



## Test Report No. F690501/LF-CTSAYAA10-27761

Issued Date: August 11, 2010

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To: **HONAM PETROCHEMICAL**  
634,Dokot-ri  
Daesan-eup  
Seosan-city  
CHUNGNAM 356-874  
Korea

The following merchandise was submitted and identified by the client as :

**SGS File No.** : AYAA10-27761  
**Product Name** : VA910  
**Item No./Part No.** : N/A  
**Received Date** : Aug 06, 2010  
**Test Period** : Aug 09, 2010 to Aug 10, 2010  
**Test Performed** : SGS Testing Korea tested the sample(s) selected by applicant with following results  
**Test Results** : For further details, please refer to following page(s)

SGS Testing Korea Co. Ltd.

Jeff Jang / Chemical Lab Mgr

Timothy Jeon  
Jinhee Kim  
Cindy Park  
Jerry Jung/ Testing Person

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Sample No. : AYAA10-27761.001

Sample Description : VA910

Item No./Part No. : N/A

### Heavy Metals

| Test Items                  | Unit  | Test Method                              | MDL | Results |
|-----------------------------|-------|--|-----|---------|
| Cadmium (Cd)                | mg/kg | With reference to IEC 62321:2008, ICP    | 0.5 | N.D.    |
| Lead (Pb)                   | mg/kg | With reference to IEC 62321:2008, ICP    | 5   | N.D.    |
| Mercury (Hg)                | mg/kg | With reference to IEC 62321:2008, ICP    | 2   | N.D.    |
| Hexavalent Chromium (Cr VI) | mg/kg | With reference to IEC 62321:2008, UV-VIS | 1   | N.D.    |

### Flame Retardants-PBBs/PBDEs

| Test Items               | Unit  | Test Method                             | MDL | Results |
|--------------------------|-------|---|-----|---------|
| Monobromobiphenyl        | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Dibromobiphenyl          | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Tribromobiphenyl         | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Tetrabromobiphenyl       | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Pentabromobiphenyl       | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Hexabromobiphenyl        | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Heptabromobiphenyl       | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Octabromobiphenyl        | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Nonabromobiphenyl        | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Decabromobiphenyl        | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Monobromodiphenyl ether  | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Dibromodiphenyl ether    | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Tribromodiphenyl ether   | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Tetrabromodiphenyl ether | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Pentabromodiphenyl ether | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Hexabromodiphenyl ether  | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Heptabromodiphenyl ether | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Octabromodiphenyl ether  | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Nonabromodiphenyl ether  | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |
| Decabromodiphenyl ether  | mg/kg | With reference to IEC 62321:2008, GC-MS | 5   | N.D.    |

NOTE: (1) N.D. = Not detected.(<MDL)

(2) mg/kg = ppm

(3) MDL = Method Detection Limit

(4) - = No regulation

(5) \*\* = Qualitative analysis (No Unit)

(6) \* = Boiling-water-extraction:

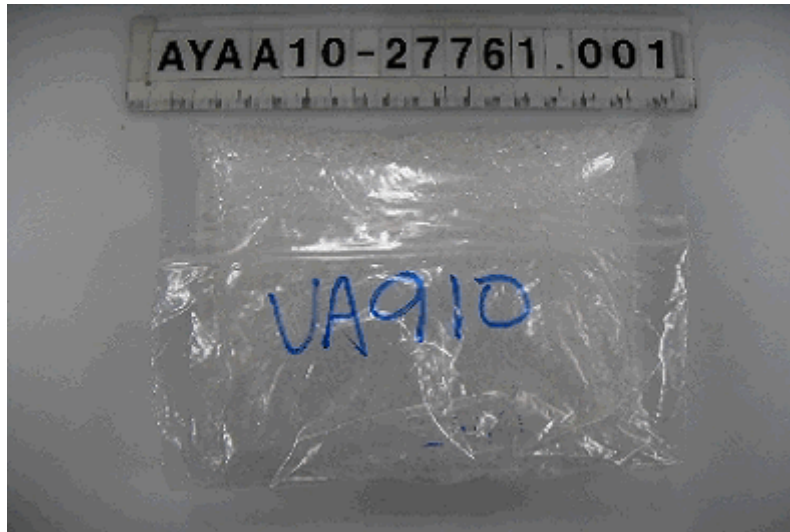
Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; 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.

