

## Test Report

No. : CE/2016/20706

Date : 2016/02/17

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LS RESEARCH  
W66N220 COMMERCE CT., CEDARBURG, WI 53012, UNITED STATES





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

Sample Submitted By : LS RESEARCH  
Sample Description : TIWI-BLE  
Style/Item No. : 450-0064  
Sample Receiving Date : 2016/02/03  
Testing Period : 2016/02/03 TO 2016/02/17

=====  
**Test Requested**

:  
As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample.

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

  
  
**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 : MIXED ALL PARTS

Test Item(s)	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg	With reference to IEC 62321-8 (111/321/CD). Analysis was performed by GC/MS.	50	n.d.
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n.d.
DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg		50	n.d.
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.
<b>Sum of PBBs</b>	mg/kg	With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n.d.
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	5	n.d.	

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Test Item(s)	Unit	Method	MDL	Result
				No.1
Sum of PBDEs	mg/kg	With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n.d.
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 :**

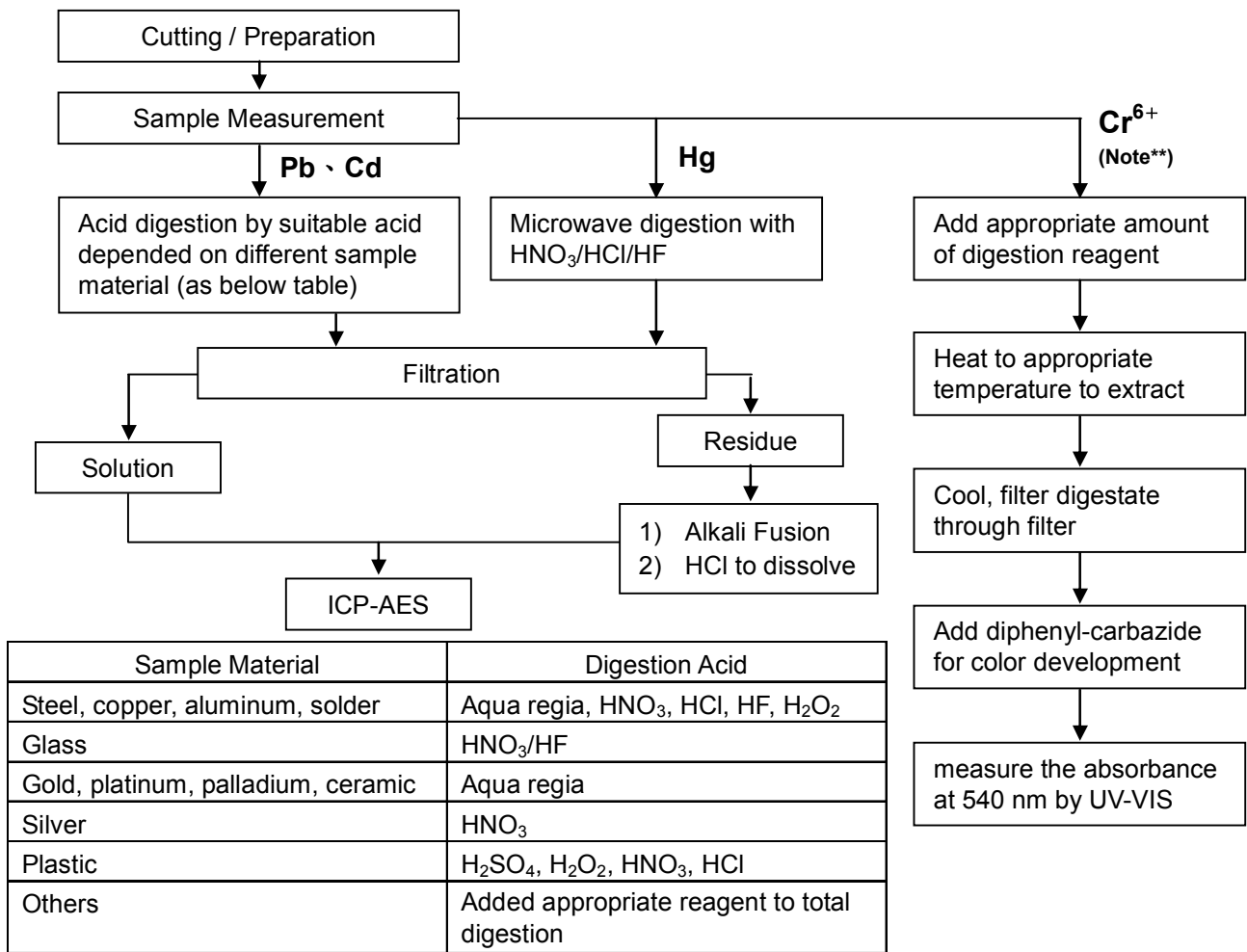
1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated
5. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.

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These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

- Technician: Climbgreat Yang
- 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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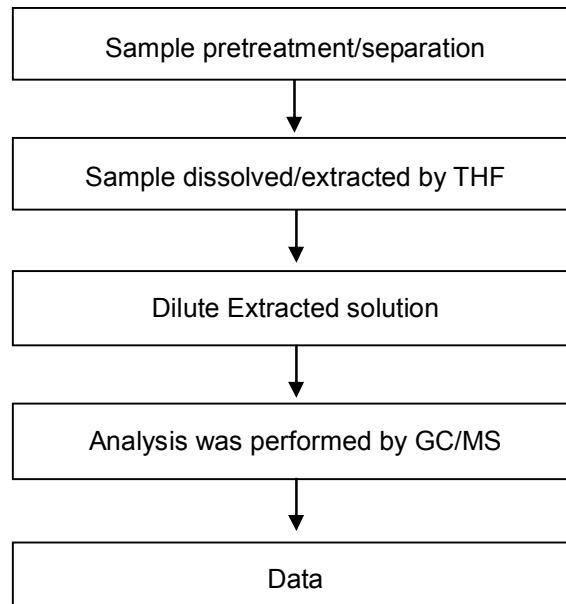
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### Analytical flow chart of phthalate content

