

TEST REPORT

测试报告

LAB NO. 报告号码: (9324)060-1062DATE完成日期: Mar 12, 2024PAGE页码: 1 OF 12

APPLICANT : SUZHOU ANLAIQIANG ELECTRONIC TECHNOLOGY

CO.,LTD

NORTH OF THE 4TH FLOOR OF PLANT 4 #, NO. 599, TAISHAN

ROAD, SUZHOU NEW DISTRICT

申请人公司名称 苏州安来强电子科技有限公司

苏州市高新区泰山路 599 号 4#厂房四层北

CONTACT PERSON

联系人名称

DATE OF SUBMISSION : Feb 29, 2024

样品收取日期 2024年02月29日

TEST PERIOD : Feb 29, 2024 to Mar 11, 2024

所需工作周期 2024年02月29日至2024年03月11日

SAMPLE DESCRIPTION : 直流接触器

样品描述

Color: 颜色 /

Style No/ Model no.: 款号 EVQ50-100-135-150

P.O. No.: / 订单号

Country of Origin:

来源地

Country of Destination: /

目的地

BURER :

买家

MANUFACTURER

制造商

RW

Bureau Veritas Consumer Products Services (Guangzhou) Co., Ltd

No. 183, Shinan Road, Meilin Plaza, Dongchong, Nansha, Guangzhou, Guangdong Province, China 511453

Tel: (86) 20 2290 2088 Fax: (86) 20 3490 9303 Email: BVCPS_pyinfo@bureauveritas.com Website: cps.bureauveritas.com

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material aror or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute you unqualified acceptance of the completeness of this report to contents.



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SUMMARY OF TEST RESULTS

测试结果摘要

| TEST REQUESTED | CONCLUSION | REMARK |
|--|------------|--------|
| 测试项目 | 结 论 | 备 注 |
| Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments | PASS | |
| (EU) 2015/863 合规测试 - 有关欧盟委员会针对电子产品的指令 (电子电气禁用某些有害物质指令),2011/65/EU 及 其修订版(EU) 2015/863 | 通过 | |

BUREAU VERITAS CONSUMER PRODUCTS SERVICES (GUANGZHOW)

KENNY WANG OPERATION MANAGER

REMARK

If there are questions or concerns on this report, please contact the following persons:

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WEBSITE cps.bureauveritas.cn

广州必维技术检测有限公司

中国广东省广州市 南沙区 市南路 东涌段 183 号 美林广场

(邮政编码: 511453)

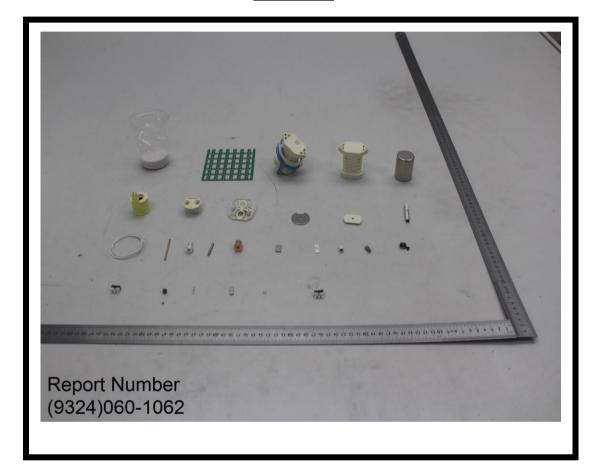
电话: (86) 20 2290 2088 传真: (86) 20 3490 9303 电子邮箱: BVCPS_pyinfo@cn.bureauveritas.com 网站: cps.bureauveritas.com 本报告受制于本报告发布之日公布在 http://www.bureauveritas.com/home/about-us/ourbusiness/cps/about-us/terms-conditions/ 上的标准服务条款,并为贵方独家使用。未经我方事先书面同意,不得为任何其他个人或实体对本报告进行任何拷贝或复制,或使用我方名称或商标。本报告仅针对报告中特定样品陈述我方的发现。除非特别并明确指出,本报告中的结果不象征或不代表送检样品所抽取的批次产品的质量,或任何类似或同等产品的质量。我方报告包含了贵方申请的所有检测项目,并且检测结果均基于贵方提供给我方的信息。测量不确定度仅在认可检测下依贵方要求提供。自报告发布之日起 60 天内,贵方可就良。则量不确定度仅在战力检测下依贵方要求提供。自报告发布之日起 60 天内,贵方可就该等通知应书面作出并且应明确指出贵方希望提出的问题。若未能在上文所述时间内提出该等问题,则视为贵方无条件接受本报告已完成、检测已实施以及报告内容无误。



