

检测报告

编号: CANEC2300364452

日期: 2023年02月20日 第1页,共10页

客户名称: 乐山希尔电子股份有限公司
客户地址: 四川省乐山市高新区南新路9号

样品名称: 整流管
型号: SHV-08
料号: 11201514000545
客户参考信息: 见备注
买家: 美的
以上样品及信息由客户提供。

SGS工作编号: 10023982 - CQ
样品接收日期: 2023年01月06日
检测周期: 2023年01月06日 - 2023年01月19日
检测要求: 根据客户要求检测
检测方法: 请参见下一页
检测结果: 请参见下一页
检测结果概要:

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 和客户要求-铅, 汞, 镉和六价铬	符合
欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863 和客户要求-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-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)	符合

通标标准技术服务有限公司广州分公司
授权签名

关正孟

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SGS-CSI Standards Technical Services Co., Ltd.
Guangzhou Branch

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日期: 2023年02月20日 第2页,共10页

检测结果:

检测样品描述:

样品编号	SGS样品ID	描述
SN1	CAN23-003644.002	带灰色印字的黑色物料
SN2	CAN23-003644.003	带芯片的铜色金属
SN3	CAN23-003644.004	银灰色金属脚

备注:

- (1) 1 mg/kg = 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和客户要求-铅,汞,镉和六价铬

检测方法: 参考IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015, 采用 ICP-OES 和 UV-Vis 进行分析。

检测项目	限值	单位	MDL	003	004
镉 (Cd)	75	mg/kg	2	ND	ND
铅 (Pb)	600	mg/kg	2	9065▲	ND
汞 (Hg)	600	mg/kg	2	ND	ND
六价铬(Cr(VI))▼	-	µg/cm ²	0.10	ND	ND

备注:

- (1) 限值由客户提供。IEC 62321 系列等同于 EN 62321 系列
- (2) ▼=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检测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和客户要求-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),邻苯二甲酸丁苯酯(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)

检测方法: 参考IEC 62321-4:2013+A1:2017, 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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检测项目	限值	单位	MDL	002
镉 (Cd)	75	mg/kg	2	ND
铅 (Pb)	600	mg/kg	2	8
汞 (Hg)	600	mg/kg	2	ND
六价铬(Cr(VI))	600	mg/kg	8	ND
多溴联苯之和(PBBs)	600	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	600	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	600	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	600	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	600	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	600	mg/kg	50	ND

备注:

- (1) 限值由客户提供。IEC 62321 系列等同于 EN 62321 系列
- (2) 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。



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备注▲: 根据客户提供的声明, 样品003中的铅(Pb)被欧盟RoHS指令2011/65/EU豁免, 相应豁免条文(请以英文原文为准) [ANNEX III 7(a)]: 高熔点型焊料中的铅(即铅含量等于或大于85%的铅基合金焊料)。

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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备注:

SHV1-01/02/03/04/05/06/07/08/09/10/11/12/13 SHV1-14/16/17/18/20/22/24/25/30/35/40/45/50
SHV-01/02/03/04/05/06/07/08/09/10/11/12/13
SHV-14/16/17/18/20/22/24/25/30/35/40/45/50
SU1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/18/20/22/25/30/35/40 H
2DF Model 2DF, followed by 005,01,02,03,04,05,06,07,08,10,12, maybe followed by M,S
DF Model DF, followed by 15,20, followed by 01,02,03,04,05,06,07,08,09,10, maybe followed by M,S
MB Model MB, followed by 05,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29, followed by S,F
MSB Model MSB, followed by 2,3,4,5,6,7,8,9,10, followed by 01,02,03,04,05,06,07,08,10,12,13,14,15,16
P4KE Model P4KE, followed by 6,8,7,5,8,2,9,1,10,11,12,13,15,16,18,20,22,24,27,30,33,36,39,43,47,51,56,62,68,75,82,91,100,110,120,130,150,160,170,180,200,220,250,300,350,400,440, maybe followed by A
P6KE Model P6KE, followed by 6,8,7,5,8,2,9,1,10,11,12,13,15,16,18,20,22,24,27,30,33,36,39,43,47,51,56,62,68,75,82,91,100,110,120,130,150,160,170,180,200,220,250,300,350,400,440, maybe followed by A
PSM Model P, followed by 4,6, followed by 6,8,7,5,8,2,9,1,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50
MBS Model MB, followed by 05,1,2,3,4,5,6,7,8,9,10, followed by 02,04,06,08,10,12, followed by M,F,S
S1FD Model S1FD, followed by 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,20,25,30,40,50,60,75 followed by A, B, C, D, E, F, G, H, U followed by 20,30,40,50,60,70,80,100,120, 160,180 maybe followed by A, B, C, D, E, F, G, H, J, K, L, M, N, P,U, DH, S, AF, GF, KF, DK, CAS
S1FU Model S1FD, followed by 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,20,25,30,40,50,60,75 followed by A, B, C, D, E, F, G, H, U followed by 20,30,40,50,60,70,80,100,120, 160,180 maybe followed by A, B, C, D, E, F, G, H, J, K, L, M, N, P,U, DH, S, AF, GF, KF, DK, CAS
S1FC Model S1FD, followed by 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,20,25,30,40,50,60,75 followed by A, B, C, D, E, F, G, H, U followed by 20,30,40,50,60,70,80,100,120, 160,180 maybe followed by A, B, C, D, E, F, G, H, J, K, L, M, N, P,U, DH, S, AF, GF, KF, DK, CAS
S2FD Model S2FD, followed by 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,20,25,30,40,50,60,70,80,90, followed by A, B, C, D, E, F, G, H followed by 20,30,40,50,60,80,100,120,160,180 maybe followed by A, B, C, D, E, F, G, H, J, K, L, M, N, LA, LF, BF, S, AF, GF, KF, DK, CAS
EPS Model 10,15,20,25,30,40,50,60,70,75,80,90, followed by EPS, followed by 06,08,10,12,14,16,20, followed by A,H,A2,C,C2,Z,DH,LH, maybe followed by A, B, C, D, E, F, G, H, K,
FD Model FD, followed by 1,2,3,4,5,6,7,8,9, 10, followed by A,B,D,E,G,J,M,A, followed by A,B,C
RD Model RD, followed by 1,2,3,4,5, 6,7,8,9,10, followed by A,B,D,E,G,J,M,A, followed by A,B,C



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TDD Model TDD, followed by 25,30,35,45,50,60,70,80 followed by -, followed by 02,04,06,08,10,12,14,16,18,20,22
SF Model SF, followed by 1,1.5,2,2.5,3,3.5,4,4.5,5,6,7,8,9,10,11,12,13,14,15,16,18,20,22,25,30,35,40, followed by H
FSHV Model FSHV followed by 10,20,30,40,50,60,70,80,90,100,110,120, followed by N
IH15D/G/J/K/M, IH20D/G/J/K/M, IH25D/G/J/K/M,
BYX131/132/133/134/135/136/137/138/139/1310/1311/1312/1313/1314/1315/1316/1318/1320/1322/1325 /1330/1335/1340 P
SFA1/2/3/4/5/6/7/8/9/10/11/12 H
SMAJ(5.0/6.0/6.5/6.8/7.0/7.5/8.5/9.0/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31 /32/33/34/35/36/37/38/39/40/41/42/43/44//45/46/47/48(/A)
SMBJ(5.0/6.0/6.5/6.8/7.0/7.5/8.5/9.0/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31 /32/33/34/35/36/37/38/39/40/41/42/43/44//45/46/47/48(/A)
SMCJ(5.0/6.0/6.5/6.8/7.0/7.5/8.5/9.0/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31 /32/33/34/35/36/37/38/39/40/41/42/43/44//45/46/47/48(/A)
P4KE(50/51/350/400/440(/A) P6KE(50/51/350/400/440(/A) P4SMA(50/51/350/400/440(/A)
P6SMB(50/51/350/400/440(/A)
SMAJ(50/51/350/400/440(/A) SMBJ(50/51/350/400/440(/A) SMCJ(50/51/350/400/440(/A)
60EPS06/08/10/12/14/16/18/20
HV350R8G

