

## Test Report

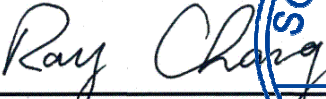
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RECOM ENGINEERING GMBH & CO KG  
TECHNOLOGIEZENTRUM SALZKAMMERGUT KROTTENSEESTRASSE 45 4810  
GMUNDEN AUSTRIA

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

Sample Description : AC/ DC CONVERTER  
Style/Item No. : RAC01-,RAC02-,RAC03-,RAC04-,RAC05-,RAC06-,RAC10-,  
RAC03-/277,RAC04-/277,RAC03-SCR SERIES  
Sample Receiving Date : 2012/09/19  
Testing Period : 2012/09/19 TO 2012/9/26

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

  
Ray Chang / Asst. Manager  
Signed for and on behalf of  
SGS Taiwan Limited



# Test Report

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RECOM ENGINEERING GMBH & CO KG  
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## Test Result(s)

PART NAME NO.1 : MIXED ALL PARTS:AC/ DC CONVERTER

Test Item (s):	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
Mercury (Hg)	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
<b>Sum of PBBs</b>	mg/kg	With reference to IEC 62321: 2008 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.
<b>Sum of PBDEs</b>	mg/kg		-	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.

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Test Item (s):	Unit	Method	MDL	Result
				No.1
Hexabromocyclododecane (HBCDD) (CAS No.: 25637-99-4)	mg/kg	With reference to US EPA 3540C: 1996 method. Analysis was performed by GC/MS.	5	n.d.
<b>Phthalates</b>				
BBP (Benzyl butyl phthalate) (CAS No.: 85-68-7)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.
DBP (Dibutyl phthalate) (CAS No.: 84- 74-2)	%		0.003	n.d.
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	%		0.003	n.d.
DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0)	%		0.01	n.d.
DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0)	%		0.01	0.0947
DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	%		0.003	n.d.

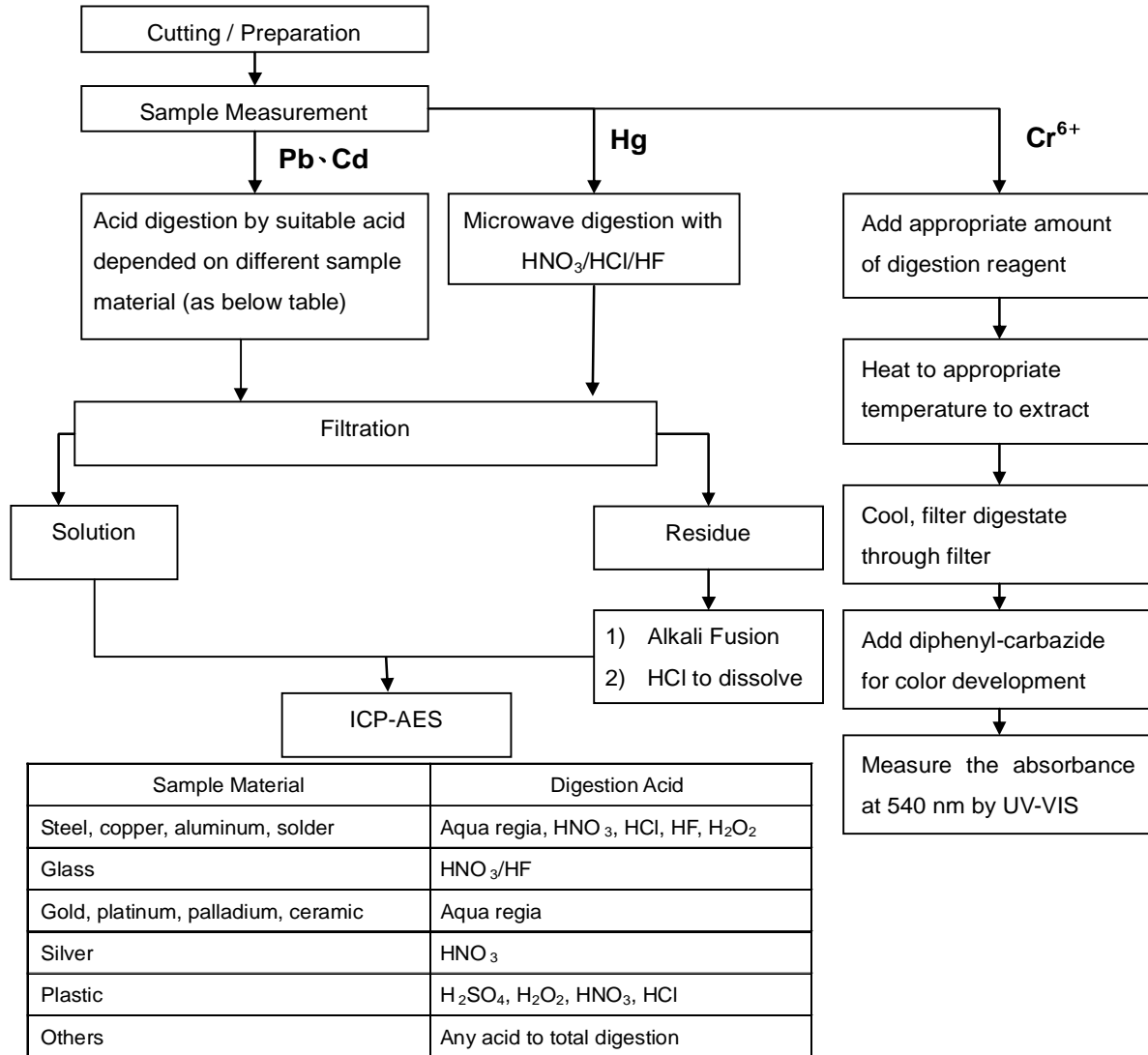
- Note :
1. mg/kg = ppm ; 0.1wt% = 1000ppm
  2. n.d. = Not Detected
  3. MDL = Method Detection Limit
  4. " - " = Not Regulated
  5. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing.  
The above result(s) was/were only given as the informality value.
  6. This report supersedes all previous documents bearing the test report number KA/2012/91224.

