



检测报告

Test Report

报告编号 A2250563291101E
Report No. A2250563291101E

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报告抬头公司名称 苏州力湃消防科技有限公司
Company Name SUZHOU LIPAI FIREFIGHTING TECHNOLOGY CO., LTD.
shown on Report
地 址 苏州高新区滨河路 337 号 F9F905-C08
Address F9F905-C08, NO.337, BINHE ROAD, HIGH-TECH ZONE, SUZHOU 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

产品名称 Product Name 气溶胶灭火装置 Condensed Aerosol Fire Extinguishing Device
样品型号 Model No. QRR0.01-3.0
样品接收日期 2025.08.05
Sample Received Date Aug. 5, 2025
样品检测日期 2025.08.05-2025.08.19
Testing Period Aug. 5, 2025 to Aug. 19, 2025

检测要求 请参见下页。
Test Requested Please refer to the following page(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



刘琳慧

刘琳慧

授权签字人 Lab Authorized
Signatory

日 期

Date

2025.08.19

No. T788049178

广东省深圳市宝安区新安街道兴东社区华测检测大楼

检测检测专用章 团股份有限公司
Inspection & Testing Signatures
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	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

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.

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检测要求 1.根据客户要求,对所提交样品中铅(Pb)、镉(Cd)、汞(Hg)、铬(Cr)、溴(Br)以及邻苯二甲酸酯【邻苯二甲酸二正丁酯(DBP)、邻苯二甲酸丁基苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)】进行筛选测试。
2.根据客户要求,当筛选结果超出 IEC 62321-3-1:2013 所规定的筛选限值或本报告中所列邻苯二甲酸酯筛选限值时,进一步采用更精确的化学方法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)和邻苯二甲酸酯【邻苯二甲酸二正丁酯(DBP)、邻苯二甲酸丁基苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)】进行测试。

Test Requested 1. As specified by client, to screen Lead(Pb), Cadmium(Cd), Mercury(Hg), Chromium(Cr), Bromine(Br), Phthalates (Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP), Di-2-ethylhexyl phthalate(DEHP), Diisobutyl phthalate(DIBP)) in the submitted sample(s).
2.As specified by client, when screening results exceed the screening limit in IEC 62321-3-1:2013 or screening limit of Phthalates in this report, further use of chemical methods are required to test the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs) and Phthalates (Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP), Di-2-ethylhexyl phthalate(DEHP), Diisobutyl phthalate(DIBP)) in the submitted samples.

检测依据 Test Method

A. IEC 62321-3-1:2013 对管控元素的筛选限值 Screening limits for regulated elements according to IEC 62321-3-1:2013 (单位 Unit: mg/kg)

Table with 4 columns: 测试元素 Element(s), 聚合物 Polymers, 金属 Metals, 合成材料 Composite material. Rows include Pb, Cd, Hg, Cr, Br with their respective screening limits.

B. 邻苯二甲酸酯的筛选限值 Screening limits for Phthalates

Table with 2 columns: 测试项目 Test Item(s), 筛选限值 Screening limits(单位 Unit: mg/kg). Rows include Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP), Di-2-ethylhexyl phthalate(DEHP), and Diisobutyl phthalate(DIBP).

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C. 化学测试 Chemical Test

测试项目 Tested Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)	报告限 RL	限值 Limit
铅 Lead (Pb)	IEC 62321-5:2013	ICP-OES	10 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES	10 mg/kg	100 mg/kg
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES	10 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017	UV-Vis	20 mg/kg	1000 mg/kg
	IEC 62321-7-1:2015		0.10 µg/cm ² (LOQ)	
多溴联苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS	100 mg/kg	1000 mg/kg
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS	100 mg/kg	1000 mg/kg
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS	50 mg/kg	单项 1000 mg/kg 1000 mg/kg for each

备注 Remark:

- BL = 低于筛选限值 Below limit
- OL = 高于筛选限值 Over limit
- X = 需要做进一步测试的范围 The region where further investigation is necessary
- 3σ = 分析仪器的重复性 The reproducibility of analytical instruments
- N/A = 不适用 Not applicable
- LOD = 方法检出限 Limit of Detection
- LOQ = 定量限，六价铬的定量限为 0.10 µg/cm² Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 µg/cm²
- RL=Report Limit

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检测结果 Test Result(s)

根据物料风险评估的结果，验证送测样品中以下材料。In accordance with the result of material risk assessment, the following disjointed parts in the submitted sample have been verified.

