

LT METAL CO.,LTD.

14, Gajaeul-ro Seo-gu, Incheon

STINGS

Korea

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

SGS File No. : AYAA24-44469

Product Name : GOLD POTASSIUM CYANIDE (KAu(CN)2, PGC)

Item No./Part No. : N/A

Client Reference Data: FCG1-0001, FCG1-0002, FCG1-0009

**Received Date** : 2024. 12. 10

Test Period : 2024. 12. 10 to 2024. 12. 17

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)

Monet Jeong

**Monet Jeong** 

Technical Manager / SGS Korea Co., Ltd

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**Sample No.** : AYAA24-44469.001

Sample Description : GOLD POTASSIUM CYANIDE (KAu(CN)2, PGC)

Item No./Part No. : N/A

Materials : powder

### Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5 : 2013, by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321-5 : 2013, by ICP-OES	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4 : 2013+AMD1:2017CSV, by ICP-OES	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	With reference to IEC 62321-7-2 : 2017, by UV-Vis	8	N.D.

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### **Total Metals**

Test Items	Unit	Test Method	MDL	Results
Antimony (Sb)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	10	N.D.
Arsenic (As)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	10	N.D.
Beryllium (Be)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	5	N.D.

### Flame Retardants-PBBs/PBDEs

Tame Netardants 1 BBs/1 BBEs				
Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.



**Sample No.** : AYAA24-44469.001

Sample Description : GOLD POTASSIUM CYANIDE (KAu(CN)2, PGC)

Item No./Part No. : N/A

Materials : powder

### Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	N.D.

### **Phthalates**

Test Items	Unit	Test Method	MDL	Results
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-butyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Benzyl butyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-isobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-isodecyl phthalate (DIDP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-isononyl phthalate (DINP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-n-octyl phthalate (DNOP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-n-hexyl phthalate (DNHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.

### **Chlorinated Paraffin**

Test Items	Unit	Test Method	MDL	Results
Alkanes, C10~13, Short Chain Chlorinated Paraffins(SCCP)	mg/kg	With reference to ISO 18219, by CI-GC-MS	50	N.D.
Alkanes, C14~17, Medium Chain Chlorinated Paraffins(MCCP)	mg/kg	With reference to ISO 18219, by CI-GC-MS	50	N.D.

### Chlorinated Organic Substances

Test Items	Unit	Test Method	MDL	Results

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**Sample No.** : AYAA24-44469.001

Sample Description : GOLD POTASSIUM CYANIDE (KAu(CN)2, PGC)

Item No./Part No. : N/A

Materials : powder

### Chlorinated Organic Substances

Test Items Polychlorinated Naphthalene (PCN)	<b>Unit</b> mg/kg	Test Method With reference to US EPA 8081 A(US EPA 3550C),	<b>MDL</b> 5	Results N.D.
		by GC/MS		

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### PCBs & PCTs

Test Items	Unit	Test Method	MDL	Results
Polychlorinated Biphenyls (PCBs)	mg/kg	With reference to US EPA 8082,(US EPA 3550C), by GC/MS	3	N.D.
Polychlorinated terphenyls (PCTs)	mg/kg	With reference to US EPA 8082,(US EPA 3550C), by GC/MS	3	N.D.

### Polymer Identification

Test Items	Unit	Test Method	MDL	Results
PVC	**	FT-IR	-	Negative

#### Halogen Content

Test Items	Unit	Test Method	MDL	Results
Fluorine(F)	mg/kg	With reference to BS EN 14582 : 2016, by IC	30	N.D.
Chlorine(Cl)	mg/kg	With reference to BS EN 14582 : 2016, by IC	30	N.D.
Bromine(Br)	mg/kg	With reference to BS EN 14582 : 2016, by IC	30	N.D.
lodine(I)	mg/kg	With reference to BS EN 14582 : 2016, by IC	50	N.D.

### Organotin Compounds

Test Items	Unit	Test Method	MDL	Results
Dibutyltin (DBT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Tributyltin (TBT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Bis (tributyltin)oxide (TBTO)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Triphenyltin (TPhT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.
Dioctyltin (DOT)	mg/kg	with reference to ISO 17353:2004, by GC/MS	1	N.D.