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Photo of the Submitted Sample

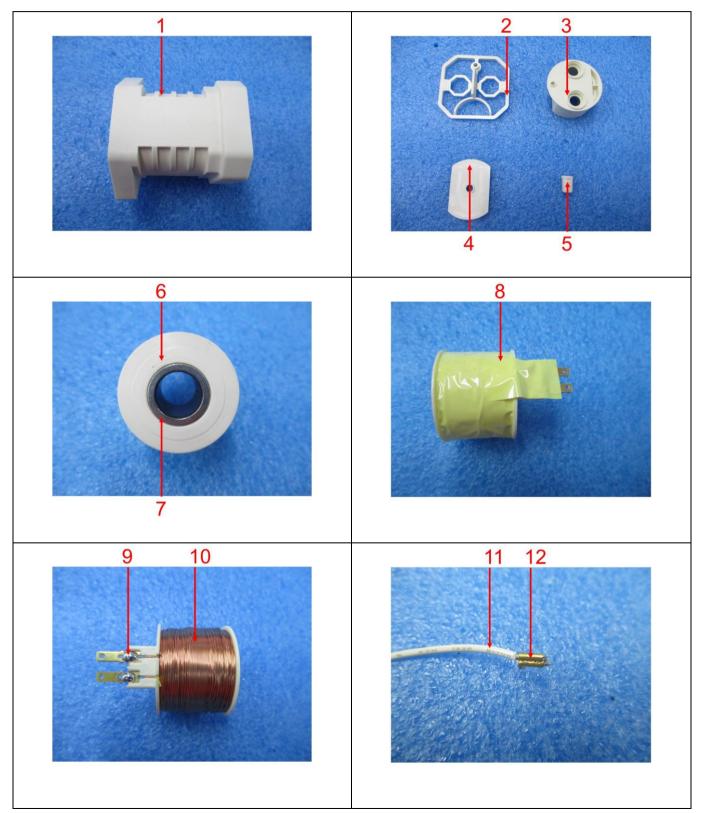
递交样品照片





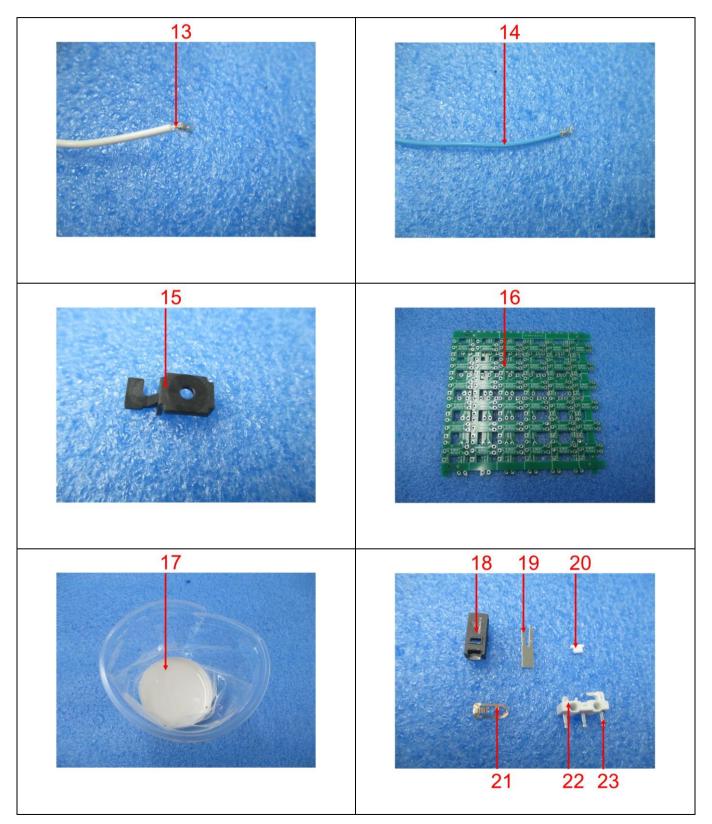
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Photograph of test item(s) 样品图片



