

Test Report

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CITIZEN MIYOTA CO., LTD.
4107-5 MIYOTA KITASAKU NAGANO PREF 389-0294 JAPAN



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

Sample Description : T/F CRYSTAL UNITS (SMD CERAMIC PACKAGE)
Style/Item No. : CM519
Buyer/Order No. : MYT08C59
Sample Receiving Date : 2008/4/22
Testing Period : 2008/4/22 TO 2008/4/29

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Test Result(s) : Please refer to next page(s).



Chenyu Kung / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

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Test Result(s)

PART NAME NO.1 : MIXED ALL PARTS

| Test Item (s): | Unit | Method | MDL | Result |
|---|-------|---|-----|--------|
| | | | | No.1 |
| Cadmium (Cd) | mg/kg | With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES. | 2 | n.d. |
| 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. |
| 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. |
| Halogen-Chlorine (Cl) (CAS No.: 007782-50-5) | mg/kg | With reference to BS EN 14582:2007. Analysis was performed by IC method for Chlorine content. | 50 | n.d. |
| Halogen-Bromine (Br) (CAS No.: 007726-95-6) | mg/kg | With reference to BS EN 14582:2007. Analysis was performed by IC method for Bromine content. | 50 | n.d. |

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| Test Item (s): | Unit | Method | MDL | Result |
|---|-------|---|-----|--------|
| | | | | No.1 |
| Sum of PBBs | mg/kg | With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of PBB and PBDE by GC/MS. | - | n.d. |
| Monobromobiphenyl | | | 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. |
| Sum of PBDEs (Mono to Nona) (Note 4) | | | - | n.d. |
| Monobromodiphenyl ether | | | 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. |
| Sum of PBDEs (Mono to Deca) | | | - | n.d. |

- Note :
1. mg/kg = ppm
 2. n.d. = Not Detected
 3. MDL = Method Detection Limit
 4. According to 2005/717/EC DecaBDE is exempt.
 5. " - " = Not Regulated
 6. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing.
The above result(s) was/were only given as the informality value.