CTI 样品 ID CTI Sample ID	样品描述 Sample Description	测试项目 Tested Items	XRF 扫描结果 XRF Screening Test	邻苯二甲酸酯筛选结果 Phthalates Screening Test	化学测试结果 Chemical Test (mg/kg)	结论 Conclusion	样品提交/再次提交日期 Sample Received/ Resubmitted Date
1	黑色涂层 Black coating	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
		DIBP	N/A	BL	/		
2	金属基材 Metal base	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	N/A	/	/		
		Br(PBDEs)	N/A	/	/		
		DBP	N/A	/	/		
		BBP	N/A	/	/		
		DEHP	N/A	/	/		
		DIBP	N/A	/	/		
3	有黑色覆盖层的金属 Metal with black covering layer	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	N/A	/	/		
		Br(PBDEs)	N/A	/	/		
		DBP	N/A	/	/		
		BBP	N/A	/	/		
		DEHP	N/A	/	/		
		DIBP	N/A	/	/		

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CTI 样品 ID CTI Sample ID	样品描述 Sample Description	测试项目 Tested Items	XRF 扫描结果 XRF Screening Test	邻苯二甲酸酯筛 选结果 Phthalates Screening Test	化学测试结果 Chemical Test (mg/kg)	结论 Conclusion	样品提交/再次提交 日期 Sample Received/ Resubmitted Date
4	银色胶带 Silvery adhesive tape	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
	透明塑料 Transparent plastic	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
6	有粘胶的黄色纸 Yellow paper with adhesive paste	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
		DIBP	N/A	BL	/		

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7	黑色套管 Black tube	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
		DIBP	N/A	BL	/		
8	黑色软塑料 Black soft plastic	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
		DIBP	N/A	BL	/		
9	金色金属 Golden metal	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	N/A	/	/		
		Br(PBDEs)	N/A	/	/		
		DBP	N/A	/	/		
		BBP	N/A	/	/		
		DEHP	N/A	/	/		
		DIBP	N/A	/	/		

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CTI 样品 ID CTI Sample ID	样品描述 Sample Description	测试项目 Tested Items	XRF 扫描结果 XRF Screening Test	邻苯二甲酸酯筛选结果 Phthalates Screening Test	化学测试结果 Chemical Test (mg/kg)	结论 Conclusion	样品提交/再次提交日期 Sample Received/Resubmitted Date
10	蓝色塑料 Blue plastic	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
		DIBP	N/A	BL	/		
11	红色塑料 Red plastic	Pb	BL	/	/	符合 PASS	2025.08.05 Aug. 5, 2025
		Cd	BL	/	/		
		Hg	BL	/	/		
		Cr(Cr(VI))	BL	/	/		
		Br(PBBs)	BL	/	/		
		Br(PBDEs)	BL	/	/		
		DBP	N/A	BL	/		
		BBP	N/A	BL	/		
		DEHP	N/A	BL	/		
		DIBP	N/A	BL	/		

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备注 Remark:

- N.D. = 未检出(小于方法检出限或报告限) Not Detected (<MDL or RL)
- MDL = Method Detection Limit
- mg/kg = ppm = 百万分之一 parts per million
- 1000 mg/kg = 0.1%
- / = 未检测 Not tested
- N/A = 不适用 Not applicable
- BL = 低于筛选限值 Below limit
- RL=Report Limit
- 对于多溴联苯 (PBBs) 和多溴二苯醚 (PBDEs), XRF 筛选时其结果显示的是总溴含量; 对于六价铬, XRF 筛选时其结果显示的是总铬含量。When conducting the test for PBBs&PBDEs, XRF was introduced to screen Br Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to screen Chromium exclusively.
- 豁免清单请见官网 <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32011L0065>
Exemption list please see the official website
<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32011L0065>
- 本报告根据物料风险评估的结果, 对样品图片中指示部位进行了验证测试并得出结论。
According to the result of material risk assessment, the conclusions of report are based on the verification test results of the specified parts of sample photos.
- 测试结果仅针对客户选择的测试的样品, 不代表整机中全部材料。The test results are only for the test samples selected by the customer and do not represent all the materials in the finished product.

注释 Note:

- 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。
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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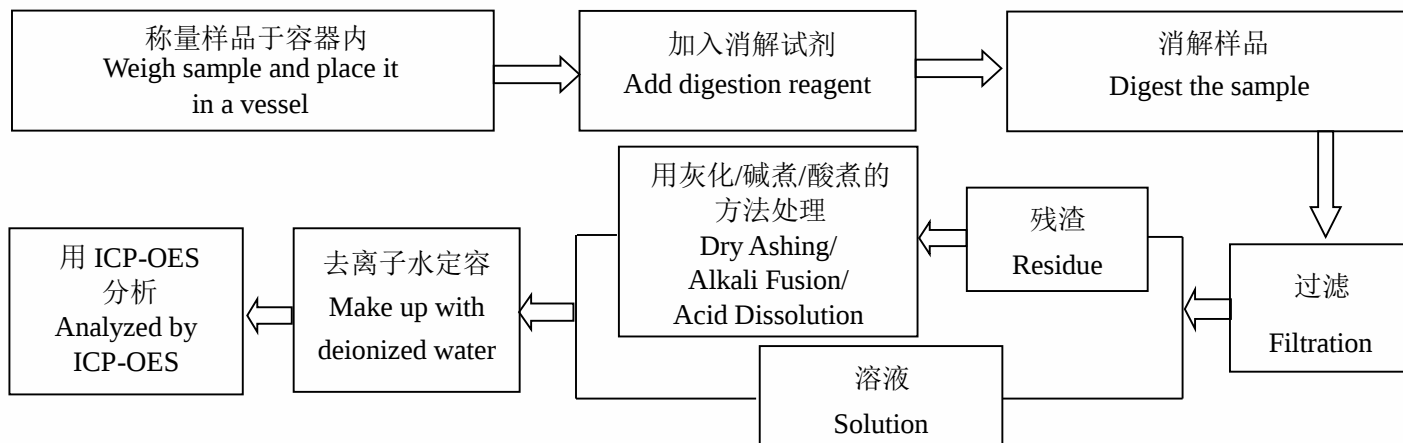
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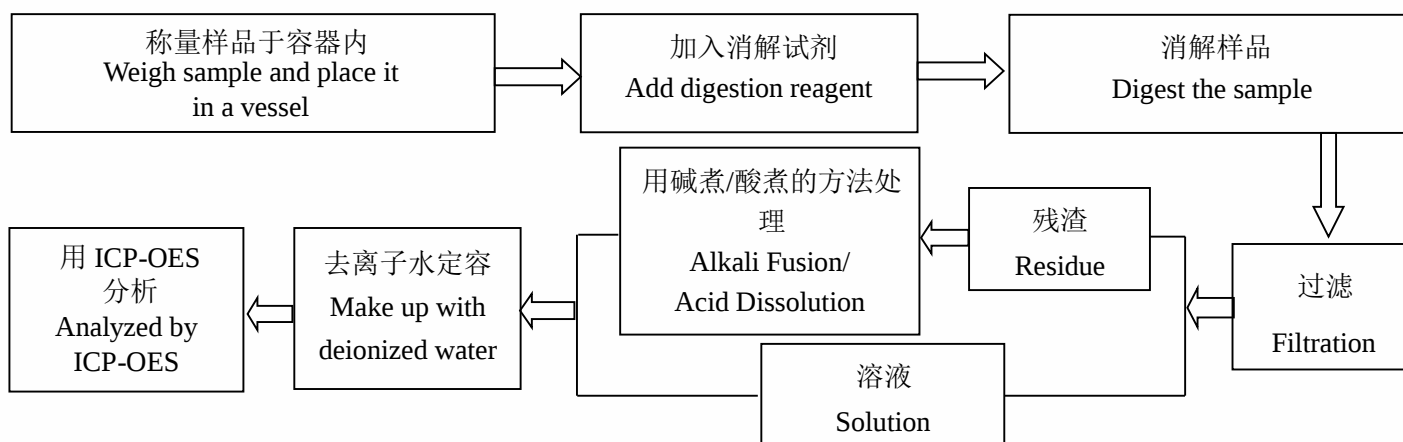
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检测流程 Test Process

