# 測試報告
# Test Report

號碼(No.): EKR25301057　　日期(Date): 25-Mar-2025　　

光頡科技股份有限公司高雄分公司 (VIKING TECH CORPORATION KAOHSIUNG BRANCH)
高雄市前鎮區新生路248-3號 (NO. 284-3, SIN-SHENG RD., CIAN-JHEN DIST., KAOHSIUNG, 806, TAIWAN)

**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 the applicant as)：**

| | | |
|---|---|---|
| 送樣廠商(Sample Submitted By) | : | 光頡科技股份有限公司高雄分公司 (VIKING TECH CORPORATION KAOHSIUNG BRANCH) |
| 樣品名稱(Sample Name) | : | LOW OHM THICK FILM CHIP RESISTOR |
| 樣品型號(Style/Item No.) | : | RS/CS/CS..A/CSN/CSW |
| 其他(Other Info.) | : | Please refer to the limit of EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU for homogeneous material- Lead 1000 ppm, Mercury 1000 ppm, Cadmium 100 ppm, Hexavalent chromium 1000 ppm, Polybrominated biphenyls (PBBs) 1000 ppm, Polybrominated diphenyl ethers (PBDEs) 1000 ppm, Bis(2-ethylhexyl) phthalate (DEHP) 1000 ppm, Butyl benzyl phthalate (BBP) 1000 ppm, Dibutyl phthalate (DBP) 1000 ppm and Diisobutyl phthalate (DIBP) 1000 ppm. |

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| | | |
|---|---|---|
| 收件日(Sample Receiving Date) | : | 14-Mar-2025 |
| 測試期間(Testing Period) | : | 14-Mar-2025 to 25-Mar-2025 |

**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.)

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

PIN CODE: 6A18DB18

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**測試部位敘述 (Test Part Description)**

No.1 : 整體混測 (MIXED ALL PARTS)

**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 |
| 鎘 (Cd) (Cadmium (Cd)) | 參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.) | mg/kg | 2 | n.d. |
| 鉛 (Pb) (Lead (Pb)) | | mg/kg | 2 | 99.0 |
| 汞 (Hg) (Mercury (Hg)) | 參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.) | mg/kg | 2 | n.d. |
| 六價鉻 Cr(VI) (Hexavalent Chromium Cr(VI)) | 參考IEC 62321-7-2: 2017，以紫外光-可見光分光光度計分析。(With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.) | mg/kg | 8 | n.d. |
| 一溴聯苯 (Monobromobiphenyl) | 參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.) | mg/kg | 5 | n.d. |
| 二溴聯苯 (Dibromobiphenyl) | | mg/kg | 5 | n.d. |
| 三溴聯苯 (Tribromobiphenyl) | | mg/kg | 5 | n.d. |
| 四溴聯苯 (Tetrabromobiphenyl) | | mg/kg | 5 | n.d. |
| 五溴聯苯 (Pentabromobiphenyl) | | mg/kg | 5 | n.d. |
| 六溴聯苯 (Hexabromobiphenyl) | | mg/kg | 5 | n.d. |
| 七溴聯苯 (Heptabromobiphenyl) | | mg/kg | 5 | n.d. |
| 八溴聯苯 (Octabromobiphenyl) | | mg/kg | 5 | n.d. |
| 九溴聯苯 (Nonabromobiphenyl) | | mg/kg | 5 | n.d. |
| 十溴聯苯 (Decabromobiphenyl) | | mg/kg | 5 | n.d. |
| **多溴聯苯總和 (Sum of PBBs)** | | mg/kg | - | 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 |
| 一溴聯苯醚 (Monobromodiphenyl ether) | 參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.) | mg/kg | 5 | n.d. |
| 二溴聯苯醚 (Dibromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 三溴聯苯醚 (Tribromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 四溴聯苯醚 (Tetrabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 五溴聯苯醚 (Pentabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 六溴聯苯醚 (Hexabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 七溴聯苯醚 (Heptabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 八溴聯苯醚 (Octabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 九溴聯苯醚 (Nonabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| 十溴聯苯醚 (Decabromodiphenyl ether) | | mg/kg | 5 | n.d. |
| **多溴聯苯醚總和 (Sum of PBDEs)** | | mg/kg | - | n.d. |
| 鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP)) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP)) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP)) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP)) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 鄰苯二甲酸二異壬酯 (DINP) (Diisononyl phthalate (DINP)) (CAS No.: 28553-12-0, 68515-48-0) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 鄰苯二甲酸二異癸酯 (DIDP) (Diisodecyl phthalate (DIDP)) (CAS No.: 26761-40-0, 68515-49-1) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | 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 |
| 鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl phthalate (DNOP)) (CAS No.: 117-84-0) | 參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 氟 (F) (Fluorine (F)) (CAS No.: 14762-94-8) | 參考BS EN 14582: 2016，以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.) | mg/kg | 50 | n.d. |
| 氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537-15-1) | | mg/kg | 50 | n.d. |
| 溴 (Br) (Bromine (Br)) (CAS No.: 10097-32-2) | | mg/kg | 50 | n.d. |
| 碘 (I) (Iodine (I)) (CAS No.: 14362-44-8) | | mg/kg | 50 | n.d. |
| 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. |
| 銻 (Sb) (Antimony (Sb)) (CAS No.: 7440-36-0) | 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. |
| 鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-41-7) | 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. |
| 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. |