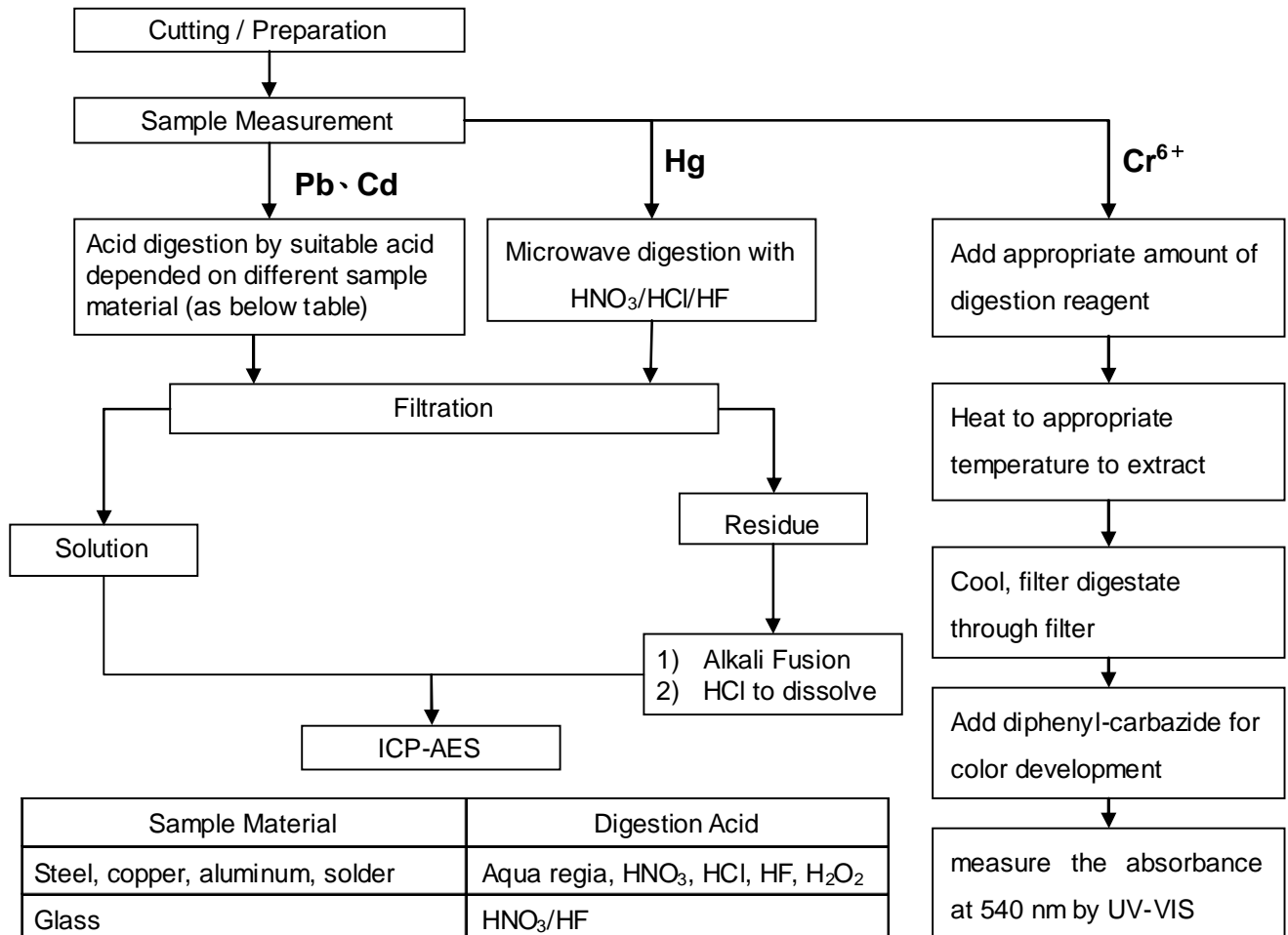
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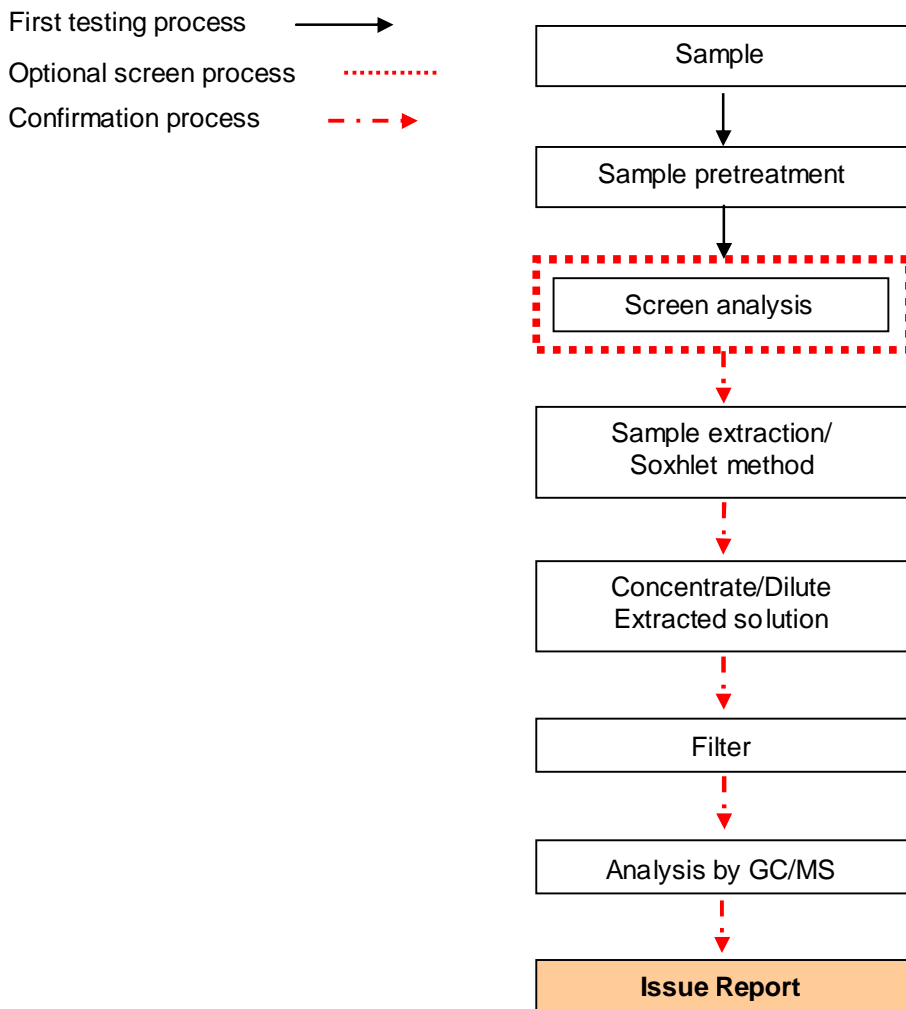
- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Troy Chang
- 3) Name of the person in charge of measurement: Chenyu Kung



| Sample Material | Digestion Acid |
|------------------------------------|---|
| Steel, copper, aluminum, solder | Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂ |
| Glass | HNO ₃ /HF |
| Gold, platinum, palladium, ceramic | Aqua regia |
| Silver | HNO ₃ |
| Plastic | H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl |
| Others | Any acid to total digestion |



PBB/PBDE analytical FLOW CHART



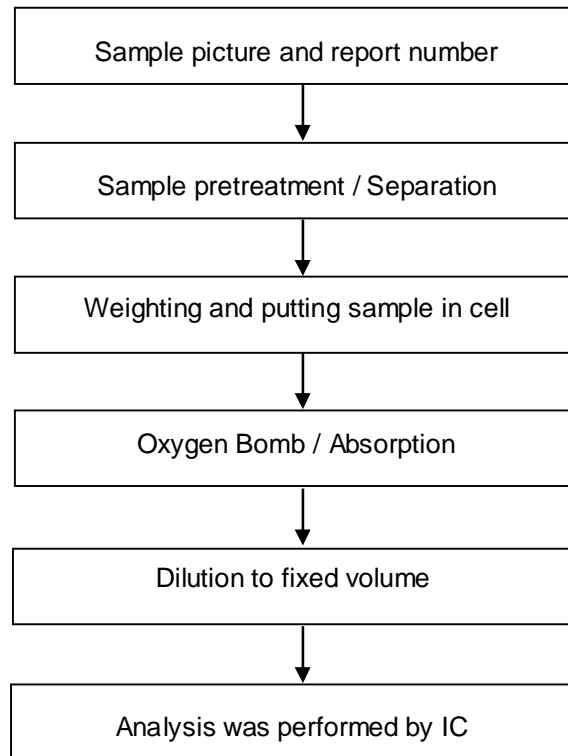
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Analytical flow chart of halogen content



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