

檢測報告 Test Report



報告編號 A2210048978101001E
Report No. A2210048978101001E

第 1 頁 共 9 頁
Page 1 of 9

報告抬頭公司名稱 台灣日立金屬股份有限公司
Company Name HITACHI METALS TAIWAN ,LTD.
shown on Report
地 址 新北市五股區五權八路7號及7號之1.
Address NO.7 & 7- 1, WU- CHUAN 8 RD., NEW TAIPEI INDUSTRIAL PARK, NEW TAIPEI CIYT, TAIWAN.

以下測試之樣品及樣品資訊由申請者提供並確認
The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

樣品名稱 Titanium- Tungsten (Ti- W)
Sample Name Titanium- Tungsten (Ti- W)
樣品型號 Titanium- Tungsten (Ti- W) Target
Part No. Titanium- Tungsten (Ti- W) Target
樣品接收日期 2021.02.18
Sample Received Date Feb. 18, 2021
樣品檢測日期 2021.02.18- 2021.02.23
Testing Period Feb. 18, 2021 to Feb. 23, 2021

檢測要求 根據客戶要求, 對所提交樣品中的鉛(Pb), 鎘(Cd), 汞(Hg), 六價鉻(Cr(VI)), 多溴聯苯(PBBs), 多溴二苯醚(PBDEs), 鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP), 氟(F), 氯(Cl), 溴(Br), 碘(I), 全氟辛烷磺酸(PFOS), 全氟辛酸(PFOA), 鈹(Be), 銻(Sb)進行測試。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Antimony(Sb), Beryllium(Be), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

檢測依據/檢測結果 請參見下頁。
Test Method/Test Result(s) Please refer to the following page(s).



主 檢

Requested by

批 准

Approved by

許振斌

馮智聰

馮智聰

實驗室經理 Laboratory Manager

審 核

Reviewed by

日 期

Date

黃文昕

2021.02.23

No. R392331940

桃園市蘆竹區南崁路二段9號5樓之6

5F- 6, No.9, Sec.2, Nankan Rd, Luzhu Dist., Taoyuan, Taiwan

檢測報告

Test Report

報告編號 A2210048978101001E

第 2 頁 共 9 頁

Report No. A2210048978101001E

Page 2 of 9

檢測依據 Test Method

測試項目 Test Item(s)	測試方法 Test Method	測試儀器 Measured Equipment(s)
鉛 Lead (Pb)	IEC 62321- 5:2013	ICP- OES
鎘 Cadmium (Cd)	IEC 62321- 5:2013	ICP- OES
汞 Mercury (Hg)	IEC 62321- 4:2013+AMD1:2017 CSV	ICP- OES
六價鉻 Hexavalent Chromium (Cr(VI))	IEC 62321- 7- 1:2015	UV- vis
多溴聯苯 Polybrominated Biphenyls (PBBs)	IEC 62321- 6:2015	GC- MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321- 6:2015	GC- MS
鄰苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321- 8:2017	GC- MS
氟 Fluorine (F)	參考EN 14582:2016 Refer to EN 14582:2016	IC
氯 Chlorine (Cl)	參考EN 14582:2016 Refer to EN 14582:2016	IC
溴 Bromine (Br)	參考EN 14582:2016 Refer to EN 14582:2016	IC
碘 Iodine (I)	參考EN 14582:2016 Refer to EN 14582:2016	IC
全氟辛烷磺酸 Perfluorooctane Sulfonates(PFOS)	參考US EPA 3550C:2007 & US EPA 8321B:2007 Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC- MS- MS
銻 Antimony(Sb)	參考US EPA 3050B:1996 & US EPA 6010D:2018 Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP- OES
鈹 Beryllium(Be)	參考US EPA 3050B:1996 & US EPA 6010D:2018 Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP- OES
全氟辛酸 Perfluorooctanoic Acid(PFOA)	參考US EPA 3550C:2007 & US EPA 8321B:2007 Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC- MS- MS

檢測報告

Test Report

報告編號 A2210048978101001E

第 3 頁 共 9 頁

Report No. A2210048978101001E

Page 3 of 9

檢測結果 Test Result(s)