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| 測試項目 (Test Items) | 測試方法 (Method) | 單位 (Unit) | MDL | 結果 (Result) |
|---|---|---|---|---|
| | | | | No.1 |
| **石綿 (Asbestos)** | | | | |
| 陽起石綿 (Actinolite) (CAS No.: 77536-66-4) | 參考EPA 600/R-93/116: 1993，以立體顯微鏡(SM)與分散染色式偏光顯微鏡(DS-PLM)及X光繞射光譜分析法(XRD)分析。(With reference to EPA 600/R-93/116: 1993, analysis was performed by Stereo Microscope (SM), Dispersion Staining Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD).) | - | - | Negative |
| 褐石綿/鐵石綿 (Amosite) (CAS No.: 12172-73-5) | | - | - | Negative |
| 斜方角閃石綿 (Anthophyllite) (CAS No.: 77536-67-5) | | - | - | Negative |
| 白石綿/溫石綿 (Chrysotile) (CAS No.: 12001-29-5) | | - | - | Negative |
| 青石綿 (Crocidolite) (CAS No.: 12001-28-4) | | - | - | Negative |
| 透閃石綿 (Tremolite) (CAS No.: 77536-68-6) | | - | - | Negative |
| 中鏈氯化石蠟(C14-C17) (MCCP) (Medium Chain Chlorinated Paraffins(C14-C17) (MCCP)) (CAS No.: 85535-85-9) | 參考ISO 18219-2: 2021，以氣相層析儀/質譜儀分析。(With reference to ISO 18219-2: 2021, analysis was performed by GC/MS.) | mg/kg | 50 | n.d. |
| 四溴雙酚 A (TBBP-A) (Tetrabromobisphenol A (TBBP-A)) (CAS No.: 79-94-7) | 參考RSTS-E&E-121，以液相層析儀/質譜儀分析。(With reference to RSTS-E&E-121, analysis was performed by LC/MS.) | mg/kg | 10 | n.d. |
| 全氟辛烷磺酸及其鹽類 (PFOS and its salts) (Perfluorooctane sulfonates and its salts (PFOS and its salts)) (CAS No.: 1763-23-1 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. |
| 全氟辛酸及其鹽類 (PFOA and its salts) (Perfluorooctanoic acid and its salts (PFOA and its salts)) (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. |

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**備註(Note)：**

1. mg/kg = ppm；0.1wt% = 0.1% = 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. "-" = Not Regulated (無規格值)
5. 石綿定性分析試驗範圍： <0.1%~100%，石綿鑑定的判定基準是以檢出含有石綿纖維為『Positive』，未檢出石綿纖維為『Negative』。(Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".)
6. 樣品的測試是基於申請人要求混合測試，報告中的混合測試結果不代表其中個別單一材質的含量。
   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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**PFAS Remark：**

現有PFAS定量技術是分析PFAS物質的特定結構，但同碳數族群之PFAS酸及鹽類物質，其可被辨識的特定結構相同，因此無法區別所分析的特定結構是來自酸或者鹽類，故測試結果為同碳數族群之PFAS之酸及鹽類物質的濃度總合。下表PFAS物質濃度皆已包含在測試結果中，相關資訊請參見下表：(下表列舉PFAS物質僅為範例，並不包含所有同碳數族群之PFAS鹽類。)
(The quantitative technology of PFAS is to analyze the specific structure of PFAS substances. However, PFAS acid and its salts with the same carbon number group have the same specific structure that can be identified. The tested results of the analyzed specific structure cannot be distinguished to identify the contribution from PFAS acid or its salts. Therefore, the tested results display the sum of concentrations of PFAS acids and its salts with the same carbon number group. The concentration of PFAS substances in the below table have been included in the tested results, please refer to the table for relevant information: (The listed PFAS substances are examples only, it do not include all PFAS salts with the same carbon number group.))

