

## Test Report

No. SHAEC1514412107

Date: 31 Jul 2015

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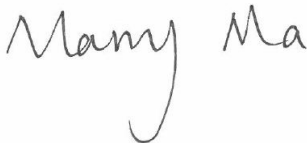
WENZHOU SHUGUANG FUSE CO., LTD

DAXING WEST ROAD, LIUSHI TOWN, YUEQING CITY, ZHEJIANG PROVINCE P.R.CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : J type Fuses

SGS Job No. : SP15-024479 - SH  
Date of Sample Received : 21 Jul 2015  
Testing Period : 21 Jul 2015 - 24 Jul 2015  
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 Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	SHA15-144121.014	White solid
SN2	SHA15-144121.015	Silvery metal

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 AAS.  
 (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.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>014</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	2	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

**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 spot test / Colorimetric Method using UV-Vis.



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>015</u>
Cadmium (Cd)	100	mg/kg	2	62
Lead (Pb)	1000	mg/kg	2	191
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	-	-	◇	Negative

Notes :

(1)The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

(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 cm<sup>2</sup> 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.



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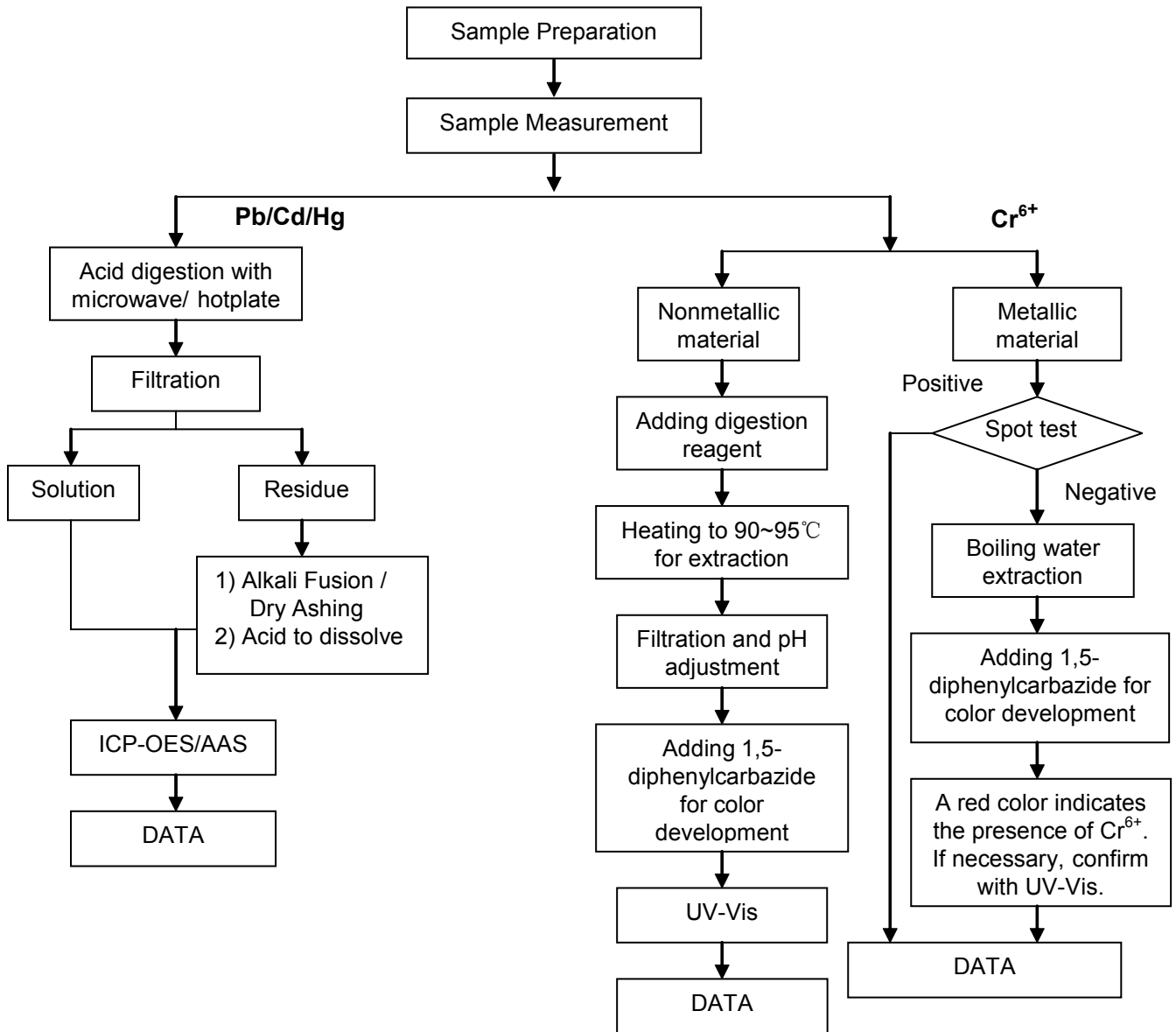
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Sample 014 RoHS Testing Flow Chart

- 1) Name of the person who made testing: Bob Zhang / Sunny Qin/Zengzhen Zhu
- 2) Name of the person in charge of testing: Summer Jin/Jan Shi/Stone Chen