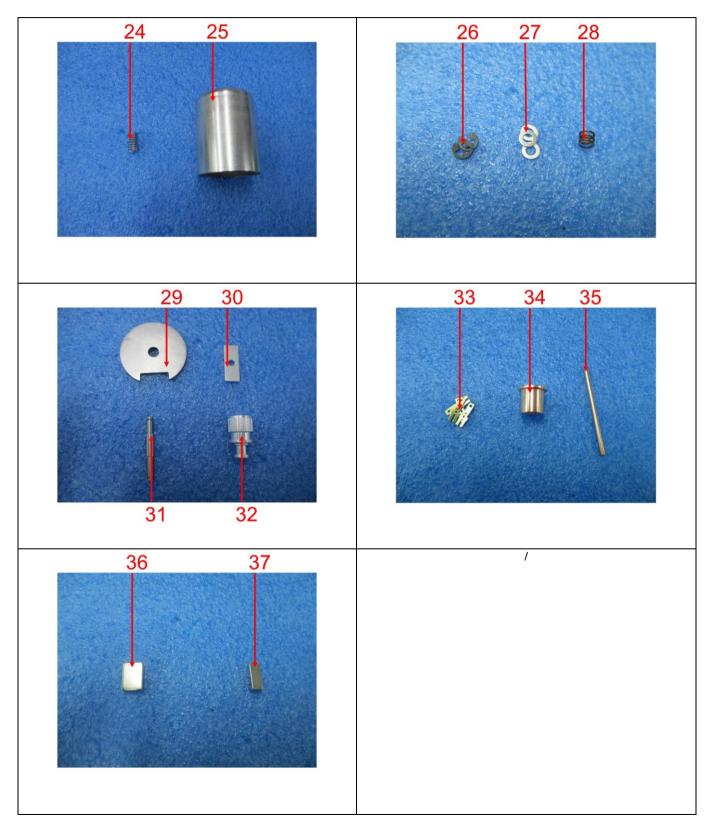


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TEST RESULT

测试结果

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments (EU) 2015/863 合规测试 - 有关欧盟委员会针对电子产品的指令(电子电气禁用某些有害物质指令),2011/65/EU 及其修订版(EU) 2015/863

Test Method

: See Appendix.

测试方法

见附录

| Test Item(s) 测试项目 | Item / Component Description(s) + Location(s) 项目 / 部件描述 + 位置 | Style(s) 款式 |
|----------------------|---|----------------|
| 1 | 米色塑料(外壳) Beige plastic (case) | - |
| 2 | 米色塑料(支架) Beige plastic (bracket) | - |
| 3 | 米色塑料(底) Beige plastic (base) | - |
| 4 | 米色塑料(板) Beige plastic (plate) | - |
| 5 | 白色塑料(帽) White plastic (cap) | - |
| 6 | 米色塑料(线圈座) Beige plastic (coil holder) | - |
| 7 | 银色金属(管子) Silvery metal (tube) | - |
| 8 | 黄色软塑带粘性(带子) Yellow soft plastic with adhesive (tape) | - |
| 9 | 银色焊锡 Silvery solder | - |
| 10 | 铜色金属(线圈) Coppery metal (coil) | = |
| 11 | 黑色印白色软塑(线皮) Black printed white soft plastic (wire jacket) | - |
| 12 | 金色金属(连接部位) Golden metal (connector) | = |
| 13 | 铜色金属带银色电镀层(线芯) Coppery metal with silvery plating (wire) | - |
| 14 | 黑色印蓝色软塑(线皮) Black printed blue soft plastic (wire jacket) | = |
| 15 | 黑色塑料(连接部位) Black plastic (connector) | - |
| 16 | 绿色 PCB Green pcb | - |
| 17 | 白色塑料(胶水) White plastic (glue) | - |
| 18 | 黑色塑料(外壳,开关) Black plastic (case, switch) | = |
| 19 | 银色金属(板,开关) Silvery metal (plate, switch) | - |
| 20 | 白色塑料(按钮,开关) White plastic (button, switch) | = |
| 21 | 铜色金属(板,开关) Coppery metal (plate, switch) | - |
| 22 | 白色塑料(外壳,开关) White plastic (case, switch) | = |
| 23 | 金色金属带银色电镀层(针脚,开关) Golden metal with silvery plating (pin, switch) | - |
| 24 | 银色金属(弹簧) Silvery metal (spring) | - |
| 25 | 银色金属(外壳) Silvery metal (case) | = |
| 26 | 银色金属带黑色涂层(垫片) Silvery metal with black coating (gasket) | - |
| 27 | 银色金属(垫片) Silvery metal (gasket) | - |
| 28 | 银色金属(弹簧) Silvery metal (spring) | - |
| 29 | 银色金属(板) Silvery metal (plate) | - |
| 30 | 铜色金属带银色电镀层(板) Coppery metal with silvery plating (plate) | - |
| 31 | 银色金属(轴) Silvery metal (shaft) | - |
| 32 | 铜色金属带银色电镀层(螺栓) Coppery metal with silvery plating (bolt) | - |
| 33 | 金色金属(触片) Golden metal (contact plate) | - |