| 群組名稱 (Group Name) | 物質名稱 (Substance Name) | CAS No. |
|---|---|---|
| PFOS, 及其鹽&衍生物 (PFOS, its salts & derivatives) | 全氟辛烷磺酸 (Perfluorooctane sulfonates) (PFOS) | 1763-23-1 |
| | 全氟辛基磺酸鉀 (PFOS-K)<br>Potassium perfluorooctanesulfonate (PFOS-K) | 2795-39-3 |
| | 全氟辛基磺酸鋰 (PFOS-Li)<br>Perfluorooctanesulfonic acid, lithium salt (PFOS-Li) | 29457-72-5 |
| | 全氟辛基磺酸銨 (PFOS-$NH_4$)<br>Perfluorooctanesulfonic acid, ammonium salt (PFOS-$NH_4$) | 29081-56-9 |
| | 全氟辛基磺酸二乙醇銨 (PFOS-NH(C2H4OH)2)<br>Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(C2H4OH)2) | 70225-14-8 |
| | 全氟辛基磺酸四乙基銨 (PFOS-$N(C_2H_5)_4$)<br>Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-$N(C_2H_5)_4$) | 56773-42-3 |
| | 全氟辛基磺酸二癸二甲基銨 (PFOS-DDA)<br>N-decyl-N,N-dimethyldecan-1-aminium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate (PFOS-DDA) | 251099-16-8 |
| | 全氟辛基磺酸四丁基銨 (PFOS-$N(C_4H_9)_4$)<br>TetrabutylAmmonium perfluorooctanesulfonate (PFOS-$N(C_4H_9)_4$) | 111873-33-7 |
| | 全氟辛基磺醯氟 (POSF)<br>Perfluorooctane sulfonyl fluoride (POSF) | 307-35-7 |
| | 全氟辛基磺酸鎂 (PFOS-Mg)<br>Perfluorooctanesulfonic acid, magnesium salt (PFOS-Mg) | 91036-71-4 |
| | 全氟辛基磺酸鈉 (PFOS-Na)<br>Perfluorooctanesulfonic acid, sodium salt (PFOS-Na) | 4021-47-0 |

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| 群組名稱 (Group Name) | 物質名稱 (Substance Name) | CAS No. |
|---|---|---|
| PFOS, 及其鹽&衍生物 (PFOS, its salts & derivatives) | 全氟辛烷磺酸哌啶<br>Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctanesulfonate | 71463-74-6 |
| | 全氟辛烷磺酸鹽<br>Perfluorooctanesulfonate (anion) | 45298-90-6 |
| | 全氟辛烷磺酸與 N,N-二乙基乙胺 (1:1) (PFOS-N($C_2H_5$)$_3$)<br>1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with N,N-diethylethanamine (1:1) (PFOS-N($C_2H_5$)$_3$) | 54439-46-2 |
| | N,N,N-三甲基-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1-辛烷磺酸甲銨(1:1) (PFOS-N($CH_3$)$_4$)<br>Methanaminium, N,N,N-trimethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N($CH_3$)$_4$) | 56773-44-5 |
| | 1-五胺，N,N,N-三丙基-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1 -辛烷磺酸鹽(1:1) (PFOS-N($C_3H_7$)$_3$($C_5H_{11}$))<br>1-Pentanaminium, N,N,N-tripropyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N($C_3H_7$)$_3$($C_5H_{11}$)) | 56773-56-9 |
| | 1-丁銨，N,N-二丁基-N-甲基-，1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8 ,8-十七氟-1-辛烷磺酸鹽 (1:1) (PFOS-N($C_4H_9$)$_3$($CH_3$))<br>1-Butanaminium, N,N-dibutyl-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N($C_4H_9$)$_3$($CH_3$)) | 124472-68-0 |
| | 碘鎓，雙[4-(1,1-二甲基乙基)苯基]-，1,1,2,2,3,3,4,4,5,5,6,6,7,7 ,8,8,8 -十七氟-1-辛烷磺酸鹽 (1:1)<br>Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) | 213740-80-8 |
| | 二苯基鋶(2,4,6-三甲基苯基)-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8 ,8-十七氟- 1-辛烷磺酸鹽 (1:1)<br>Sulfonium, diphenyl(2,4,6-trimethylphenyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) | 258341-99-0 |
| | 吡啶鎓，1-十六烷基-，1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1 -辛烷磺酸鹽 (1:1)<br>Pyridinium, 1-hexadecyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) | 334529-63-4 |

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| 群組名稱<br>(Group Name) | 物質名稱<br>(Substance Name) | CAS No. |
|---|---|---|
| PFOS, 及其鹽&衍生物<br>(PFOS, its salts & derivatives) | 1-癸胺，N,N,N-三乙基-，1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1-辛烷磺酸鹽(1:1)<br>1-Decanaminium, N,N,N-triethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) | 773895-92-4 |
| | 全氟辛烷磺酸四丁基鏻 (PFOS-P($C_4H_9$)$_4$))<br>Tetrabutylphosphonium perfluorooctane sulfonate (PFOS-P($C_4H_9$)$_4$)) | 2185049-59-4 |
| | 全氟辛烷磺酸二乙胺鹽 (PFOS-$C_4H_{11}N$)<br>Perfluorooctanesulfonic acid diethylamine salt (PFOS-$C_4H_{11}N$) | 2205029-08-7 |
| | 庚基二甲基{2-[(2-甲基丙-2-烯酰基)氧基]乙基}全氟辛烷磺酸氮紮鹽 (PFOS-$C_{15}H_{30}NO_2$)<br>Heptyldimethyl{2-[(2-methylprop-2-enoyl)oxy]ethyl}azanium perfluorooctanesulfonate (PFOS-$C_{15}H_{30}NO_2$) | 1203998-97-3 |
| | 1-辛烷磺酸，1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-,1,1' -酸酐 (PFOSAN)<br>1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, 1,1'-anhydride (PFOSAN) | 423-92-7 |
| PFOA, 及其鹽&衍生物<br>(PFOA, its salts & derivatives) | 全氟辛酸 (Perfluorooctanoic acid) (PFOA) | 335-67-1 |
| | 全氟辛酸鈉 (PFOA-Na)<br>Sodium perfluorooctanoate (PFOA-Na) | 335-95-5 |

