



**Test Report No.** 2393449 Date: 22-Jan-2013 Page 1 of 4

Client: Hwa Yang Stainless Steel (Thailand) Co.,Ltd.

61/271-272 Rama 9 Road,

Huaykwang, Huaykwang, Bangkok 10310 Thailand

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

Sample Description : STAINLESS STEEL (SUS 316)

Sample No. : 2468854

Sample Condition : As per attached photograph

**Quantity Submitted** : 6 pcs.

Sample Receiving Date : 17-Jan-2013

**Testing Period** : 17-Jan-2013 to 22-Jan-2013

**Test Requested** : In accordance with the RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC

Test Method : (1) In-house method LBTY-08409 with reference to IEC 62321 Ed.1:2008 for Lead

content, Analyzed by ICP-OES.

(2) In-house method LBTY-08409 with reference to IEC 62321 Ed.1:2008 for

Cadmium content, Analyzed by ICP-OES.

(3) In-house method LBTY-08408 with reference to IEC 62321 Ed.1:2008 for

Mercury content, Analyzed by ICP-OES.

(4) In-house method LBTY-06378 with reference to IEC 62321 Ed.1:2008 for

Hexavalent Chromium by Colorless and Colored Chromate Coating on Metals/

Colorimetric Method, Analyzed by UV-Vis spectrometry.

**Test Results** : Please refer to next page.

Signed for and on behalf of SGS (Thailand) Limited

Pornpana Lirathpong **Hardlines Testing Manager** 

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**TEST RESULTS** 

Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit
Lead (Pb)	(1)	n.d.	2	1000
Cadmium (Cd)	(2)	n.d.	2	100
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium (CrVI) by Spot test / boiling water extraction (optional)	(4)	Negative	-	1000

**Test Part Description** Result (1) metal

## Note:

(a) mg/kg = ppm; 0.1wt% = 1000 ppm

- (b) n.d. = Not Detected
- (c) MDL = Method Detection Limit
- (d) 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 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 area.

- (e) "-" = Not regulated
- (f) 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 represent status of the sample at the time of testing.

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**Test Report No.** 

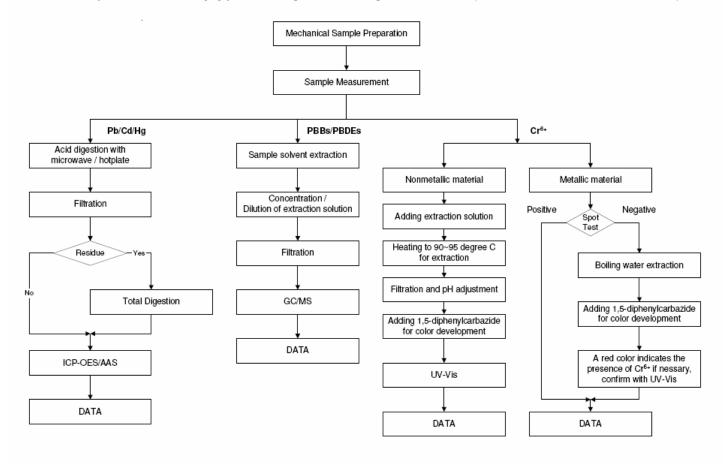
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## Flow Chart for IEC 62321: Pb/Cd/Hg/Cr6+/PBBs/PBDEs Testing

- 1. Operator : Siam Polarwut
- 2. Section Chief: Patcharee Treeporncharoen
- 3. The sample was dissolved totally by pre-conditioning method according to below flowchart. (Cr6+ and PBBs/PBDEs test method excluded)



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## SAMPLE/ATTACHMENT PICTURE



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