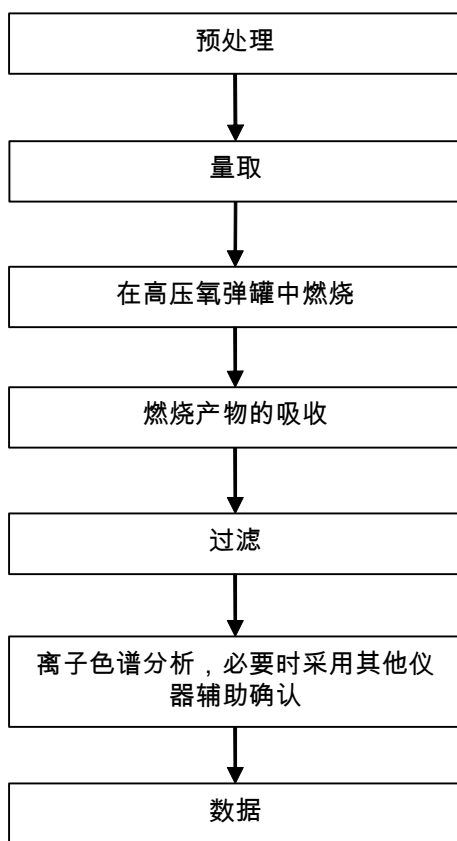
- 1) 分析人员：张梓路
- 2) 项目负责人：汪丹



附件

Halogen 测试流程图

- 1) 分析人员：肖戈
- 2) 项目负责人：汪丹



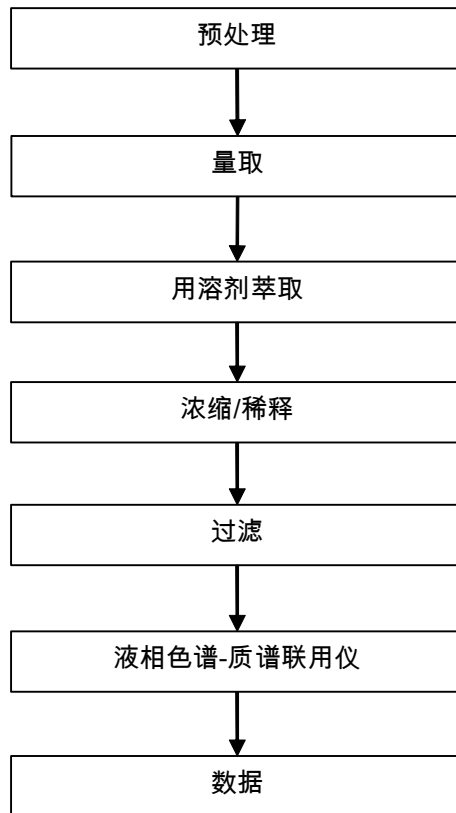
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附件

PFOA / PFOS 测试流程图

- 1) 分析人员：王志红
- 2) 项目负责人：刘琼



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