



# 检测报告

## Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 1 页 共 12 页  
Page 1 of 12

报告抬头公司名称 广东风华高新科技股份有限公司先华新型敏感元件分公司  
**Company Name** GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO., LTD.  
**shown on Report** XIANHUA NEW SENSITIVE COMPONENTS BRANCH COMPANY  
**地 址** 广东省肇庆市风华路 18 号风华电子工业城  
**Address** FENGHUA ELECTRONIC INDUSTRIAL CITY, 18TH FENGHUA ROAD, ZHAOQING, GUANGDONG, PRC.

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	热敏电阻
Sample Name(s)	Thermistor
样品颜色	黑色
Color	black
样品接收日期	2024.11.28
Sample Received Date	Nov. 28, 2024
样品检测日期	2024.11.28-2024.12.04
Testing Period	Nov. 28, 2024 to Dec. 4, 2024

**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), 铍(Be), 四溴双酚 A (TBBP-A), 中链氯化石蜡(MCCPs)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), Beryllium(Be), Tetrabromobisphenol A (TBBP-A), Middle Chain Chlorinated Paraffins (MCCPs) 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

文利

文利

日 期

Date

2024.12.04

授权签字人 Lab Authorized

Signatory

No. R158927939

华测检测认证集团股份有限公司

广东省深圳市宝安区新安街道兴东社区华测检测大楼

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

# 检测报告

## Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 2 页 共 12 页  
Page 2 of 12

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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	欧盟 RoHS 指令 2011/65/EU 及其修订指令 (EU) 2015/863 RoHS Directive 2011/65/EU with amendment (EU) 2015/863	符合 PASS

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符合表示检测结果满足欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863要求的限值。

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

# 检测报告

## Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 3 页 共 12 页  
Page 3 of 12

### 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
	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
铍 Beryllium(Be)	参考 US EPA 3052:1996 & US EPA 6010D:2018 Refer to US EPA 3052:1996 & US EPA 6010D:2018	ICP-OES
中链氯化石蜡 Middle Chain Chlorinated Paraffins (MCCPs)	参考 US EPA 3540C:1996 & US EPA 8270E:2018 Refer to US EPA 3540C:1996 & US EPA 8270E:2018	GC-MS(NCI)
四溴双酚 A Tetrabromobisphenol A (TBBP-A)	参考 US EPA 3550C:2007 & US EPA 8321B:2007 Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

# 检测报告 Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 4 页 共 12 页  
Page 4 of 12

**检测结果 Test Result(s)**

测试项目 Tested Item(s)	结果 Result			方法检出限 MDL	限值 Limit
	025	026	027		
铅 Lead (Pb)	N.D.	N.D.	36 mg/kg	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.	--	--	8 mg/kg	1000 mg/kg
	--	N.D.▼	N.D.▼	0.10 µg/cm <sup>2</sup> (LOQ)	1000 mg/kg

测试项目 Tested Item(s)	结果 Result		方法检出限 MDL	限值 Limit
	025			
<b>多溴联苯 Polybrominated Biphenyls (PBBs)</b>				
一溴联苯 Monobromobiphenyl	N.D.		5 mg/kg	1000 mg/kg
二溴联苯 Dibromobiphenyl	N.D.		5 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.		5 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.		5 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.		5 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.		5 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.		5 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.		5 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.		5 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.		5 mg/kg	

测试项目 Tested Item(s)	结果 Result		方法检出限 MDL	限值 Limit
	025			
<b>多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)</b>				
一溴二苯醚 Monobromodiphenyl ether	N.D.		5 mg/kg	1000 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.		5 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.		5 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.		5 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.		5 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.		5 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.		5 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.		5 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.		5 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.		5 mg/kg	

# 检测报告 Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 5 页 共 12 页  
Page 5 of 12

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	025		
<b>邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)</b>			
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 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	1000 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	1000 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	025	
铍 Beryllium (Be)	N.D.	2 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	025	
四溴双酚 A Tetrabromobisphenol A (TBBP-A)	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	025	
中链氯化石蜡 Middle Chain Chlorinated Paraffins (MCCPs)	N.D.	100 mg/kg

# 检测报告

## Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 6 页 共 12 页  
Page 6 of 12

### 样品/部位描述 Sample/Part Description

序号	CTI 样品 ID	描述
No.	CTI Sample ID	Description
1	025	有棕色印字的黑色本体（整体测试） Black body with brown printing(Tested as a whole)*
2	026	金属基材 Metal base
3	027	银色镀层 Silvery plating

