

Test Report

No: 10348445(1)

Date: 09-Oct-2014

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Singapore Asahi Chemical & Solder Industries Pte Ltd
47 Pandan Road Singapore 609288

The following sample(s) was/were submitted and identified by/on behalf of the client as:

Sample Description : SCS7

Sample Receiving Date : 30-Sep-2014
Testing Period : 01-Oct-2014 to 09-Oct-2014

Test Requested : In accordance with the RoHS Directive 2011/65/EU Annex II.

Test Result(s) : Please refer to next page(s).

Conclusion : Based on the performed tests on submitted sample(s), the results **comply with** the RoHS Directive 2011/65/EU Annex II ; recasting 2002/95/EC.

Signed for and on behalf of
SGS Testing & Control Services Singapore Pte Ltd



Y.C. Tham
Laboratory Manager

Test Location: 3 Toh Tuck Link, #01-02, Singapore 596228

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Test Result(s):

Sample Description : SCS7

Test Item(s):	Unit	Method	Results	MDL	RoHS Limit
Cadmium(Cd)	mg/kg	With reference to IEC62321-5 :2013. Analysis was performed by ICP/AES	n.d.	2	100
Lead (Pb)	mg/kg	With reference to IEC62321-5 :2013. Analysis was performed by ICP/AES	149.3	2	1000
Mercury (Hg)	mg/kg	With reference to IEC62321-4 :2013. Analysis was performed by ICP/AES	n.d.	2	1000
Hexavalent Chromium (CrVI) (By spot test / boiling water extraction)	---	With reference to IEC62321, Ed1:2008 and performed by Spot test / boiling water extraction method. (see Note 9)	Negative	0.02 mg/kg with 50 cm ² surface area	#
Sum of PBBs	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by GC/MS	n.d.	-	1000
Monobromobiphenyl	mg/kg		n.d.	5	-
Dibromobiphenyl	mg/kg		n.d.	5	-
Tribromobiphenyl	mg/kg		n.d.	5	-
Tetrabromobiphenyl	mg/kg		n.d.	5	-
Pentabromobiphenyl	mg/kg		n.d.	5	-
Hexabromobiphenyl	mg/kg		n.d.	5	-
Heptabromobiphenyl	mg/kg		n.d.	5	-
Octabromobiphenyl	mg/kg		n.d.	5	-
Nonabromobiphenyl	mg/kg		n.d.	5	-
Decabromobiphenyl	mg/kg		n.d.	5	-
Sum of PBDEs	mg/kg		n.d.	-	1000
Monobromodiphenyl ether	mg/kg		n.d.	5	-
Dibromodiphenyl ether	mg/kg		n.d.	5	-
Tribromodiphenyl ether	mg/kg		n.d.	5	-
Tetrabromodiphenyl ether	mg/kg		n.d.	5	-
Pentabromodiphenyl ether	mg/kg		n.d.	5	-
Hexabromodiphenyl ether	mg/kg		n.d.	5	-
Heptabromodiphenyl ether	mg/kg		n.d.	5	-
Octabromodiphenyl ether	mg/kg		n.d.	5	-
Nonabromodiphenyl ether	mg/kg		n.d.	5	-
Decabromodiphenyl ether	mg/kg		n.d.	5	-

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- Note:
- (1) mg/kg = ppm ; 0.1wt% = 1000ppm
 - (2) n.d.= Not Detected
 - (3) MDL = Method Detection Limit
 - (4) ## = The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE will be included in the sum of PBDE after 01.07.2008.
 - (5) “-“ = Not regulated
 - (6) “---“: No unit (Qualitative Test)
 - (7) * : Exceeds limit
 - (8) # : Positive means the presence of CrVI on the tested areas.
Negative means the absence of CrVI on the tested areas.
 - (9) Spot-test:
Negative = Absence of Cr(VI) coating / surface layer
Positive = Presence of Cr(VI) coating / surface layer
The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.
Boiling-water extraction:
Negative = Absence of Cr(VI) coating / surface layer
Positive = Presence of Cr(VI) coating / surface layer
the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Lab Analyst(s): Shaun, Pheng and ZH

Remarks: Sample received was totally dissolved by preconditioning method.

Sample photo:

Sample Description : SCS7

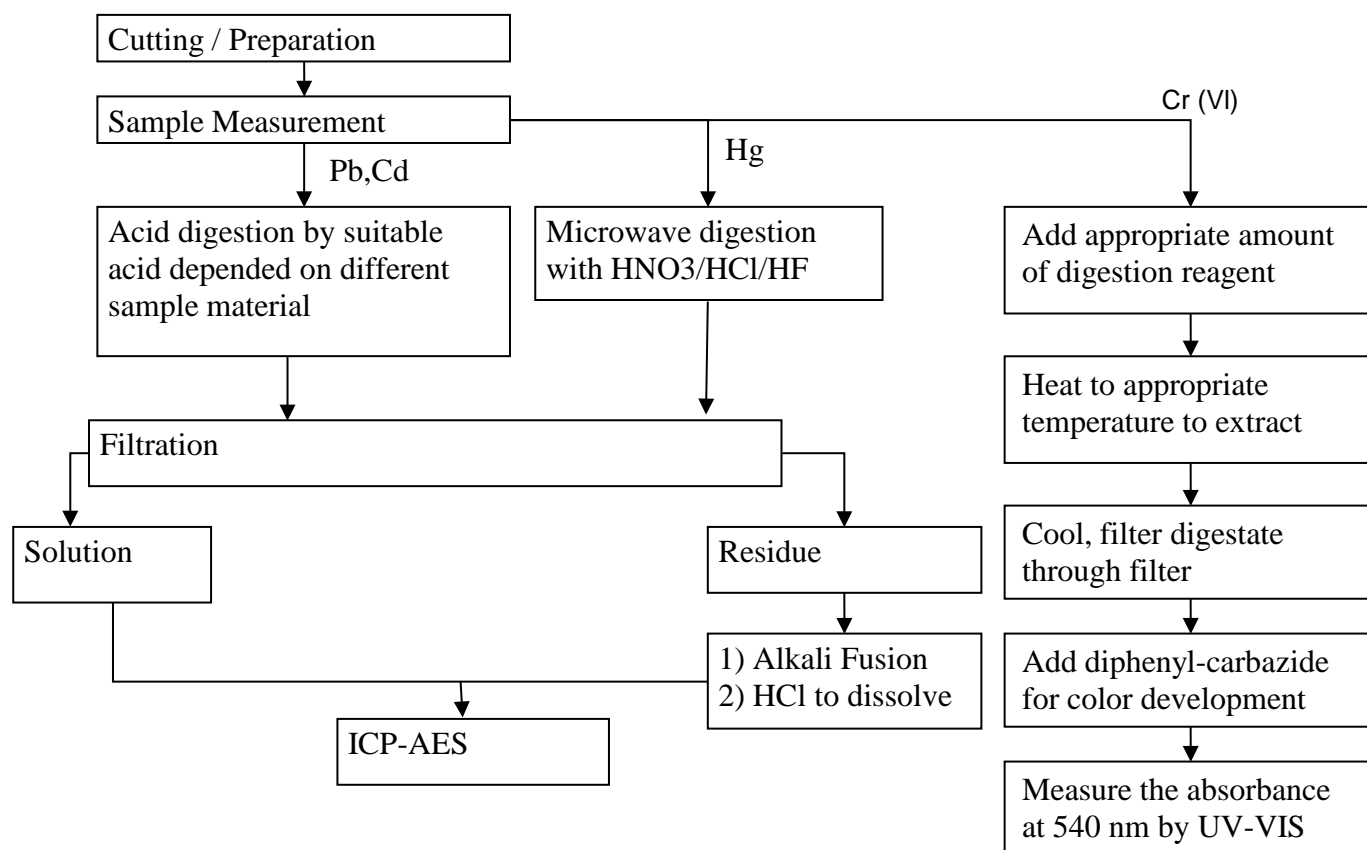
SGS authenticate the photo on original report only



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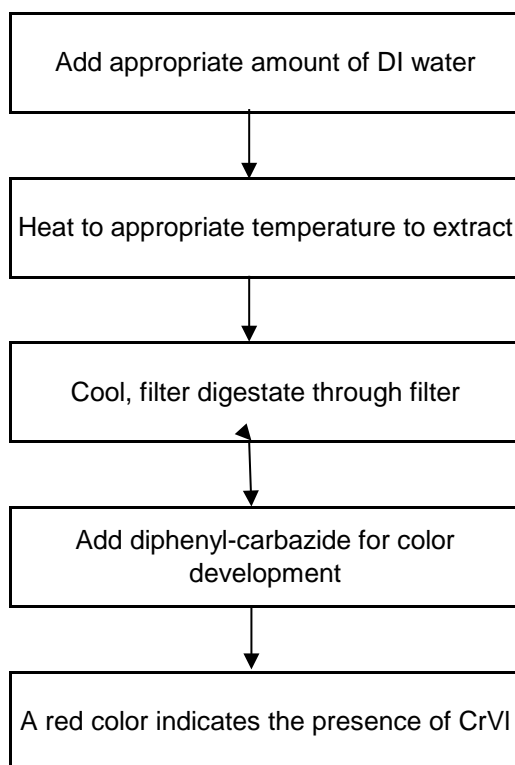
Process Flow of IEC 62321 (Pb, Cd, Hg & Cr⁶⁺)



Remarks: Sample received was totally dissolved by preconditioning method. (CrVI method excluded)

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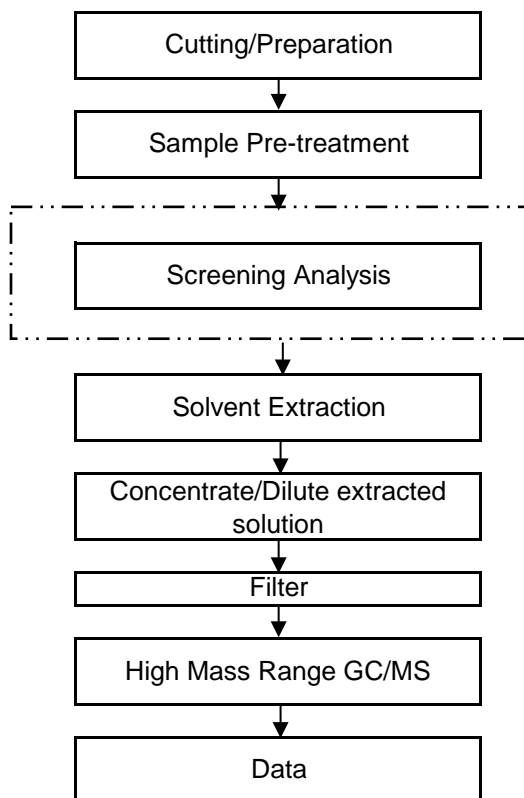
Process Flow of Cr(VI) by Boiling Water Extraction (IEC62321)

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Process Flow of PBBs and PBDEs by GC/MS (IEC 62321)

First Testing Process → Optional screen process Confirmation process ...→



End of Report

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