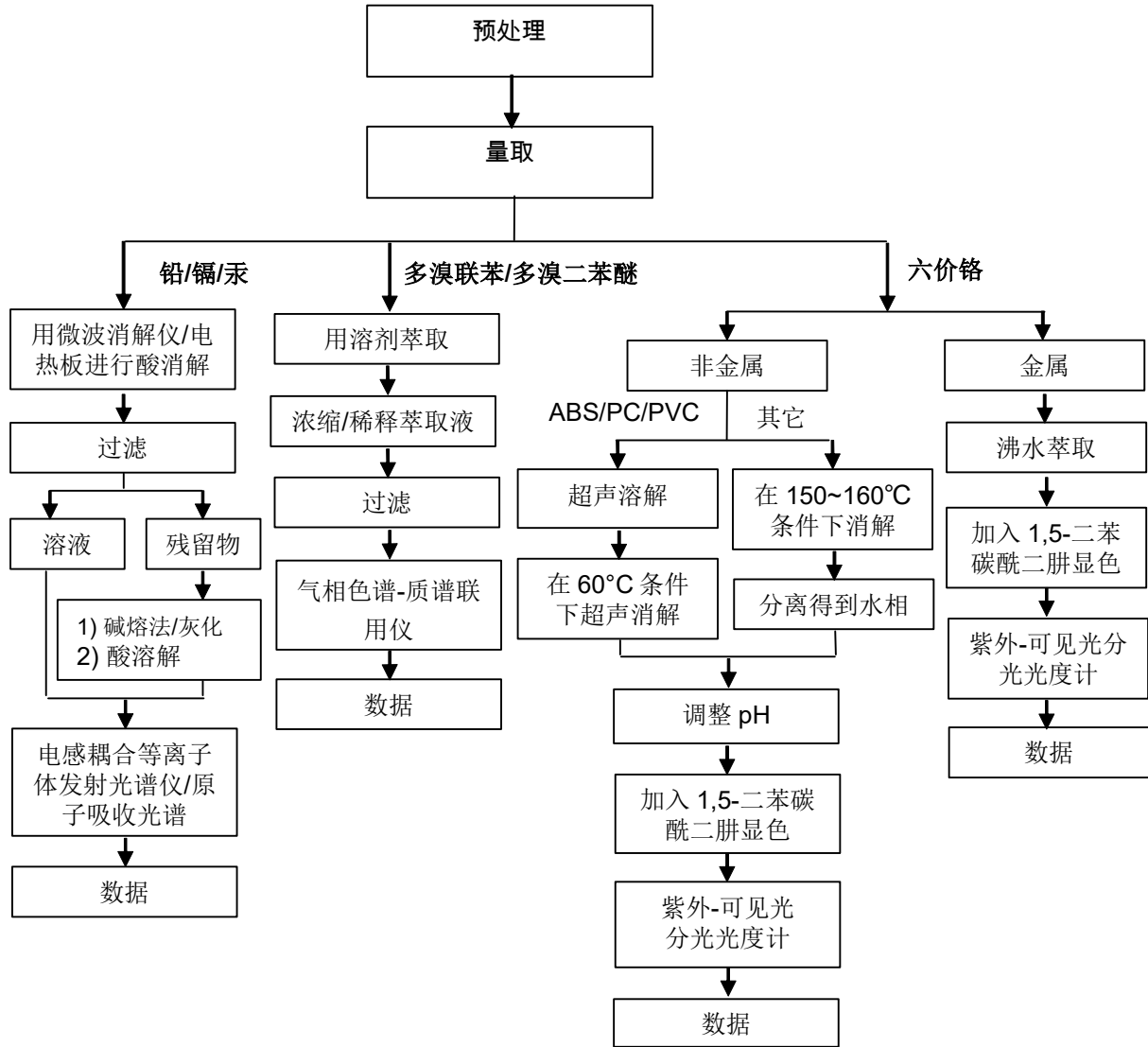


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附件

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs 检测流程图

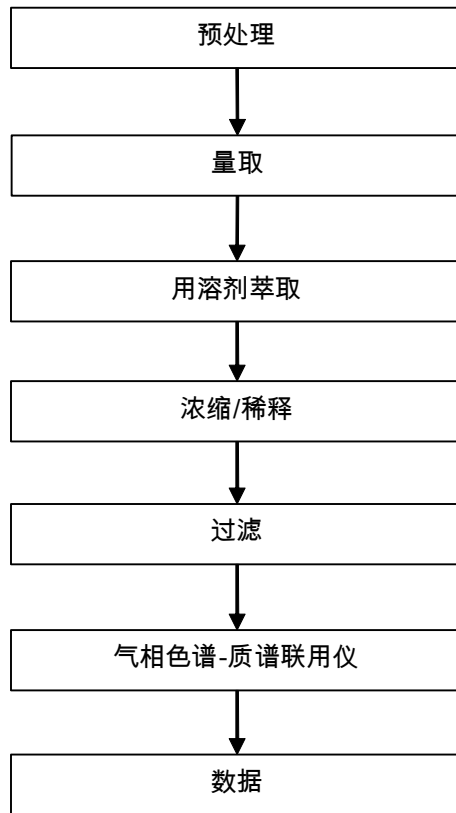
1) 样品按照下述流程被完全消解（六价铬和多溴联苯/多溴二苯醚检测除外）。



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附件

Phthalates 检测流程图



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样品照片:



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