

Test Report

No. SHAEC1002436703

Date: 18 Mar 2010

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NINGBO HUALONG ELELCTRONICS CO.,LTD
JIUZHAI INDUSTRIAL ZONE NINGBO,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : TO92 LEAD FRAME

SGS Job No. : SP10-007110 - SH
Model No. : TO-92
Composition : C19210(KFC)
Date of Sample Received : 13 Mar 2010
Testing Period : 13 Mar 2010 - 18 Mar 2010
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).
Conclusion : Based on the performed tests on submitted samples, the results comply with the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of
SGS-CSTC Ltd.



Hao Jinyu, Sandy
Lab Manager

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA10-024367.003	Copper 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	003
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	ND
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◇	Negative

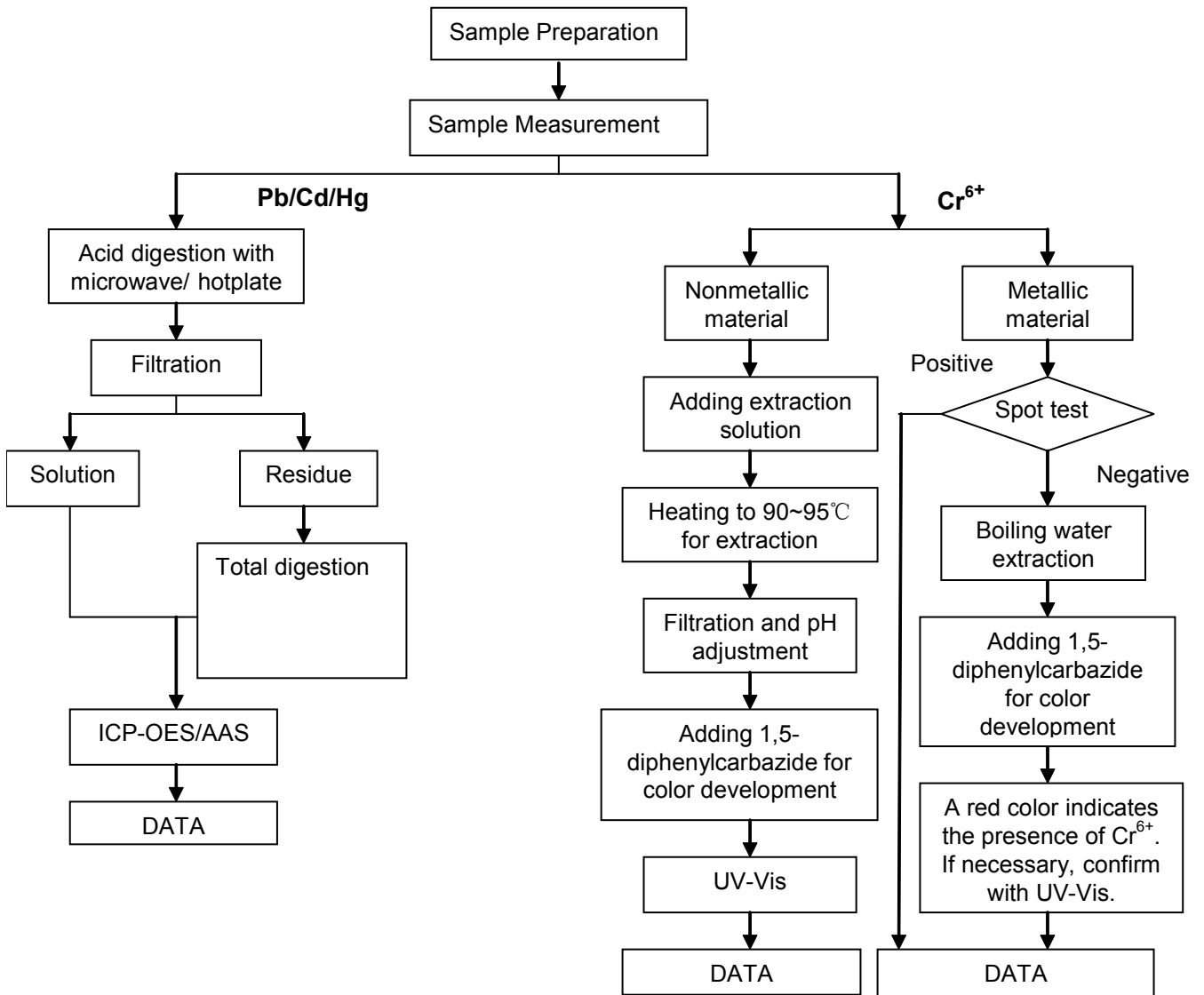
Notes :

- (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 cm² 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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ATTACHMENTS

- 1) Name of the person who made measurement: Spring Zuo/ Frank Fang
- 2) Name of the person in charge of measurement: Terry Wang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)



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