### Perfluorinated Compounds (PFCs)



**Sample No.** : AYAA24-44469.001

Sample Description : GOLD POTASSIUM CYANIDE (KAu(CN)2, PGC)

Item No./Part No.: N/AMaterials: powder

### Perfluorinated Compounds (PFCs)

Test Items	Unit	Test Method	MDL	Results
Perfluorootanoic acid (PFOA)	mg/kg	with reference to CEN/TS 15968:2010, HPLC/MS/MS	0.01	N.D.
Perfluorooctane sulfonate (PFOS)	mg/kg	with reference to CEN/TS 15968:2010, HPLC/MS/MS	0.01	N.D.

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### PFAS (Per-and polyfluoroalkyl substances)

Test Items	Unit	Test Method	MDL	Results
Perfluorootanoic acid (PFOA)	μg/kg	with reference to ISO 23702-1: 2023, HPLC/MS/MS	10	N.D.
Perfluorooctanesulfonic Acid (PFOS)	μg/kg	with reference to ISO 23702-1: 2023, HPLC/MS/MS	10	N.D.

### Flame Retardants

Test Items	Unit	Test Method	MDL	Results
Hexabromocyclododecane (HBCDD)	mg/kg	With reference to USEPA 3540 C, by LC/MS	5	N.D.
Tetrabromobisphenol A	mg/kg	In-house method, LC/MS	10	N.D.

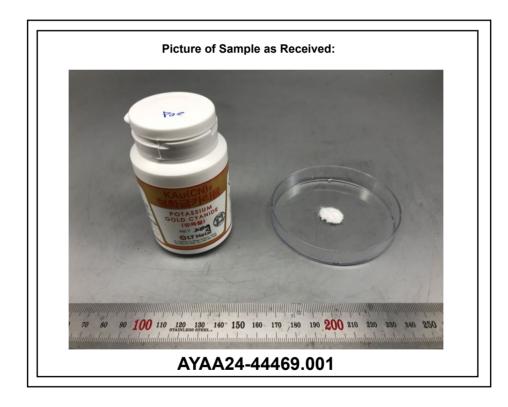
### Other(s)

Test Items	Unit	Test Method	MDL	Results
Bisphenol A	mg/kg	with reference to EPA 3550C, HPLC/MS or HPLC/MS/MS	10	N.D.



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

- (2) mg/kg = ppm, ug/kg = ppb, mg/L = ppm
- (3) MDL = Method Detection Limit
- (4) = No regulation
- (5) \*\* = Qualitative analysis (No Unit)
- (6) Negative = Undetectable / Positive = Detectable
- (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 content of Total Chromium (Cr) is greater than the MDL of Hexavalent Chromium (Cr(VI)), it is the result of hexavalent Chromium by UV-VIS.
- (8) ++= a. The sample is positive for Cr VI if the Cr VI concentration is greater than 0.13 ug/cm2. The sample coating is considered to contain Cr VI.
  - b. The sample is negative for Cr VI if Cr VI is ND(concentration less than 0.10 ug/cm2). The coating is considered a non-Cr VI based coating.
  - c. The result between 0.10 ug/cm2 and 0.13 ug/cm2 is considered to be inconclusive unavoidable coating variations may influence the determination.



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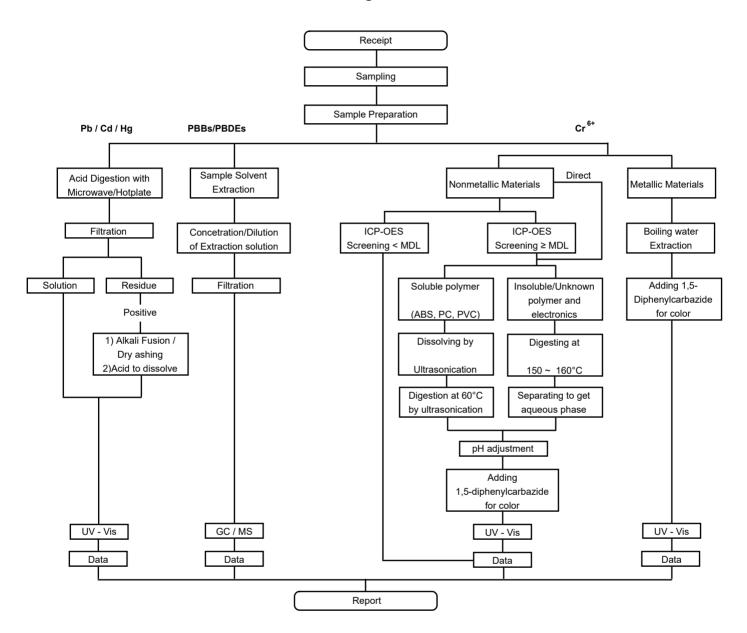
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## Flow Chart for RoHS Pb / Cd / Hg / Cr 6+ / PBBs&PBDEs Test