**备注:** -对于检测铅, 镉, 汞, 铍之样品已消解完全。  
-\*按照目前手段, 样品无法进一步拆分, 样品整体测试, 测试结果不代表整体测试样品中任何一种单一材质的含量。  
-N.D. = 未检出 (小于方法检出限或定量限)  
-mg/kg = ppm = 百万分之一  
-1000 mg/kg = 0.1%  
-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。由于未获知样品的存储条件和生产日期, 样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

**Remark:** -The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Beryllium.  
-\*The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology. The result(s) shown on this report may be different from the content of any homogeneous material.  
-MDL = Method Detection Limit  
-N.D. = Not Detected (<MDL or LOQ)  
-mg/kg = ppm = parts per million  
-1000 mg/kg = 0.1%  
-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. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

**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。

**Note:** The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

# 检测报告 Test Report

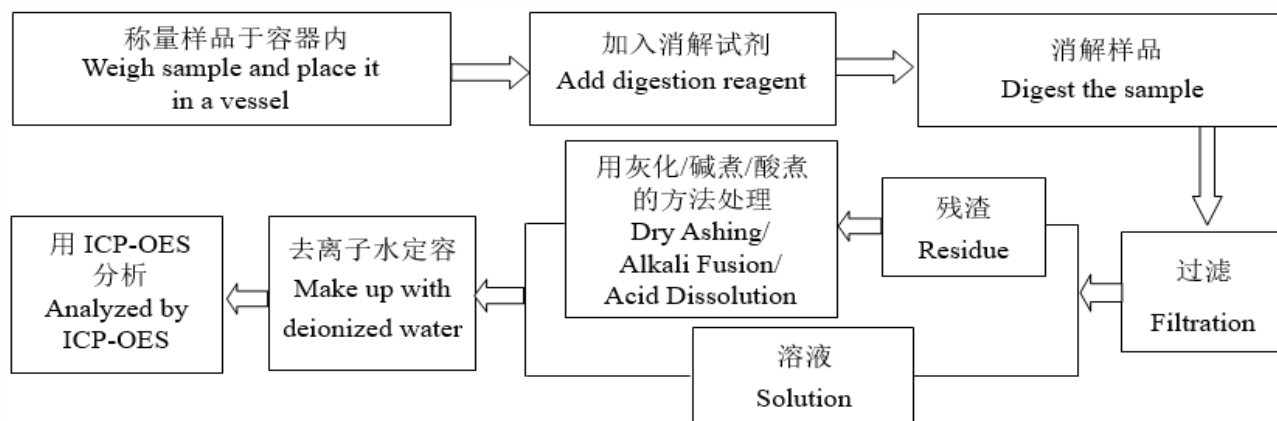
报告编号 A224074412210108E  
Report No. A224074412210108E

