

检测报告 编号: SHAEC23002618512 日期: 2023年03月17日 第1页,共10页

客户名称: 上海友邦电气(集团)股份有限公司

客户地址: 上海市松江区佘山镇吉业路 528 号

样品名称: 接线端子 型号: **UTD-15** 

客户参考信息: 见附页

以上样品及信息由客户提供。

SGS 工作编号: SP23-006671

样品接收时间: 2023年03月13日

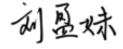
检测周期: 2023年03月13日~2023年03月17日

检测要求: 根据客户要求检测。

检测方法: 见后续页。 检测结果: 见后续页。

检测要求	结论
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六	符合
价铬	11) 🛱
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863- 铅、汞、镉、六	
价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸二丁酯 (DBP)、邻苯	符合
二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁	17 🛱
酯(DIBP)	

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Annie Liu 刘盈妹 批准签署人





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编号: SHAEC23002618512

日期: 2023年03月17日

第2页,共10页

#### 检测结果:

检测部件外观描述:

样品序号	样品编号	SGS 样品 ID	样品描述
SN1	A20	SHA23-0026185-0001.C020	黑色固体
SN2	A21	SHA23-0026185-0001.C021	银色金属
SN3	A22	SHA23-0026185-0001.C022	银色金属

#### 备注:

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

### 欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬

检测方法: 参考 IEC 62321-4:2013+AMD1:2017,IEC 62321-5:2013 和 IEC 62321-7-1:2015,采用 ICP-OES, AAS 和 UV-Vis 进行分析。

检测项目	限值	单位	MDL	A21	A22
镉 (Cd)	100	mg/kg	2	4	ND
铅 (Pb)	1000	mg/kg	2	153	ND
汞 (Hg)	1000	mg/kg	2	ND	ND
六价铬(Cr(VI))▼	-	μg/cm²	0.10	ND	ND

### 备注:

- (1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列。
- ▼ = a. 当六价铬的浓度高于0.13 μg/cm²时,样品为阳性,即含有六价铬;
  - b. 当六价铬的浓度为ND(低于0.10 μg/cm²)时,样品为阴性,即未检测到六价铬;
  - c. 当六价铬的浓度介于0.10 μg/cm²与0.13 μg/cm²之间时,无法直接判定是否检测到六价铬,因不同个体 的样品表面差异可能会影响测定结果。

由于未获知样品的存储条件和生产日期,样品的六价铬检测结果仅能代表测试时样品含六价铬的状态。

## 欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863- 铅、汞、镉、六价铬、多溴联苯(PBBs)、多 溴二苯醚(PBDEs)、邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基已基)酯 (DEHP)和邻苯二甲酸二异丁酯(DIBP)

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, 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。



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编号: SHAEC23002618512

日期: 2023年03月17日

第3页,共10页

检测项目	限值	单位	MDL	A20
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(MonoBB)	-	mg/kg	5	ND
二溴联苯(DiBB)	-	mg/kg	5	ND
三溴联苯(TriBB)	-	mg/kg	5	ND
四溴联苯(TetraBB)	-	mg/kg	5	ND
五溴联苯(PentaBB)	-	mg/kg	5	ND
六溴联苯(HexaBB)	-	mg/kg	5	ND
七溴联苯(HeptaBB)	-	mg/kg	5	ND
八溴联苯(OctaBB)	-	mg/kg	5	ND
九溴联苯(NonaBB)	-	mg/kg	5	ND
十溴联苯(DecaBB)	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚(MonoBDE)	-	mg/kg	5	ND
二溴二苯醚(DiBDE)	-	mg/kg	5	ND
三溴二苯醚(TriBDE)	-	mg/kg	5	ND
四溴二苯醚(TetraBDE)	-	mg/kg	5	ND
五溴二苯醚(PentaBDE)	-	mg/kg	5	ND
六溴二苯醚(HexaBDE)	-	mg/kg	5	ND
七溴二苯醚(HeptaBDE)	-	mg/kg	5	ND
八溴二苯醚(OctaBDE)	-	mg/kg	5	ND
九溴二苯醚(NonaBDE)	-	mg/kg	5	ND
十溴二苯醚(DecaBDE)	-	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) 最大允许极限值引用自 RoHS 指令(EU) 2015/863。
- (2) IEC 62321 系列等同于 EN 62321 系列。
- (3) 2021年7月22号开始, DEHP, BBP, DBP和DIBP的限制适用于医疗器械,包括体外医疗器械,监控 仪表,包括工业监测和控制仪器。

除非另有说明,参照 ILAC-G8:09/2019,使用简单接受(w=0)的二元判定规则进行符合性判定。 除非另有说明,此报告结果仅对检测的样品负责。本报告未经本公司书面许可,不可部分复制。 检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的,仅供内部参考。



