

Test Report Date: 09 Jan 2017 Page 1 of 6 No. SHAEC1628648220

NIINGBO CONNFLY ELECTRONIC CO.,LTD

NO.125 ZHANTEN ROAD EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO CHINA P.C 315333

The following sample(s) was/were submitted and identified on behalf of the clients as: PVC Plastic

SGS Job No.: SP16-046022 - SH

Composition: Resin

Date of Sample Received: 29 Dec 2016

Testing Period: 29 Dec 2016 - 09 Jan 2017

Test Requested: Selected test(s) as requested by client.

Test Method: Please refer to next page(s). Test Results: Please refer to next page(s).

Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Marry Ma

Approved Signatory



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### **Test Report** No. SHAEC1628648220 Date: 09 Jan 2017 Page 2 of 6

Test Results:

### **Test Part Description:**

Specimen No. SGS Sample ID Description
SN1 SHA16-286482.020 Red solid pellet

#### Remarks:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL)
- (4) "-" = Not Regulated

### RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method: (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.

- (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
- (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
- (4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
- (5) With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.
- (6) With reference to IEC 62321-8 Ed.1.0 (111/321/CD), determination of phthalates by GC-MS.

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>020</u>
Cadmium (Cd)	mg/kg	2	ND
Lead (Pb)	mg/kg	2	ND
Mercury (Hg)	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	mg/kg	2	ND
Sum of PBBs	mg/kg	-	ND
Monobromobiphenyl	mg/kg	5	ND
Dibromobiphenyl	mg/kg	5	ND
Tribromobiphenyl	mg/kg	5	ND
Tetrabromobiphenyl	mg/kg	5	ND
Pentabromobiphenyl	mg/kg	5	ND
Hexabromobiphenyl	mg/kg	5	ND
Heptabromobiphenyl	mg/kg	5	ND
Octabromobiphenyl	mg/kg	5	ND
Nonabromobiphenyl	mg/kg	5	ND
Decabromobiphenyl	mg/kg	5	ND
Sum of PBDEs	mg/kg	-	ND



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Test Report	No. SHAEC1628648220	Date: 0	9 Jan 2017	Page 3 of 6
Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>020</u>	
Monobromodiphenyl ether	mg/kg	5	ND	
Dibromodiphenyl ether	mg/kg	5	ND	
Tribromodiphenyl ether	mg/kg	5	ND	
Tetrabromodiphenyl ether	mg/kg	5	ND	
Pentabromodiphenyl ether	mg/kg	5	ND	
Hexabromodiphenyl ether	mg/kg	5	ND	
Heptabromodiphenyl ether	mg/kg	5	ND	
Octabromodiphenyl ether	mg/kg	5	ND	
Nonabromodiphenyl ether	mg/kg	5	ND	
Decabromodiphenyl ether	mg/kg	5	ND	
Di-butyl Phthalate (DBP)	mg/kg	50	ND	
Benzyl Butyl Phthalate (BBP)	mg/kg	50	ND	
Di-2-Ethyl Hexyl Phthalate (DEHP)	mg/kg	50	ND	
Diisobutyl Phthalates (DIBP)	mg/kg	50	ND	



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No. SHAEC1628648220

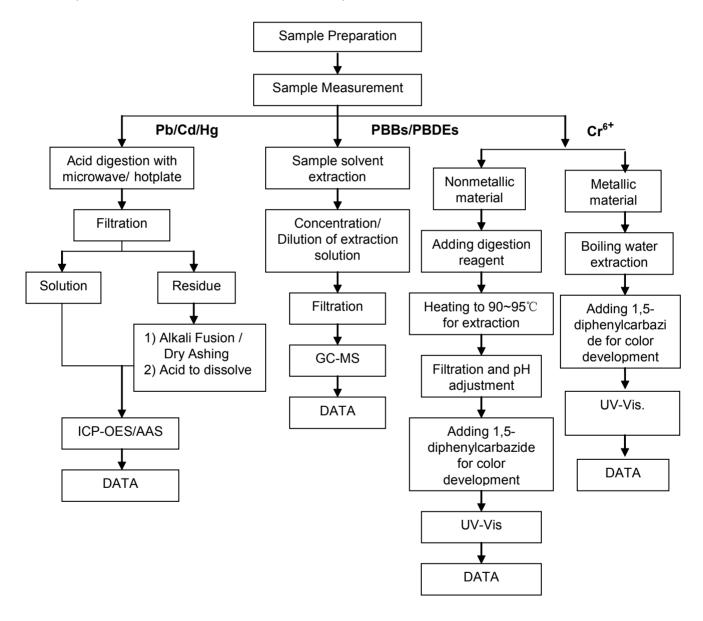
### Date: 09 Jan 2017

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#### **ATTACHMENTS**

### **RoHS Testing Flow Chart**

- 1) Name of the person who made testing: Meria Jin/Gary Xu/Sean Li/Sielina Song
- 2) Name of the person in charge of testing: Jan Shi/Jessy Huang/Luna Xu/Shara Wang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> and PBBs/PBDEs test method excluded)