第 7 页 共 12 页  
Page 7 of 12

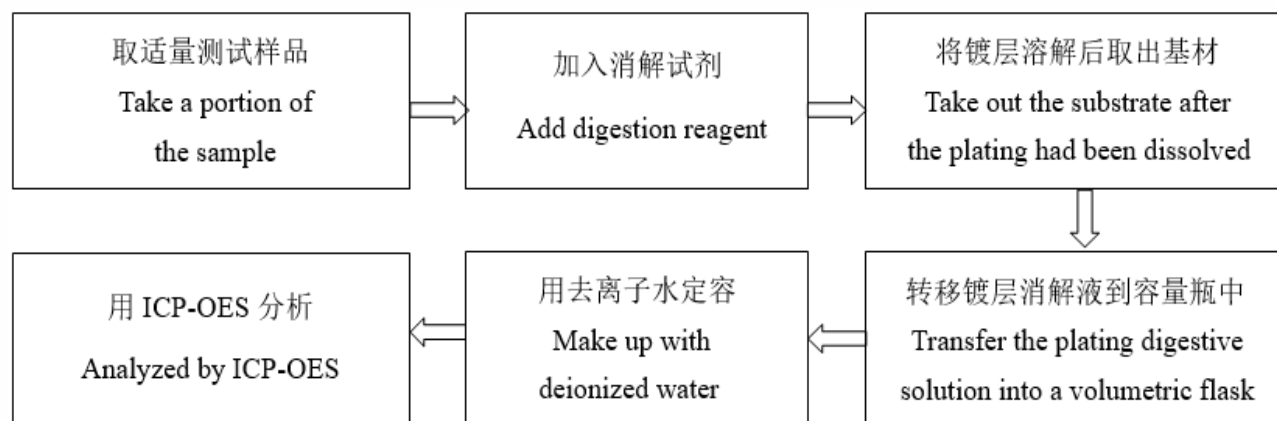
## 检测流程 Test Process

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

#### (1) IEC 62321-5:2013



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



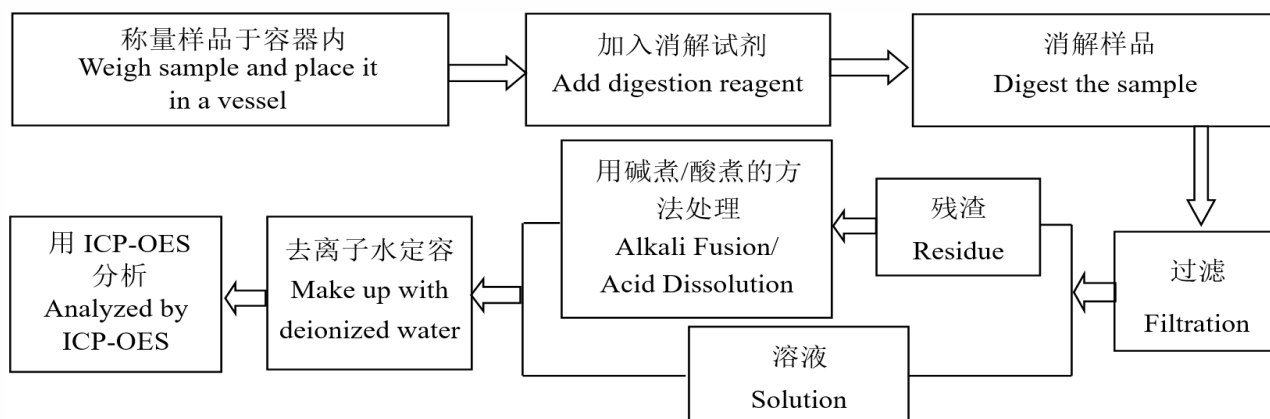
# 检测报告 Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