- Technician: Andy Shu
- Supervisor: Troy Chang

#### 【Test method: IEC 62321-8】

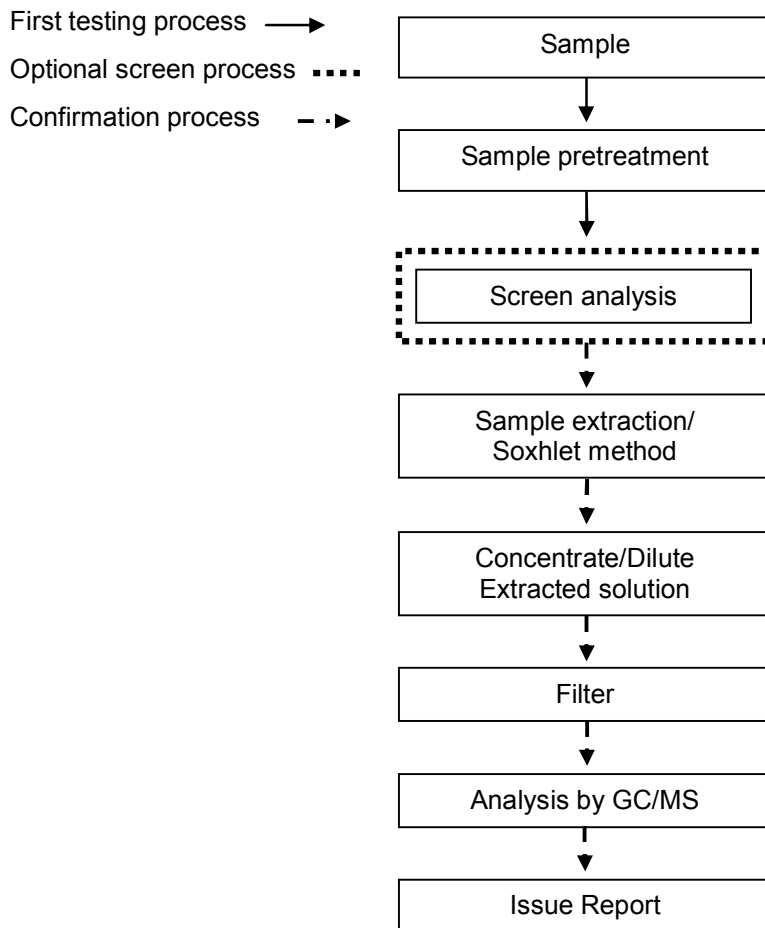


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### PBB/PBDE analytical FLOW CHART

- Technician : Roman Wong
- Supervisor: Troy Chang



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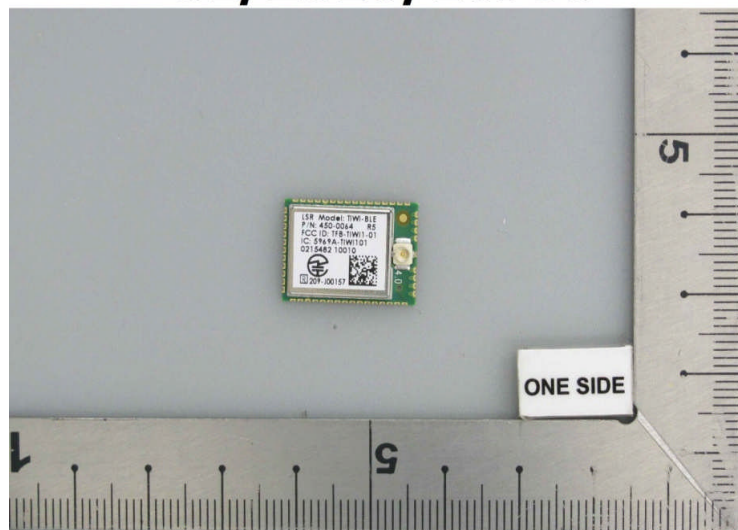
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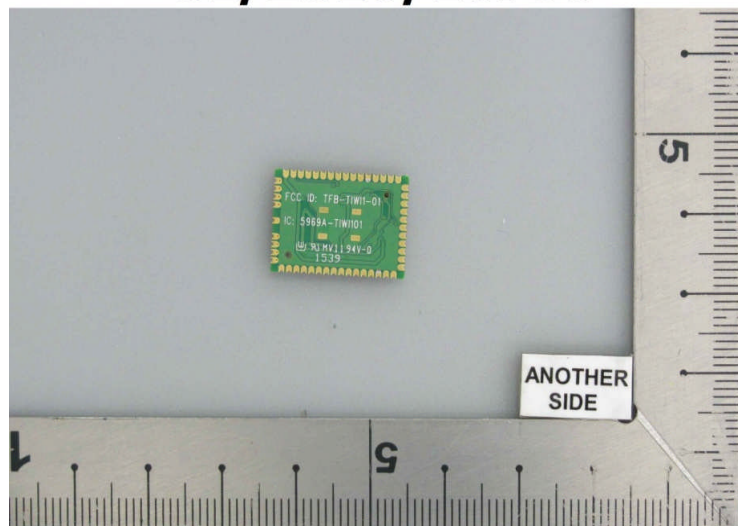


\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

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### CE/2016/20706



\*\* End of Report \*\*

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