

檢測報告
Test Report報告編號 A2240785999101001E
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Page 1 of 8報告抬頭公司名稱 德森興業有限公司
Company Name DESEN ELECTROPLATE INDUSTRY CO., LTD.
shown on Report
地 址 桃園市龍潭區中興路九龍段129巷175弄11號
Address NO. 11, ALY. 175, LN. 129, JIULONG SEC., ZHONGXING RD., JIULONG VILLAGE, LONGTAN DISTRICT, TAOYUAN CITY 325, TAIWAN (R. O. C.)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 德森公司電子元件
Sample Name DESEN OF ELECTRONIC COMPONENT PLATE
樣品型號 錫金屬的電鍍層
Model No. 錫金屬的電鍍層
樣品批號 W01-23-26 槽
Lot No. W01-23-26 槽
樣品接收日期 2024.12.05
Sample Received Date Dec. 5, 2024
樣品檢測日期 2024.12.16-2024.12.20
Testing Period Dec. 16, 2024 to Dec. 20, 2024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)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) 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).

馮智聰

馮智聰
實驗室經理 Laboratory Manager日期 2024.12.20
Date

No. R392331692

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

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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)	EN 14582:2016	IC
氯 Chlorine (Cl)	EN 14582:2016	IC
溴 Bromine (Br)	EN 14582:2016	IC
碘 Iodine (I)	EN 14582:2016	IC

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檢測結果 Test Result(s)

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL
	001	
鉛 Lead (Pb) *	8 mg/kg	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
	001	
多溴聯苯 Polybrominated Biphenyls (PBBs)*		
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
	001	
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)*		
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

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檢測結果 Test Result(s)

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL
	001	
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)	結果 Result	方法檢出限 MDL
	001	
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

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樣品/部位描述 Sample/Part Description

序號 No.	CTI樣品ID CTI Sample ID	描述 Description
1	001	有銀色鍍層的金屬 Metal with silvery plating

備註: 對於檢測鉛, 鎘, 汞之樣品已消解完全。
-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 $\mu\text{g}/\text{cm}^2$
-▼ 六價鉻濃度小於0.10 $\mu\text{g}/\text{cm}^2$, 樣品未檢出六價鉻。由於未獲知樣品的存儲條件和生產日期, 樣品的六價鉻測試結果僅能代表測試時樣品含六價鉻的狀態。
-* =本報告中樣品測試結果引自於報告A2240762470101001E。

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

-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 $\mu\text{g}/\text{cm}^2$
-▼ The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 $\mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.
-* =The test result(s) of sample is(are) presented in reference to the result(s) that reported in No. A2240762470101001E.

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.**

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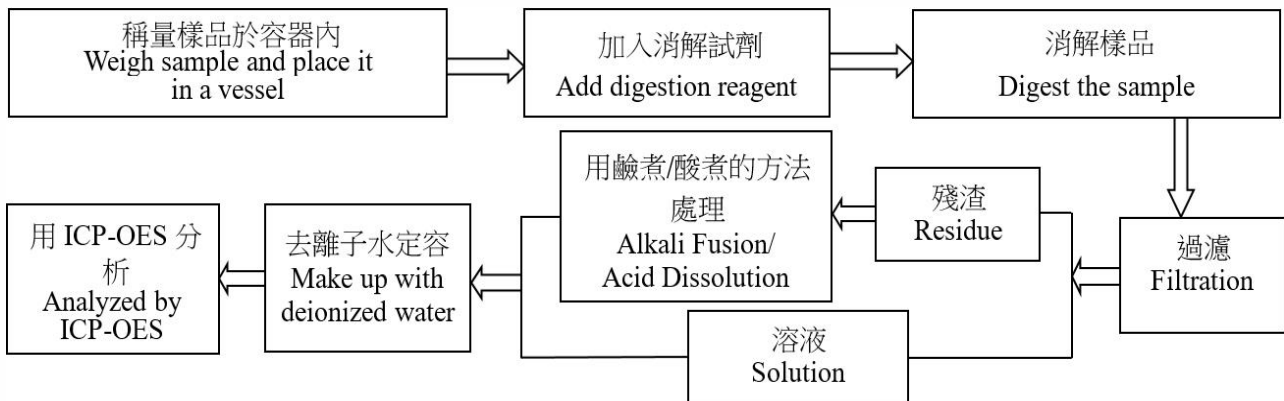
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檢測流程 Test Process