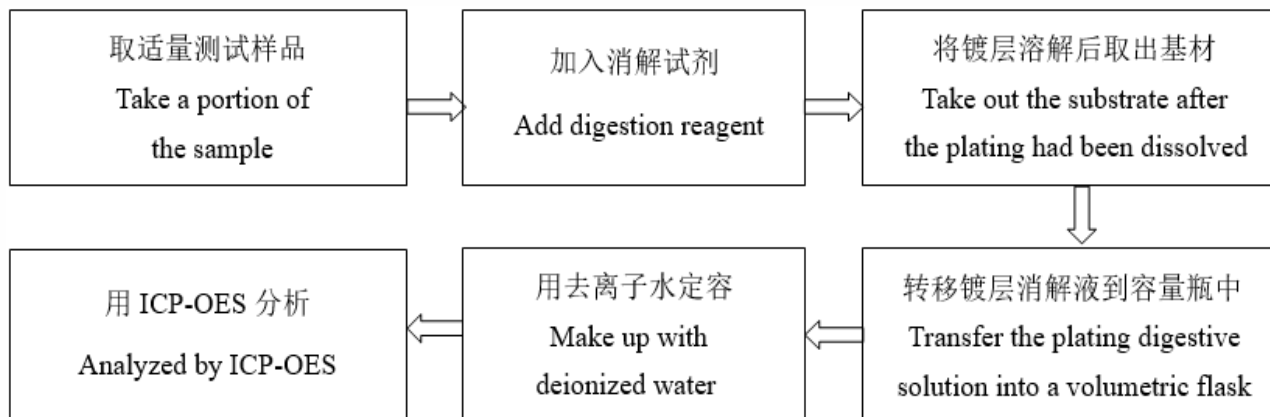
第 8 页 共 12 页  
Page 8 of 12

## 2. 汞 Mercury (Hg)

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

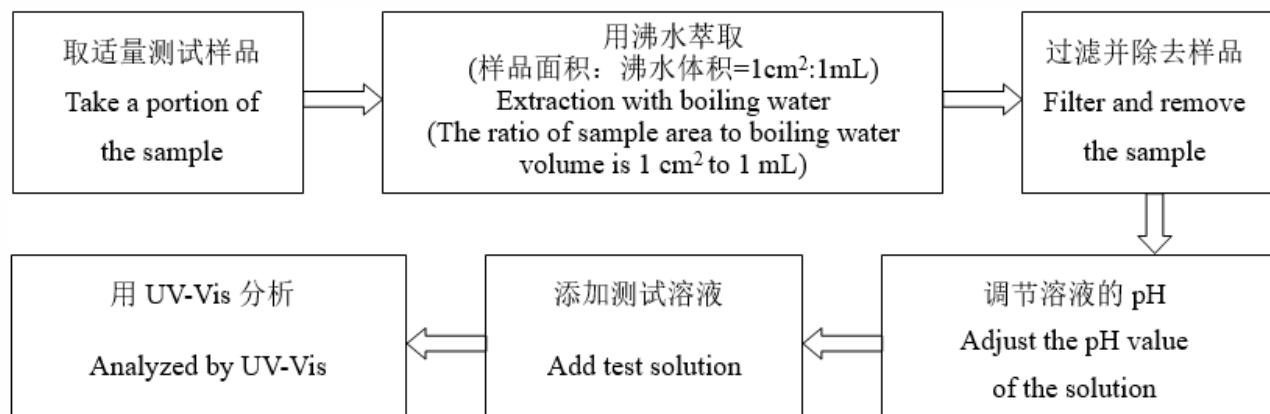


### (2) 参考 IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV



## 3. 六价铬 Hexavalent Chromium (Cr(VI))

### (1) IEC 62321-7-1:2015

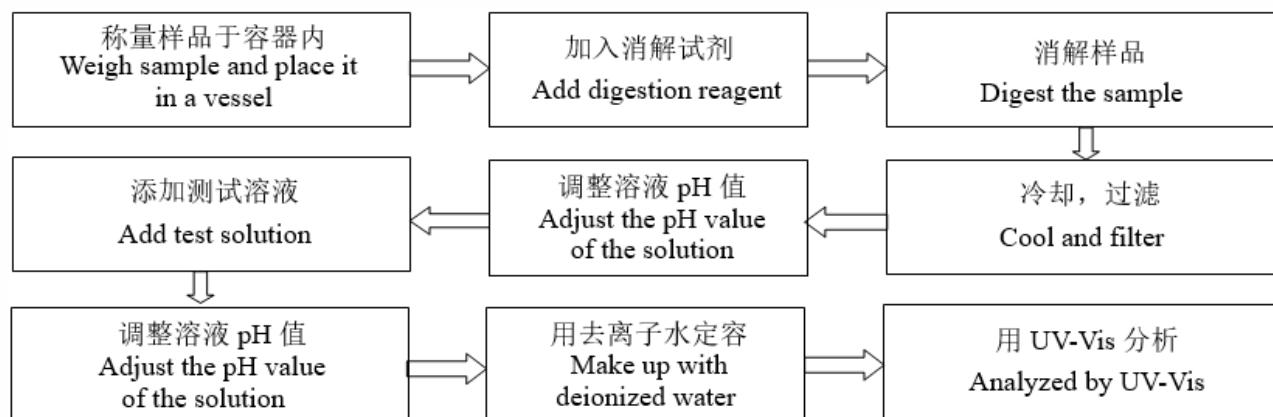


# 检测报告 Test Report

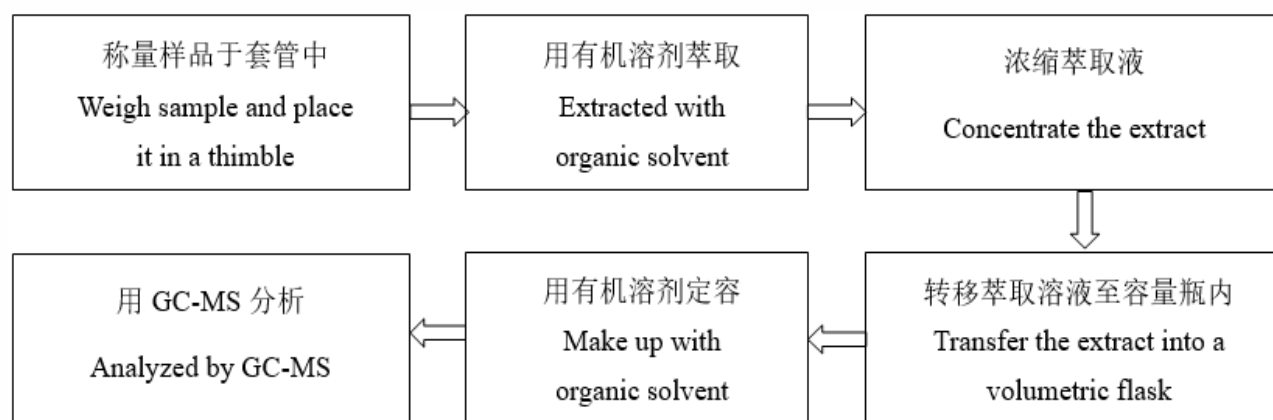
报告编号 A224074412210108E  
Report No. A224074412210108E

