

# Test Report

號碼(No.): EKR23301994

94 日期(Date): 31-Mar-2023

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

以下測試樣品係由申請廠商所提供 applicant as) :	<b>共</b> 及確認	(The following sample(s) was/were submitted and identified by the
送樣廠商(Sample Submitted By) 樣品名稱(Sample Name) 樣品型號(Style/Item No.)	) : : :	長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) Ni PLATING Ni PLATING
收件日(Sample Receiving Date) 測試期間(Testing Period)	:	23-Mar-2023 23-Mar-2023 to 31-Mar-2023
測試需求(Test Requested)   :	(1)	依據客戶指定,參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測 試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。(As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
測試結果(Test Results) : 結 論(Conclusion) :	(2) (1)	其他測試項目請見下一頁。(Please refer to next pages for the other item(s).) 請參閱下一頁 (Please refer to following pages.) 根據客戶所提供的樣品,其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。(Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)

報告簽署人/張伯睿 博士/部 逐理 Ray Chang, Ph.D./ Department Manager Signed for and on behali

化學實驗室-高雄/Chemical Laboratory-Kaohsiung



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#### 測試部位敘述 (Test Part Description)

No.1 : 銀色金屬 (SILVER COLORED METAL)

#### 測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
鎘 (Cd) (Cadmium (Cd))	參考IEC 62321-5: 2013,以感應耦合電漿	mg/kg	2	n.d.	100
	發射光譜儀分析。(With reference to IEC				
鉛 (Pb) (Lead (Pb))	62321-5: 2013, analysis was performed	mg/kg	2	n.d.	1000
	by ICP-OES.)				
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017	mg/kg	2	n.d.	1000
	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.)				
六價鉻 (Hexavalent Chromium) Cr(VI)	參考IEC 62321-7-1: 2015 · 以紫外光-可見	µg/cm²	0.1	n.d.	-
(#2)	光分光光度計分析。(With reference to				
	IEC 62321-7-1: 2015, analysis was				
	performed by UV-VIS.)				
一溴聯苯 (Monobromobiphenyl)		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)	參考IEC 62321-6: 2015 · 以氣相層析儀/質	mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)	警惕分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)	6: 2015, analysis was performed by	mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)	GC/MS.)	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.	1000

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高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
一溴聯苯醚 (Monobromodiphenyl ether)		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)	參考IEC 62321-6: 2015,以氣相層析儀/質 ·譜儀分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)	前俄元价。(With reference to fec 62321- 6: 2015, analysis was performed by	mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)	GC/MS.)	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.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl	參考IEC 62321-8: 2017,以氣相層析儀/質	mg/kg	50	n.d.	1000
phthalate (BBP))	譜儀分析。(With reference to IEC 62321-				
	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二丁酯 (DBP) (Dibutyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	1000
phthalate (DBP))	譜儀分析。(With reference to IEC 62321-				
	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	1000
phthalate (DIBP))	譜儀分析。(With reference to IEC 62321-				
	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-	參考IEC 62321-8: 2017,以氣相層析儀/質	mg/kg	50	n.d.	1000
(2-ethylhexyl) phthalate (DEHP))	譜儀分析。(With reference to IEC 62321-				
	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二異壬酯 (DINP) (Diisononyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	-
phthalate (DINP)) (CAS No.: 28553-12-	譜儀分析。(With reference to IEC 62321-				
0, 68515-48-0)	8: 2017, analysis was performed by				
	GC/MS.)				

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高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
鄰苯二甲酸二異癸酯 (DIDP) (Diisodecyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	-
phthalate (DIDP)) (CAS No.: 26761-40-	譜儀分析。(With reference to IEC 62321-				
0, 68515-49-1)	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	-
phthalate (DNOP)) (CAS No.: 117-84-0)	譜儀分析。(With reference to IEC 62321-				
	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二正戊酯 (DNPP) (Di-n-	參考IEC 62321-8: 2017,以氣相層析儀/質	mg/kg	50	n.d.	-
pentyl phthalate (DNPP)) (CAS No.:	譜儀分析。(With reference to IEC 62321-				
131-18-0)	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二正己酯 (DNHP) (Di-n-hexyl	參考IEC 62321-8: 2017,以氣相層析儀/質	mg/kg	50	n.d.	-
phthalate (DNHP)) (CAS No.: 84-75-3)	譜儀分析。(With reference to IEC 62321-				
	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二庚酯 (DHpP) (Diheptyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	-
phthalate (DHpP)) (CAS No.: 3648-21-	譜儀分析。(With reference to IEC 62321-				
3)	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二(2-甲氧基乙基)酯 (DMEP)	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	-
(Bis-(2-methoxyethyl) phthalate	譜儀分析。(With reference to IEC 62321-				
(DMEP)) (CAS No.: 117-82-8)	8: 2017, analysis was performed by				
	GC/MS.)				
鄰苯二甲酸二(C7-11支鏈與直鏈)烷基酯	參考IEC 62321-8: 2017,以氣相層析儀/質	mg/kg	50	n.d.	-
(DHNUP) (1,2-Benzenedicarboxylic	譜儀分析。(With reference to IEC 62321-				
acid, di-C7-11-branched and linear	8: 2017, analysis was performed by				
alkyl esters (DHNUP)) (CAS No.: 68515-	GC/MS.)				
42-4)					
1,2-苯二酸-二(C6-8支鏈)烷基酯(富C7)	參考IEC 62321-8: 2017,以氣相層析儀/質	mg/kg	50	n.d.	-
(DIHP) (1,2-Benzenedicarboxylic acid,	譜儀分析。(With reference to IEC 62321-				
di-C6-8-branched alkyl esters, C7-rich	8: 2017, analysis was performed by				
(DIHP)) (CAS No.: 71888-89-6)	GC/MS.)				