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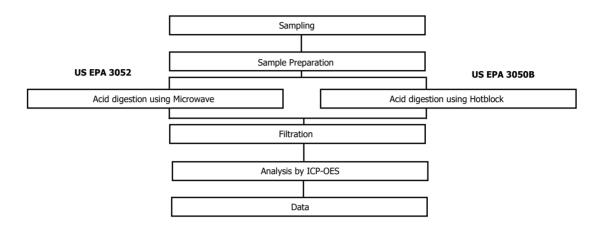




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### Flow Chart for Heavy metal

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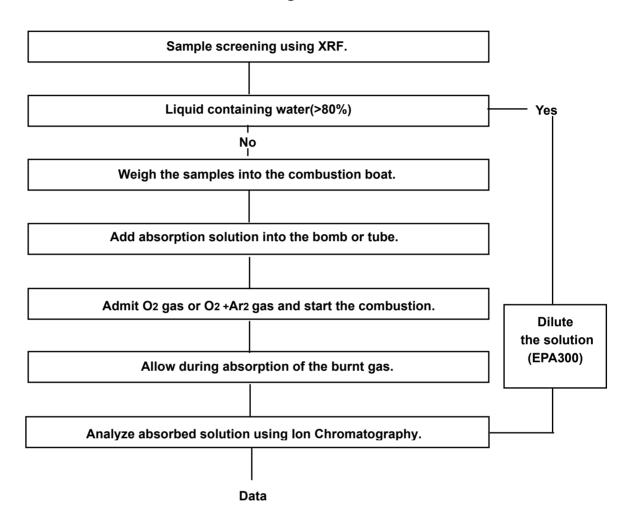
Major Inorganic
Heavy Metals

Antimony(Sb) , Beryllium(Be) , Phosphorus(P) , Arsenic(As) etc.



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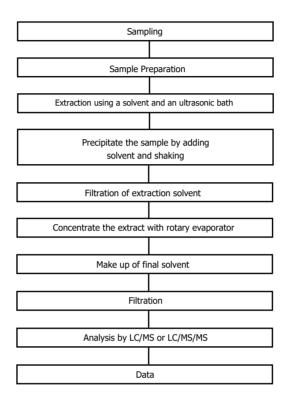
## Flow Chart for Halogen Test





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### **Flow Chart for Bisphenols**

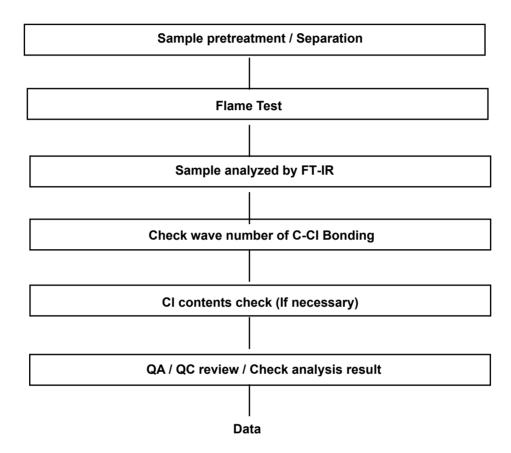




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## Flow Chart for PVC Test

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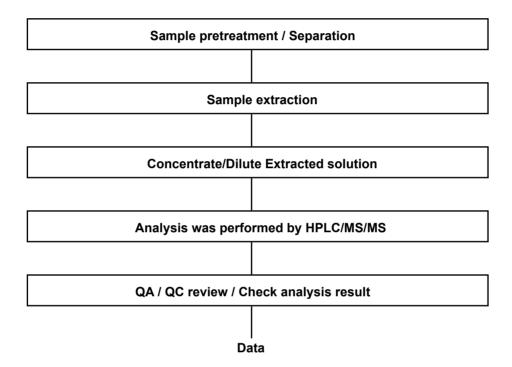




