

**Test Report** No. SHAMLP1324299201 Date: 17 Dec 2013 Page 1 of 10

Beisit Electric (Hangzhou) Co., Ltd

1 Tangmei Rd., Yuhang Economic-Technological Development Area, Hangzhou, Zhejiang 311100, China

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

SGS Job No.: SHIN1312017190PC - SH

Material and Mark : brass,PA6,NBR

Date of Sample Received : 11 Dec 2013

Testing Period: 11 Dec 2013 - 17 Dec 2013

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 Ltd.

JJ Fan

Approved Signatory

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Test Results:

### **Test Part Description:**

Specimen No.	SGS Sample ID	Description
SN1	SHA13-242992.001	Silver metal outer part
SN2	SHA13-242992.002	Gray plastic piece
SN3	SHA13-242992.003	Black rubber ring

#### Remarks:

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

### RoHS 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 62321:2008, determination of PBBs and PBDEs by GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>	<u>003</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND
Lead (Pb)	1000	mg/kg	2	ND	13
Mercury (Hg)	1000	mg/kg	2	ND	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	2	ND	ND
Sum of PBBs	1000	mg/kg	-	ND	ND
Monobromobiphenyl	-	mg/kg	5	ND	ND
Dibromobiphenyl	-	mg/kg	5	ND	ND
Tribromobiphenyl	-	mg/kg	5	ND	ND
Tetrabromobiphenyl	-	mg/kg	5	ND	ND
Pentabromobiphenyl	-	mg/kg	5	ND	ND
Hexabromobiphenyl	-	mg/kg	5	ND	ND
Heptabromobiphenyl	-	mg/kg	5	ND	ND
Octabromobiphenyl	-	mg/kg	5	ND	ND
Nonabromobiphenyl	-	mg/kg	5	ND	ND
Decabromobiphenyl	-	mg/kg	5	ND	ND

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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>	<u>003</u>	
Sum of PBDEs	1000	mg/kg	-	ND	ND	
Monobromodiphenyl ether	-	mg/kg	5	ND	ND	
Dibromodiphenyl ether	-	mg/kg	5	ND	ND	
Tribromodiphenyl ether	-	mg/kg	5	ND	ND	
Tetrabromodiphenyl ether	-	mg/kg	5	ND	ND	
Pentabromodiphenyl ether	-	mg/kg	5	ND	ND	
Hexabromodiphenyl ether	-	mg/kg	5	ND	ND	
Heptabromodiphenyl ether	-	mg/kg	5	ND	ND	
Octabromodiphenyl ether	-	mg/kg	5	ND	ND	
Nonabromodiphenyl ether	-	mg/kg	5	ND	ND	
Decabromodiphenyl ether	-	mg/kg	5	ND	ND	

#### Notes:

(1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II

### RoHS 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 spot test / Colorimetric Method using UV-Vis.
  - (5) With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Cadmium (Cd)	100	mg/kg	2	30
Lead (Pb)	1000	mg/kg	2	24410#
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	-	-	$\Diamond$	Negative
Sum of PBBs	1000	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

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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	
Decabromobiphenyl	-	mg/kg	5	ND	
Sum of PBDEs	1000	mg/kg	-	ND	
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	

#### Notes:

- (1) The maximum permissible limit is quoted from directive 2011/65/EU, Annex II
- (2) \$Spot-test:

Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) coating;

(The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or cannot be confirmed.)

♦Boiling-water-extraction:

Negative = Absence of Cr(VI) coating

Positive = Presence of Cr(VI) coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(3) #=Exceed the limit

### **Phthalates**

Test Method: Determination of phthalates by GC-MS based on EN 14372:2004.

<u>Test Item(s)</u> Dibutyl Phthalate (DBP)	<u>CAS NO.</u> 84-74-2	<u>Unit</u> %	MDL 0.003	<u>001</u> ND	<i>002</i> ND	<i>003</i> ND
Benzylbutyl Phthalate (BBP)	85-68-7	%	0.003	ND	ND	ND
Bis-(2-ethylhexyl) Phthalate (DEHP)	117-81-7	%	0.003	ND	ND	ND

#### Notes:

(1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC:

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Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.

### Hexabromocyclododecane (HBCDD)

Test Method: Determination of HBCDD by GC-MS based on IEC 62321:2008.

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>002</u>	<u>003</u>
Hexabromocyclododecane (HBCDD)	mg/kg	10	ND	ND	ND

#### Notes:

(1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance restriction.

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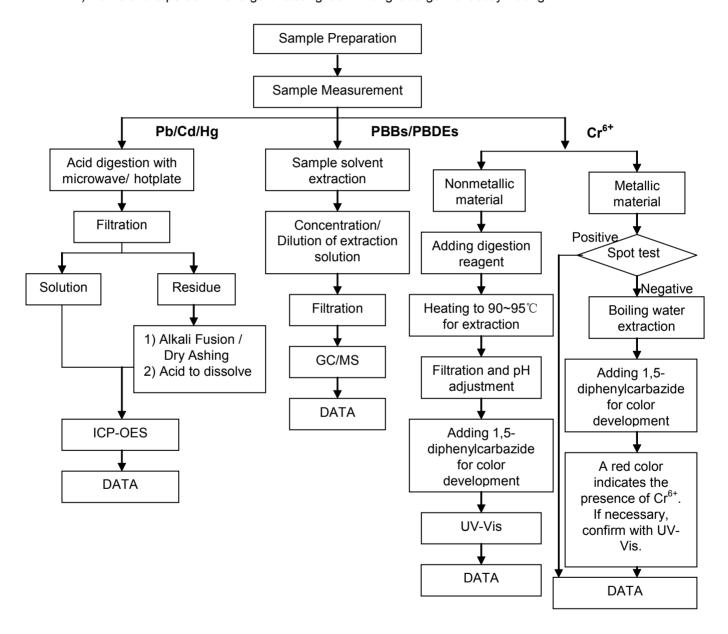
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### **ATTACHMENTS**

## **RoHS Testing Flow Chart**

- 1) Name of the person who made testing: Jan Shi/Star Wang/Shara Wang/Gary Xu
- 2) Name of the person in charge of testing: Jeff Zhang/George Xu/ Jessy Huang



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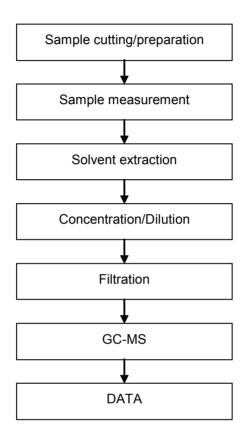


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## **Phthalates Testing Flow Chart**

1) Name of the person who made testing: Elyn Yao

2) Name of the person in charge of testing: Myra Ma



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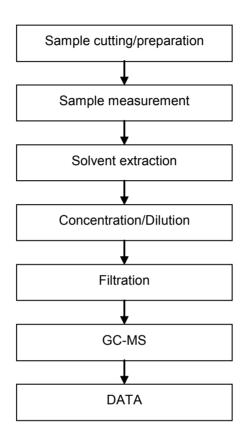
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### **HBCDD Testing Flow Chart**

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



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Sample photo:





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