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
氟 (F) (Fluorine (F)) (CAS No.: 14762-94- 8)		mg/kg	50	n.d.	-
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537- 15-1)	参考BS EN 14582: 2016.以離子層析儀分 析。(With reference to BS EN 14582:	mg/kg	50	n.d.	-
溴 (Br) (Bromine (Br)) (CAS No.: 10097- 32-2)	2016, analysis was performed by IC.)	mg/kg	50	n.d.	-
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	-
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	mg/kg	0.01	n.d.	-
全氟辛烷磺酸及其鹽類 (PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	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.	-
三氧化二銻(Sb <sub>2</sub> O <sub>3</sub> ) (Antimony trioxide (Sb <sub>2</sub> O <sub>3</sub> )) (CAS No.: 1309-64-4)	由銻結果計算得之。(Calculated from the result of Antimony.)	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.	-
氧化鈹 (BeO) (Beryllium oxide (BeO)) (CAS No.: 1304-56-9)	由鈹結果計算得之。(Calculated from the result of Beryllium.)	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.	-
磷 (P) (Phosphorus (P)) (CAS No.: 7723- 14-0)	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.	-

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
		. ,		No.1	
多氯聯苯 (PCBs) (Polychlorinated		mg/kg	0.5	n.d.	-
biphenyls (PCBs))	參考US EPA 3550C: 2007,以氣相層析儀/				
多氯奈 (PCNs) (Polychlorinated	質譜儀分析。(With reference to US EPA	mg/kg	5	n.d.	-
naphthalene (PCNs))	3550C: 2007, analysis was performed by				
多氯三聯苯 (PCTs) (Polychlorinated	GC/MS.)	mg/kg	0.5	n.d.	-
terphenyls (PCTs))					
短鏈氯化石蠟(C10-C13) (SCCP) (Short	參考ISO 18219-1: 2021 · 以氣相層析儀/	mg/kg	50	n.d.	-
Chain Chlorinated Paraffins(C10-C13)	質譜儀分析。(With reference to ISO				
(SCCP)) (CAS No.: 85535-84-8)	18219-1: 2021, analysis was performed				
	by GC/MS.)				
三苯基錫 (TPT) (Triphenyl tin (TPT))	參考ISO 17353: 2004,以氣相層析儀/火	mg/kg	0.03	n.d.	-
二辛基錫 (DOT) (Dioctyl tin (DOT))	焰光度偵測器分析。(With reference to	mg/kg	0.03	n.d.	-
二丁基錫 (DBT) (Dibutyl tin (DBT))	ISO 17353: 2004, analysis was	mg/kg	0.03	n.d.	-
三丁基錫 (TBT) (Tributyl tin (TBT))	performed by GC/FPD.)	mg/kg	0.03	n.d.	-
氧化雙三丁基錫 (TBTO) (Bis(tributyltin)	由三丁基錫測試結果計算得之。	mg/kg	0.03 🛦	n.d.	-
oxide (TBTO)) (CAS No.: 56-35-9)	(Calculated from the result of Tributyl				
	Tin (TBT).)				
石綿 (Asbestos)					
陽起石綿 (Actinolite) (CAS No.: 77536-		-	-	Negative	-
66-4)	參考EPA 600/R-93/116: 1993,以立體顯				
褐石綿/鐵石綿 (Amosite) (CAS No.:	微鏡(SM)與分散染色式偏光顯微鏡(DS-	-	-	Negative	-
12172-73-5)	PLM)及X光繞射光譜分析法(XRD)分析。				
斜方角閃石綿 (Anthophyllite) (CAS No.:	(With reference to EPA 600/R-93/116:	-	-	Negative	-
77536-67-5)	1993, analysis was performed by Stereo				
白石綿/溫石綿 (Chrysotile) (CAS No.:	Microscope (SM), Dispersion Staining	-	-	Negative	-
12001-29-5)	Polarized Light Microscope (DS-PLM)				
青石綿 (Crocidolite) (CAS No.: 12001-	and X-ray Diffraction Spectrometer	-	-	Negative	-
28-4)	(XRD).)				
透閃石綿 (Tremolite) (CAS No.: 77536-		-	-	Negative	-
68-6)					