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| 群組名稱 (Group Name) | 物質名稱 (Substance Name) | CAS No. |
|---|---|---|
| PFOA, 及其鹽&衍生物 (PFOA, its salts & derivatives) | 全氟辛酸鉀 (PFOA-K)<br>Potassium perfluorooctanoate (PFOA-K) | 2395-00-8 |
| | 全氟辛酸銀 (PFOA-Ag)<br>Silver perfluorooctanote (PFOA-Ag) | 335-93-3 |
| | 全氟辛氟 (PFOA-F)<br>Perfluorooctanoyl fluoride (PFOA-F) | 335-66-0 |
| | 全氟辛酸銨 (APFO)<br>Ammonium pentadecafluorooctanoate (APFO) | 3825-26-1 |
| | 全氟辛酸鋰 (PFOA-Li)<br>Lithium perfluorooctanoate (PFOA-Li) | 17125-58-5 |
| | 全氟辛酸鈷 (PFOA-Co)<br>Cobalt perfluorooctanoate (PFOA-Co) | 35965-01-6 |
| | 全氟辛酸銫 (PFOA-Cs)<br>Cesium perfluorooctanoate (PFOA-Cs) | 17125-60-9 |
| | 全氟辛酸鉻 (PFOA-Cr($3^+$))<br>Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) (PFOA-Cr($3^+$)) | 68141-02-6 |
| | 全氟辛酸-哌嗪(2:1) PFOA-NH($C_4H_{10}N$)<br>Pentadecafluorooctanoic acid--piperazine (2/1)PFOA-NH($C_4H_{10}N$) | 423-52-9 |
| | 全氟辛酸鹽<br>Pentadecafluorooctanoate (anion) | 45285-51-6 |
| | 全氟辛酸酐<br>Perfluorooctanoic Anhydride | 33496-48-9 |
| | 乙銨，N,N,N-三乙基-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟辛酸 (1:1)<br>Ethanaminium, N,N,N-triethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) | 98241-25-9 |
| | 全氟辛酸四甲銨鹽<br>Tetramethylammoniumperfluoroctanoat | 32609-65-7 |
| | 1-丙銨，N,N,N-三丙基-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟辛酸 (1:1)<br>1-Propanaminium, N,N,N-tripropyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) | 277749-00-5 |

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| 群組名稱 (Group Name) | 物質名稱 (Substance Name) | CAS No. |
|---|---|---|
| PFOA, 及其鹽&衍生物 (PFOA, its salts & derivatives) | 辛酸，2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟-鉀鹽，水合物 (1:1:2) (PFOA-$K(H_2O)_2$)<br>Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, potassium salt, hydrate (1:1:2) (PFOA-$K(H_2O)_2$) | 98065-31-7 |
| | 辛酸，2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟-，化合物。與乙胺 (1:1) (PFOA-$C_2H_7N$)<br>Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, compd. with ethanamine (1:1) (PFOA-$C_2H_7N$) | 1376936-03-6 |
| | 十五氟辛酸化合物與吡啶 (1:1) (9CI) (PFOA-$C_5H_5N$)<br>Octanoic acid, pentadecafluoro-, compd. with pyridine (1:1) (9CI) (PFOA-$C_5H_5N$) | 95658-47-2 |
| | 十五氟辛酸-1-苯基哌嗪(1:1) (PFOA-$C_{10}H_{14}N_2$)<br>Pentadecafluorooctanoic acid- 1-phenylpiperazine(1:1) (PFOA-$C_{10}H_{14}N_2$) | 1514-68-7 |
| | 1-辛胺，N,N,N-三甲基-，2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟辛酸 (1:1) (PFOA- $C_{11}H_{26}N$)<br>1-Octanaminium, N,N,N-trimethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) (PFOA- $C_{11}H_{26}N$) | 927835-01-6 |

