

## Test Report

No: 10227916(3)

Date: 15-Mar-11

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Denka Singapore Pte Ltd  
40 Seraya Avenue Singapore 687273

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

Sample Description : GPPS MW-1-301 (Lot: 10221L)

Sample Receiving Date : 08-Mar-11  
Testing Period : 09-Mar-11 to 14-Mar-11

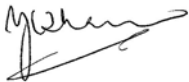
Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

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

Conclusion : Based on the performed tests on submitted sample(s), the results **comply with** the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of  
SGS Testing & Control Services Singapore Pte Ltd



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Y.C. Tham  
Laboratory Manager

Test Location: 26 Ayer Rajah Crescent, #07-08, Singapore 139944

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**Test Result(s):**

Sample Description : GPPS MW-1-301 (Lot: 10221L)

Test Item(s):	Unit	Method	Results	MDL	RoHS Limit
Cadmium(Cd)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by ICP/AES	n.d.	2	100
Lead (Pb)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by ICP/AES	n.d.	2	1000
Mercury (Hg)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by ICP/AES	n.d.	2	1000
Hexavalent Chromium (CrVI)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by UV/Vis Spectrometry	n.d.	2	1000
<b>Sum of PBBs</b>	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by GC/MS	<b>n.d.</b>	-	1000
Monobromobiphenyl	mg/kg		n.d.	5	-
Dibromobiphenyl	mg/kg		n.d.	5	-
Tribromobiphenyl	mg/kg		n.d.	5	-
Tetrabromobiphenyl	mg/kg		n.d.	5	-
Hexabromobiphenyl	mg/kg		n.d.	5	-
Pentabromobiphenyl	mg/kg		n.d.	5	-
Heptabromobiphenyl	mg/kg		n.d.	5	-
Octabromobiphenyl	mg/kg		n.d.	5	-
Nonabromobiphenyl	mg/kg		n.d.	5	-
Decabromobiphenyl	mg/kg		n.d.	5	-
<b>Sum of PBDEs</b>	mg/kg		<b>n.d.</b>	-	1000
Monobromodiphenyl ether	mg/kg		n.d.	5	-
Dibromodiphenyl ether	mg/kg		n.d.	5	-
Tribromodiphenyl ether	mg/kg		n.d.	5	-
Tetrabromodiphenyl ether	mg/kg		n.d.	5	-
Pentabromodiphenyl ether	mg/kg		n.d.	5	-
Hexabromodiphenyl ether	mg/kg		n.d.	5	-
Heptabromodiphenyl ether	mg/kg		n.d.	5	-
Octabromodiphenyl ether	mg/kg		n.d.	5	-
Nonabromodiphenyl ether	mg/kg	n.d.	5	-	
Decabromodiphenyl ether ##	mg/kg	n.d.	5	-	

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- Note:
- (1) mg/kg = ppm ; 0.1wt% = 1000ppm
  - (2) n.d.= Not Detected
  - (3) MDL = Method Detection Limit
  - (4) ## = The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE will be included in the sum of PBDE after 01.07.2008.
  - (5) "-" = Not regulated
  - (6) \* : Exceeds limit

Remarks: Sample received was totally dissolved by preconditioning method.  
Lab Analyst(s): Jay,Jojo and Eileen

**Sample photo:**

Sample Description : GPPS MW-1-301 (Lot: 10221L)

