

測試報告 Test Report

號碼(No.) : KA/2009/C0916 日期(Date) : 2010/1/5 頁數(Page) : 1 of 7

國巨股份有限公司

YAGEO CORPORATION (YAGEO/ PHYCOMP/ COMPOSTAR BRAND)

231-45 台北縣新店市寶橋路233-1號3樓

3F, 233-1, BAOQIAO RD., XINDIEN, TAIPEI COUNTY 23145, TAIWAN



以下測試樣品係由客戶送樣，且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as):

樣品名稱(Sample Description) : CHIP RESISTORS
樣品型號(Style/Item No.) : PLATING LAYER
收件日期(Sample Receiving Date) : 2009/12/11
測試期間(Testing Period) : 2009/12/11 TO 2010/1/5

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測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

Ray Chang / Asst. Manager
Signed for and on behalf of
SGS Taiwan Limited

測試報告

Test Report

號碼(No.) : KA/2009/C0916 日期(Date) : 2010/1/5 頁數(Page) : 2 of 7

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測試結果(Test Results)

測試部位(PART NAME) NO.1 : 銀色 CHIP RESISTORS (SILVER CHIP RESISTORS)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				NO.1
鉛 / Lead (Pb)	mg/kg	參考 IEC 62321: 2008 方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS) PFOS - Acid PFOS - Metal Salt	mg/kg	參考 US EPA 3540C: 1996 方法, 以液相層析質譜儀檢測全氟辛烷磺酸含量. / With reference to US EPA 3540C: 1996 method for PFOS Content. Analysis was performed by LC/MS.	10	n.d.
全氟辛酸(銨) / PFOA (CAS No.: 000335-67-1)	mg/kg	參考 US EPA 3540C: 1996 方法, 以液相層析質譜儀檢測全氟辛酸(銨)含量. / With reference to US EPA 3540C: 1996 method for PFOA Content. Analysis was performed by LC/MS.	10	n.d.
鹵素 / Halogen				
鹵素(氟) / Halogen-Fluorine (F) (CAS No.: 014762-94-8)	mg/kg	參考 BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.
鹵素(氯) / Halogen-Chlorine (Cl) (CAS No.: 022537-15-1)	mg/kg	參考 BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.
鹵素(溴) / Halogen-Bromine (Br) (CAS No.: 010097-32-2)	mg/kg	參考 BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.
鹵素(碘) / Halogen-Iodine (I) (CAS No.: 014362-44-8)	mg/kg	參考 BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.

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測試報告 Test Report

號碼(No.) : KA/2009/C0916 日期(Date) : 2010/1/5 頁數(Page) : 3 of 7

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備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)

PFOS參考資訊(Reference Information) : 指令 2006/122/EC (Directive 2006/122/EC)

- (1) 該物質不可置於市場上或使用於特殊物質或配置成分重量濃度等於或大於0.005%。
(May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.)
- (2) 該物質不可置於市場上的半成品或商品或其物件；假若零件上明顯地具有PFOS並參照結構上及微細構造上計算PFOS重量濃度等於或大於0.1%，而紡織品或其他覆蓋物質，如果PFOS在覆蓋物質中含量等於或大於 $1\mu\text{g}/\text{m}^2$ 。
(May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than $1\mu\text{g}/\text{m}^2$ of the coated material.)

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測試報告 Test Report

號碼(No.) : KA/2009/C0916 日期(Date) : 2010/1/5 頁數(Page) : 4 of 7

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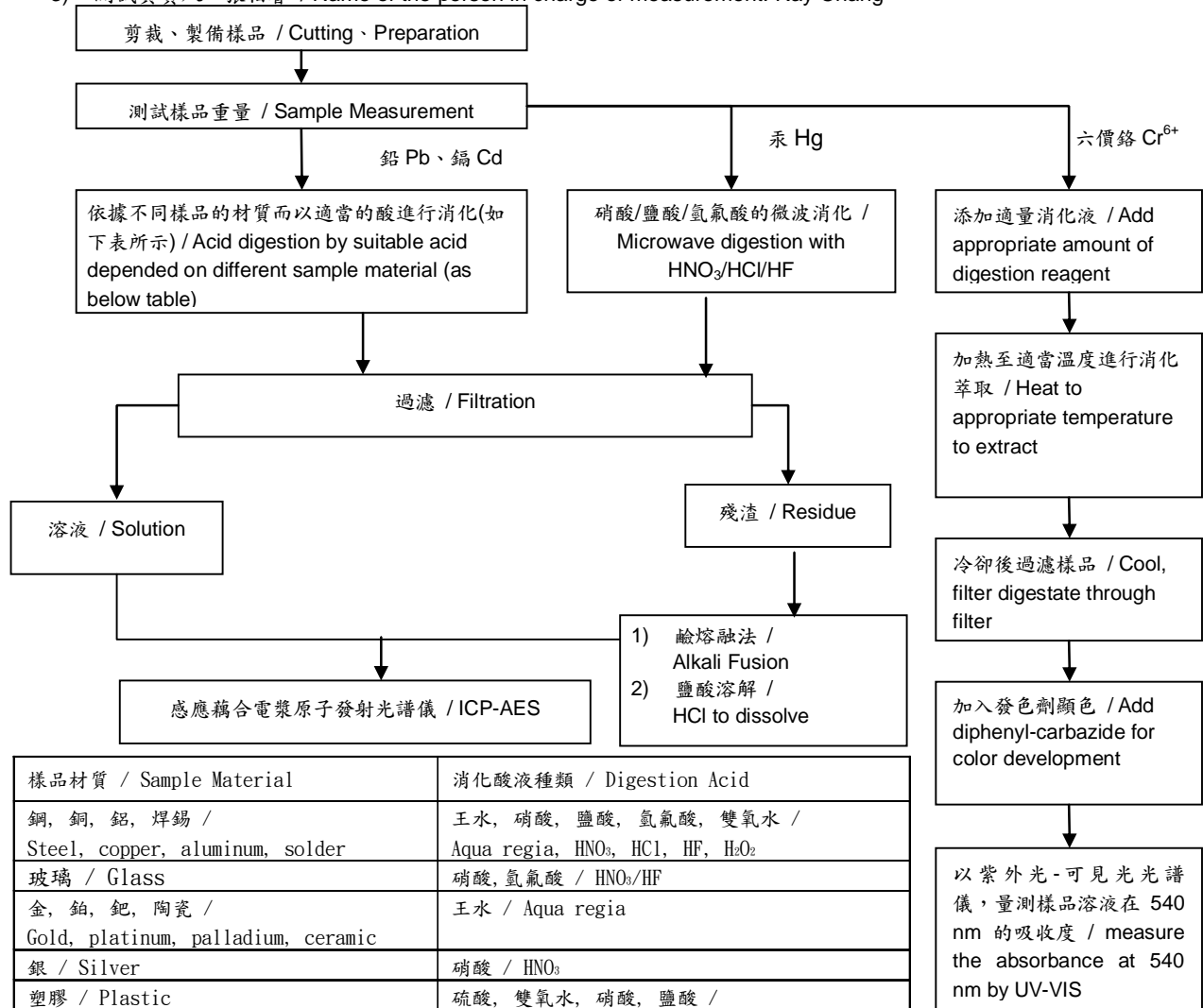
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：李宏明 / Name of the person who made measurement: Hungming Li
- 3) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