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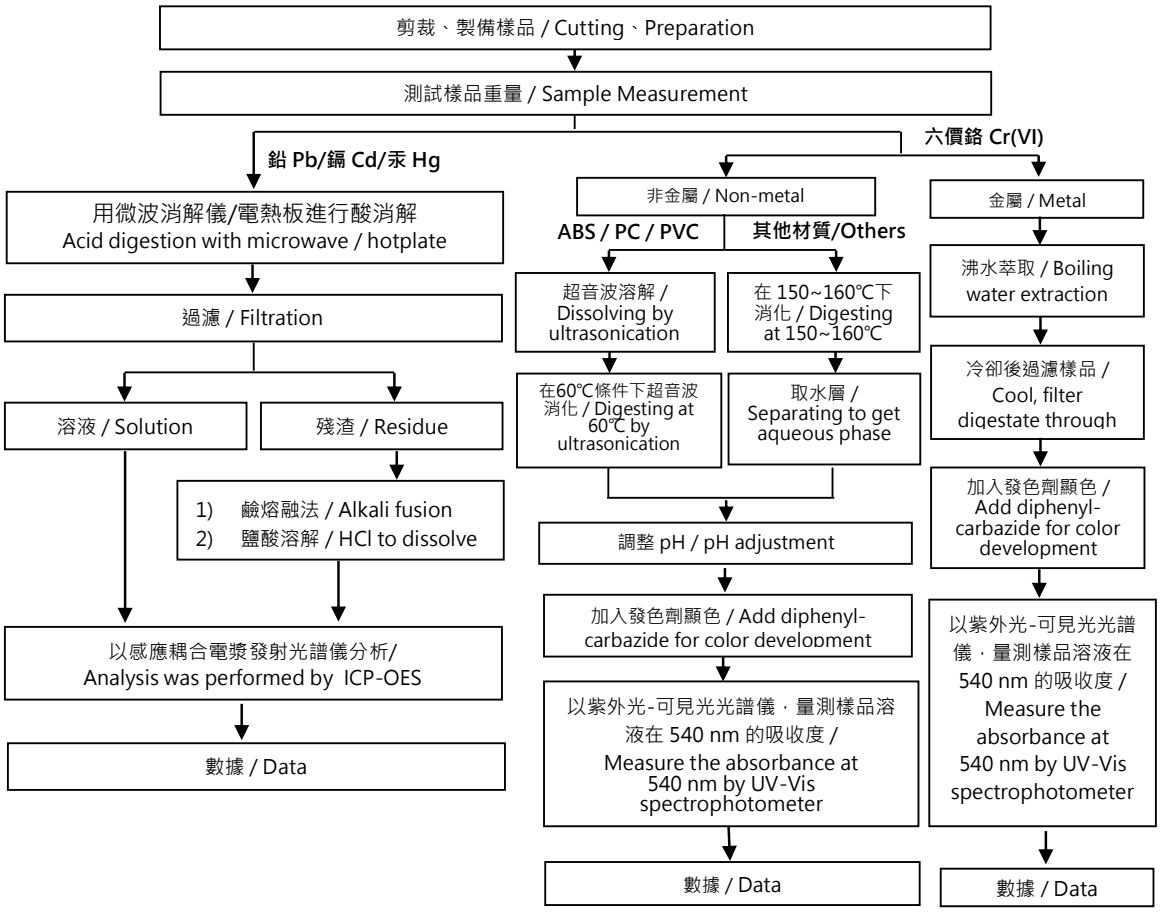
## 重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）
These samples were dissolved totally by pre-conditioning method according to below flow chart.
（$Cr^{6+}$ test method excluded）



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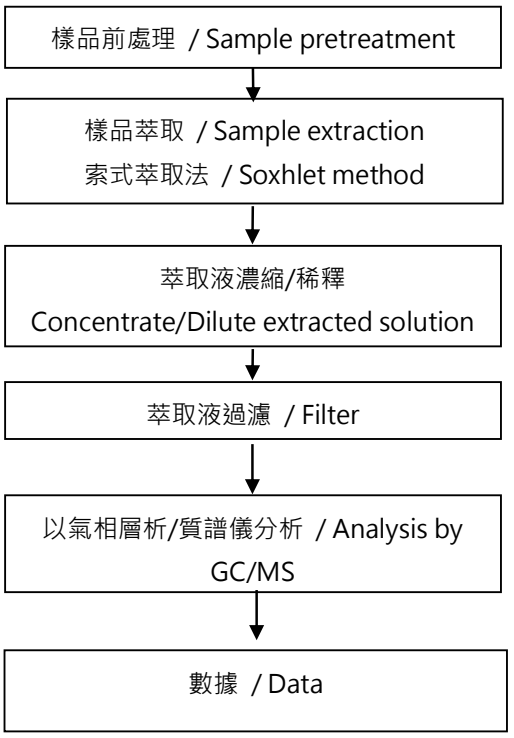
**多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART**



