



**Test Report No. F690101/LF-CTSAYAA13-07741**

Issued Date: 2013. 02. 22 Page 1 of 6

**To: DONGYANG INK CO., LTD.**  
#338-6, Gagok-ri  
Jinwi-myun  
Pyungtaek-city  
Gyeonggi-do  
Korea

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

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**SGS File No.** : AYAA13-07741  
**Product Name** : DYS 2000 CS  
**Item No./Part No.** : N/A  
**Client Reference Data** : CS-[Blue, Red, Yellow, Brown, Violet, Gray], HFDB-23, CS-Blue Matt  
**Received Date** : 2013. 02. 14  
**Test Period** : 2013. 02. 15 to 2013. 02. 22  
**Test Results** : For further details, please refer to following page(s)  
**Test Performed** : SGS Korea tested the sample(s) selected by applicant with following results.  
**Report Comments** : By the applicant's request, item No.s/part No.s & client reference information are stated/added on report.

**Timothy Jeon**  
**Jinhee Kim**  
**Cindy Park**  
**Jerry Jung/ Testing Person**

**SGS Korea Co., Ltd.**

**Jeff Jang / Chemical Lab Mgr**



# Test Report No. F690101/LF-CTSAYAA13-07741

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**Sample No.** : AYAA13-07741.001  
**Sample Description** : DYS 2000 CS  
**Item No./Part No.** : N/A  
**Materials** : PSR INK

## 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.
Antimony (Sb)	mg/kg	With reference to EPA 3052(1996), US EPA 6010B(1996), ICP	10	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.

### NOTE:

- (1) N.D. = Not detected. (<MDL)
- (2) mg/kg = ppm
- (3) MDL = Method Detection Limit
- (4) - = No regulation
- (5) Negative = Undetectable / Positive = Detectable
- (6) \*\* = Qualitative analysis (No Unit)
- (7) \* = 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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**Sample No.** : AYAA13-07741.001  
**Sample Description** : DYS 2000 CS  
**Item No./Part No.** : N/A  
**Materials** : PSR INK

## Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.

## Phthalates

Test Items	Unit	Test Method	MDL	Results
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.
Di-n-octyl phthalate (DNOP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.
Dibutyl phthalate (DBP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.
Butylbenzyl phthalate (BBP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.
Diisononyl phthalate (DINP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.
Diisodecyl phthalate (DIDP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.
Diisobutyl Phthalate (DIBP)	mg/kg	With reference to ASTM D3421-75 , GC-MS	50	N.D.

## Halogen Content

Test Items	Unit	Test Method	MDL	Results
Bromine(Br)	mg/kg	BS EN 14582:2007 , IC	30	N.D.
Chlorine(Cl)	mg/kg	BS EN 14582:2007 , IC	30	280

## Flame Retardants

Test Items	Unit	Test Method	MDL	Results
Tetrabromobisphenol A	mg/kg	US EPA 3540C, GC/MS	10	N.D.
Tetrabromobisphenol A bis (dibromopropyl ether)	mg/kg	EPA 3540C, HPLC/DAD/MS	5	N.D.

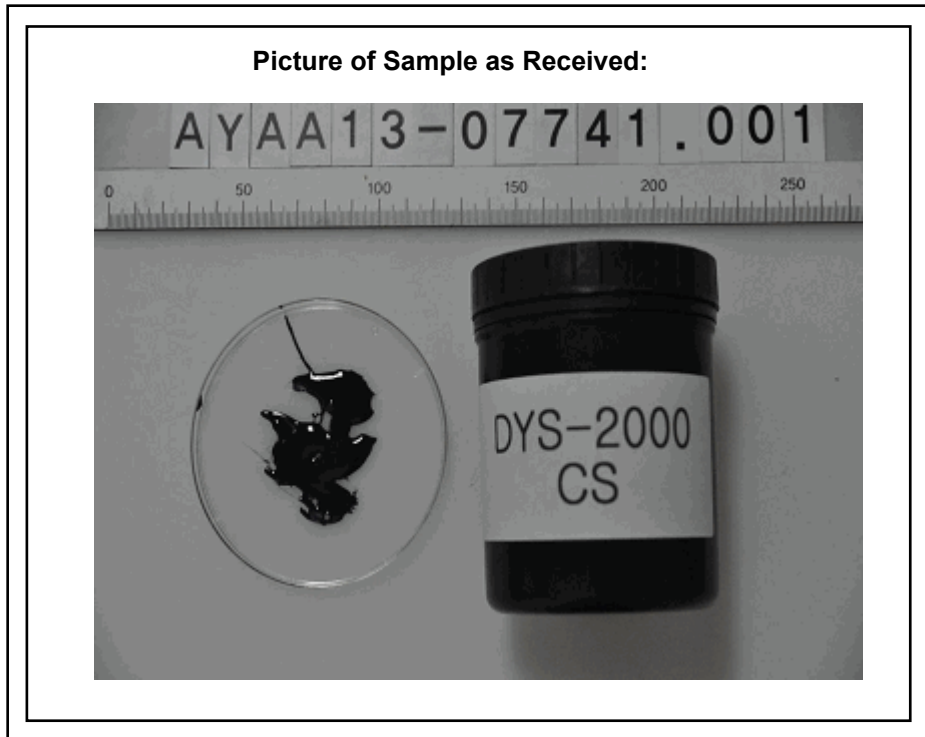
## Other(s)

