



# Test Report

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

Sample Description : TRANSISTOR,DIODE,MOSFET,THYRISTOR,TVS  
Style/Item No. : SMA,SMB,SMC,D-PAK,D2-PAK,I2-PAK,TO-220,TO-220A,ITO-220,ITO-220A,TO-3P,TO-3P(S),TO-126,TO-247,TO-262,TO-263,TO-251,TO-252,DO-15,DO-41,DO-201,SOT-23,SOD-323(ROHS PORCESS)  
Sample Receiving Date : 2009/02/26  
Testing Period : 2009/02/26 TO 2009/3/4

=====  
**Test Result(s)** : - Please see the next page(s) -

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

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## Test Result(s)

PART NAME NO.1 : MIXED ALL PARTS OF BODY  
PART NAME NO.2 : SILVER METAL PIN

Test Item (s)	Unit	Method	MDL	Result	
				No.1	No.2
Cadmium (Cd)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES.	2	n.d.	---
Cadmium (Cd)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES.	2	---	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.	2	n.d.	---
Hexavalent Chromium Cr(VI) by Spot test / boiling water extraction	**	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium for metallic samples by Spot test / boiling water extraction Method.	0.02mg/kg with 50 cm <sup>2</sup> surface area	---	Negative
Lead (Pb)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Lead by ICP-AES.	2	4200	---
Lead (Pb)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Lead by ICP-AES.	2	---	n.d.
Mercury (Hg)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Mercury by ICP-AES.	2	n.d.	n.d.

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Test Item (s)	Unit	Method	MDL	Result			
				No.1	No.2		
<b>Sum of PBBs</b>			-	---	---		
Monobromobiphenyl	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of PBBs and PBDEs by GC/MS.	5	n.d.	---		
Dibromobiphenyl			5	n.d.	---		
Tribromobiphenyl			5	n.d.	---		
Tetrabromobiphenyl			5	n.d.	---		
Pentabromobiphenyl			5	n.d.	---		
Hexabromobiphenyl			5	n.d.	---		
Heptabromobiphenyl			5	n.d.	---		
Octabromobiphenyl			5	n.d.	---		
Nonabromobiphenyl			5	n.d.	---		
Decabromobiphenyl			5	n.d.	---		
Monobromodiphenyl ether			5	n.d.	---		
<b>Sum of PBDEs</b>					-	n.d.	---
Monobromodiphenyl ether			mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of PBBs and PBDEs by GC/MS.	5	n.d.	---
Dibromodiphenyl ether	5	n.d.			---		
Tribromodiphenyl ether	5	n.d.			---		
Tetrabromodiphenyl ether	5	n.d.			---		
Pentabromodiphenyl ether	5	n.d.			---		
Hexabromodiphenyl ether	5	n.d.			---		
Heptabromodiphenyl ether	5	n.d.			---		
Octabromodiphenyl ether	5	n.d.			---		
Nonabromodiphenyl ether	5	n.d.			---		
Decabromodiphenyl ether	5	n.d.			---		

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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. Spot-test:
    - Negative = Absence of Cr(VI) coating / surface layer, Positive = Presence of Cr(VI) coating / surface (The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.)
  - Boiling-water-extraction:
    - Negative = Absence of Cr(VI) coating / surface layer,
    - Positive = Presence of Cr(VI) coating / surface layer the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm<sup>2</sup> sample surface area.
  6. " - " = Not Regulated
  7. " --- " = Not Conducted
  8. \*\* = Qualitative analysis (No Unit)