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| 34 | 银色金属带铜色电镀层(螺栓) Silvery metal with coppery plating (bolt) | - |
|----|--|---|
| 35 | 铜色金属(管子) Coppery metal (tube) | - |
| 36 | 银色磁铁 1 Silvery magnet1 | - |
| 37 | 银色磁铁 2 Silvery magnet2 | - |

See Analytes and their corresponding Maximum Allowable Limit in Appendix 分析物及其对应的最大允许限 – 见附录

| - | Result 结果 | | | | | | | | | |
|-------------------------|-------------------|----------------------|----------------------|-------------------------------|---------------------------------------|-------|-------|-------|-------|------------------|
| Parameter 参数 | Lead (Pb) 铅 | Cadmium (Cd) 镉 | Mercury (Hg) 汞 | Chromium VI (Cr VI) 六价铬 | PBBs & PBDEs 多溴联苯 &多溴联 苯醚 | DBP | BBP | DEHP | DIBP | Conclusion 结论 |
| Unit 单位 | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| Test Item(s) 测试项目 | - | - | - | - | - | - | - | - | - | - |
| 1 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 2 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 3 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 4 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 5 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 6 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 7 | BL | BL | BL | BL | ND* | NA | NA | NA | NA | PASS 通过 |
| 8 | BL | BL | BL | BL | BL | BL | BL | BL | BL | PASS 通过 |
| 9 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 10 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 11 | BL | BL | BL | BL | BL | BL | BL | BL | BL | PASS 通过 |
| 12 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 13 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 14 | BL | BL | BL | BL | BL | BL | BL | BL | BL | PASS 通过 |
| 15 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 16 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 17 | BL | BL | BL | BL | BL | BL | BL | BL | BL | PASS 通过 |



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| - | Result 结果 | | | | | | | | | |
|-------------------------|-------------------|----------------------|----------------------|-------------------------------|---------------------------------------|-------|-------|-------|-------|------------------|
| Parameter 参数 | Lead (Pb) 铅 | Cadmium (Cd) 镉 | Mercury (Hg) 汞 | Chromium VI (Cr VI) 六价铬 | PBBs & PBDEs 多溴联苯 &多溴联 苯醚 | DBP | ввр | DEHP | DIBP | Conclusion 结论 |
| Unit 单位 | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| Test Item(s) 测试项目 | - | - | - | - | - | - | - | - | - | - |
| 18 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 19 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 20 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 21 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 22 | BL | BL | BL | BL | ND* | BL | BL | BL | BL | PASS 通过 |
| 23 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 24 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 25 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 26 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 27 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 28 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 29 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 30 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 31 | BL | BL | BL | Negative* | NA | NA | NA | NA | NA | PASS 通过 |
| 32 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 33 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 34 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 35 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 36 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |
| 37 | BL | BL | BL | BL | NA | NA | NA | NA | NA | PASS 通过 |

Note / Key 注释:

ND = Not detected 未检出 BL = Below Limit 低于限值 ">" = Greater than 大于 NA = Not applicable 不适用 "<"= Less than 小于 EX= Exempted 豁免



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NR = Not requested 未要求 Detection Limit: See Appendix. mg/kg = milligram(s) per kilogram 毫克每千克 = ppm = part(s) per million

检出限: 见附表

Remark 备注:

- The testing approach is listed in table of Appendix. 测试方法 – 见附录。

- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness. 标有*的结果为湿化学测试结果,其它为 XRF 扫描结果。对于 XPF 扫描,六价铬结果以总铬量表示,而多溴联苯
 - 你有*的结果为湿化学测试结果,其它为 XRF 扫描结果。对于 XPF 扫描,六价铬结果以总铬重表示,而多溴联本(PBBs) 和多溴二苯醚 (PBDEs) 结果以总溴量表示。此外,基于,但不限于,样品量、厚度、面积、成分的不均匀性、表面平整性等原因,该评估的 XPF 结果可能与实际浓度有所偏差。
- Only selected example(s) is (are) indicated on the photograph(s) in Comment. 照片只显示被选择的样品 见评论。
- According to European Parliament and Council Directive 2011/65/EU, Article 5 "Adaptation of the Annexes to scientific and technical progress", exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.