1. 铅 Lead (Pb), 镉 Cadmium (Cd)

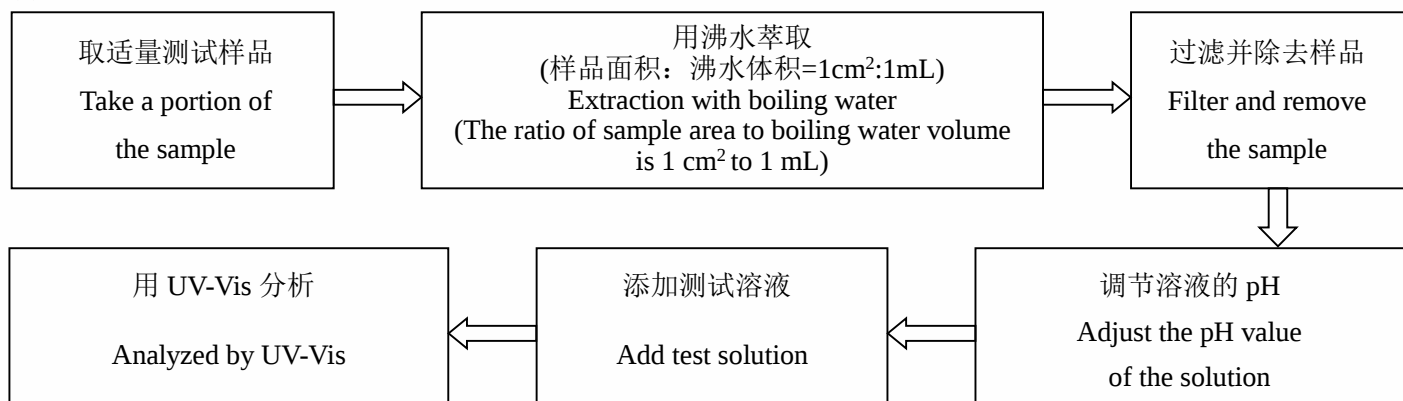


2. 汞 Mercury(Hg)



3. 六价铬 Hexavalent Chromium (Cr(VI))