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.)

高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
聚氯乙烯 (Polyvinyl chloride) (PVC)	參考ASTM E1252: 2021 · 以傅立葉轉換紅 外線光譜儀及焰色法分析。(With reference to ASTM E1252: 2021, analysis was performed by FT-IR and Flame Test.)	**	-	Negative	-
2-[2-羥基-3',5'-二-叔-丁基苯基]-苯並三 唑 (紫外線吸收劑320) (2-benzotriazol-2- yl-4,6-di-tert-butylphenol (UV-320)) (CAS No.: 3846-71-7)	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.	-
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.	-
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.	-
富馬酸二甲酯 (DMFu) (Dimethyl fumarate (DMFu)) (CAS No.: 624-49-7)	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	0.1	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.	-
甲醛 (Formaldehyde) (CAS No.: 50-00- 0)	參考ISO 17226-1: 2021 · 以液相層析儀/ 二極體陣列偵測器分析。(With reference to ISO 17226-1: 2021, analysis was performed by LC/DAD.)	mg/kg	3	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
紅磷 (Red Phosphorus)	以熱裂解-氣相層析儀/質譜儀分析。	**	-	Negative	-
	(Analysis was performed by Pyrolyzer-				
	GC/MS.)				
雙酚A (Bisphenol A) (CAS No.: 80-05-7)	參考RSTS-CHEM-239-1,以液相層析串聯	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to RSTS-				
	CHEM-239-1, analysis was performed by				
	LC/MS/MS.)				
氟氯碳化物 (Chlorofluorocarbons)					
(CFCs)					
CFC-11 (CAS No.: 75-69-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-12 (CAS No.: 75-71-8)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-13 (CAS No.: 75-72-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-111 (CAS No.: 354-56-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)		1		
CFC-112 (CAS No.: 76-12-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
CEC 112 (CAC No. 70 12 1)	GC/MS.)	100 or /1	1		
CFC-113 (CAS No.: 76-13-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
CFC-114 (CAS No.: 76-14-2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-115 (CAS No.: 76-15-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-211 (CAS No.: 422-78-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-212 (CAS No.: 3182-26-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-213 (CAS No.: 2354-06-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-214 (CAS No.: 29255-31-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-215 (CAS No.: 4259-43-2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-216 (CAS No.: 661-97-2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA	5. 5			
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
CFC-217 (CAS No.: 422-86-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氟氯氫烷碳化物					
(Hydrochlorofluorocarbons) (HCFCs)					
HCFC-21 (CAS No.: 75-43-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-22 (CAS No.: 75-45-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-31 (CAS No.: 593-70-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-121 (CAS No.: 354-14-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-122 (CAS No.: 354-21-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-123 (CAS No.: 306-83-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
HCFC-124 (CAS No.: 2837-89-0)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA	mg/kg	1	n.d.	-
	5021A: 2014, analysis was performed by GC/MS.)				
HCFC-131 (CAS No.: 359-28-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-141b (CAS No.: 1717-00-6)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-221 (CAS No.: 422-26-4)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-222 (CAS No.: 422-49-1)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-223 (CAS No.: 422-52-6)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-224 (CAS No.: 422-54-8)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-225ca (CAS No.: 422-56-0)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HCFC-225cb (CAS No.: 507-55-1)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-226 (CAS No.: 431-87-8)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-231 (CAS No.: 421-94-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-232 (CAS No.: 460-89-9)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-233 (CAS No.: 7125-84-0)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-234 (CAS No.: 425-94-5)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-235 (CAS No.: 460-92-4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-241 (CAS No.: 666-27-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Mathed)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
(Test items)	(Method)	(Unit)		No.1	(Limit)
HCFC-242 (CAS No.: 460-63-9)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HCFC-243 (CAS No.: 460-69-5)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-244	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-251 (CAS No.: 421-41-0)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-252 (CAS No.: 819-00-1)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-253 (CAS No.: 460-35-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HCFC-261 (CAS No.: 420-97-3)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-262 (CAS No.: 421-02-03)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HCFC-271 (CAS No.: 430-55-7)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-133a (CAS No.: 75-88-7)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-142b (CAS No.: 75-68-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-132b (CAS No.: 1649-08-7)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-141	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-142	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-151	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-225	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
海龍 (Halons)					
Halon-1211 (CAS No.: 353-59-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
Halon-1301 (CAS No.: 75-63-8)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
海龍-2402 (Halon-2402) (CAS No.: 124- 73-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
溴甲烷 (Bromomethane) (CAS No.: 74- 83-9) 不完全鹵化氟溴化物	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
(Hydrobromofluorocarbons) (HBFCs)					
HBFC-121B4 (C2HFBr4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-122B3 (C2HF2Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HBFC-123B2 (C2HF3Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HBFC-124B1 (C2HF4Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HBFC-131B3 (C2H2FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-132B2 (C2H2F2Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-133B1 (C2H2F3Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-141B2 (C2H3FBr2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-142B1 (C2H3F2Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-151B1 (C2H4FBr)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-21B2 (CHFBr2) (CAS No.: 1868- 53-7)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_

