



检测报告

Test Report

报告编号 A2230243830101E
Report No. A2230243830101E

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报告抬头公司名称 浙江珠城科技股份有限公司
Company Name ZHEJIANG ZUCH TECHNOLOGY CO., LTD
shown on Report
地 址 浙江省乐清市乐清经济开发区纬 15 路 201 号
Address NO. 201, ROAD WEI #15, YUEQING ECONOMIC DEVELOPMENT ZONE,
YUEQING, ZHEJIANG, CHINA

样品接收日期 2023.05.23
Sample Received Date May 23, 2023
样品检测日期 2023.05.23-2023.05.30
Testing Period May 23, 2023 to May 30, 2023

检测要求 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(DBP, BBP, DEHP, DIBP)进行测试。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

检测依据/检测结果 请参见下页。
Test Method/Test Result(s) Please refer to the following page(s).

批 准

Approved by

方理松

方理松

授权签字人 Lab Authorized

Signatory

日 期

Date

2023.05.30

No. R262621536

广东省深圳市宝安区新安街道兴东社区华测检测大楼

华测检测认证集团股份有限公司

Centre Testing International Group Co., Ltd.

CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	客户限值 Client's Limit	符合 PASS

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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

CTI 样品 ID CTI Sample ID	样品名称 Sample Name(s)	材料名称 Material
001	端子 Terminal	黄铜 Brass
002	端子 Terminal	黄铜 Brass
003	端子 Terminal	紫铜 Red Copper
004	端子 Terminal	紫铜 Red Copper
005	端子 Terminal	磷铜 Phosphor Bronze
006	端子 Terminal	磷铜 Phosphor Bronze

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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
	参考 IEC 62321-5:2013 Refer to IEC 62321-5:2013	
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
	参考 IEC 62321-5:2013 Refer to IEC 62321-5:2013	
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
	参考 IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV	
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis
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

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检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	001	002	003		
铅 Lead (Pb)	29 mg/kg	22 mg/kg	24 mg/kg	2 mg/kg	600 mg/kg
镉 Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	60 mg/kg
汞 Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	600 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.▼	N.D.▼	N.D.▼	0.10 µg/cm ² (LOQ)	600 mg/kg

测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	004	005	006		
铅 Lead (Pb)	30 mg/kg	22 mg/kg	27 mg/kg	2 mg/kg	600 mg/kg
镉 Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	60 mg/kg
汞 Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	600 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.▼	N.D.▼	N.D.▼	0.10 µg/cm ² (LOQ)	600 mg/kg

测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	001	003	005		
多溴联苯 Polybrominated Biphenyls (PBBs) *					
一溴联苯 Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	600 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	

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测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	001	003	005		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) *					
一溴二苯醚 Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	600 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	

测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	001	003	005		
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP) *					
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg

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测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	002	004	006		
多溴联苯 Polybrominated Biphenyls (PBBs) *					
一溴联苯 Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	600 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	002	004	006		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) *					
一溴二苯醚 Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	600 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	

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测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	客户限值 Client's Limit
	002	004	006		
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP) *					
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg	600 mg/kg

样品/部位描述 Sample/Part Description

序号 No.	CTI 样品 ID CTI Sample ID	描述 Description
1	001	金属基材 Metal base
2	002	银白色镀层 Silver-white plating
3	003	金属基材 Metal base
4	004	银白色镀层 Silver-white plating
5	005	金属基材 Metal base
6	006	银白色镀层 Silver-white plating

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备注: 对于检测铅, 镉, 汞之样品已消解完全。
-N.D. = 未检出 (小于方法检出限或定量限)
-mg/kg = ppm = 百万分之一
-LOQ = 定量限, 六价铬的定量限为 0.10 $\mu\text{g}/\text{cm}^2$
-▼六价铬浓度小于 0.10 $\mu\text{g}/\text{cm}^2$, 样品未检出六价铬。

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 $\mu\text{g}/\text{cm}^2$
-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 $\mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating.