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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr6+ test method excluded)
- 2) Name of the person who made measurement: Alex Chang
- 3) Name of the person in charge of measurement: Ray Chang



**Note\*\* :** (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.

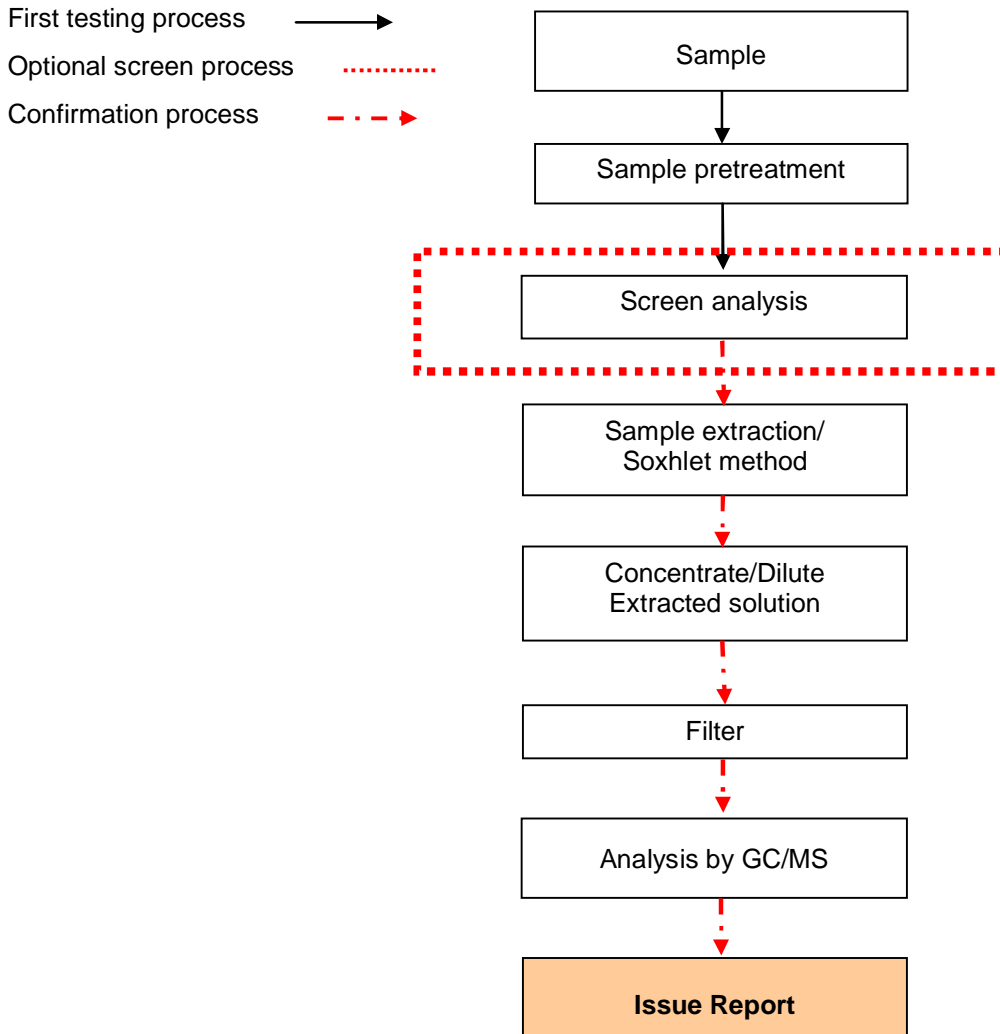
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### PBB/PBDE analytical FLOW CHART