第 9 页 共 12 页  
Page 9 of 12

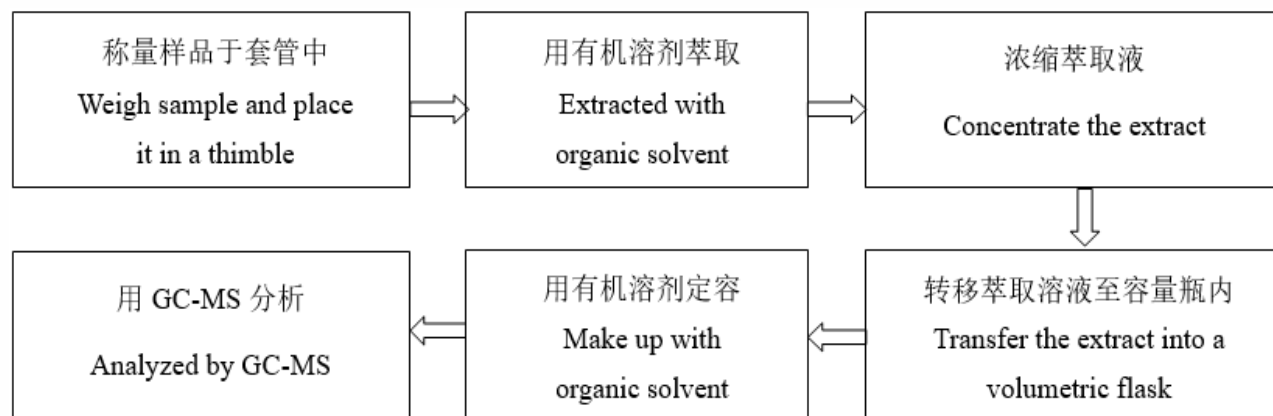
## (2) IEC 62321-7-2:2017



## 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)

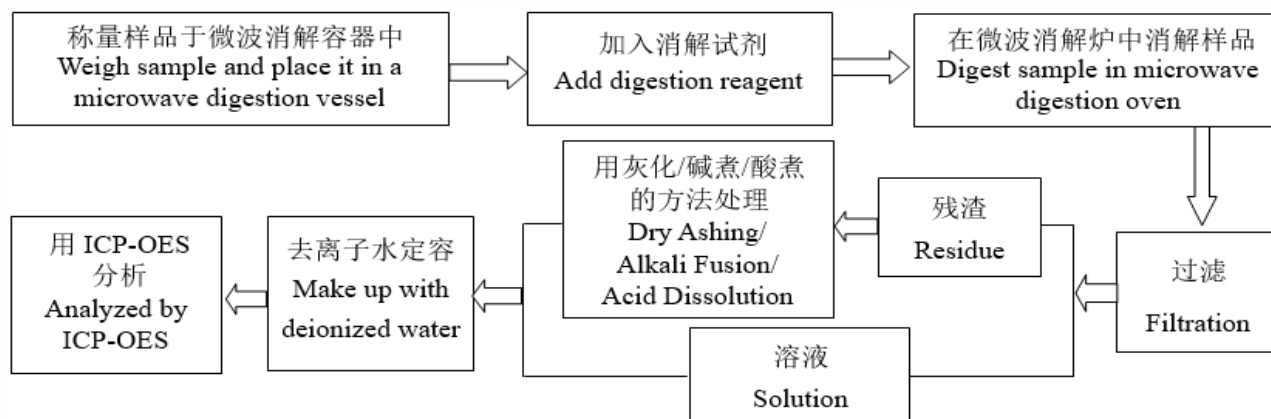


# 检测报告 Test Report

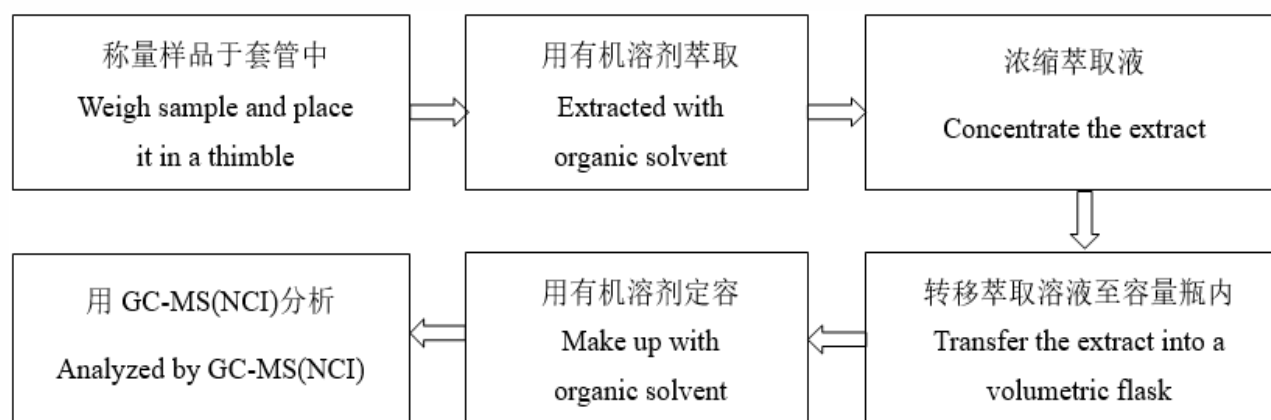
报告编号 A224074412210108E  
Report No. A224074412210108E

第 10 页 共 12 页  
Page 10 of 12

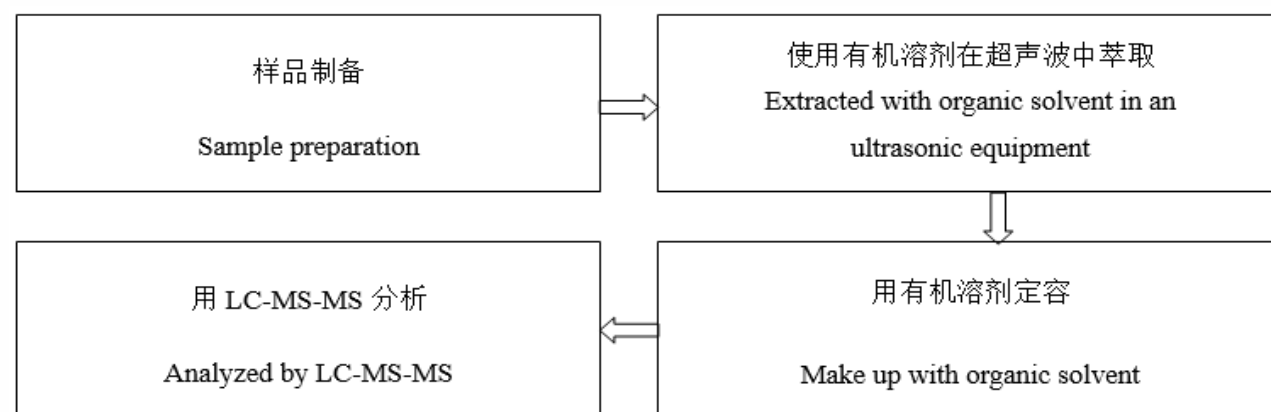
## 6. 铍 Beryllium(Be)



## 7. 中链氯化石蜡 Middle Chain Chlorinated Paraffins (MCCPs)



## 8. 四溴双酚 A Tetrabromobisphenol A (TBBP-A)



# 检测报告 Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 11 页 共 12 页  
Page 11 of 12

## 样品图片

### Photo(s) of the sample(s)



A2240744122101025



A2240744122101026



A2240744122101027

# 检测报告

## Test Report

报告编号 A224074412210108E  
Report No. A224074412210108E

第 12 页 共 12 页  
Page 12 of 12

**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;  
Without written approval of CTI, this report can't be reproduced except in full;
6. 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 \*\*\*