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## Test Report

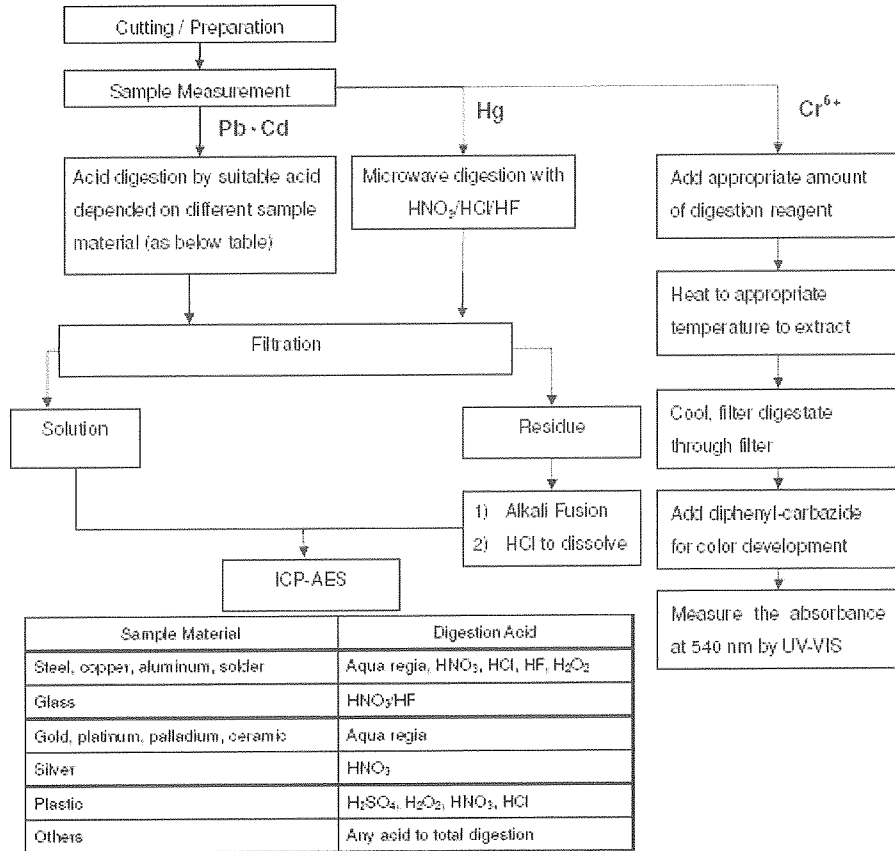
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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart. ( Cr<sup>6+</sup> test method excluded )
- 2) Name of the person who made measurement: Hungming Li
- 3) Name of the person in charge of measurement: Ray Chang



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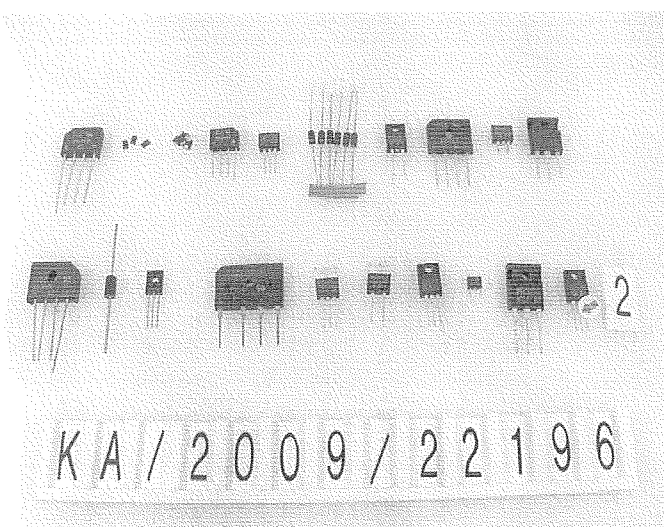
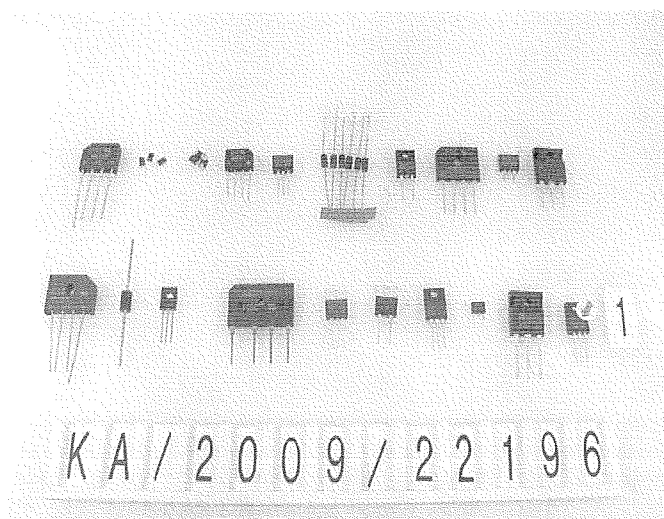
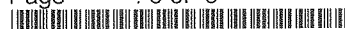
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\*\* End of Report \*\*

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