

Test Report

No. : CE/2017/13624

Date : 2017/01/24

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CHUNG TAI SING CHEMICAL INDUSTRY CO., LTD.
105 NIU PU SOUTH ROAD, HSINCHU, TAIWAN, R. O. C.



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

Sample Submitted By : CHUNG TAI SING CHEMICAL INDUSTRY CO., LTD.
Sample Description : PUFF DINO LONG-LASTING ANTI-RUST
Style/Item No. : DI70
Sample Receiving Date : 2017/01/17
Testing Period : 2017/01/17 TO 2017/01/24

=====
Test Requested : As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.
Test Method : Please refer to next page(s).
Test Result(s) : Please refer to next page(s).
Conclusion : Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II.


Troy Chang, Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei



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Test Result(s)

PART NAME No.1 : LT.YELLOW LIQUID

Test Item(s)	Unit	Method	MDL	Result	Limit
				No.1	
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n.d.	100
Lead (Pb)	mg/kg	With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n.d.	1000
Mercury (Hg)	mg/kg	With reference to IEC 62321-4 (2013) and performed by ICP-AES.	2	n.d.	1000
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321 (2008) and performed by UV-VIS.	2	n.d.	1000
Sum of PBBs	mg/kg		-	n.d.	1000
Monobromobiphenyl	mg/kg		5	n.d.	-
Dibromobiphenyl	mg/kg		5	n.d.	-
Tribromobiphenyl	mg/kg		5	n.d.	-
Tetrabromobiphenyl	mg/kg		5	n.d.	-
Pentabromobiphenyl	mg/kg		5	n.d.	-
Hexabromobiphenyl	mg/kg		5	n.d.	-
Heptabromobiphenyl	mg/kg		5	n.d.	-
Octabromobiphenyl	mg/kg		5	n.d.	-
Nonabromobiphenyl	mg/kg		5	n.d.	-
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6 (2015) and performed by GC/MS.	5	n.d.	-
Sum of PBDEs	mg/kg		-	n.d.	1000
Monobromodiphenyl ether	mg/kg		5	n.d.	-
Dibromodiphenyl ether	mg/kg		5	n.d.	-
Tribromodiphenyl ether	mg/kg		5	n.d.	-
Tetrabromodiphenyl ether	mg/kg		5	n.d.	-
Pentabromodiphenyl ether	mg/kg		5	n.d.	-
Hexabromodiphenyl ether	mg/kg		5	n.d.	-
Heptabromodiphenyl ether	mg/kg		5	n.d.	-
Octabromodiphenyl ether	mg/kg		5	n.d.	-
Nonabromodiphenyl ether	mg/kg		5	n.d.	-
Decabromodiphenyl ether	mg/kg		5	n.d.	-

Note :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated

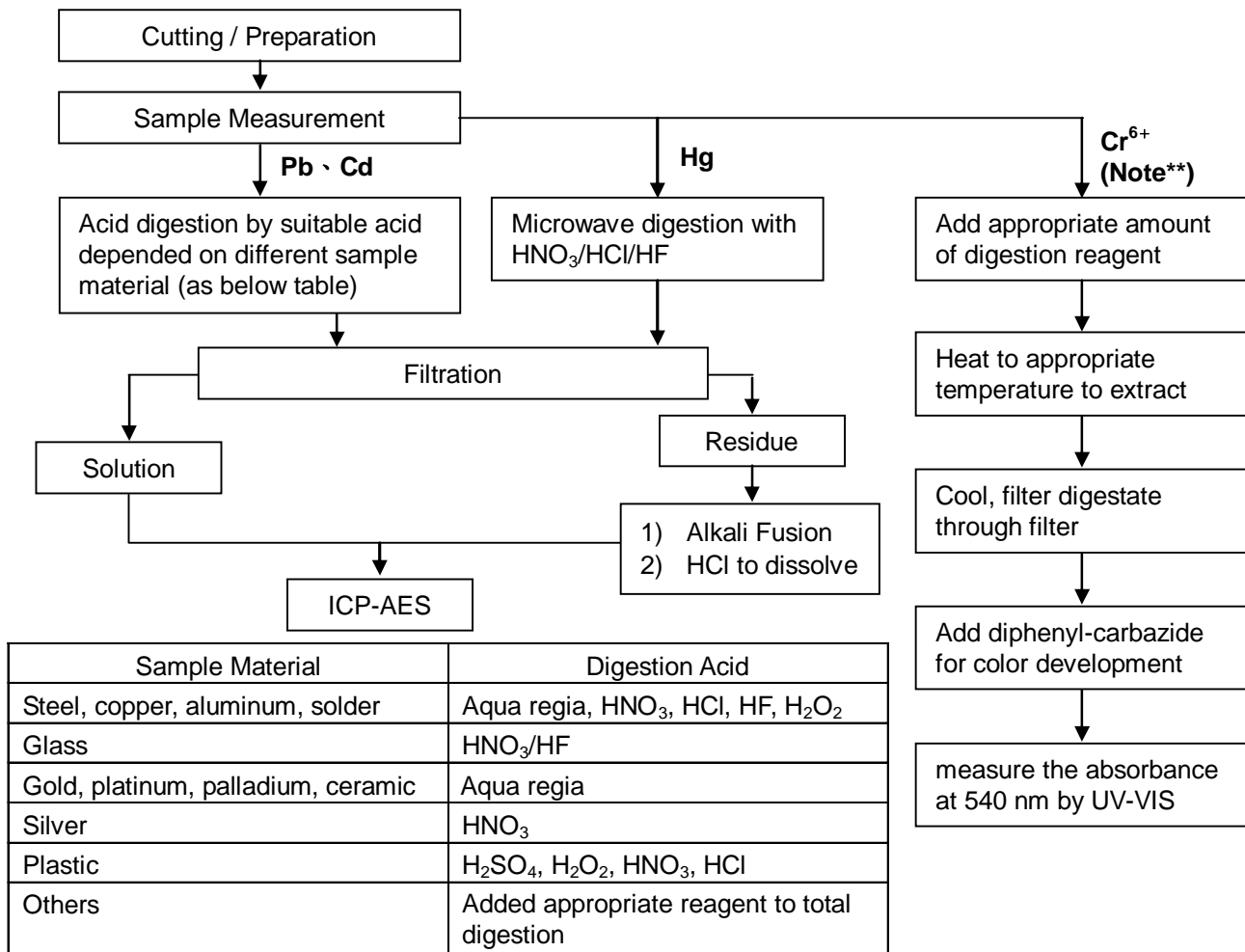
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These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)