(1) IEC 62321-7-1:2015

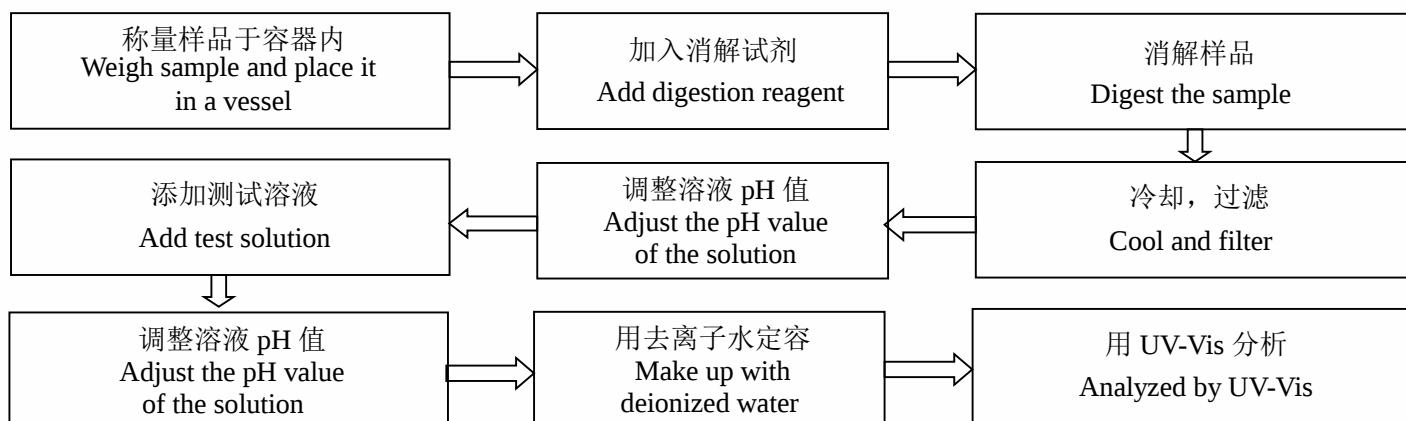


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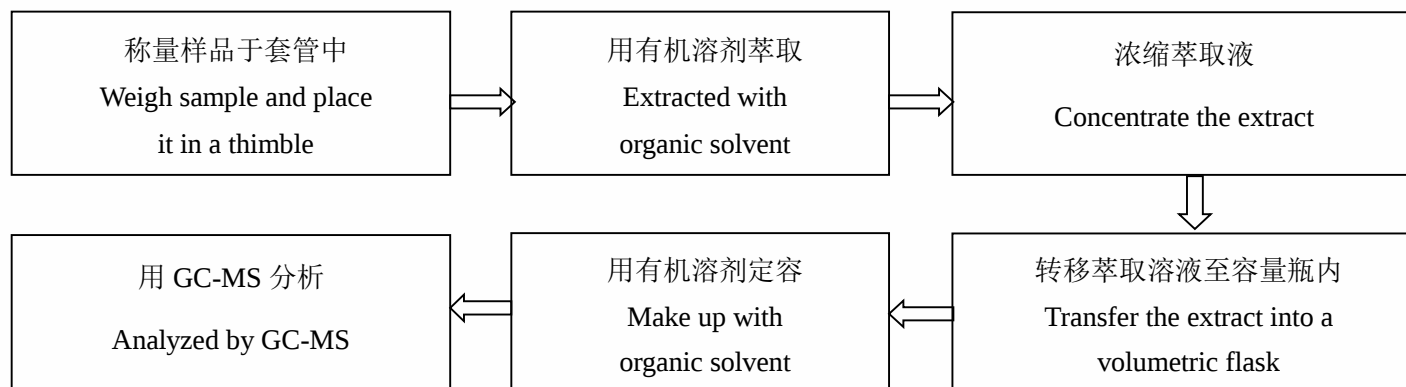
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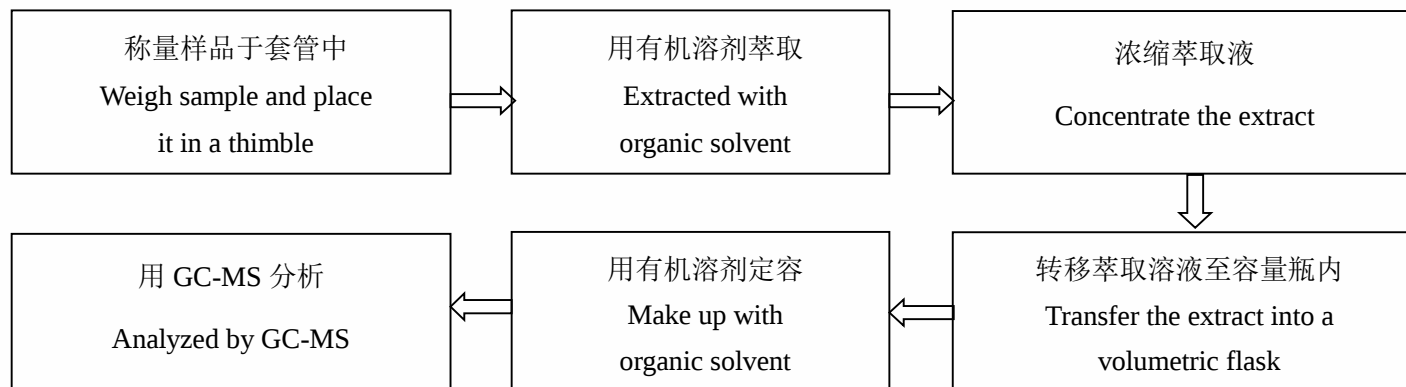
(2) IEC62321-7-2:2017