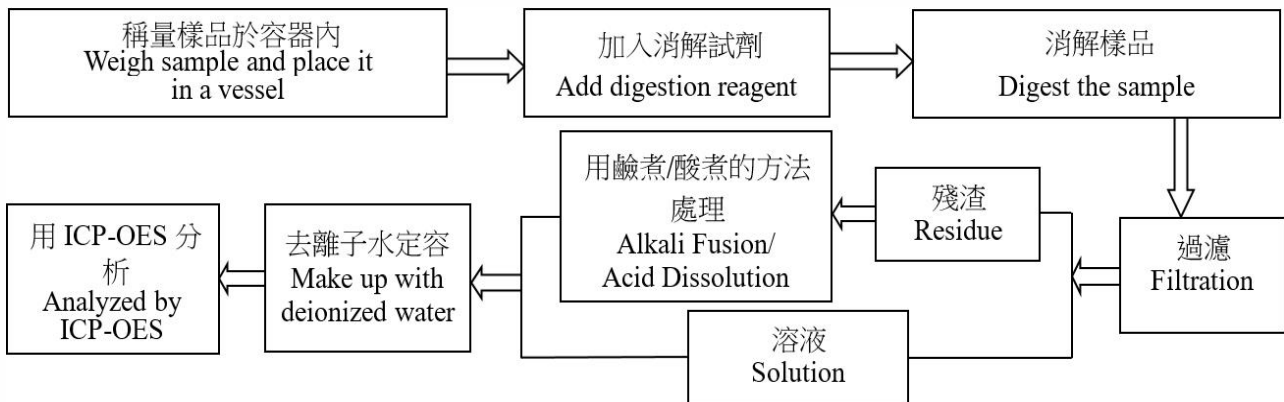
1. 鉛(Pb)， 鎘(Cd)

Lead (Pb), Cadmium (Cd)



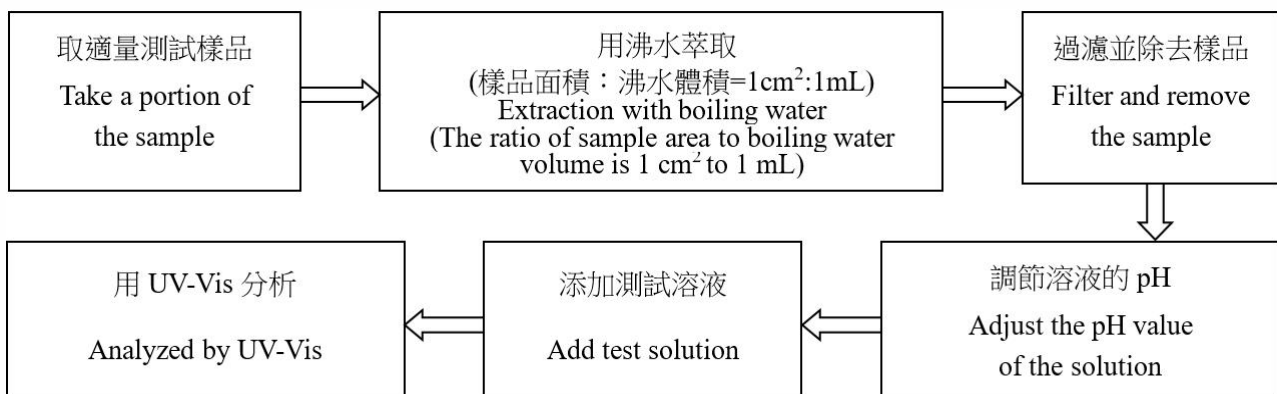
2. 汞(Hg)

Mercury (Hg)



3. 六價鉻(Cr(VI))

Hexavalent Chromium (Cr(VI))