- Technician: JR Wang
- Supervisor: Troy Chang



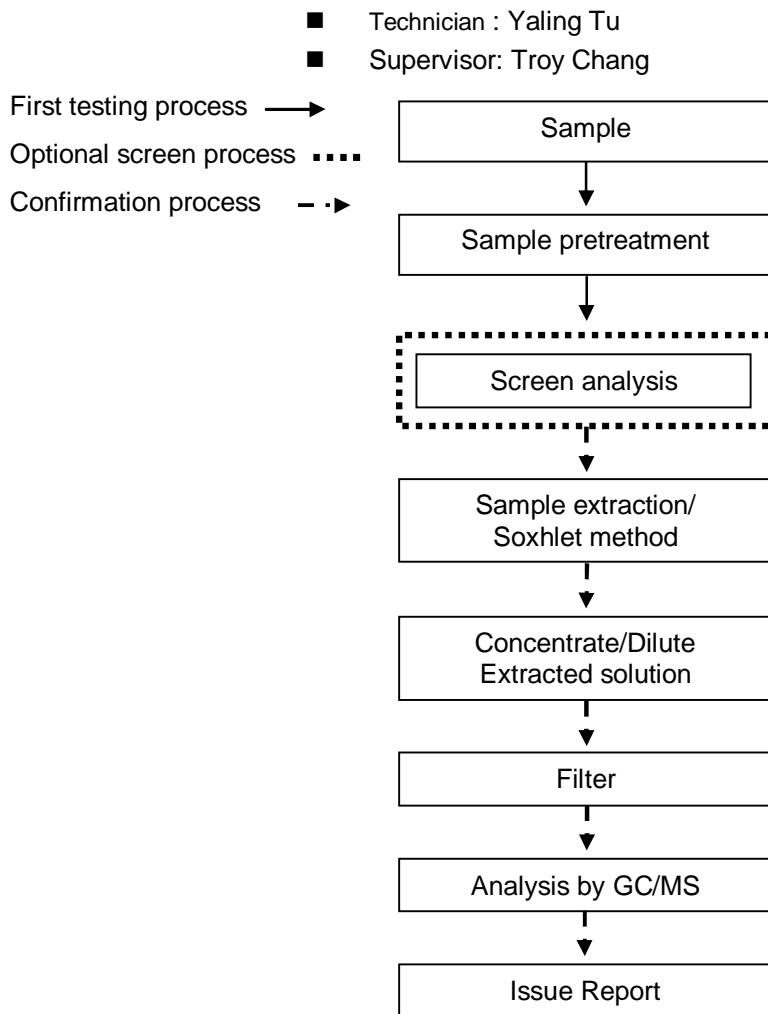
Note (For IEC 62321)**

- (1) For non-metallic material, add alkaline digestion reagent and heat to 90~95 °C.
- (2) For metallic material, add pure water and heat to boiling.

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Analytical flow chart - PBB/PBDE



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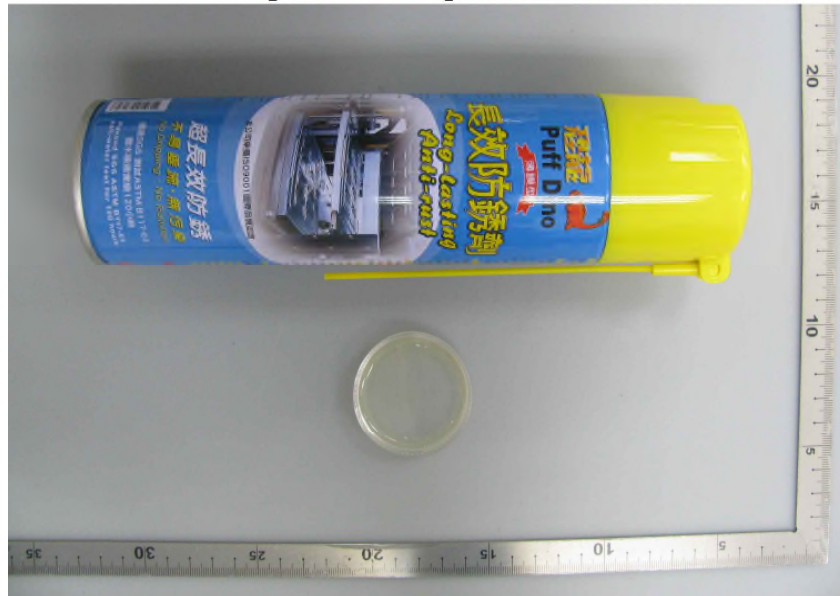
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* The tested sample / part is marked by an arrow if it's shown on the photo. *

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** End of Report **

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