注释: -*表示该项目/方法不在 CNAS 认可范围内。
-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。

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

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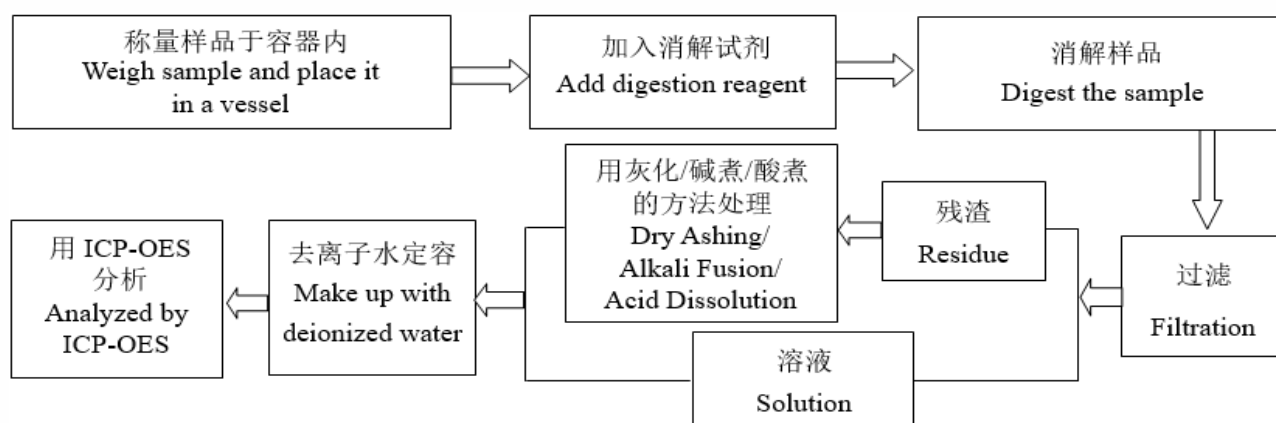
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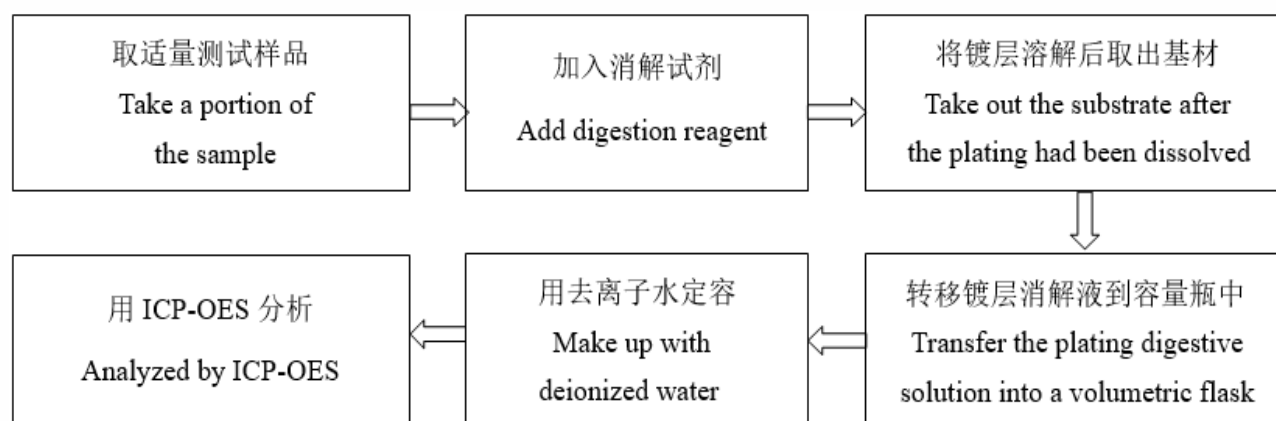
检测流程 Test Process

1. 铅 Lead (Pb), 镉 Cadmium (Cd)