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高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HBFC-221B6 (C3HFBr6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-222B5 (C3HF2Br5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-223B4 (C3HF3Br4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HBFC-224B3 (C3HF4Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-225B2 (C3HF5Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-226B1 (C3HF6Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-22B1 (CHF2Br) (CAS No.: 1511- 62-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-231B5 (C3H2FBr5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HBFC-232B4 (C3H2F2Br4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-233B3 (C3H2F3Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-234B2 (C3H2F4Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-235B1 (C3H2F5Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-241B4 (C3H3FBr4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-242B3 (C3H3F2Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-243B2 (C3H3F3Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-244B1 (C3H3F4Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HBFC-251B3 (C3H4FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-252B2 (C3H4F2Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-253B1 (C3H4F3Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-261B2 (C3H5FBr2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-262B1 (C3H5F2Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-271B1 (C3H6FBr)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-31B1 (CH2FBr) (CAS No.: 373-52-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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# Test Report

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
	(,	(,		No.1	、 <i>,</i>
氫氟碳化合物 (Hydrofluorocarbon) (HFCs)					
HFC-125 (C2HF5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HFC-134 (C2H2F4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HFC-134a (CH2FCF3) (CAS No.: 811- 97-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-143 (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HFC-143a (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	_
HFC-152a (C2H4F2) (CAS No.: 75-37-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-227ea (C3HF7) (CAS No.: 431-89- 0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HFC-23 (CHF3) (CAS No.: 75-46-7)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-236ea (C3H2F6) (CAS No.: 431-63-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
0)	質譜儀分析。(With reference to US EPA	5 5			
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-236fa (CAS No.: 431-63-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-245ca (C3H3F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-245fa (C3H3F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-32 (CH2F2) (CAS No.: 75-10-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-365mfc (C4H5F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-43-10mee (C5H2F10)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HFC-41 (CH3F) (CAS No.: 593-53-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟化碳 (Perfluorocarbon) (PFCs)					
六氟乙烷 (Fluorocarbon 116) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
76-16-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,4-二氫八氟丁烷 (1,4-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
dihydrooctafluorobutane) (CAS No.:	質譜儀分析。(With reference to US EPA				
377-36-6)	5021A: 2014, analysis was performed by				
	GC/MS.)				
2-全氟甲基戊烷 (2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
Perfluoromethylpentane) (CAS No.:	質譜儀分析。(With reference to US EPA				
355-04-4)	5021A: 2014, analysis was performed by				
	GC/MS.)				
	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
355-25-9)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
四氟甲烷 (Freon 14) (CAS No.: 75-73-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
八氟丙烷 (Freon 218) (CAS No.: 76-19-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
7)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)			ļ	
2-全氟甲基丁烷 (Nonafluor-2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
-	質譜儀分析。(With reference to US EPA				
91-2)	5021A: 2014, analysis was performed by				
	GC/MS.)				

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
全氟-1-丁烯 (Perfluor-1-butene) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 357-26-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟異丁烯 (Perfluorisobutene) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 382-21-8)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟己烷 (Perfluorohexane) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
355-42-0)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟戊烷 (Perfluoro-n-pentane) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 678-26-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
八氟環丁烷 (Freon C318) (CAS No.: 115-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
25-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯碳氫化物 (Chlorinate hydrocarbon)					
(CHCs)					
四氯甲烷 (四氯化碳) (Carbon	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
tetrachloride) (CAS No.: 56-23-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1,1-三氯乙烷 (1,1,1-Trichloroethane)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 71-55-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.)

