

## Test Report

No. SHAEC1100193325

Date: 12 Jan 2011

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JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO.,LTD  
NO.275 BINJIANG RD.,JIANGYIN,JIANGSU CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : TO-92 (GREEN)  
PINLEAD PART

SGS Job No. : SP11-000350 - SH  
Model No. : TO-92(GREEN)  
Sample May Cover : TO-92S/92L/92MOD/94(GREEN)  
Date of Sample Received : 06 Jan 2011  
Testing Period : 06 Jan 2011 - 12 Jan 2011  
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.



Fan Jingjie, JJ  
Approved Signatory

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA11-001933.013	Silvery metal part

Remarks :

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

RoHS Directive 2002/95/EC

Test Method : With reference to IEC 62321:2008

- (1) Determination of Cadmium by ICP-OES.
- (2) Determination of Lead by ICP-OES.
- (3) Determination of Mercury by ICP-OES.
- (4) Determination of Hexavalent Chromium by Spot test / Colorimetric Method using UV-Vis.

Test Item(s)	Limit	Unit	MDL	013
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	14
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◇	Negative

Notes :

- (1) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
- (2) ◇ Spot-test:  
 Negative = Absence of CrVI coating, Positive = Presence of CrVI 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 CrVI coating; Positive = Presence of CrVI 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.  
 For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

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**PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid)**

Test Method : With reference to US EPA 3550C: 2007, analysis was performed by HPLC-MS.

<u>Test Item(s)</u>	<u>Unit</u>	<u>MDL</u>	<u>013</u>
Perfluorooctane Sulfonates (PFOS) and related Acid, Metal Salt and Amide	mg/kg	10	ND
Perfluorooctyl Acid (PFOA)	mg/kg	10	ND

Notes :

- (1) PFOS Reference Information: Entry 53 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2006/122/EC)
  - (i) May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.
  - (ii) May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than 1µg /m<sup>2</sup> of the coated material. Please refer to Regulation (EC) No 552/2009 to get more detail information

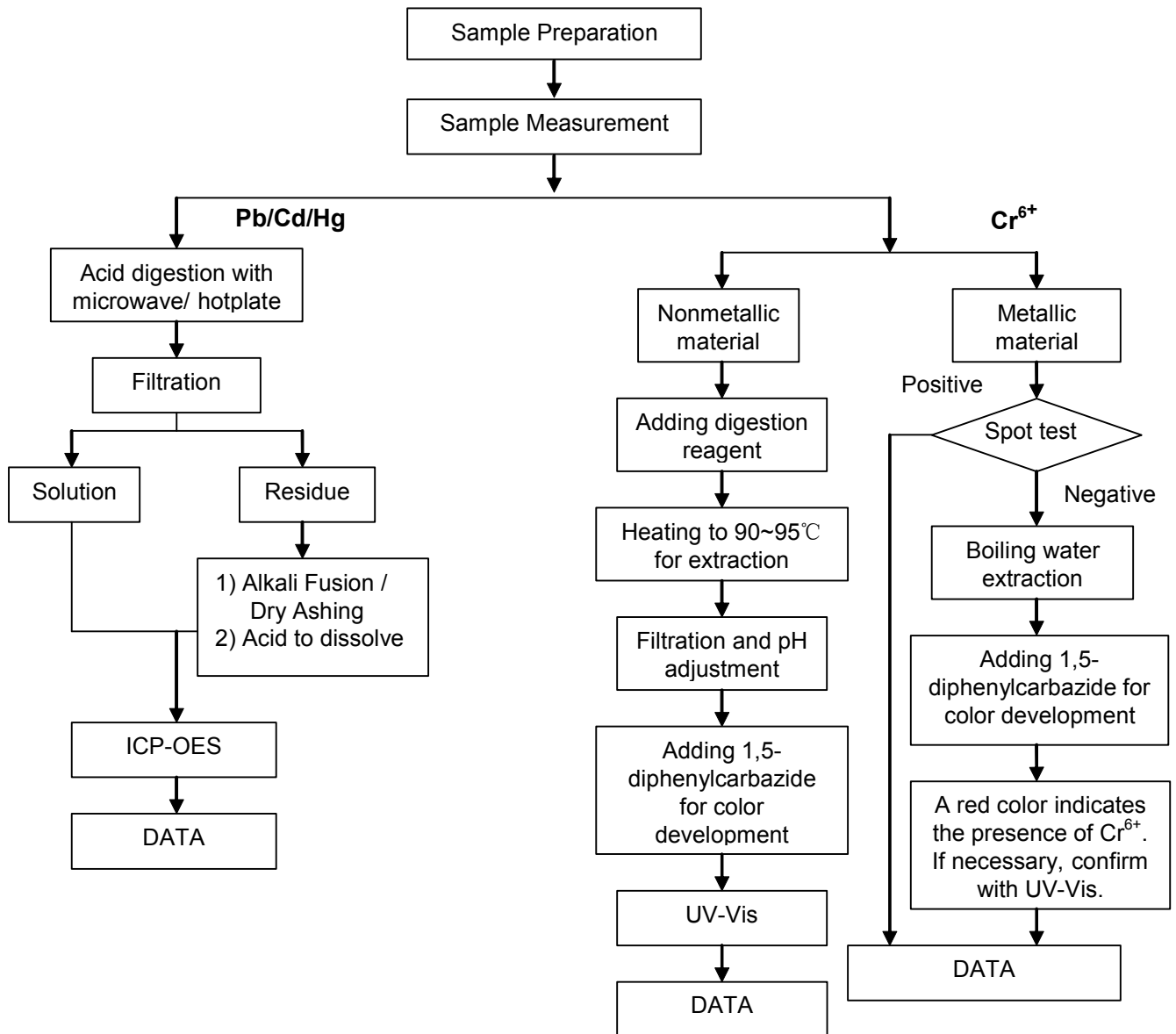
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**ATTACHMENTS**

**RoHS Testing Flow Chart**

- 1) Name of the person who made testing: Allen Xiao/ Wesley Wei / Andy Zhao
- 2) Name of the person in charge of testing: Jeff Zhang/George Xu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)

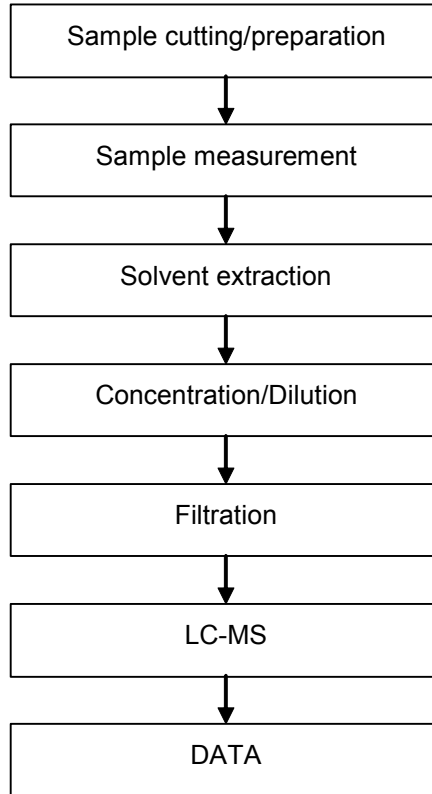


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## PFOS/PFOA Testing Flow Chart

- 1) Name of the person who made testing: Judy Li
- 2) Name of the person in charge of testing: Nancy Du



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Sample photo:



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

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