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL
鉛 Lead (Pb)	N.D.	2 mg/kg
鎘 Cadmium (Cd)	N.D.	2 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg
六價鉻 Hexavalent Chromium (Cr(VI))	N.D. ▼	0.10 µg/cm ² (LOQ)

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL
多溴聯苯 Polybrominated Biphenyls (PBBs)		
PBBs PBBs (PBBs)	N.D.	/
一溴聯苯 Monobromobiphenyl	N.D.	5 mg/kg
二溴聯苯 Dibromobiphenyl	N.D.	5 mg/kg
三溴聯苯 Tribromobiphenyl	N.D.	5 mg/kg
四溴聯苯 Tetrabromobiphenyl	N.D.	5 mg/kg
五溴聯苯 Pentabromobiphenyl	N.D.	5 mg/kg
六溴聯苯 Hexabromobiphenyl	N.D.	5 mg/kg
七溴聯苯 Heptabromobiphenyl	N.D.	5 mg/kg
八溴聯苯 Octabromobiphenyl	N.D.	5 mg/kg
九溴聯苯 Nonabromobiphenyl	N.D.	5 mg/kg
十溴聯苯 Decabromobiphenyl	N.D.	5 mg/kg

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)		
PBDEs PBDEs (PBDEs)	N.D.	/
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	5 mg/kg
三溴二苯醚 Tribromodiphenyl ether	N.D.	5 mg/kg
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	5 mg/kg
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5 mg/kg
六溴二苯醚 Hexabromodiphenyl ether	N.D.	5 mg/kg
七溴二苯醚 Heptabromodiphenyl ether	N.D.	5 mg/kg
八溴二苯醚 Octabromodiphenyl ether	N.D.	5 mg/kg
九溴二苯醚 Nonabromodiphenyl ether	N.D.	5 mg/kg
十溴二苯醚 Decabromodiphenyl ether	N.D.	5 mg/kg

檢測報告

Test Report

報告編號 A2210048978101001E

第 4 頁 共 9 頁

Report No. A2210048978101001E

Page 4 of 9

檢測結果 Test Result(s)

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL
鄰苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)		
鄰苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
鄰苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
鄰苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
鄰苯二甲酸二異丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg
測試項目 Tested Item(s)		
氟 Fluorine (F)	N.D.	50 mg/kg
氯 Chlorine (Cl)	N.D.	50 mg/kg
溴 Bromine (Br)	N.D.	50 mg/kg
碘 Iodine (I)	N.D.	50 mg/kg
測試項目 Tested Item(s)		
鈹 Beryllium (Be)	N.D.	10 mg/kg
測試項目 Tested Item(s)		
全氟辛酸 Perfluorooctanoic Acid (PFOA)	N.D.	5 mg/kg
測試項目 Tested Item(s)		
全氟辛烷磺酸 Perfluorooctane Sulfonates (PFOS)	N.D.	5 mg/kg
測試項目 Tested Item(s)		
銻 Antimony (Sb)	N.D.	10 mg/kg

檢測報告 Test Report

報告編號 A2210048978101001E

Report No. A2210048978101001E

第 5 頁 共 9 頁

Page 5 of 9

樣品/部位描述 銀色金屬

Sample/Part Description Silvery metal

備註: 對於檢測鉛, 鎘, 汞, 鉍, 銻之樣品已完全溶解。
- N.D. = 未檢出 (小於方法檢出限或定量限)
- mg/kg = ppm = 百萬分之一
- LOQ = 定量限, 六價鉻的定量限為0.10 µg/cm²
- 六價鉻濃度小於0.10 µg/cm², 樣品未檢出六價鉻。

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Beryllium, Antimony.

- MDL = Method Detection Limit

- N.D. = Not Detected (<MDL or LOQ)

- mg/kg = ppm = parts per million

- LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 µg/cm²

- 六價鉻濃度小於0.10 µg/cm², 樣品未檢出六價鉻。
- The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 µg/cm². The coating is considered a non-Cr(VI) based coating.