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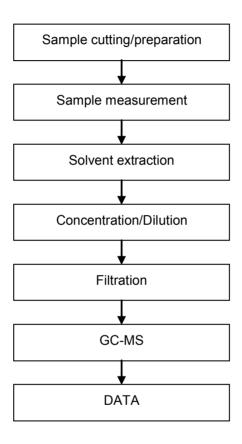
#### Page 5 of 6

Date: 09 Jan 2017

#### **ATTACHMENTS**

### **Phthalates Testing Flow Chart**

- 1) Name of the person who made testing: Sherlock Gao
- 2) Name of the person in charge of testing: Jessy Huang





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Sample photo:



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*



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### **Test Report**

报告编号 ECL01J020556001E ECL01J020556001E Report No.

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申请单位 嘉兴富瑞祥电子有限公司

JIAXING FOREX ELECTRONIC CO.,LTD **Applicant** 妣 浙江省嘉兴市王江泾镇青荷路203号

Address NO.203, OINGHE ROAD WANGJIANGJING TOWN JIAXING CITY

ZHEJIANG PROVINEC

### 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 client

样品名称 镀锡铜线

Sample Name TINNED COPPER WIRE

样品接收日期 2017.04.12 Sample Received Date Apr. 12, 2017

样品检测日期 2017. 04. 12 - 2017. 04. 19 **Testing Period** Apr. 12, 2017 to Apr. 19, 2017

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。

Please refer to the following page(s). **Test Method/Test Result(s)** 



宙 Reviewed by  $\Box$ 期

2017.04.19 Date

No. R270333268

上海市浦东新区新金桥路 1996 号 No.1996, Xinjinqiao Road, Pudong New District, Shanghai, China



### **Test Report**

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结论 Conclusion

测试样品 依据指令 结果 **Tested Sample** According to directive Result 欧盟RoHS指令2011/65/EU及其修订指令 提交样品 符合 (EU) 2015/863 Submitted Sample RoHS Directive 2011/65/EU with Pass amendment (EU) 2015/863

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.





























































报告编号 ECL01J020556001E Report No. ECL01J020556001E 第3页 共8页

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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)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) in the submitted sample(s).

#### 检测依据 Test Method

1 est Method		1
测试项目 Test Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅(Pb) Lead (Pb)	IEC 62321-5:2013 Ed. 1. 0	ICP-OES
镉(Cd) Cadmium (Cd)	IEC 62321-5:2013 Ed. 1.0	ICP-OES
汞(Hg) Mercury (Hg)	IEC 62321-4:2013 Ed. 1. 0	ICP-OES
六价铬(Cr(VI)) Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
多溴联苯 (PBBs) Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚(PBDEs) Polybrominated Diphenyl Ethers(PBDEs)	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯(DBP, BBP, DEHP, DIBP) Phthalates(DBP, BBP, DEHP, DIBP)	参考IEC 62321-8 CDV Refer to IEC 62321-8 CDV	GC-MS



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### 检测结果 Test Result(s)

测试项目	结果	方法检出限	限值
Tested Item(s)	Result	MDL	Limit
铅(Pb) Lead (Pb)	N.D.	2 mg/kg	1000 mg/kg
镉(Cd) Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞(Hg) Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六价铬(Cr(VI)) Hexavalent Chromium(Cr(VI))	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
多溴联苯(PBBs)Polybrominated Bipher	nyls(PBBs)		
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	
二溴联苯 Dibromobiphenyl	N.D.	5 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	5 mg/kg	(0,)
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	1000 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
多溴二苯醚(PBDEs) Polybrominated Dip	henyl Ethers(PBDEs)		
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 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	200
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5 mg/kg	1000 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	

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测试项目	结果	方法检出限	限值
Tested Item(s)	Result	MDL	Limit
邻苯二甲酸酯 Phthalates			
邻苯二甲酸二正丁酯(DBP) Dibutyl	N.D.	50 mg/kg	1000 mg/kg
phthalate(DBP) CAS#:84-74-2			(**)
邻苯二甲酸丁基苄酯(BBP) Butylbenzyl	N.D.	50 mg/kg	1000 mg/kg
phthalate(BBP) CAS#:85-68-7			
邻苯二甲酸二(2-乙基已基)酯(DEHP)	N.D.	50 mg/kg	1000 mg/kg
Di-2-ethylhexyl phthalate(DEHP)	4.00	-0.00	
CAS#:117-81-7			
邻苯二甲酸二异丁酯(DIBP) Diisobutyl	N.D.	50 mg/kg	1000 mg/kg
phthalate(DIBP) CAS#:84-69-5			

测试样品/部位描述

有银色镀层的金属丝

**Tested Sample/Part Description** 

Metal wire with silvery plating

备注:

对于检测铅,镉,汞之样品已完全溶解。

-N.D. = 未检出(小于方法检出限或定量限)

-mg/kg = ppm = 百万分之一

-LOQ = 定量限, 六价铬的定量限为0.10 μg/cm²

-▼六价铬浓度小于0.10 µg/cm²,样品未检出六价铬。

Remark:

The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit

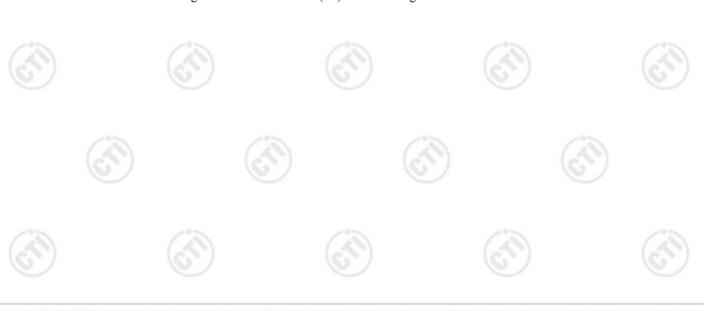
-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is  $0.10~\mu g/cm^2$ 

- The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 μg/cm<sup>2</sup>.

The coating is considered a non-Cr(VI) based coating.





### **Test Report**

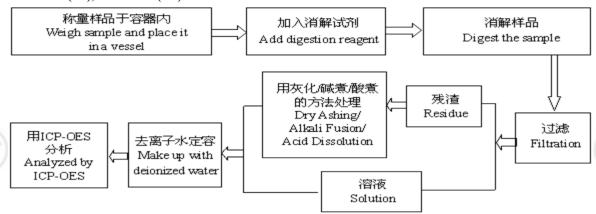
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### 检测流程 Test Process

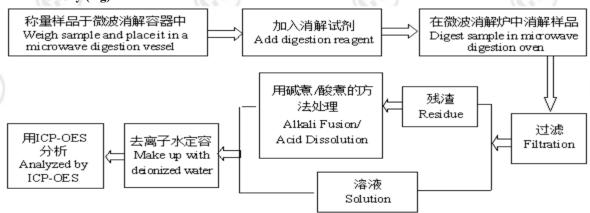
1. 铅(Pb), 镉(Cd)

Lead (Pb), Cadmium (Cd)



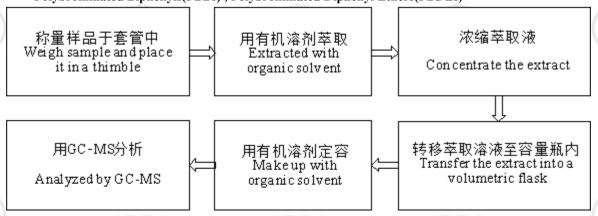
### 2. 汞(Hg)

#### Mercury (Hg)



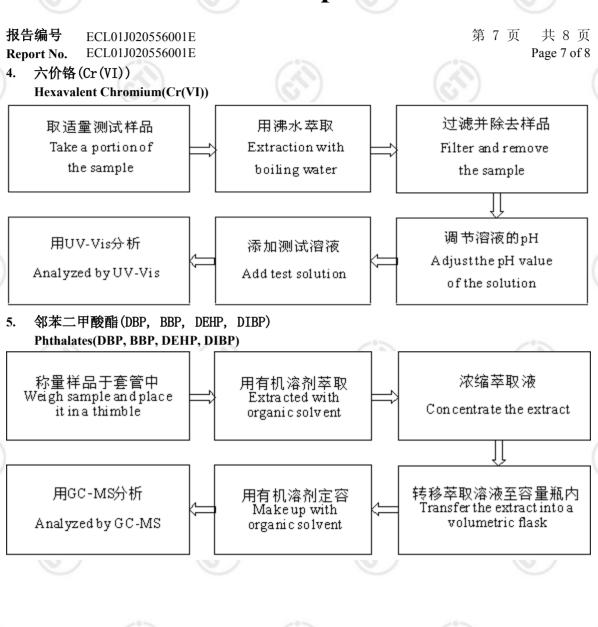
#### 3. 多溴联苯(PBBs),多溴二苯醚(PBDEs)

Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs)





### **Test Report**



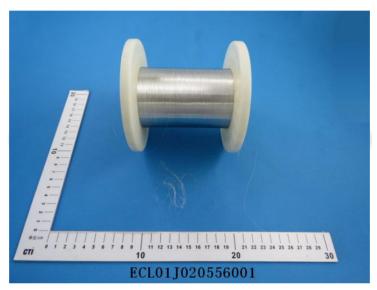




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### 样品图片 Photo(s) of the sample(s)



\*\*\*报告结束\*\*\*

\*\*\* End of report \*\*\*

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