

測試報告

Test Report

號碼(No.): EKR20B00706

日期(Date): 23-Nov-2020

頁數(Page): 1 of 9

李長榮科技股份有限公司 (LCY TECHNOLOGY CORP.)

臺北市松山區八德路 4 段83號5樓 (5F., NO.83, SEC.4 BADE RD., SONGSHAN DIST., TAIPEI CITY 105, TAIWAN (R.O.C.))

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

送樣廠商(Sample Submitted By) : 李長榮科技股份有限公司 (LCY TECHNOLOGY CORP.)
樣品名稱(Sample Name) : ELECTRODEPOSITED COPPER FOIL 電解銅箔
樣品型號(Style/Item No.) : PK-HTE-LP3/ PK-HTE-RTF/ BR-HTE-2RT/ BR-DSS-LLX/ BR-DSS-2LX

=====
收件日(Sample Receiving Date) : 11-Nov-2020
測試期間(Testing Period) : 11-Nov-2020 to 23-Nov-2020

測試需求(Test Requested) : 依據客戶要求進行測試，測試項目請參閱測試結果表格。(Testing item(s) is/are specified by client. Please refer to result table for testing item(s).)

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages.)

Ray Chang

報告簽署人/張伯睿 博士/技術經理
Ray Chang, Ph.D. Manager-Tech
Signed for and on behalf of
SGS TAIWAN LTD.
化學實驗室-高雄/Cheical Laboratory-Kaohsiung



PIN CODE: 8A4ABEBF

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測試部位敘述 (Test Part Description)

No.1 : 銅色銅箔 (COPPER COLORED FOIL)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
				No.1
六溴環十二烷及所有主要被辨別出的異構物(HBCDD) (α- HBCDD, β- HBCDD, γ- HBCDD) (Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α- HBCDD, β- HBCDD, γ- HBCDD)) (CAS No.: 25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	參考IEC 62321: 2008 · 以氣相層析儀/質譜儀分析。(With reference to IEC 62321: 2008, analysis was performed by GC/MS.)	mg/kg	5	n.d.
中鏈氯化石蠟(C14-C17) (MCCP) (Medium Chain Chlorinated Paraffins(C14-C17) (MCCP)) (CAS No.: 85535-85-9)	參考US EPA 3550C: 2007 · 以氣相層析儀/電子捕捉偵測器分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/ECD.)	mg/kg	100	n.d.
砷 (As) (Arsenic (As)) (CAS No.: 7440-38-2)	參考US EPA 3052: 1996 · 以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)	參考US EPA 3052: 1996 · 以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
鎘 (Cd) (Cadmium (Cd)) (CAS No.: 7440-43-9)	參考US EPA 3052: 1996 · 以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
二甲苯麝香 (Musk xylene) (CAS No.: 81-15-2)	參考US EPA 3550C: 2007 · 以氣相層析儀/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	10	n.d.

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
				No.1
全氟辛酸 (PFOA)及其鹽類 (Perfluorooctanoic acid (PFOA) and it's salt) (CAS No.: 335-67-1 and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.
雙酚A (Bisphenol A) (CAS No.: 80-05-7)	參考RSTS-CHEM-239-1 · 以液相層析串聯質譜儀分析。(With reference to RSTS-CHEM-239-1, analysis was performed by LC/MS/MS.)	mg/kg	1	n.d.
五氯酚及其鹽類 (Pentachlorophenol and its salts) (CAS No.: 87-86-5 and its salts)	參考US EPA 8041A: 2007 · 以氣相層析儀/質譜儀分析。(With reference to US EPA 8041A: 2007, analysis was performed by GC/MS.)	mg/kg	1	n.d.
三氯沙 (Triclosan) (CAS No.: 3380-34-5)	參考US EPA 3550C: 2007 · 以氣相層析儀/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	5	n.d.

