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#### **KOSTIC KOREA LTD.**

185, Pungmu-ro Gimpo-si, Gyeonggi-do Korea

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

SGS File No. : AYAA18-18295

Product Name : Release Paper(Print)

Item No./Part No. : N/A

Client Reference Data : Yellow, Blue

**Received Date** : 2018. 03. 19

Test Period : 2018. 03. 19 to 2018. 03. 22

Report Comments : By the applicant's request, item No.s/part No.s & client reference information are stated/added on

report

**Test Results**: For further details, please refer to following page(s)

SGS Korea Co., Ltd.

Jeff Jang / Chemical Lab Mgr

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Sample No. : AYAA18-18295.001
Sample Description : Release Paper(Print)

Item No./Part No. : N/A
Materials : N/A

#### Heavy Metals

leavy Metals				
Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5:2013 (Determination of Cadmium by ICP-OES)	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321-5:2013 (Determination of Lead by ICP-OES)	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013 (Determination of Mercury by ICP-OES)	2	N.D.
Hexavalent Chromium (Cr VI)*	mg/kg	With reference to IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis and/or with reference to IEC 62321-5:2013, determination of Chromium by ICP-OES.	8	N.D.
Beryllium (Be)	mg/kg	With reference to EPA 3052(1996), US EPA 6010B(1996), ICP	5	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 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.

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Sample No. : AYAA18-18295.001
Sample Description : Release Paper(Print)

Item No./Part No. : N/A
Materials : N/A

#### Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.

### **Phthalates**

Test Items	Unit	Test Method	MDL	Results
Benzyl butyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8; 2017, GC/MS	50	N.D.
Di-butyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8; 2017, GC/MS	50	N.D.
Di-isobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8; 2017, GC/MS	50	N.D.
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8; 2017, GC/MS	50	N.D.

### Halogen Content

Test Items	Unit	Test Method	MDL	Results
Bromine(Br)	mg/kg	With reference to EN 14582:2016, IC	30	N.D.
Chlorine(Cl)	mg/kg	With reference to EN 14582:2016, IC	30	187

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Sample No. : AYAA18-18295.001
Sample Description : Release Paper(Print)

Item No./Part No. : N/A
Materials : N/A

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

(2) mg/kg = ppm

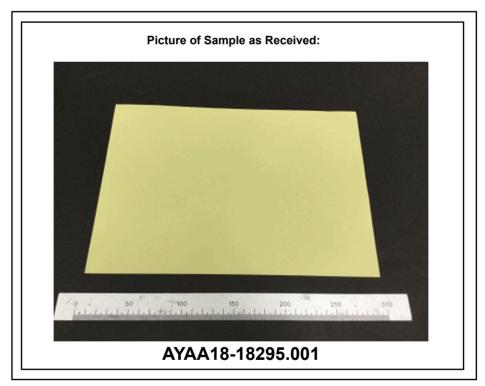
(3) MDL = Method Detection Limit

(4) - = No regulation

(5) Negative = Undetectable / Positive = Detectable

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

- (7) \* = a. The result of Hexavalent Chromium (Cr(VI)) is "ND" as the result of Chromium (Cr) is "ND", and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.
  - b. If the Chromium (Cr) content is greater than the MDL of Hexavalent Chromium (Cr(VI)), confirmation test of Hexavalent Chromium (Cr(VI)) is required.



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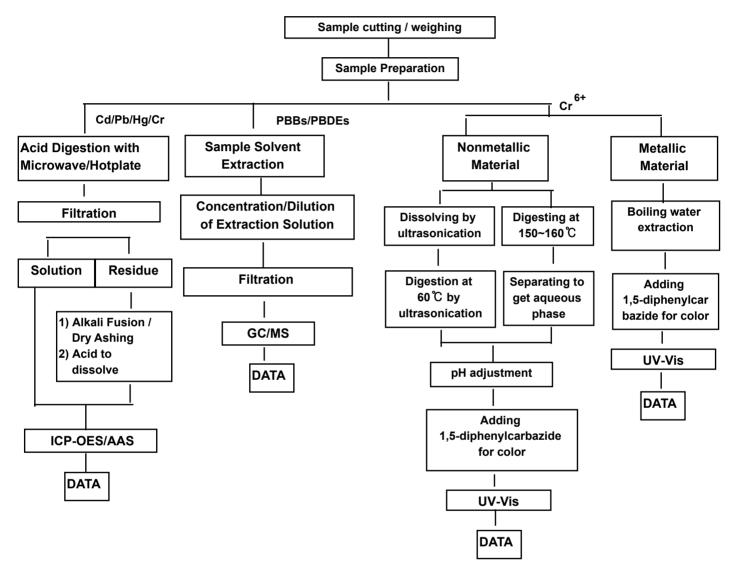
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# Testing Flow Chart for RoHS:Cd/Pb/Hg/Cr6+ /PBBs&PBDEs Testing

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The samples were dissolved totally at the acid digestion step of the above flow chart for Cd,Pb,Hg Section Chief: Minkyu Park

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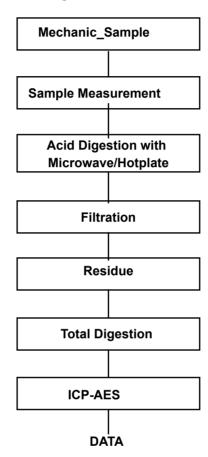


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### Flow Chart for Inorganic Elements Testing

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## **Inorganic Elements**



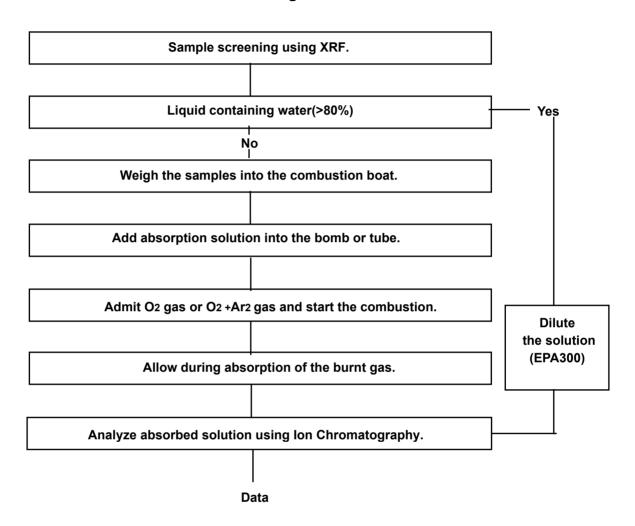
Major Inorganic Antimony(Sb) , Beryllium(Be) , Phosphorus(P) ,
Heavy Metals Arsenic(As) etc.

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## Flow Chart for Halogen Test



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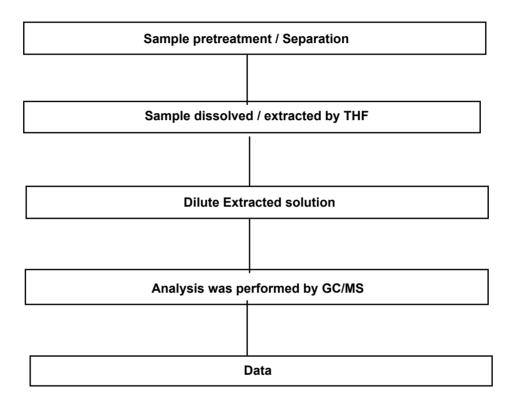
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### Flow Chart for Phthalate Test

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

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