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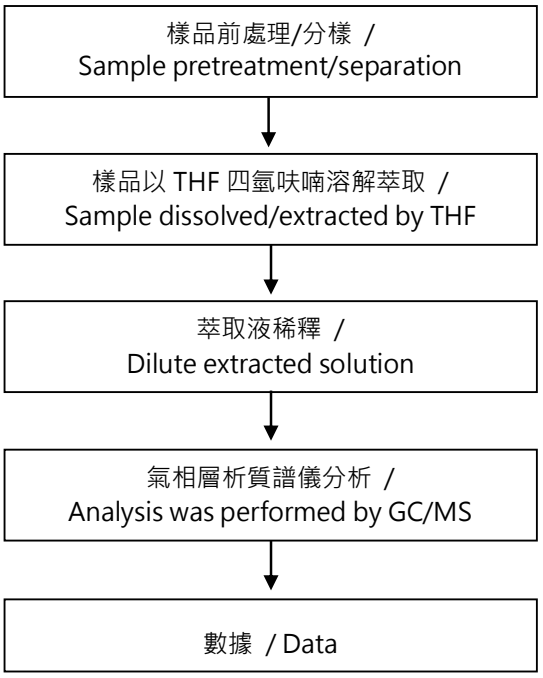
**可塑劑分析流程圖 / Analytical flow chart of phthalate content**

【測試方法/Test method: IEC 62321-8】



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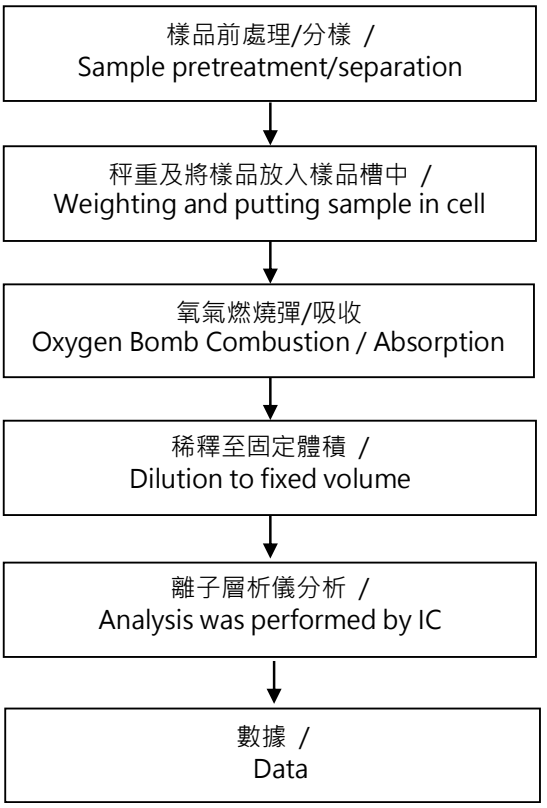
**鹵素分析流程圖 / Analytical flow chart of Halogen**



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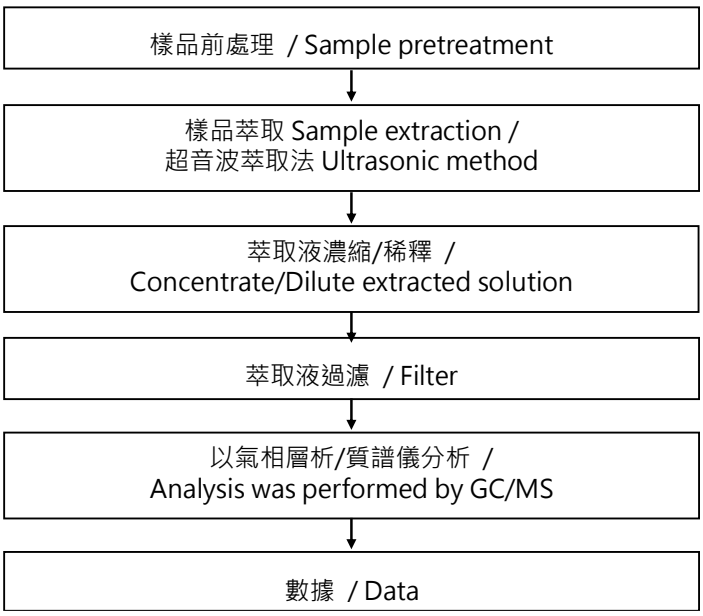
**六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD**