- 1) Name of the person who made measurement: Anson Tsao
- 2) Name of the person in charge of measurement: Ray Chang



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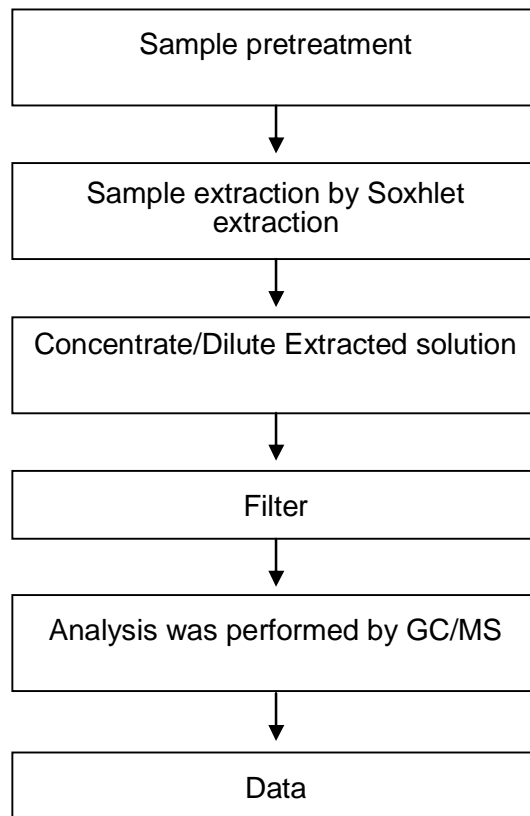
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### HBCDD Analytical FLOW CHART

- 1) Name of the person who made measurement: Anson Tsao
- 2) Name of the person in charge of measurement: Ray Chang



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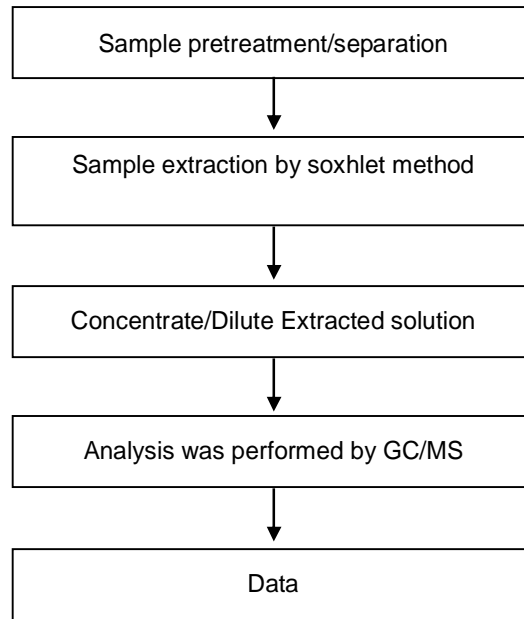
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### Analytical flow chart of phthalate content

- 1) Name of the person who made measurement: Anson Tsao
- 2) Name of the person in charge of measurement: Ray Chang



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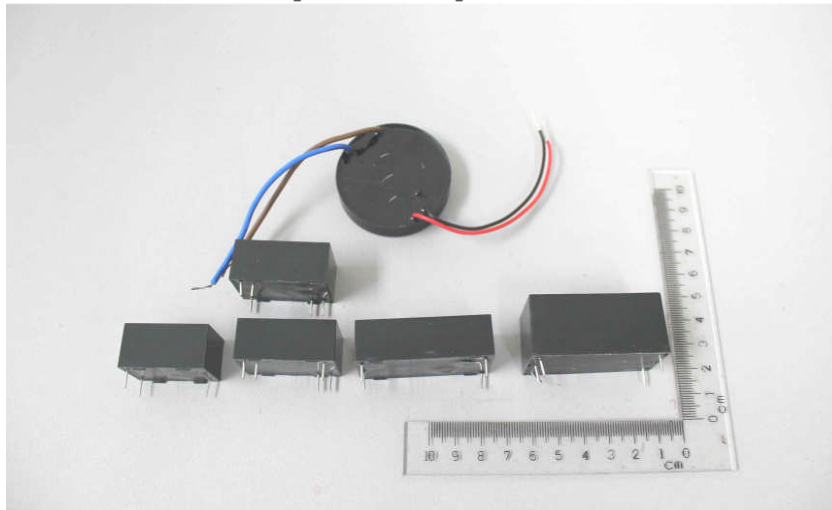
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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

### KA/2012/91224



\*\* End of Report \*\*