注釋: 本報告中的資料結果供科研、教學、企業內部品質控制、企業產品研發等目的用。

Note: The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

檢測報告 Test Report

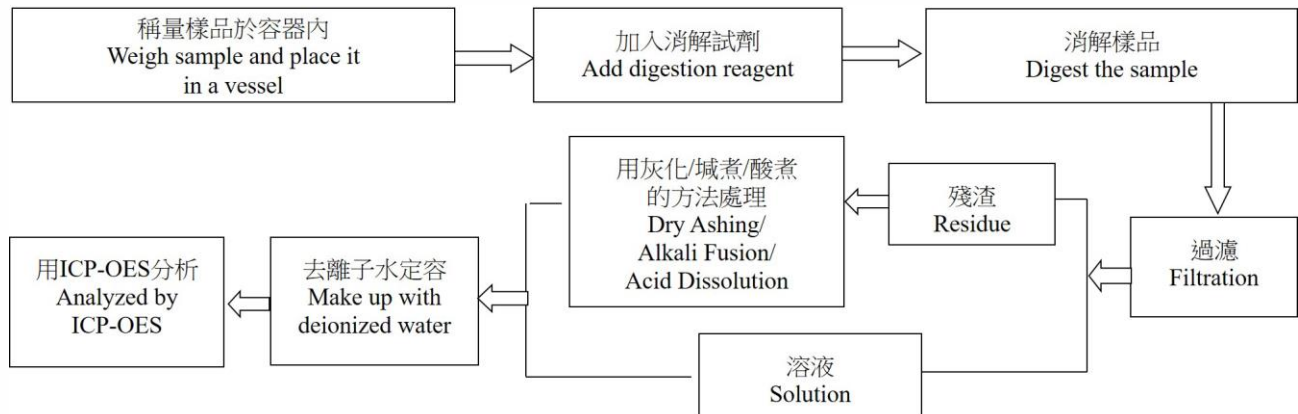
報告編號 A2210048978101001E
Report No. A2210048978101001E

第 6 頁 共 9 頁
Page 6 of 9

檢測流程 Test Process

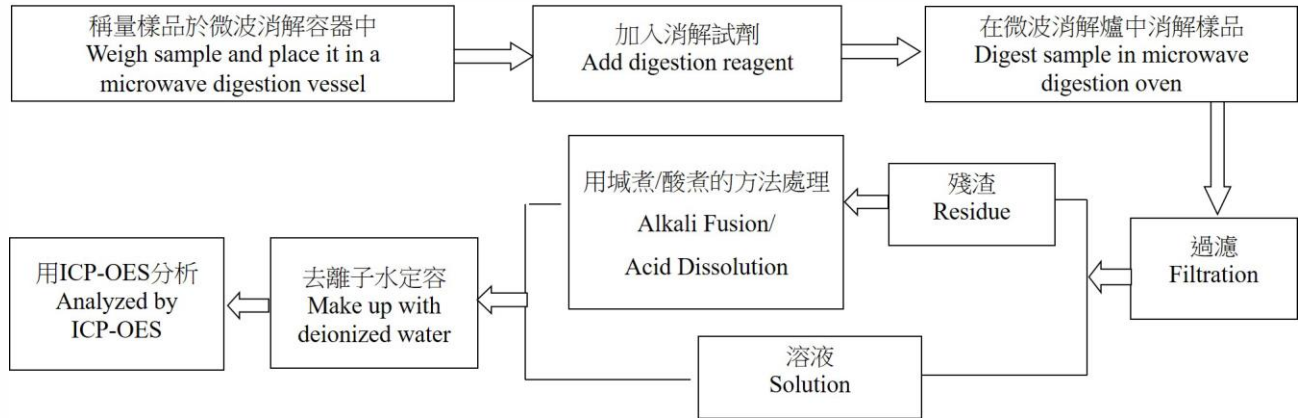
1. 鉛(Pb), 鎘(Cd)

Lead (Pb), Cadmium (Cd)



