

## Test Report

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Date : 2017/06/27

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MOTIEN TECHNOLOGY CO.,LTD.

NO. 9, KEJI 2ND RD., TECHNOLOGY INDUSTRIAL PARK, TAINAN CITY 70955, TAIWAN

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

Sample Description : DC/DC CONVERTER  
 Style/Item No. : V1,V3,V4,VA,VE,VL,VL2,M1,M4,T1-SERIES  
 Sample Receiving Date : 2017/06/20  
 Testing Period : 2017/06/20 TO 2017/06/27  
 Sample Submitted By : MOTIEN TECHNOLOGY CO.,LTD.

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

Test Method : Please refer to following pages.

Test Result(s) : Please refer to following pages.

*Ray Chang*  
**SGS**  
 Ray Chang Ph.D. / Manager - Tech  
 Signed for and on behalf of  
 SGS Taiwan Limited

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## Test Result(s)

PART NAME No.1 : MIXED ALL PARTS:DC/DC CONVERTER

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	21.4
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 62321-7-2:2017 and performed by UV-VIS.	8	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.
<b>Sum of PBDEs</b>	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.

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Chemical Laboratory - Kao., SGS Taiwan Ltd.

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Test Item(s)	Unit	Method	MDL	Result
				No.1
DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n.d.
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n.d.
BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n.d.
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.

### Note :

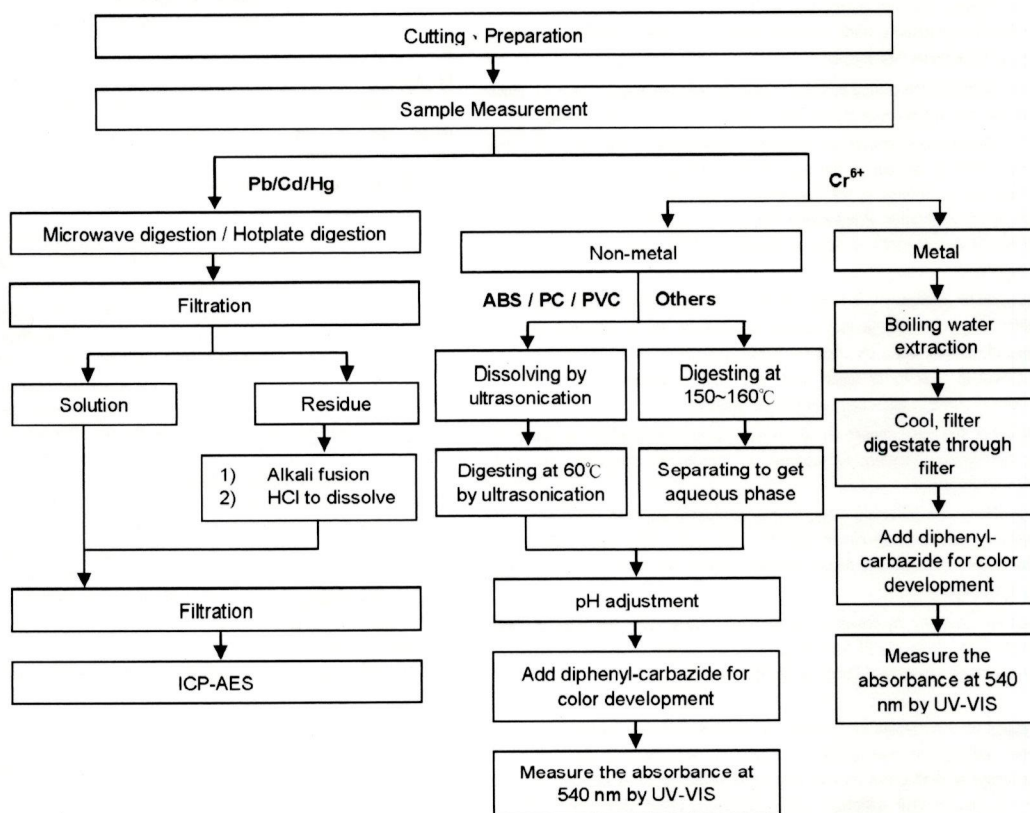
1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated
5. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.