備註(Note) :

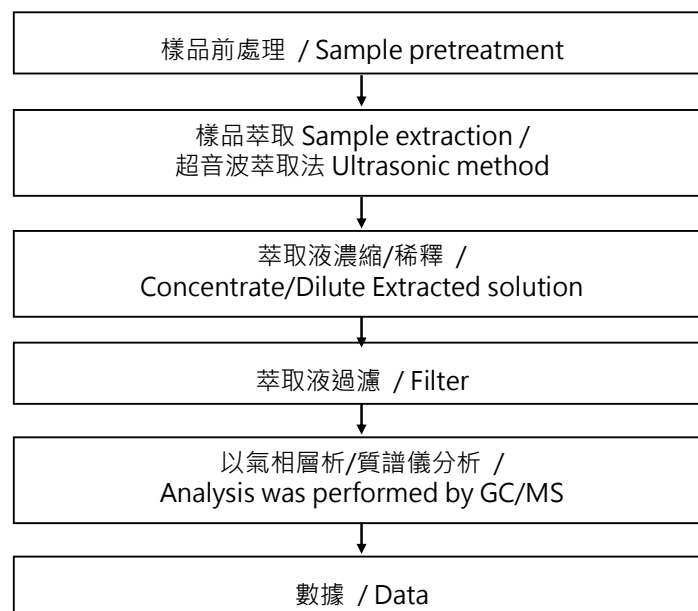
1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出) ; 小於MDL / Less than MDL
4. 全氟辛酸及其鹽類包含 (PFOA and its salts including) :
CAS No.: 3825-26-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0.

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六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD

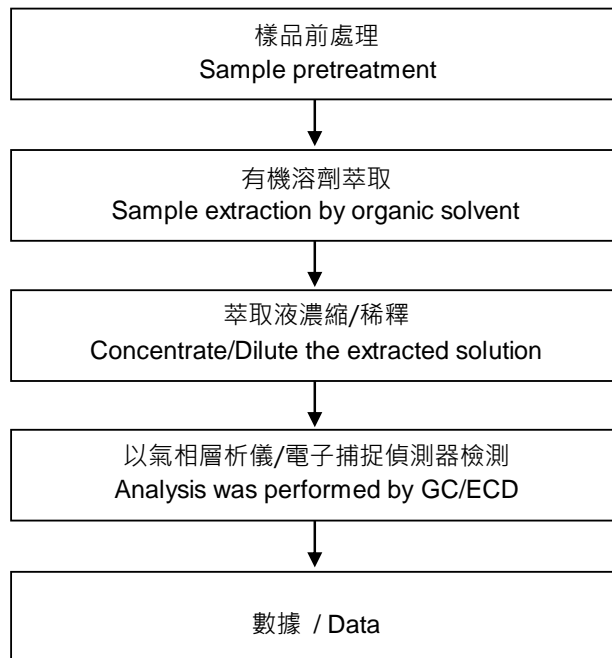


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氯化石蠟分析流程圖 / Analytical flow chart - Chlorinated Paraffins



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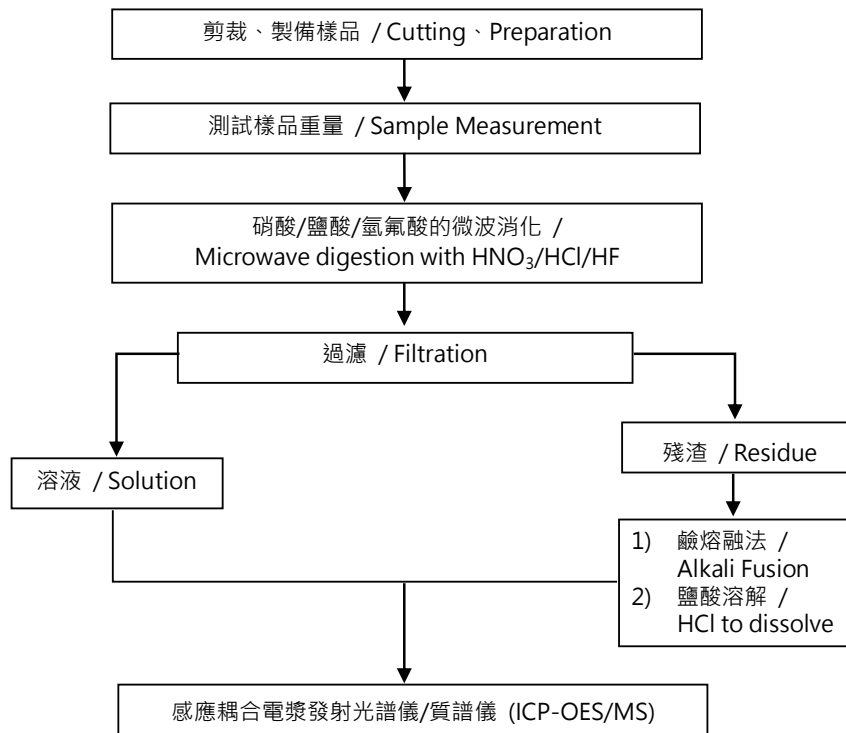
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重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【參考方法/Reference method : US EPA 3051、US EPA 3052】