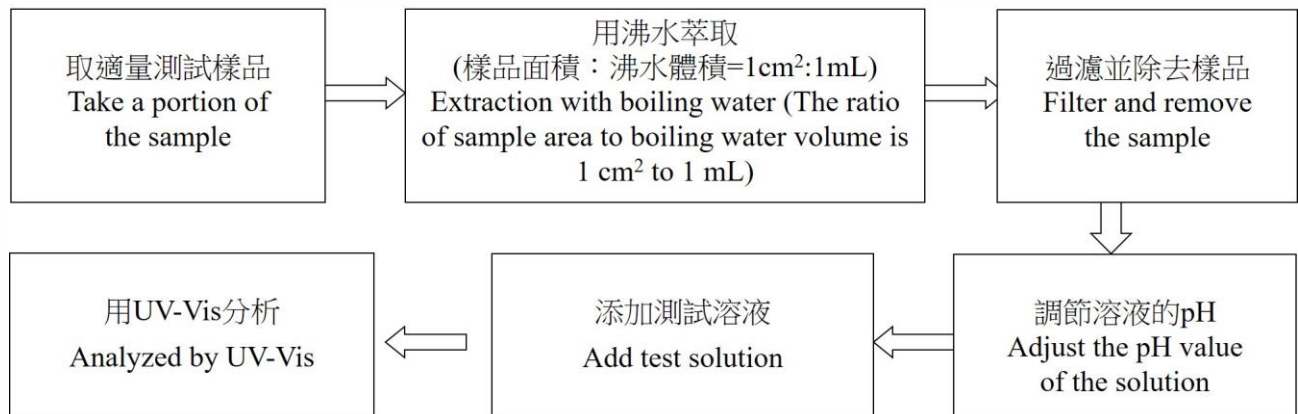
2. 汞(Hg)

Mercury (Hg)



3. 六價鉻(Cr(VI))

Hexavalent Chromium (Cr(VI))