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)



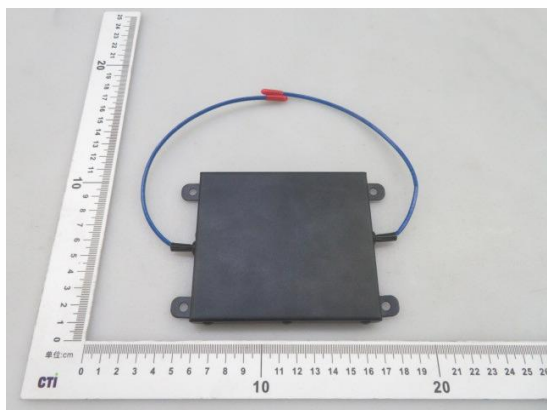
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样品图片 Photo(s) of the sample(s)

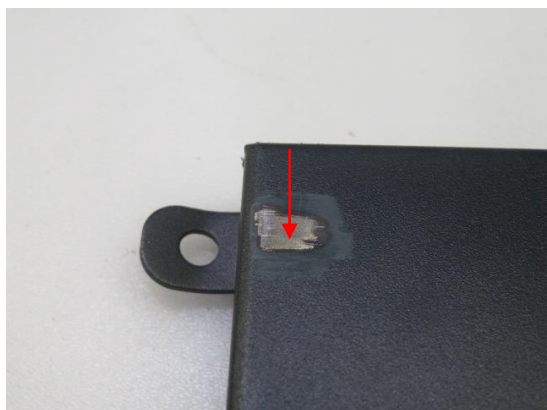
成品 Final Product



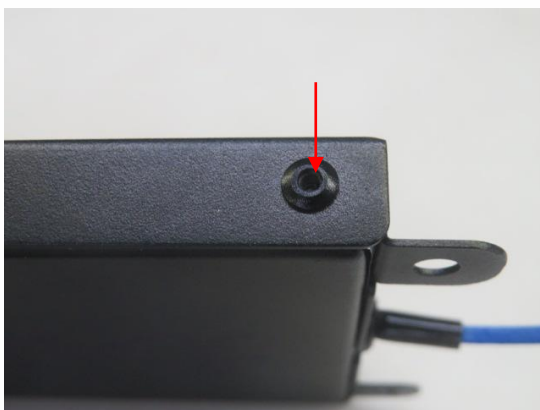
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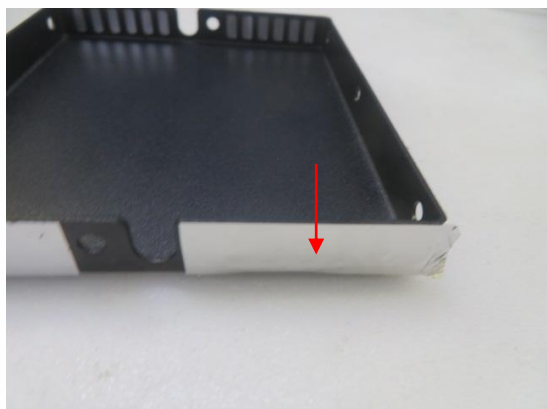
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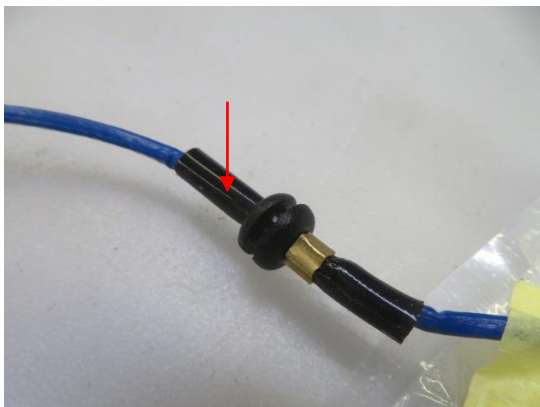
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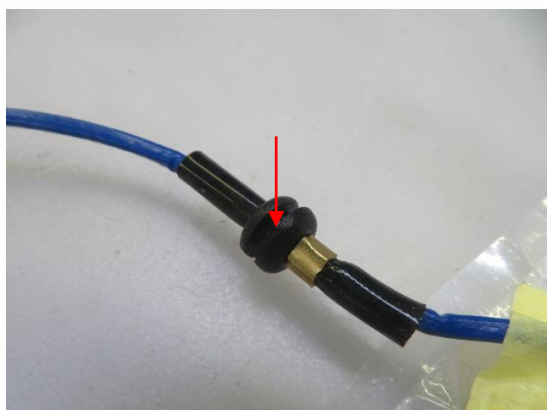