高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
1,1,1,2-四氯乙烷 (1,1,1,2- Tetrachloroethane) (CAS No.: 630-20- 6)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1,2,2-四氯乙烷 (1,1,2,2- Tetrachloroethane) (CAS No.: 79-34-5)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1,2-三氯乙烷 (1,1,2-Trichloroethane) (CAS No.: 79-00-5)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯乙烷 (1,1-Dichloroethane) (CAS No.: 75-34-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯乙烯 (1,1-Dichloroethylene) (CAS No.: 75-35-4)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯丙烯 (1,1-Dichloropropene) (CAS No.: 563-58-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
(CAS No.: 96-18-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,2-二氯乙烷 (1,2-Dichloroethane) (CAS No.: 107-06-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.)

高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Mathead)	單位 (Unit)	MDL	結果 (Pocult)	限值 (Limit)
(Test Items)	(Method)	(Unit)		(Result) No.1	(Limit)
1,2-二氯丙烷 (1,2-Dichloropropane) (CAS No.: 78-87-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,3-二氯丙烷 (1,3-Dichloropropane) (CAS No.: 142-28-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
2,2-二氯丙烷 (2,2-Dichloropropane) (CAS No.: 594-20-7)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
氯仿 (Chloroform) (CAS No.: 67-66-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
氯甲烷 (Chloromethane) (CAS No.: 74- 87-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
順-1,2-二氯乙烯 (cis-1,2- Dichloroethene) (CAS No.: 156-59-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
順-1,3-二氯丙烯 (cis-1,3- Dichloropropene) (CAS No.: 10061-01- 5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
二氯甲烷 (Dichloromethane) (CAS No.: 75-09-2)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.)

高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
四氯乙烯 (Tetrachloroethene) (CAS No.: 127-18-4)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
反-1,2-二氯乙烯 (trans-1,2- Dichloroethene) (CAS No.: 156-60-5)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
反-1,3-二氯丙烯 (trans-1,3- Dichloropropene) (CAS No.: 10061-02- 6)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
三氯乙烯 (Trichloroethylene) (CAS No.: 79-01-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
氯乙烷 (Chloroethane) (CAS No.: 75-00- 3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
六氯-1,3-丁二烯 (Hexachlorobutadiene) (CAS No.: 87-68-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
溴氯甲烷 (Bromochloromethane) (CAS No.: 74-97-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
六氟化硫 (SF6) (Sulphur hexafluoride (SF6)) (CAS No.: 2551-62-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
偶氮染料 (AZO Dyes)			2	n d	
對-胺基聯苯 (4-Aminobiphenyl) (CAS No.: 92-67-1)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
聯苯胺 (Benzidine) (CAS No.: 92-87-5)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4-氯鄰甲苯胺 (4-chloro-o-toluidine) (CAS No.: 95-69-2)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2-萘胺 (2-Naphthylamine) (CAS No.: 91-59-8)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-胺基偶氮甲苯 (o-Aminoazotoluene) (CAS No.: 97-56-3)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
5-硝基-鄰-甲苯胺 (5-Nitro-o-toluidine) (CAS No.: 99-55-8)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	_

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
4-氯苯胺 (4-Chloroaniline) (CAS No.:	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
106-47-8)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
4-甲氧基-間-苯二胺 / 2,4-二胺基苯甲醚	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
(4-Methoxy-m-phenylenediamine /	質譜儀及高效液相層析儀/二極體陣列偵測				
2,4-Diaminoanisole) (CAS No.: 615-05-	器分析。(With reference to EN ISO				
4)	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
4,4'-二胺基二苯甲烷 (4,4'-	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
Diaminodiphenylmethane) (CAS No.:	質譜儀及高效液相層析儀/二極體陣列偵測				
101-77-9)	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
3,3'-二氯聯苯胺 (3,3'-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
Dichlorobenzidine) (CAS No.: 91-94-1)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
3,3'-二甲氧基聯苯胺 (3,3'-	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
Dimethoxybenzidine) (CAS No.: 119-	質譜儀及高效液相層析儀/二極體陣列偵測				
90-4)	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
3,3'-二甲基聯苯胺 (3,3'-	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
Dimethylbenzidine) (CAS No.: 119-93-	質譜儀及高效液相層析儀/二極體陣列偵測				
7)	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.)