(1) IEC 62321-5:2013



(2) 参考 IEC 62321-5:2013 Refer to IEC 62321-5:2013



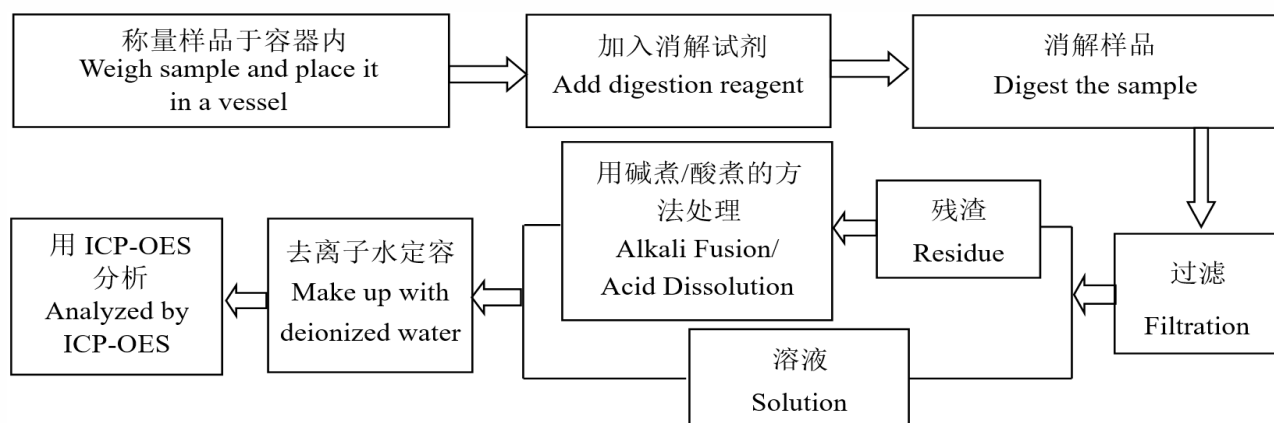
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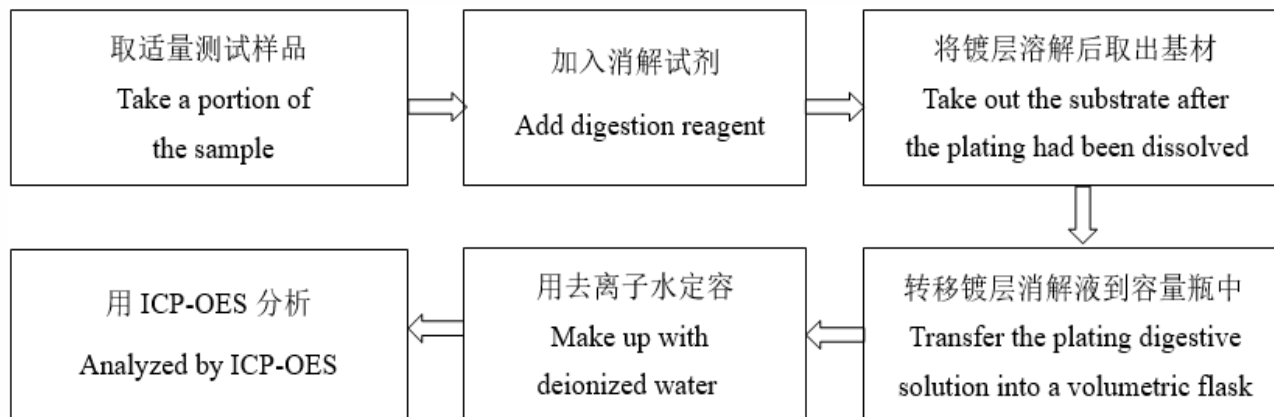
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2. 汞 Mercury (Hg)

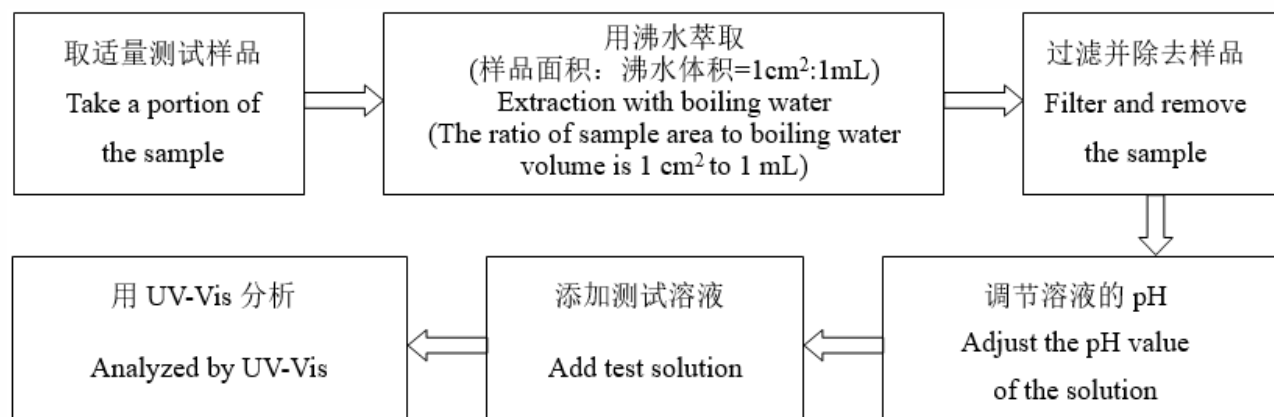
(1) IEC 62321-4:2013+AMD1:2017 CSV



(2) 参考 IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV



3. 六价铬 Hexavalent Chromium (Cr(VI))