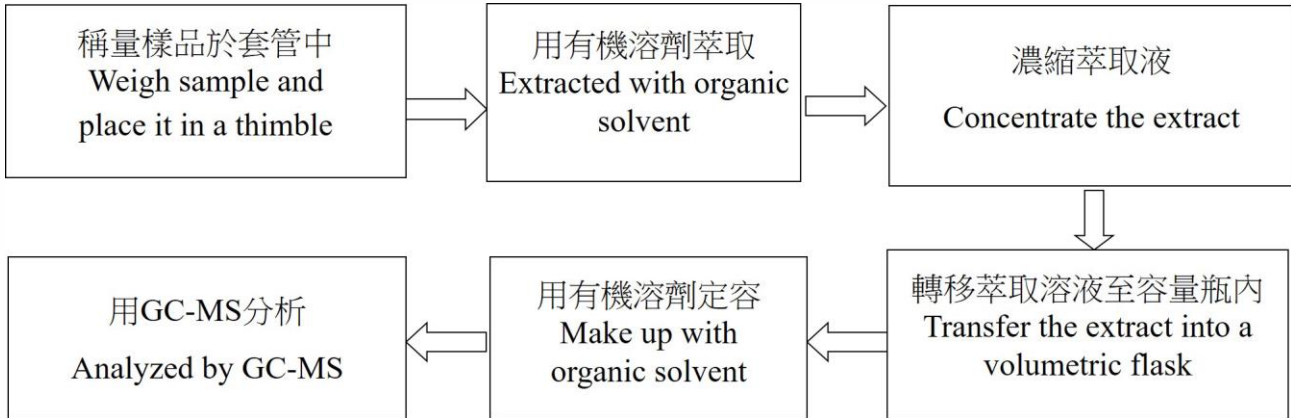
檢測報告 Test Report

報告編號 A2210048978101001E
Report No. A2210048978101001E

第 7 頁 共 9 頁
Page 7 of 9

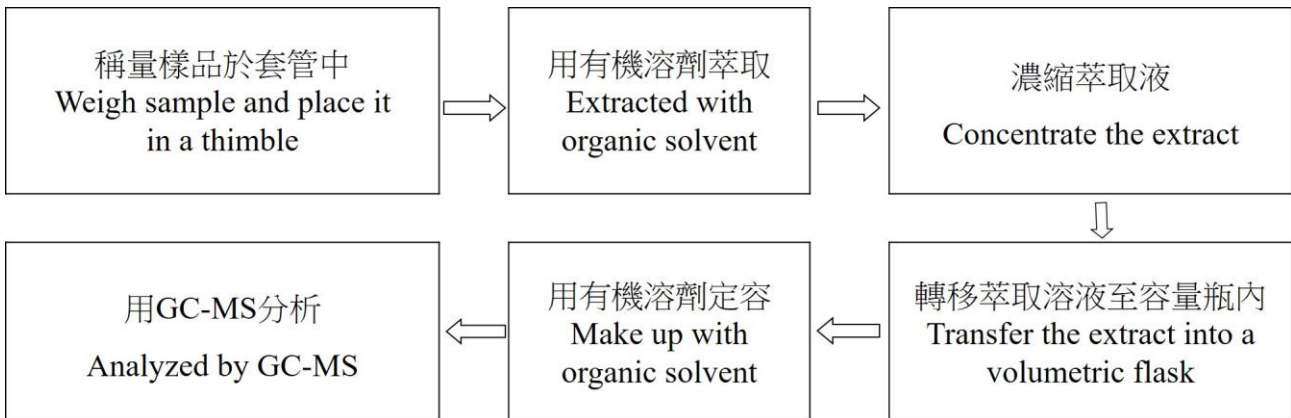
4. 多溴聯苯(PBBs), 多溴二苯醚(PBDEs)

Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



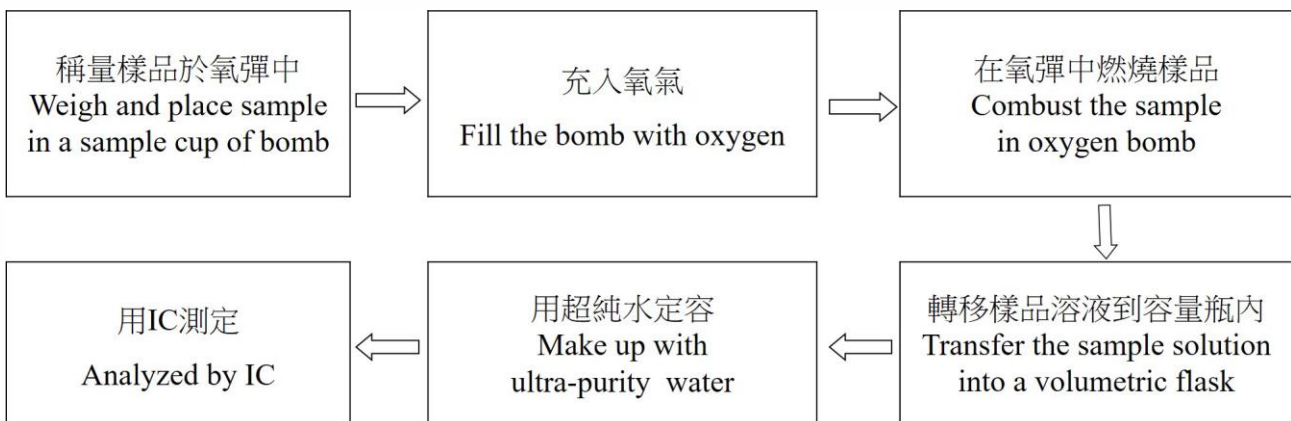
5. 鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP)

Phthalates (DBP, BBP, DEHP, DIBP)



6. 氟(F), 氯(Cl), 溴(Br), 碘(I)

Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I)