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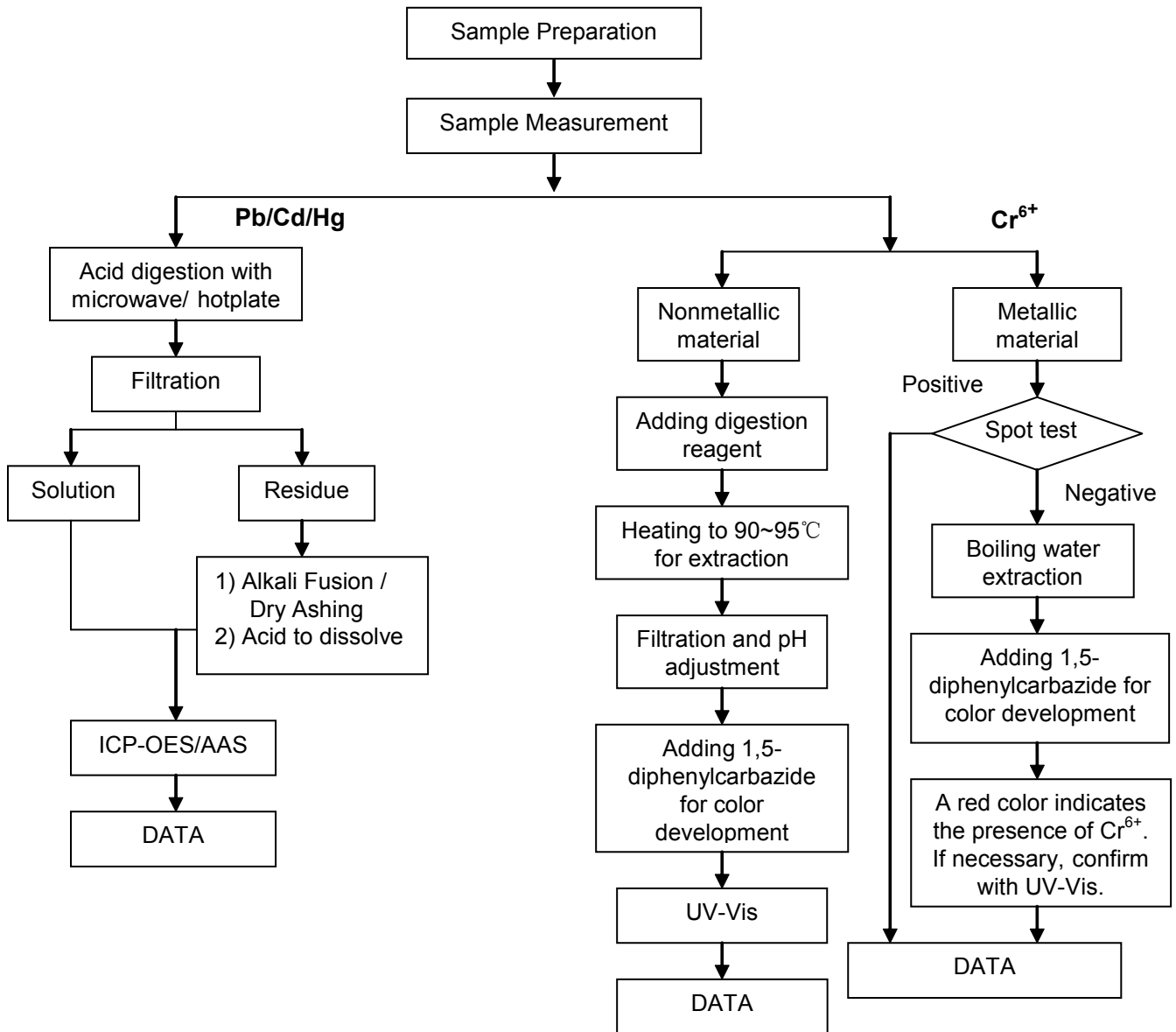
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RoHS Testing Flow Chart

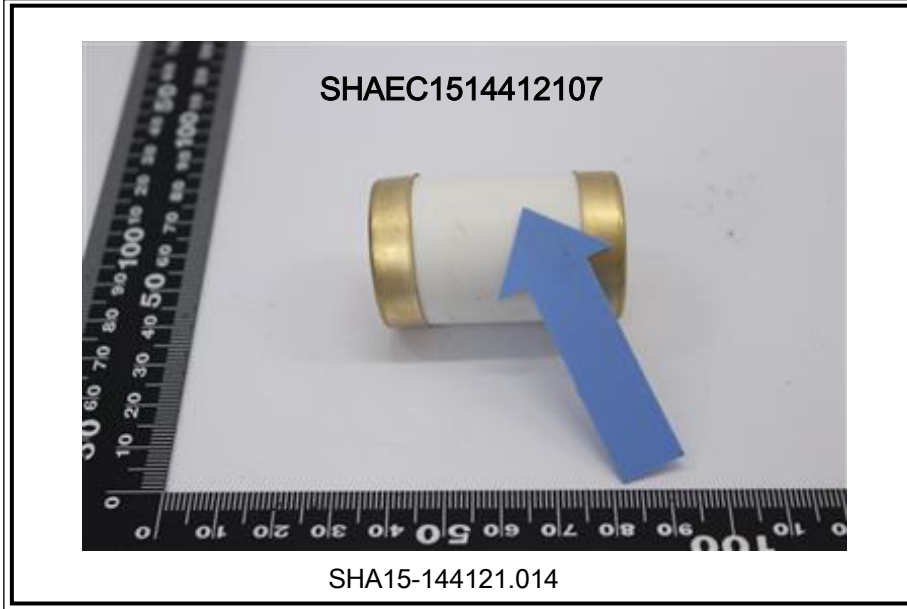
- 1) Name of the person who made testing: Bob Zhang / Sunny Qin/Zengzhen Zhu
- 2) Name of the person in charge of testing: Summer Jin/Jan Shi/Stone Chen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)



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Sample photo:



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