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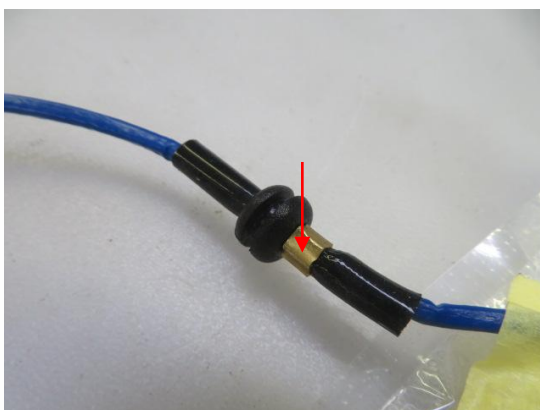
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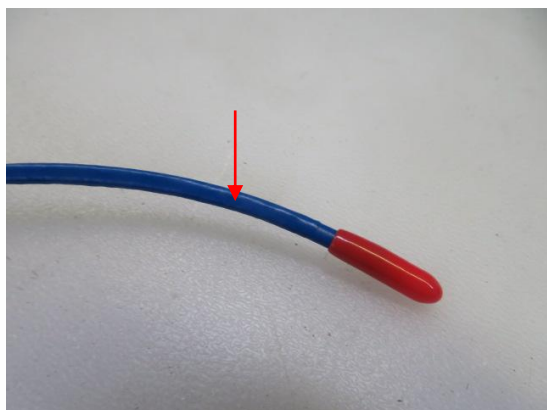
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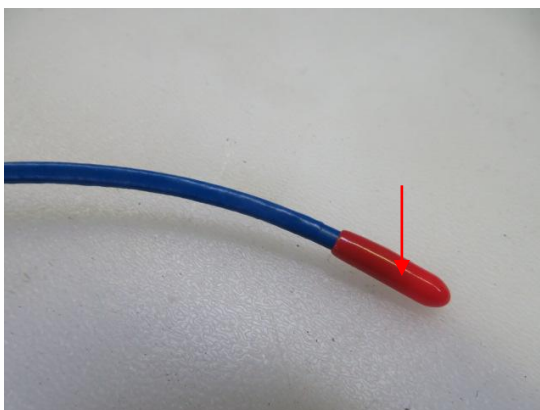
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声明 Statement:

1. 本报告无批准人签字、“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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6. 如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 reports (if generated), the Chinese version shall prevail.

*** 报告结束 ***

***End of report ***