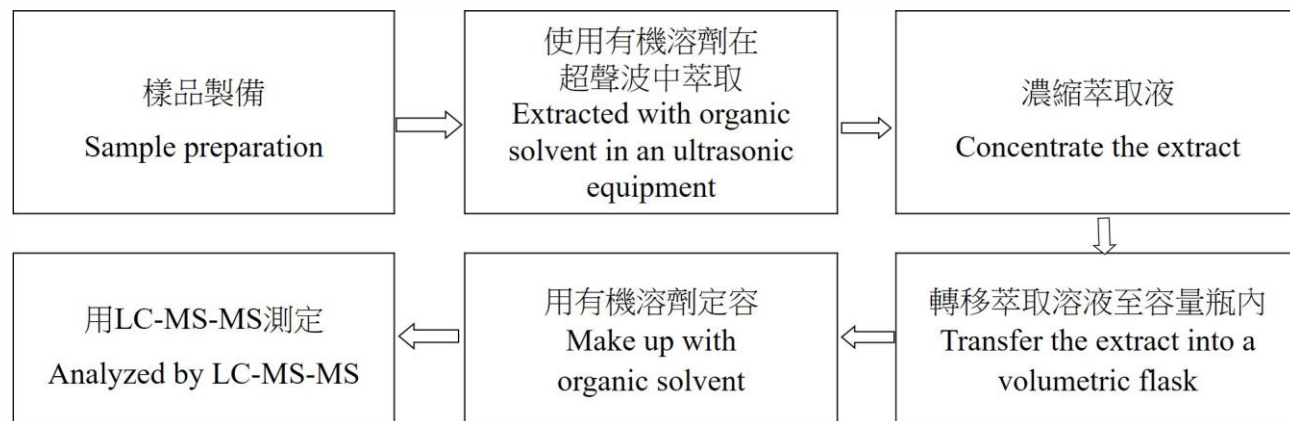
檢測報告 Test Report

報告編號 A2210048978101001E
Report No. A2210048978101001E

第 8 頁 共 9 頁
Page 8 of 9

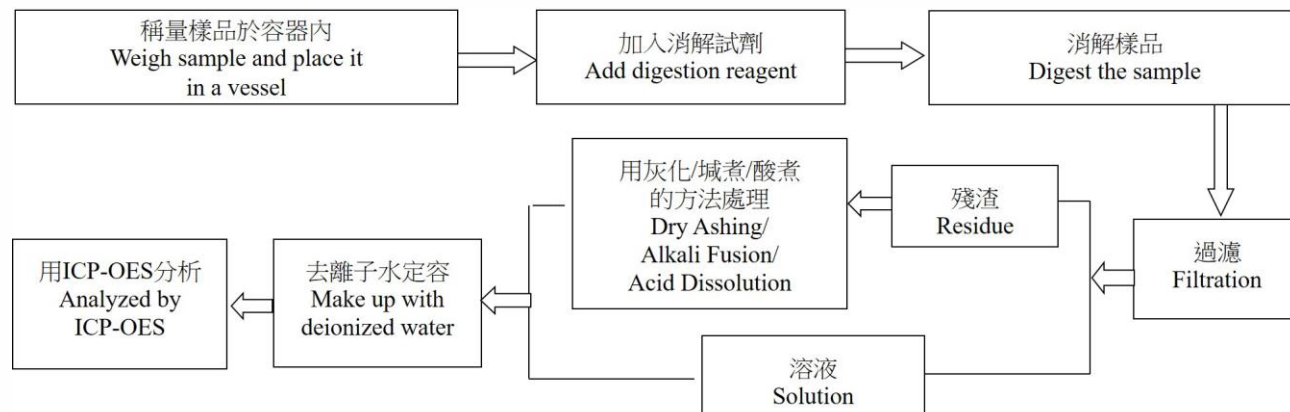
7. 全氟辛酸(PFOA), 全氟辛烷磺酸(PFOS)

Perfluorooctanoic Acid(PFOA), Perfluorooctane Sulfonates(PFOS)



8. 銻(Sb), 鈹(Be)

Antimony(Sb), Beryllium(Be)



檢測報告 Test Report

報告編號 A2210048978101001E
Report No. A2210048978101001E

第 9 頁 共 9 頁
Page 9 of 9

樣品圖片 Photo(s) of the sample(s)



聲明Statement :

1. 檢測報告無批准人簽字、“專用章”及報告騎縫章無效；
This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 報告抬頭公司名稱及位址、樣品及樣品資訊由申請者提供，申請者應對其真實性負責，CTI未核實其真實性；
The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. 本報告檢測結果僅對受測樣品負責；
The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 未經CTI書面同意，不得部分複製本報告；
Without written approval of CTI, this report can't be reproduced except in full;
5. 如檢測報告中的英文內容與中文內容有差異，以中文為準。
In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

報告結束
*** End of report ***