高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
4,4'-亞甲基二-鄰-苯胺 (4,4'- Methylenedi-o-toluidine) (CAS No.: 838-88-0)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
6-甲氧基-間-甲苯胺 (6-Methoxy-m- toluidine) (CAS No.: 120-71-8)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-亞甲基-雙(2-氯苯胺) (4,4'- Methylene-bis-(2-chloro-Aniline)) (CAS No.: 101-14-4)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-二胺基二苯醚 (4,4'-Oxydianiline) (CAS No.: 101-80-4)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-硫代雙苯胺 (4,4'-Thiodianiline) (CAS No.: 139-65-1)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-甲苯胺 (o-Toluidine) (CAS No.: 95- 53-4)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO., LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
, , , , , , , , , , , , , , , , , , ,		、 <i>,</i>		No.1	. ,
2,4-二氨基甲苯 (2,4-Diaminotoluene) (CAS No.: 95-80-7)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2,4,5-三甲基苯胺 (2,4,5- Trimethylaniline) (CAS No.: 137-17-7)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	_
鄰-甲氧基苯胺 (2-Methoxyaniline) (CAS No.: 90-04-0)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4-胺基偶氮苯 (4-Aminoazobenzene) (CAS No.: 60-09-3)	參考EN ISO 14362-1: 2017 and EN ISO 14362-3: 2017 · 以氣相層析質譜儀及高效 液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017 and EN ISO 14362-3: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2,4-二甲基苯胺 (2,4-Xylidine) (CAS No.: 95-68-1)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2,6-二甲基苯胺 (2,6-Xylidine) (CAS No.: 87-62-7)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	_

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長華科技股份有限公司 (CHANG WAH TECHNOLOGY CO.,LTD.) 高雄市楠梓區東七街16號 (NO. 16, EAST 7TH STREET, NANZIH DISTRICT, KAOHSIUNG CITY, TAIWAN (R.O.C.))

#### 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. \*\*= Qualitative analysis (No Unit) 定性分析(無單位)
- 6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
- 7. 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".)
- 8. 全氟辛烷磺酸及其鹽類包含等物質 (PFOS and its salts including): CAS No.: 1763-23-1, 2795-39-3, 29457-72-5, 29081-56-9, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7, 91036-71-4, 4021-47-0 and others.
- 9. 全氟辛酸及其鹽類包含等物質 (PFOA and its salts including):
- CAS No.: 335-67-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0, 3825-26-1 and others.
- 10. (#2) =

a. 當六價鉻結果大於0.13 µg/cm<sup>2</sup> · 表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm<sup>2</sup>. The sample coating is considered to contain Cr(VI).) b. 當六價鉻結果為n.d. (濃度小於0.10 µg/cm<sup>2</sup>) · 表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 µg/cm<sup>2</sup>). The coating is considered a non-Cr(VI) based coating) c. 當六價鉻結果介於 0.10 及 0.13 µg/cm<sup>2</sup> 時,無法確定塗層是否含有六價鉻。(The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> is considered to be inconclusive - unavoidable coating variations may influence the determination.)

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# Test Report

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11. ▲: MDL是針對元素/測試化合物之評估。(The MDL was evaluated for element / tested substance.) 換算公式 (Conversion Formula): AX = A × F

AX	А	F
氧化鈹 (Beryllium oxide) (BeO)	鈹 (Beryllium)	2.7753
氧化雙三丁基錫 (Bis(tributyltin)oxide) (TBTO)	三丁基錫 (Tributyl Tin) (TBT)	1.0276
三氧化二銻 (Antimony trioxide) (Sb₂O₃)	銻 (Antimony)	1.1971

參數換算表 (Parameter Conversion Table):

https://eecloud.sgs.com/Region\_TW/DocDownload.aspx?name=Others

12. 除非另有說明,參照ILAC-G8:09/2019,採用簡單二元(w=0)允收規則進行符合性判定;根據此規則,符合性結果之判 定係以測試結果與限值做比較。(Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)

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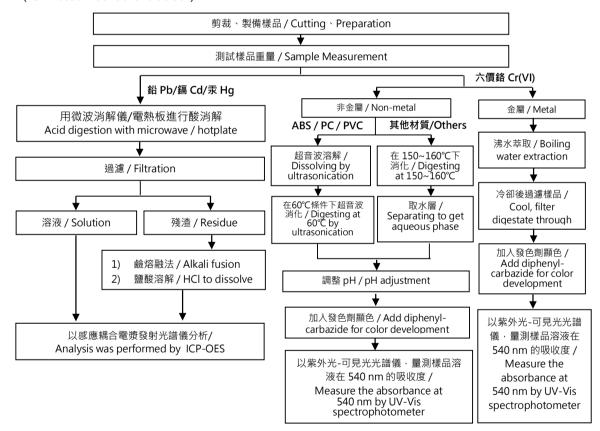
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#### 重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件,樣品已完全溶解。(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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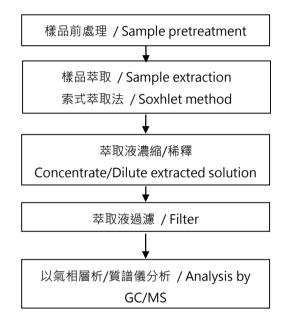
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#### 多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART