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**Picture of Sample as Received:**



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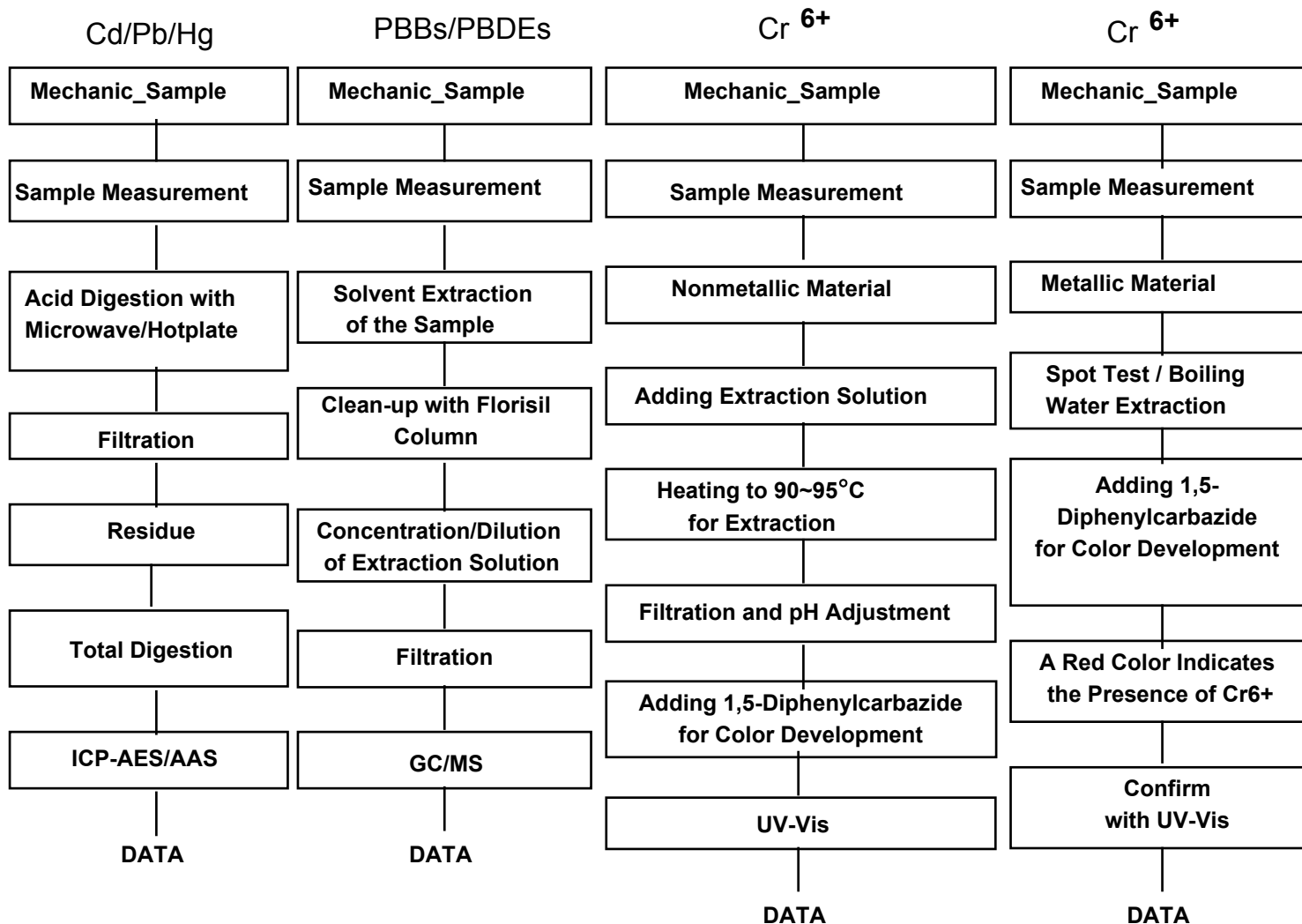
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### Testing Flow Chart for RoHS: Cd/Pb/Hg/Cr<sup>6+</sup>/PBBs&PBDEs Testing



The samples were dissolved totally by pre-conditioning method according to above flow chart for Cd,Pb,Hg.

Section Chief : Gilse Lee

\*\*\* End \*\*\*

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