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### Analytical flow chart of Heavy Metal

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

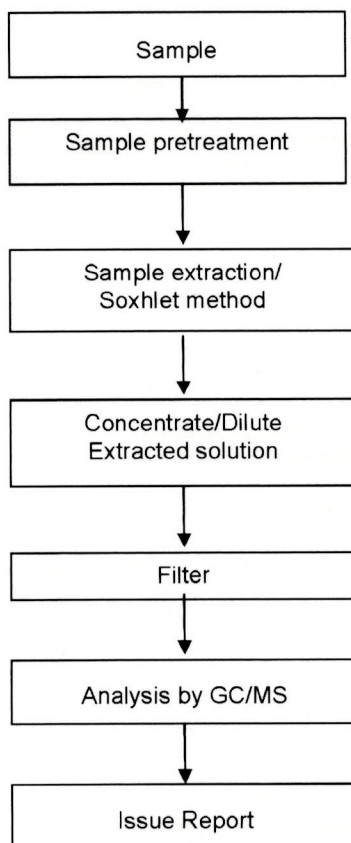
- Technician : Jony Liu
- Supervisor: Ray Chang



### PBB/PBDE analytical FLOW CHART

1) Name of the person who made measurement: Dorothy Chen

2) Name of the person in charge of measurement: Ray Chang





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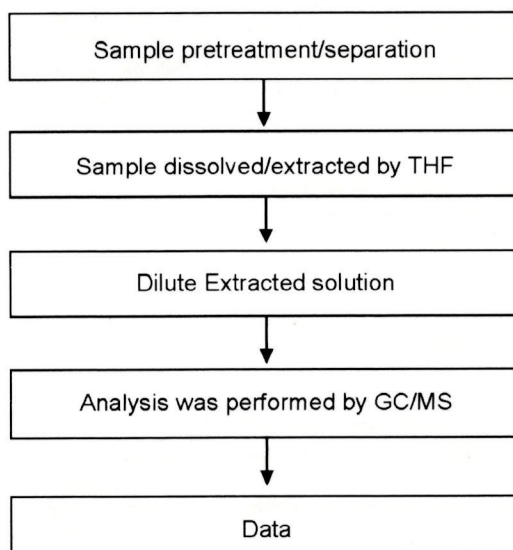
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### Analytical flow chart of phthalate content

- Name of the person who made measurement: Dorothy Chen
- Name of the person in charge of measurement: Ray Chang

【Test method: IEC 62321-8】



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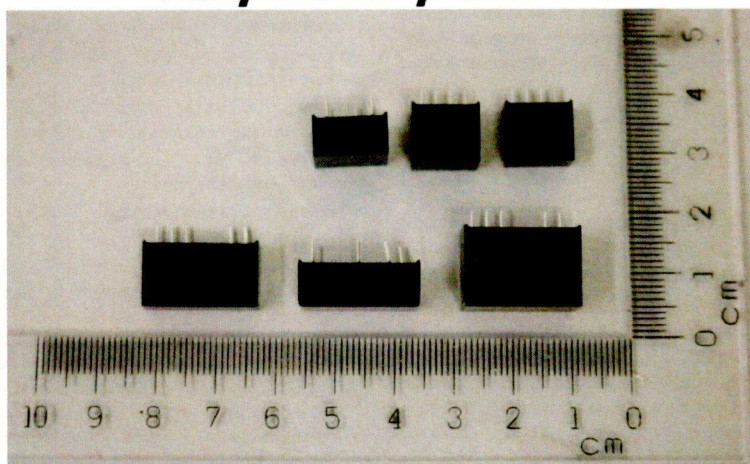
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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

### KA/2017/61778



\*\* End of Report \*\*

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