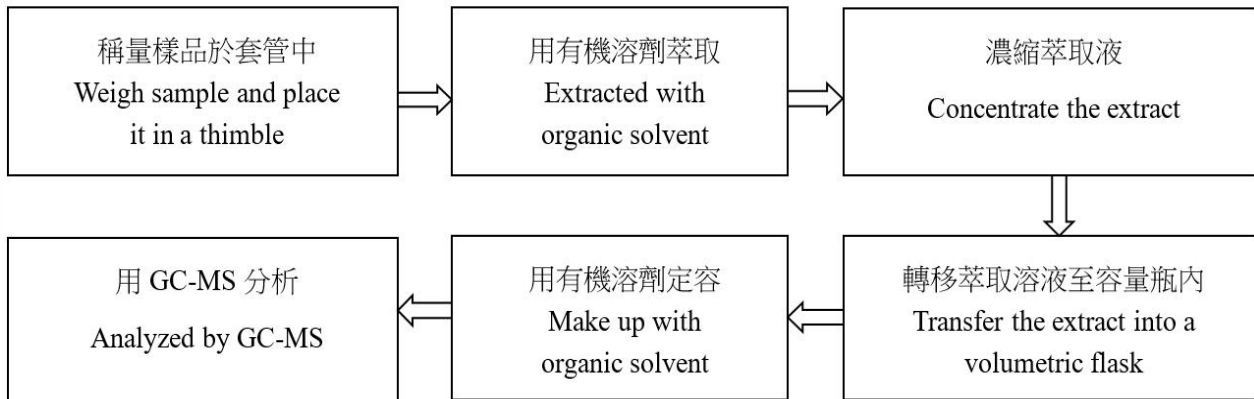
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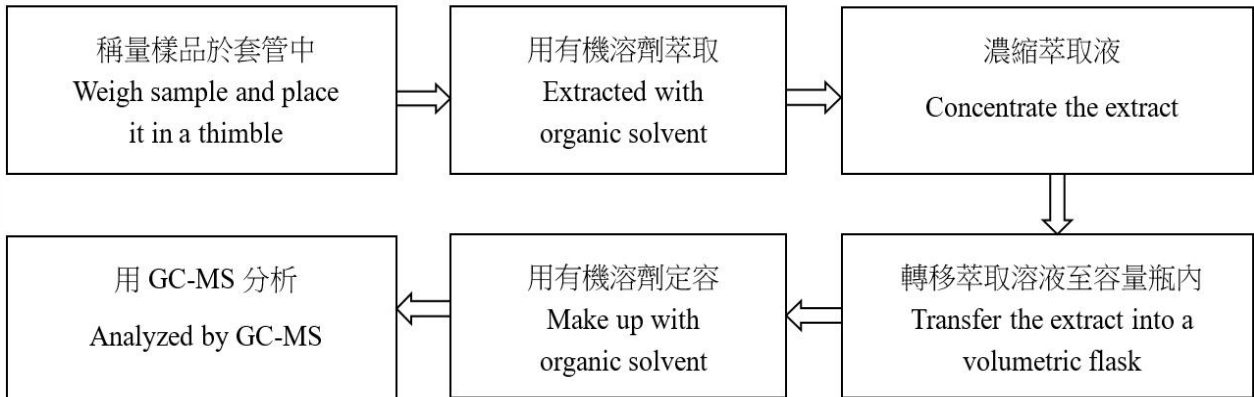
4. 多溴聯苯(PBBs), 多溴二苯醚(PBDEs)

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



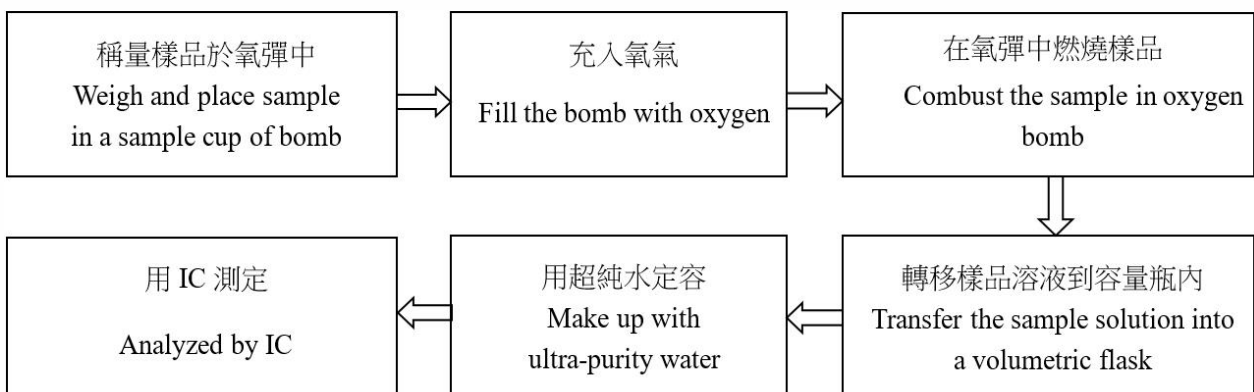
5. 鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP)

Phthalates (DBP, BBP, DEHP, DIBP)



6. 氟(F), 氯(Cl), 溴(Br), 碘(I)

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



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樣品圖片 Photo(s) of the sample(s)



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*** End of report ***