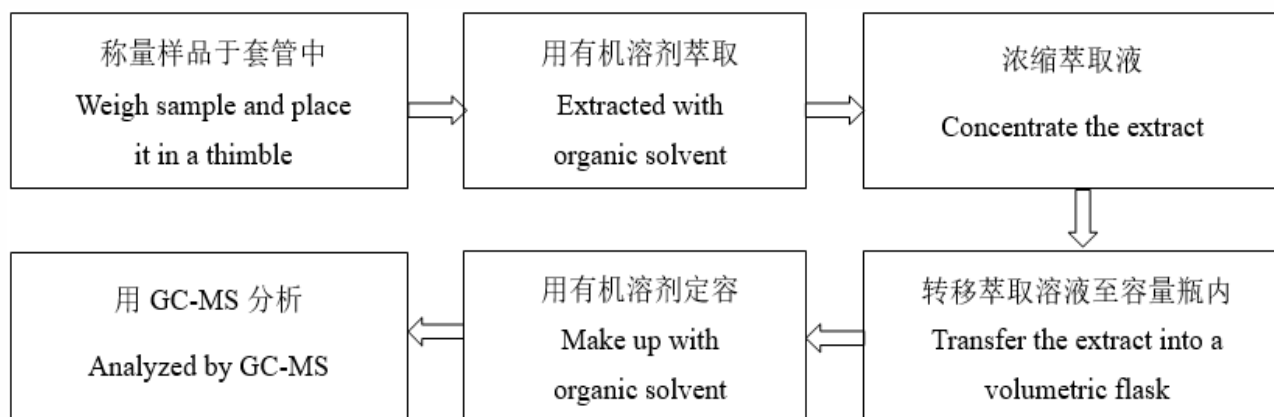


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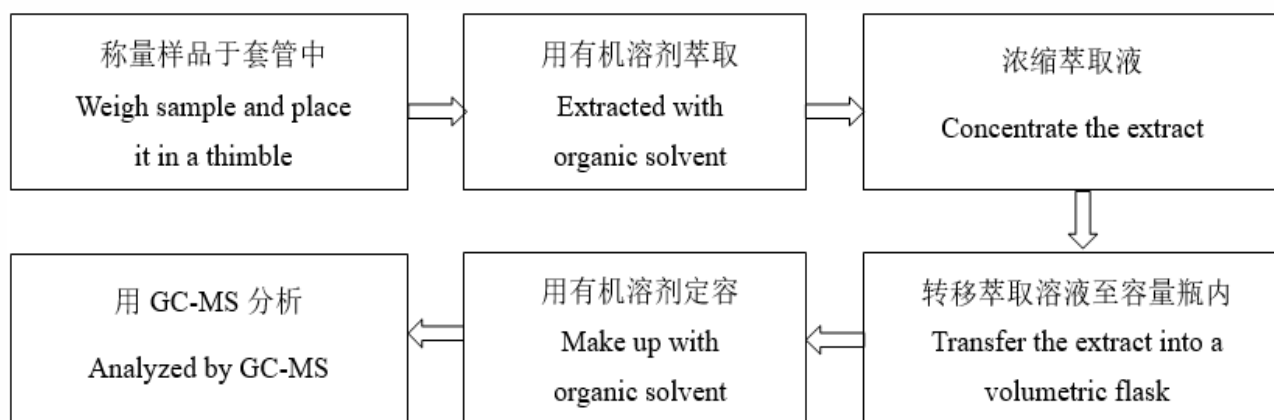
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4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



5. 邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)



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样品图片

Photo(s) of the sample(s)



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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. 未经 CTI 书面同意, 不得部分复制本报告;

Without written approval of CTI, this report can't be reproduced except in full;

5. 如检测报告中的英文内容与中文内容有差异, 以中文为准。

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 ***