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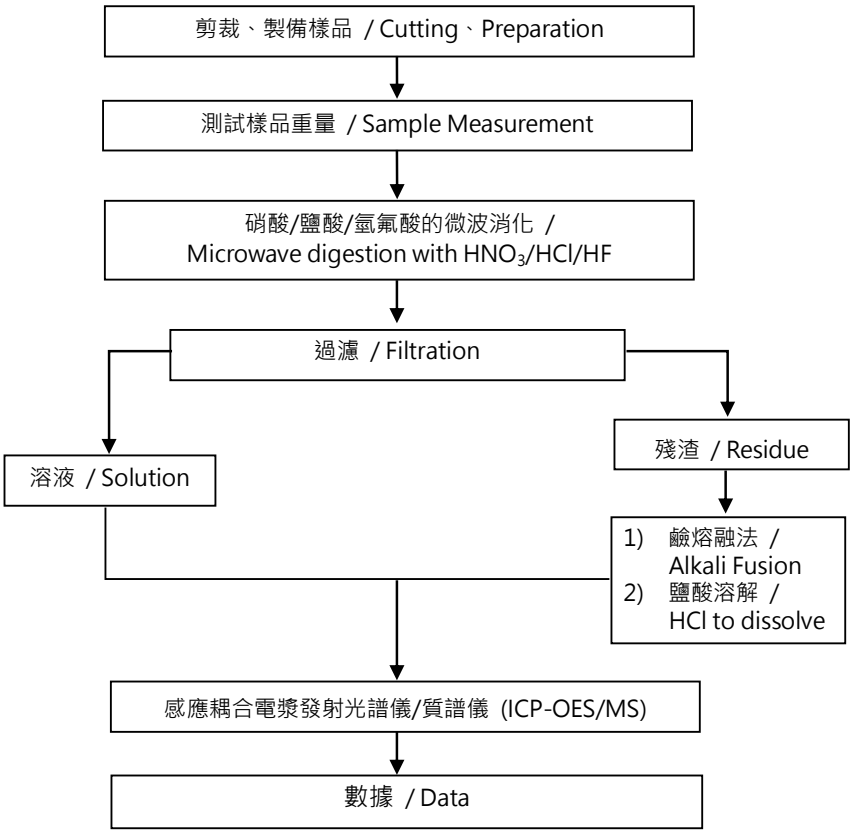
**元素(含重金屬)分析流程圖 / Analytical flow chart of Elements (Heavy metal included)**

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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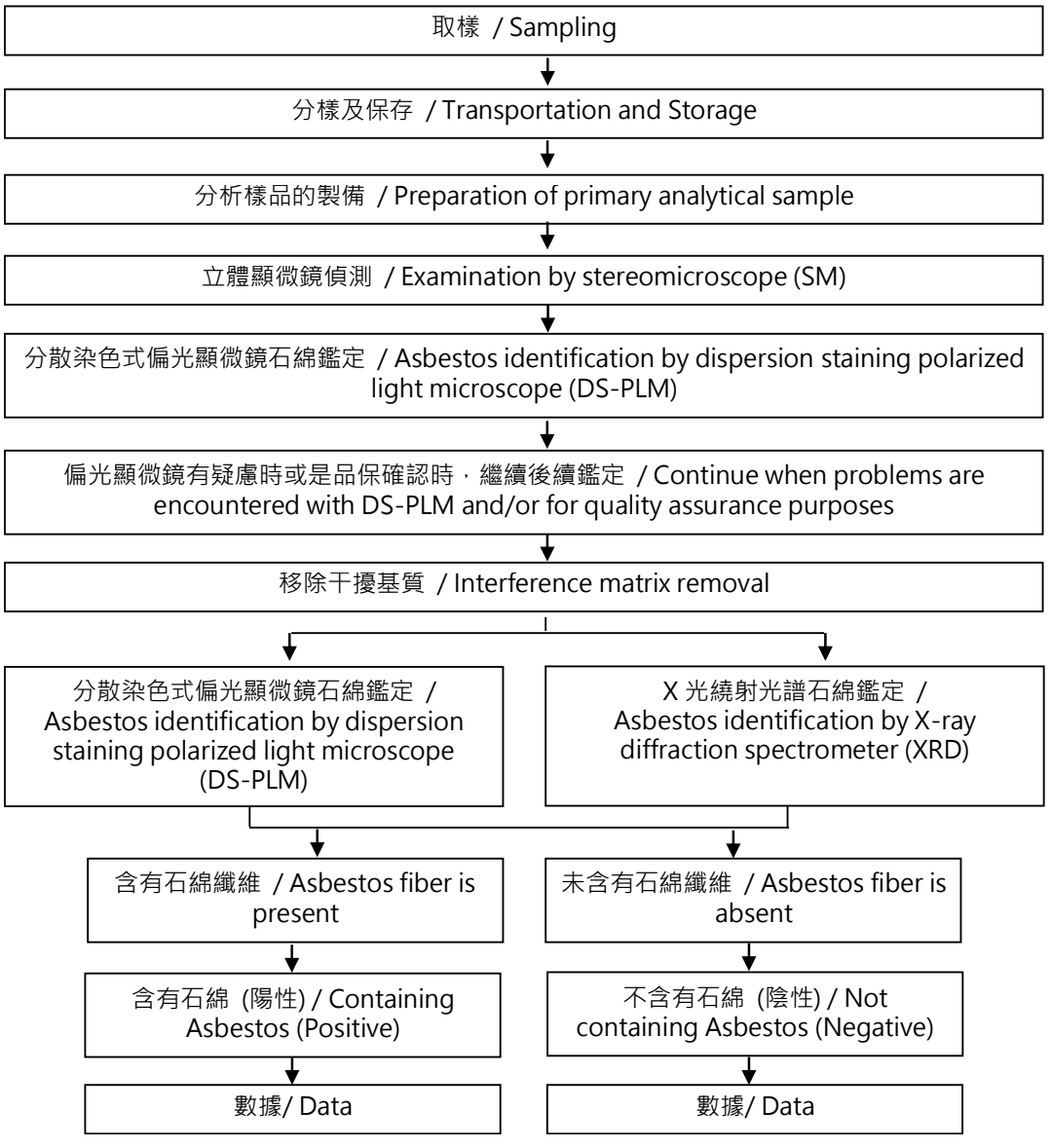
**石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos**