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### Flow Chart for PFOS/PFOA Test

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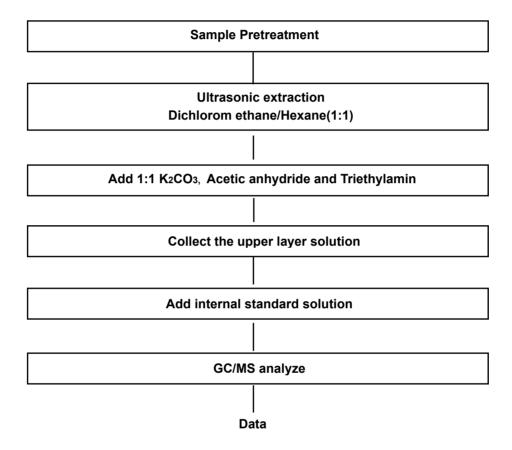




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### Flow Chart for TBBPA Test

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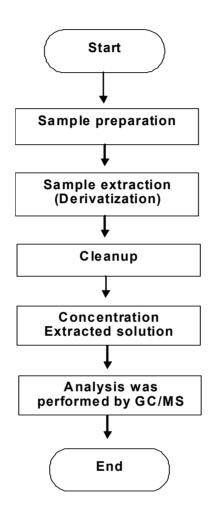




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## **Organotin Flow Chart**

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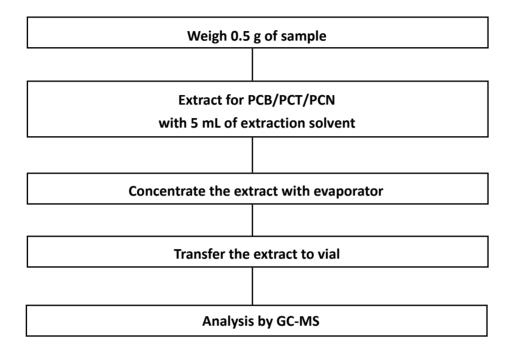




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## Flow Chart for (PCB/PCT/PCN)

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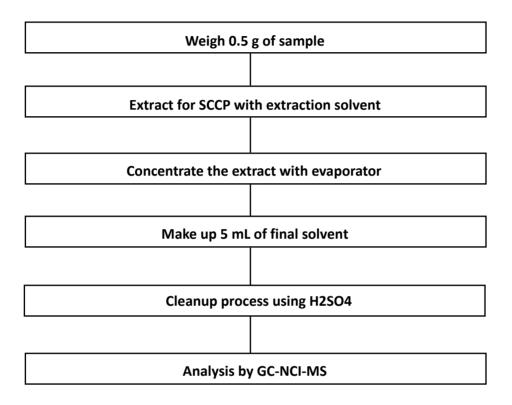




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### Flow Chart for SCCP

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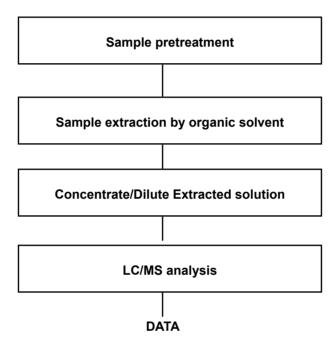




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## **Testing Flow Chart for HBCD**

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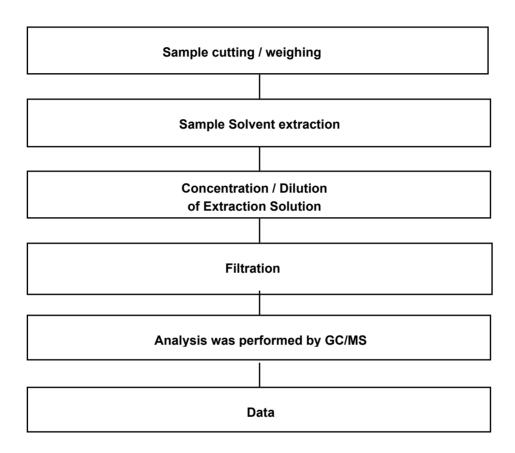




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## Flow Chart for PhthalateTest



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