樣品材質 / Sample Material	消化酸液種類 / Digestion Acid
鋼, 銅, 鋁, 焊錫 / Steel, copper, aluminum, solder	王水, 硝酸, 鹽酸, 氫氟酸, 雙氧水 / Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
玻璃 / Glass	硝酸, 氫氟酸 / HNO ₃ /HF
金, 鉑, 鈀, 陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸, 雙氧水, 硝酸, 鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其他 / Others	加入任何酸至完全溶解 / Any acid to total digestion

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測試報告 Test Report

號碼(No.) : KA/2009/C0916 日期(Date) : 2010/1/5 頁數(Page) : 5 of 7

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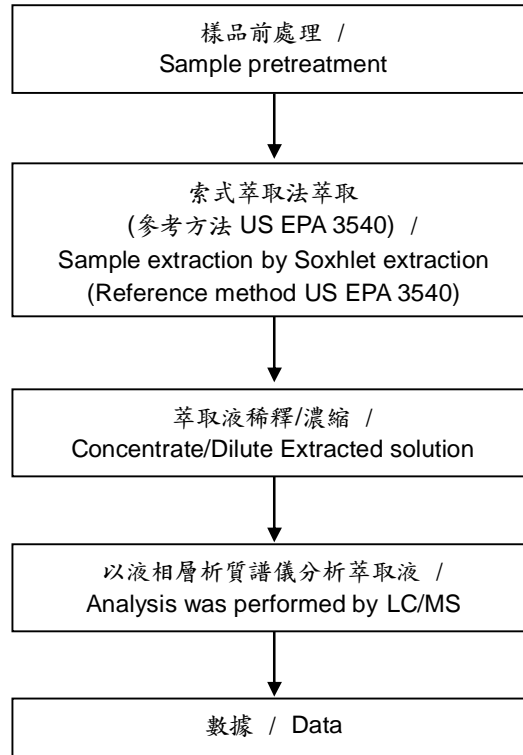


全氟辛酸(銨)/ 全氟辛烷磺酸分析流程圖 /

Analytical flow chart of PFOA/PFOS content

1) 測試人員：曹嘉琪 / Name of the person who made measurement: Anson Tsao

2) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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號碼(No.) : KA/2009/C0916 日期(Date) : 2010/1/5 頁數(Page) : 6 of 7

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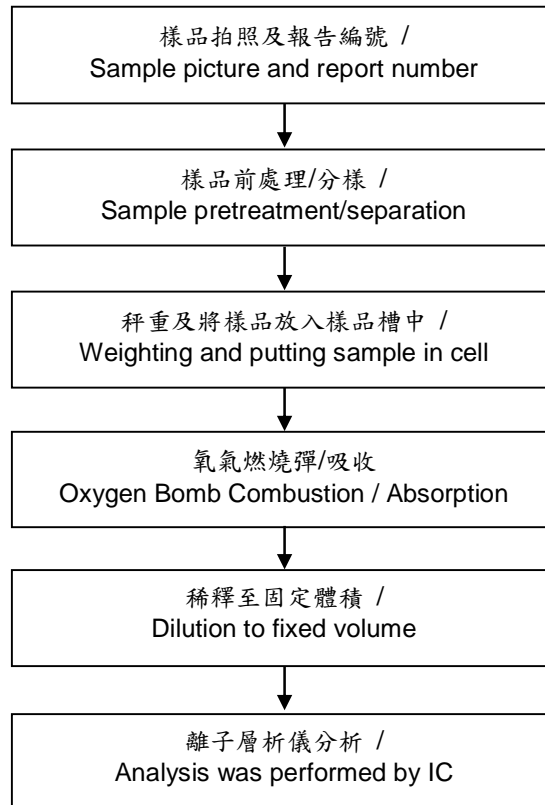
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鹵素分析流程圖 / Analytical flow chart of halogen content

- 1) 測試人員：李宏明 / Name of the person who made measurement: Hungming Li
- 2) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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** 報告結尾(End of Report) **

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