**【參考方法(Reference method): EPA 600/R-93/116】**



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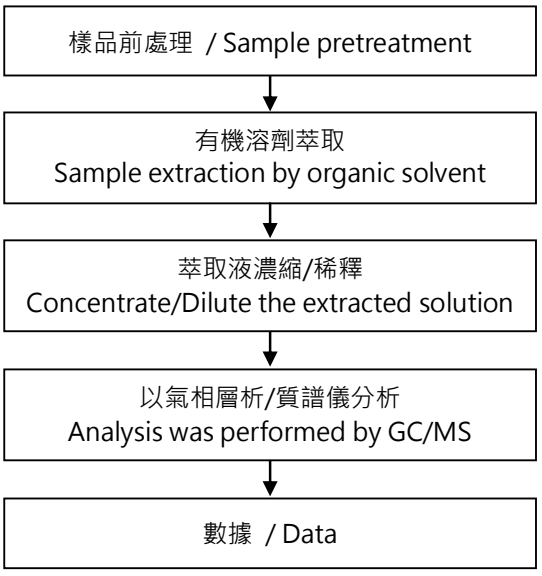
**分析流程圖 / Analytical flow chart**

【適用於：多氯聯苯、多氯奈、多氯三聯苯、滅蟻靈、氯化石蠟、DBBT】

*Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



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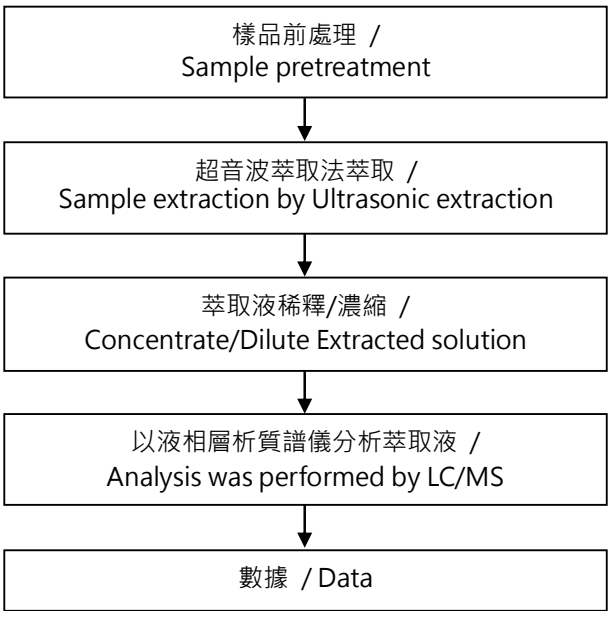
**四溴雙酚-A分析流程圖 / TBBP-A analytical flow chart**



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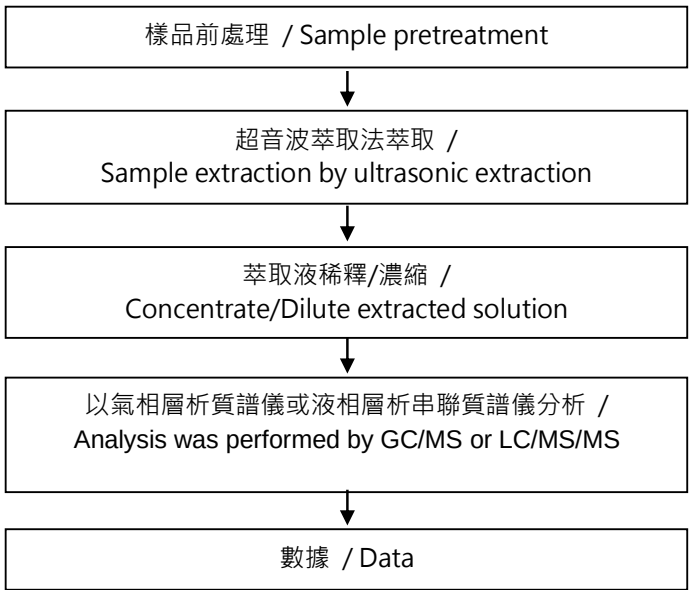
**全氟化合物(包含全氟辛酸/全氟辛烷磺酸/其相關化合物等等)分析流程圖 / Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)**



# 測試報告
# Test Report



光頡科技股份有限公司高雄分公司 (VIKING TECH CORPORATION KAOHSIUNG BRANCH)
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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.)**

## EKR25301057


** 報告結尾 (End of Report) **