Test Items	Unit	Test Method	MDL	Results
PFOS (Perfluorooctane Sulfonates-Acid/Metal Salt/Amide)	mg/kg	US EPA 3540C/3550C, LC/MS	1	N.D.

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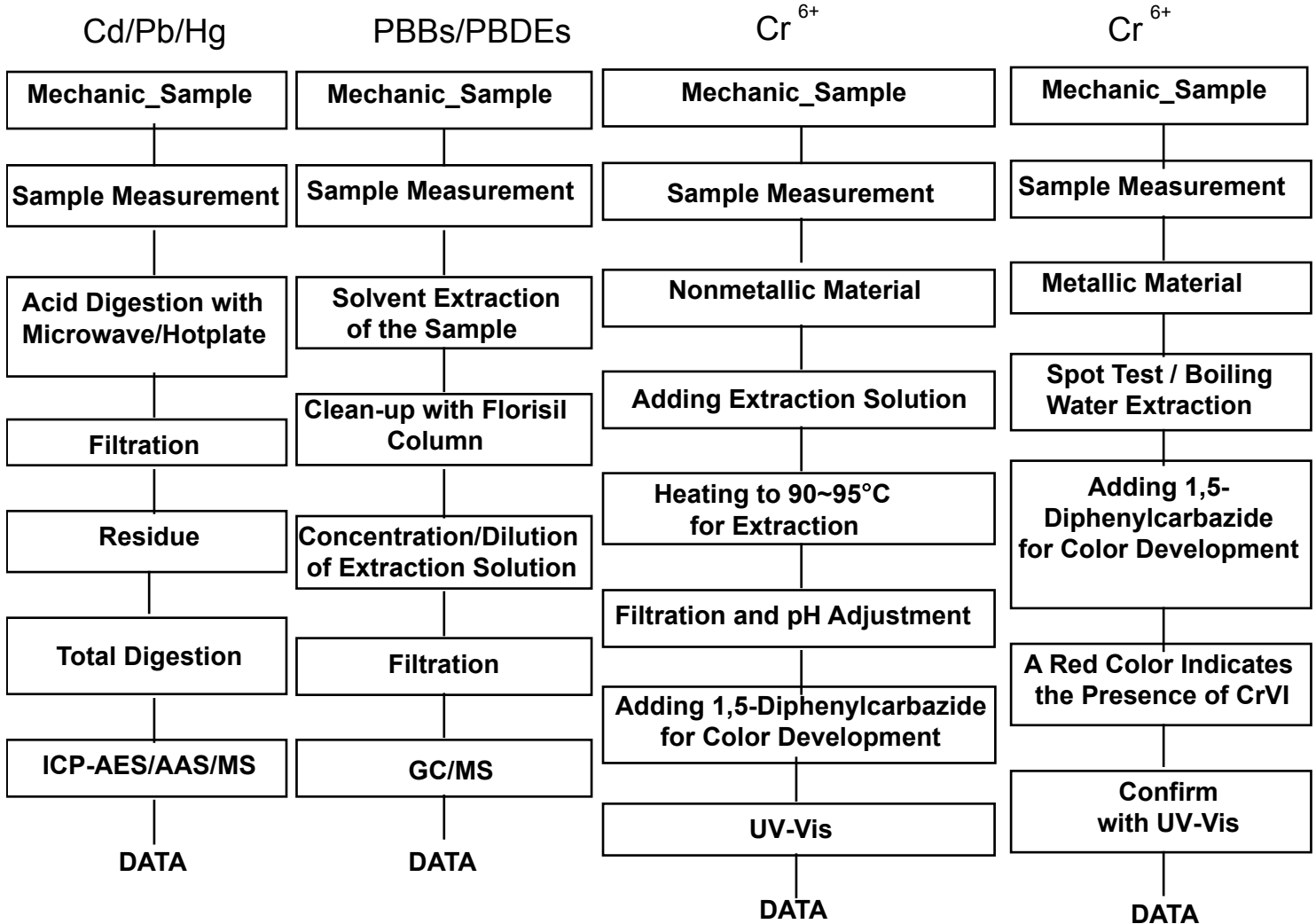
**Sample No.** : AYAA13-07741.001  
**Sample Description** : DYS 2000 CS  
**Item No./Part No.** : N/A  
**Materials** : PSR INK