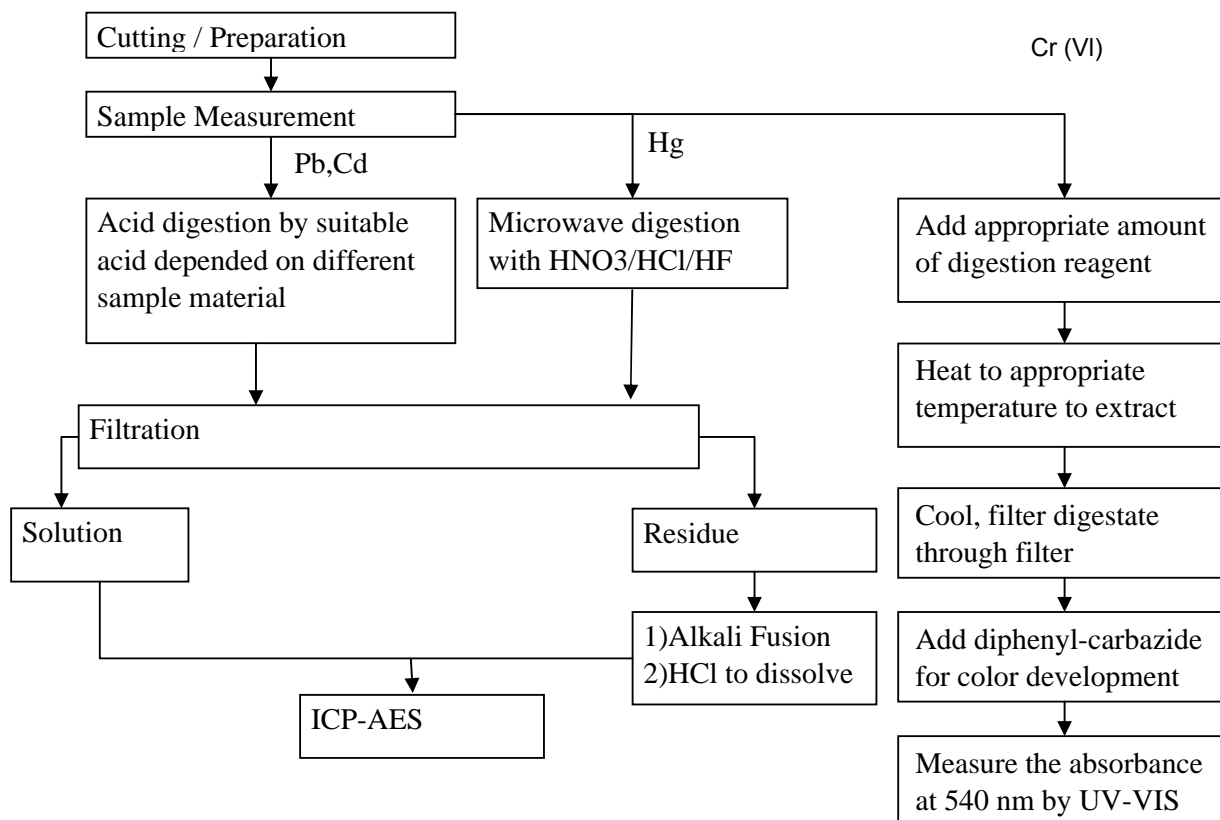
SGS authenticate the photo on original report only



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**Process Flow of IEC 62321 (Pb, Cd, Hg & Cr<sup>6+</sup>)**



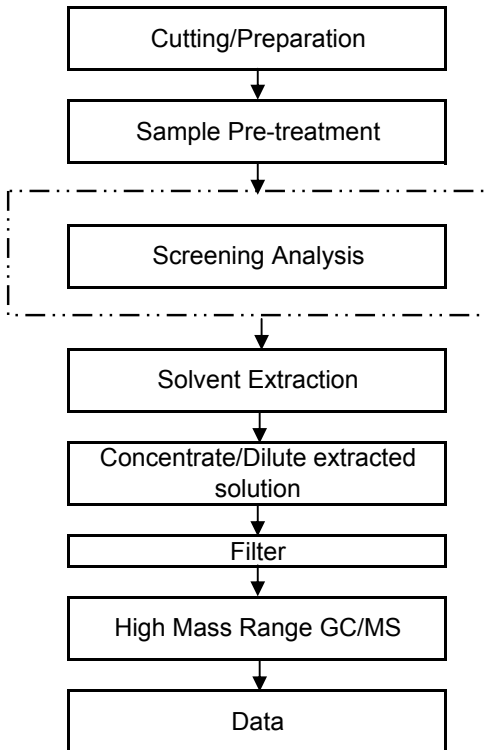
Remarks: Sample received was totally dissolved by preconditioning method. (CrVI method excluded)

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**Process Flow of PBBs and PBDEs by GC/MS (IEC 62321)**

First Testing Process → Optional screen process ..... Confirmation process ...→



\*\*\*End of Report\*\*\*

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