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

樣品前處理/分樣 / Sample pretreatment/separation 樣品以 THF 四氫呋喃溶解萃取 / Sample dissolved/extracted by THF 萃取液稀釋 / Dilute extracted solution 氣相層析質譜儀分析 / Analysis was performed by GC/MS 數據 / Data

【測試方法/Test method: IEC 62321-8】

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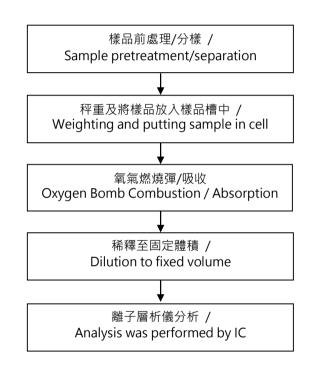


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#### 鹵素分析流程圖 / Analytical flow chart of Halogen

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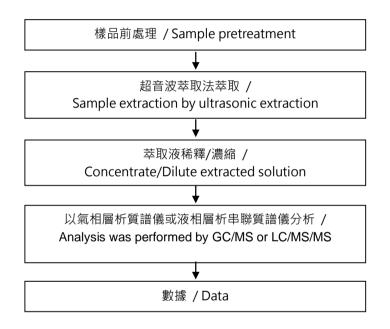
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# 全氟化合物(包含全氟辛酸/全氟辛烷磺酸/其相關化合物等等)分析流程圖 / Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)



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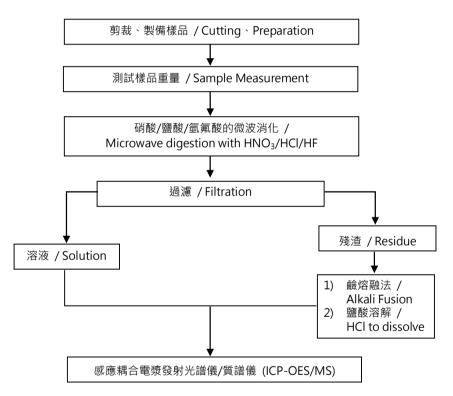
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元素(含重金屬)分析流程圖 / Analytical flow chart of Elements (Heavy metal included)

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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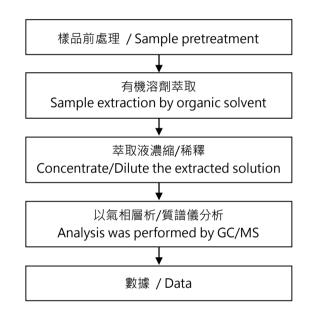
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#### 分析流程圖 / Analytical flow chart

【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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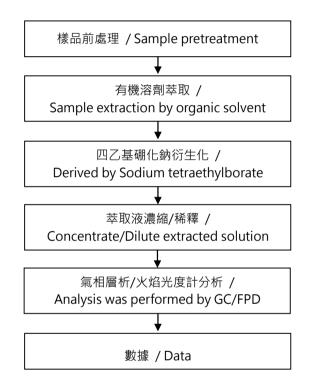
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有機錫分析流程圖 / Analytical flow chart - Organic-Tin



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## 測試報告

### **Test Report**

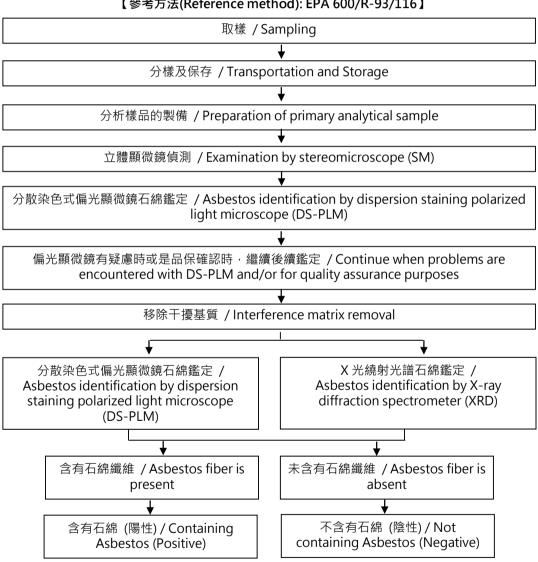
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石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos 【參考方法(Reference method): EPA 600/R-93/116】