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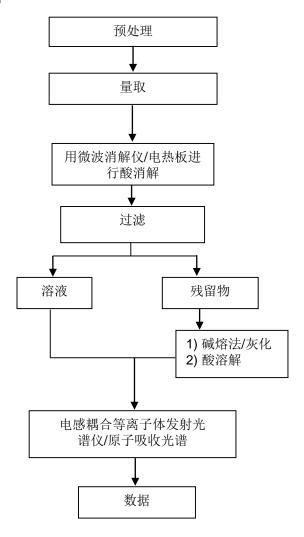
日期: 2023年03月17日

第4页,共10页

附件

### 元素 (IEC62321) 检测流程图

样品按照下述流程被完全消解





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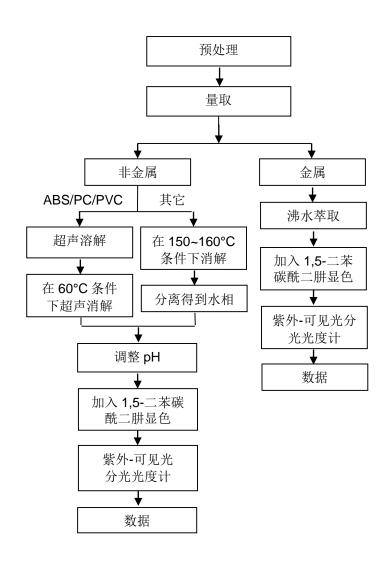
# 检测报告 附件

编号: SHAEC23002618512

日期: 2023年03月17日

第5页,共10页

### 六价铬检测流程图





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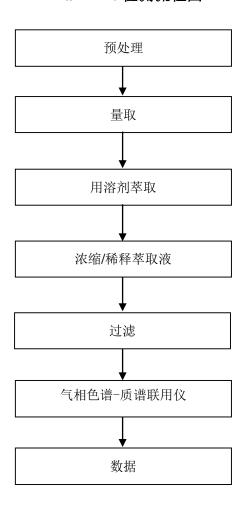
检测报告 附件

编号: SHAEC23002618512

日期: 2023年03月17日

第6页,共10页

## PBBs/PBDEs 检测流程图





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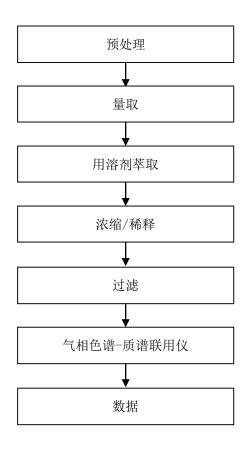


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**日期:** 2023年03月17日 第7页,共10页

### Phthalates 检测流程图





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编号: SHAEC23002618512

日期: 2023年03月17日

第8页,共10页

附件:

UTD-10, UTD-15, UTD-24, UTD-32, UTD-15/3, UTD-24/3, UTD-32/3, UTD-41, UTD-63, UTD-100, UTD-100I, UTD-150, UTD-150I, UTD-200, UTD-200I, UTD-300, UTD-300I, UTD-400, UTD-600, UTD-1000, UTD-10/2-2, UTD- $10/2\times2$ , UTD-15/2-2, UTD- $15/2\times2$ , UTD-24/2-2, UTD- $24/2\times2$ , UTD-24JD, UTD-2. 5RD, UTD-24RD, UTD-10RD, UTD-32RD, UTD-20SK, UTD-24S3, UTD-24E, UTD-32E, UTD-24/2-2D, UTD-24/2-2E, UTD-100 $1/2 \times 10^{-2}$ 25, UTD- $100I/3 \times 16$ , UTD- $100I/4 \times 16$ , UTD- $100I/6 \times 16$ , UTD- $150I/2 \times 25$ , UTD- $150I/3 \times 16$ , UTD- $150I/4 \times 16$ 16, UTD- $150I/6 \times 16$ , UTD- $200I/2 \times 25$ , UTD- $200I/3 \times 16$ , UTD- $200I/4 \times 16$ , UTD- $200I/6 \times 16$ , UTD- $200I/8 \times 16$  $\times 25$ , UTD- $3001/8 \times 16$ , UTD- $3001/9 \times 16$ , UTD- $3001/12 \times 16$ , UTD- $3001/15 \times 10$ , UTD- $3001/18 \times 6$ , UTD- $3001/18 \times 16$ , 150I 4/6, UTD-200I 4/6, UTD-200I 4/9, UTD-200I 4/12, UTD-300I 4/6, UTD-300I 4/9, UTD-300I 4/12, UTD-300I 4/18, UTD-41J, UTD-63A, UTD-41C, UTD-B1, UTD-B2, UTD-BJ, UTD-D, UTD-D2, UTD-D3, UTD-UD1, UTD-UD2, UTD-2G2, UTD-2G3, UTD-2G4,

UTD-10G, UTDUTD-41G, UTD-63G, UTD-100G, UTD-100IG, UTD-150IG, UTD-150IG, UTD-10/HG, UTD-15/HG, UTD-24/HG, UTD-10/HBG, UTD-15/HBG, UTD-24/HBG



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**日期:** 2023年03月17日 第9页,共10页

样品照片:







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日期: 2023年03月17日

第10页,共10页



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