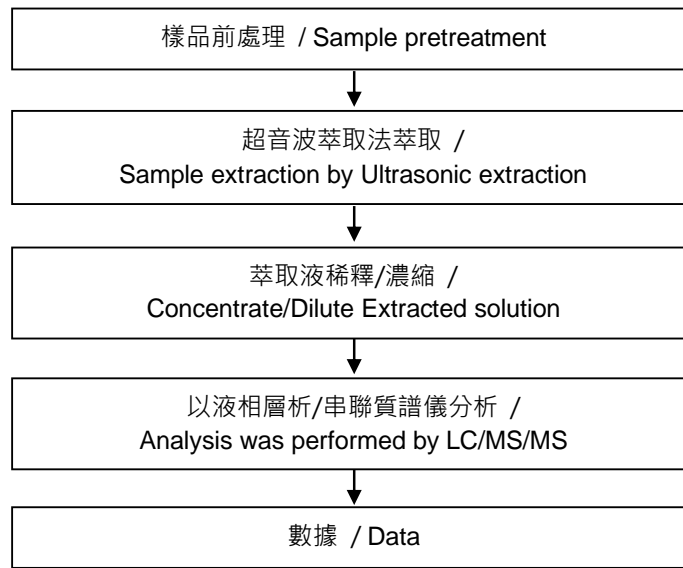
* US EPA 3051 方法未添加氫氟酸 / US EPA 3051 method does not add HF.

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全氟辛酸分析流程圖 / Analytical flow chart - PFOA

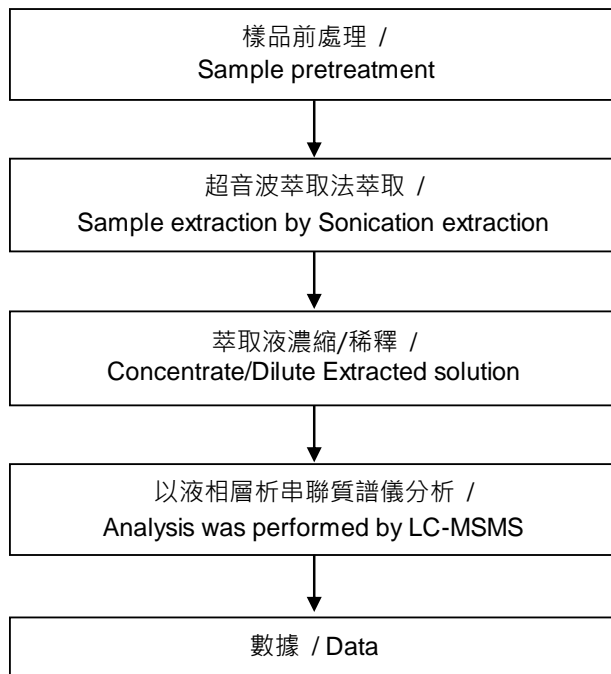


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雙酚A分析流程圖 / Bisphenol A analytical flow chart



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* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

EKR20B00706



** 報告結尾 (End of Report) **

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