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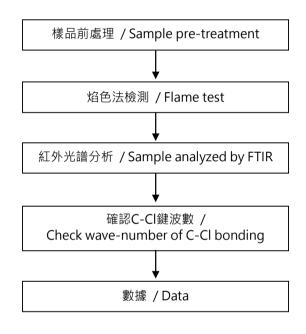
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#### 聚氯乙烯物質判定分析流程圖 / Analysis flow chart - PVC



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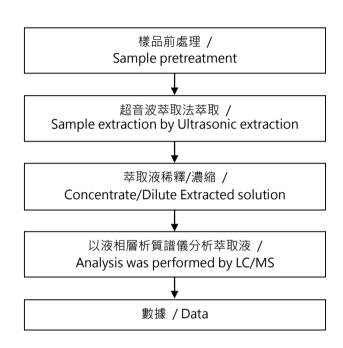
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四溴雙酚-A分析流程圖 / TBBP-A analytical flow chart

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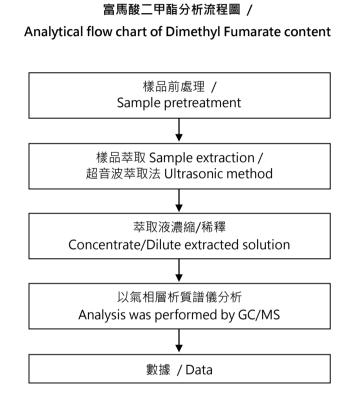
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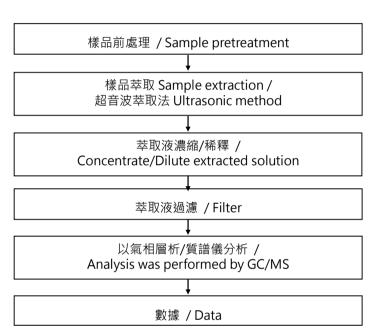
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#### 六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD

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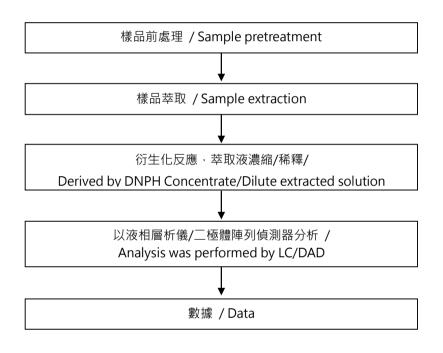
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#### 甲醛分析流程圖 / Analytical flow chart - Formaldehyde



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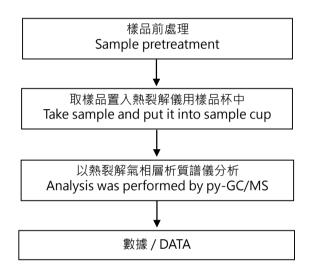
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紅磷分析流程 / Analytical flow chart - Red phosphorus



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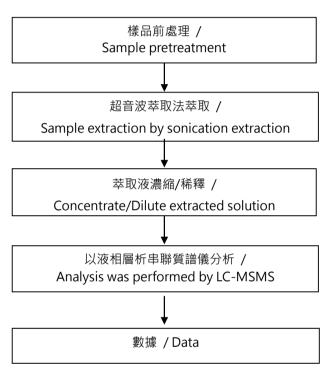
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雙酚A分析流程圖 / Bisphenol A analytical flow chart

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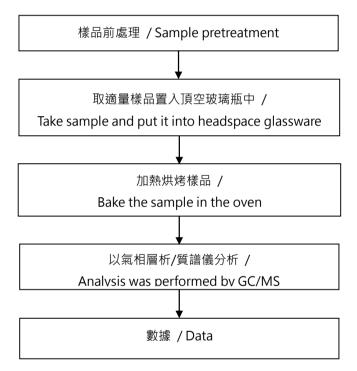
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### 揮發性有機化合物分析流程圖 / Analytical flow chart of volatile organic compounds (VOCs)

【參考方法/Reference method: US EPA 5021A】



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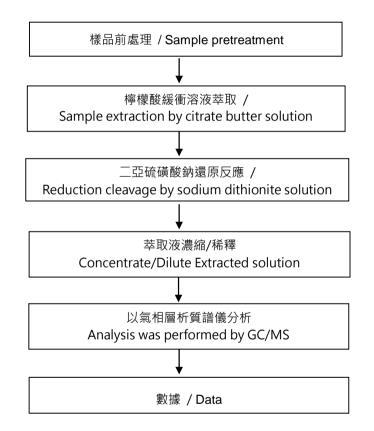
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#### 偶氮分析流程圖 / Analytical flow chart of Azo dyes

【測試方法/Test method: ISO 14362-1】



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