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

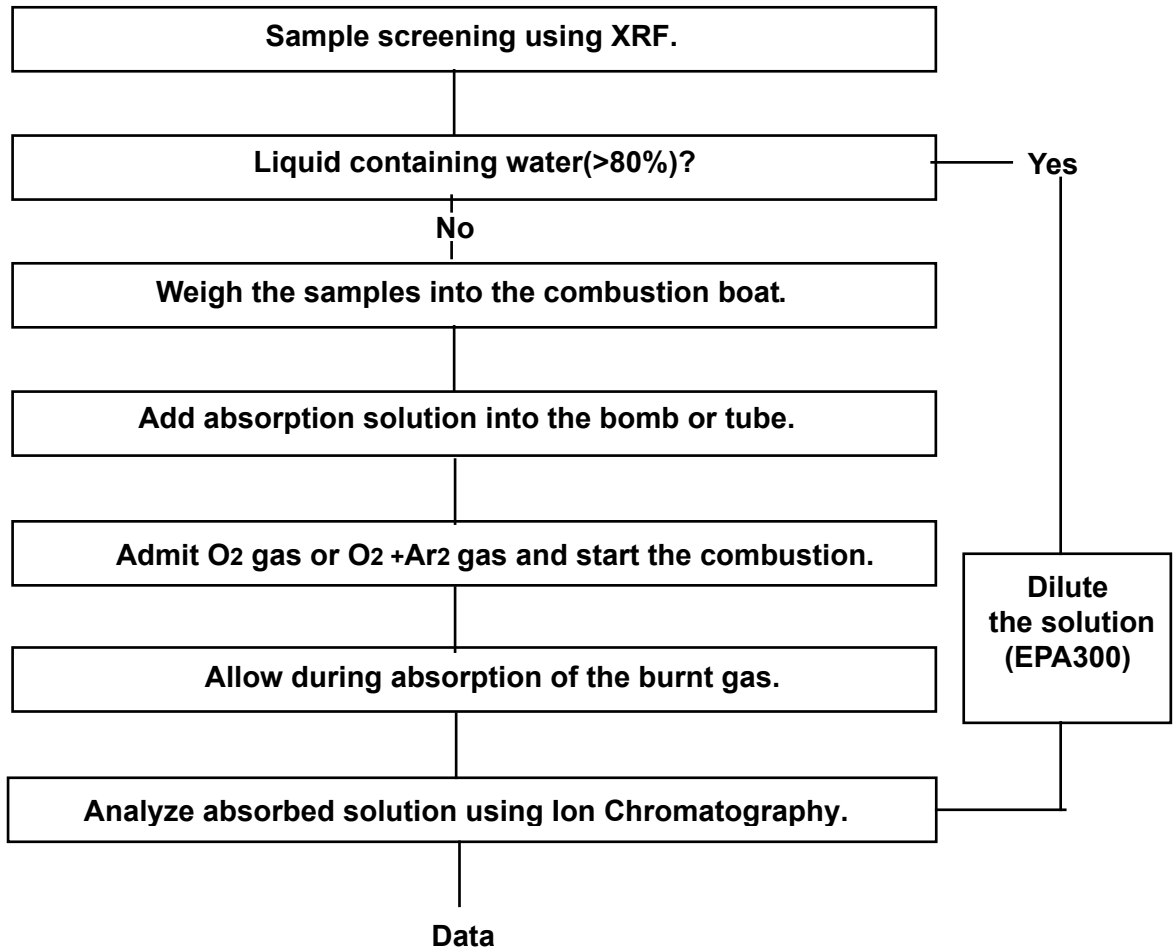


The samples were dissolved totally by pre-conditioning method according to above flow chart for Cd,Pb,Hg.  
Section Chief : Gilsae Yi

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### Flow Chart for Halogen Test



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

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