根据欧盟委员会 2011/65/EU 指令中,条款 5"适应科学技术进步的附件",附件 III 和 IV 中列明的测试项目中的材料和 部件可予以豁免。



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APPENDIX 附录

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [Compliance Test for European Parliament and Council Directive 2011/65/EU with its Amendments (EU) 2015/863]

分析物名单、其相应的测试方法、检出限及最大允许限 [合规测试 – 欧盟委员会指令 2011/65/EU 及基订版(EU) 2015/863]:

| | | | Detection Limi | | | | |
|-----|---|----------------------------|-----------------------------|--------------------|--|--------------------------------|--|
| No. | Name of Analyte(s) | X-ra | y fluorescence (X X 射线荧光 | RF) ^[a] | W | Maximum Allowable Limit | |
| | 分析物名称 | Plastic / glas 塑料 ceram | | Others 其他材料 | Wet Chemistry 湿化学 | 最大允许限值 (mg/kg) | |
| 1 | Lead (Pb)铅 | 100 | 200 | 200 | 10 ^[b] | 1000 | |
| 2 | Cadmium (Cd)镉 | 50 | 50 | 50 | 10 ^[b] | 100 | |
| 3 | Mercury (Hg)汞 | 100 | 200 | 200 | 10 ^[c] | 1000 | |
| 4 | Chromium (Cr)铬 | 100 | 200 | 200 | NA | NA | |
| 5 | Chromium VI (Cr VI)六价铬 | NA | NA | NA | 3 ^[g, h] / 10 ^[d] / See ^[e, i] | 1000 / Negative ^[i] | |
| 6 | Bromine (Br)溴 | 200 | NA | 200 | NA | NA | |
| 7 | Polybromobiphenyls (PBBs)多溴联苯 - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HexaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB) | NA | NA | NA | Each 50 ^[f] | Sum 1000 | |
| 8 | Polybromodiphenyl ethers (PBDEs)多溴联苯醚 - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE) | NA | NA | NA | Each 50 ^[r] | Sum 1000 | |
| 9 | Dibutyl phthalate (DBP) 邻苯二甲酸二丁酯 Butyl benzyl phthalate (BBP) 邻苯二甲酸丁苄酯 Di-2-ethylhexyl phthalate (DEHP) 邻苯二甲酸二 (2-乙基己基) 酯 Diisobutyl phthalate (DIBP) 邻苯二甲酸二异丁酯 | NA | NA | NA | Each 500 ^[j] | Each 1000 | |

- NA = Not applicable 不适用 IEC = International Electrotechnical Commission
- Test method with reference to International Standard IEC 62321-3-1: 2013. [a] 测试方法参照国际标准 IEC 62321-3-1: 2013.
- [b]
- Test method with reference to International Standard IEC 62321-5: 2013.
 - 测试方法参照国际标准 IEC 62321-5: 2013.
- Test method with reference to International Standard IEC 62321-4: 2013+AMD1: 2017 CSV. [c]
 - 测试方法参照国际标准 IEC 62321-4: 2013+AMD1: 2017 CSV.
- Polymers and Electronics Test method with reference to International Standard IEC 62321-7-2: 2017. [d] 聚合物及电子 - 测试方法参照欧洲标准 EN 62321-7-2: 2017.
 - Metal Test method with reference to International Standard IEC 62321-7-1: 2015.
- 金属 测试方法参照国际标准 IEC 62321-7-1: 2015. Test method with reference to International Standard IEC 62321-6: 2015. [f]
 - 测试方法参照国际标准 IEC 62321-6: 2015.
 - Leather Test method International Standard ISO 17075: 2017.
- [g] 测试方法参照国际标准 ISO 17075: 2017.

[e]

[i]

- Other Than Metal, Leather, Polymers and Electronics Test method with reference to International Standard ISO 17075: 2007. [h]
 - 非金属, 皮革, 聚合物及电子 测试方法参照国际标准 ISO 17075: 2007.
 - Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).
- 金属材料的六价铬结果以阴性和阳性表示。阴性表示六价铬未被检出在测试表面,即结果被认为符合 2011/65/EU 指令中,条款 4(1) 的要求。而阳性则表示 六价铬存在在测试表面,即不符合 2011/65/EU 指令中,条款 4(1)的要求。
- [j] Test method with reference International Standard IEC 62321-8: 2017.



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测试方法参照国际标准 IEC 62321-8: 2017.

Testing Approach [Compliance Test for European Parliament and Council Directive 2011/65/EU]:

测试方法[合规测试 – 欧盟委员会指令 2011/65/EU]:

The testing approach was with reference to the following document(s). 测试方法参考下列文件。

International Standards IEC 62321-1: 2013 and IEC 62321-2: 2021

国际标准 IEC 62321-1: 2013 and IEC 62321-2: 2021

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END 结束