

號碼(No.): ETR23A04122 日期(Date): 02-Nov-2023 頁數(Page): 1 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, 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 樣品名稱(Sample Name) 樣品型號(Style/Item No.) 樣品編碼(Sample No.) 顏色(Color)) : : : :	陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) COPPER OXIDE (氧化銅) 42101 C23025-1 黑色 (BLACK)
收件日(Sample Receiving Date) 測試期間(Testing Period)	:	23-Oct-2023 23-Oct-2023 to 02-Nov-2023
測試需求(Test Requested) :	(1)(2)(3)(4)	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).) 依據客戶指定,測試 PAHs。(As specified by client, to test PAHs.) 依據客戶要求,評估所選樣品中特定PFAS的風險。被評估的PFAS總項目數量為224 項,包括86項檢測項和138項列表項 (see PFAS Remark)。(As requested by the client, the risk of specific PFAS in the selected sample is evaluated. The total amounts of evaluated PFAS are 224 items, concluding 86 tested items and 138 listed items (see PFAS Remark).) 其他測試項目請見下一頁。(Please refer to next pages for the other item(s).)
測試結果(Test Results) :		請參閱下一頁 (Please refer to following pages.)
結 論(Conclusion) :		請參閱下一頁 (Please refer to following pages.)





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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 2 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

結 論(Conclusion)

:

- 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.)
- (2) 根據客戶所提供的樣品,多環芳香烴測試結果符合德國產品安全委員會(AfPS) GS PAHs第 3 類「其它產品」之限值要求。(Based upon the performed tests on the submitted sample(s), the test results of PAHs (15 items) comply with the limits of PAHs requirement (Category 3)「Other consumer products」 as set by German Committee on Product Safety (AfPS) GS PAHs.)

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Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 3 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試部位敘述 (Test Part Description)

No.1 : 黑色粉末 (BLACK POWDER)

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 · 以感應耦合電漿發	mg/kg	2	n.d.	100
	射光譜儀分析。(With reference to IEC				
	62321-5: 2013, analysis was performed				
	by ICP-OES.)				
鉛 (Pb) (Lead (Pb))	參考IEC 62321-5: 2013 · 以感應耦合電漿發	mg/kg	2	n.d.	1000
	射光譜儀分析。(With reference to IEC				
	62321-5: 2013, analysis was performed				
	by ICP-OES.)				
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017,以	mg/kg	2	n.d.	1000
	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 Cr(VI) (Hexavalent Chromium	參考IEC 62321-7-2: 2017 · 以紫外光-可見	mg/kg	8	n.d.	1000
Cr(VI))	光分光光度計分析。(With reference to IEC				
	62321-7-2: 2017, 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)	譜儀分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)	6: 2015, analysis was performed by GC/MS.)	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.	1000

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 4 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

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)	● 參考IEC 62321-6: 2015 · 以氣相層析儀/質	mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)	警告 2321-0.2013 · 以黑伯盾价度/頁 譜儀分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)	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		mg/kg	50	n.d.	1000
phthalate (BBP))					
鄰苯二甲酸二丁酯 (DBP) (Dibutyl		mg/kg	50	n.d.	1000
phthalate (DBP))					
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-		mg/kg	50	n.d.	1000
(2-ethylhexyl) phthalate (DEHP))					
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl		mg/kg	50	n.d.	1000
phthalate (DIBP))					
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.: 26761-40-0,	譜儀分析。(With reference to IEC 62321-				
68515-49-1)	8: 2017, analysis was performed by				
鄰苯二甲酸二異壬酯 (DINP) (Diisononyl	GC/MS.)	mg/kg	50	n.d.	-
phthalate (DINP)) (CAS No.: 28553-12-0,					
68515-48-0)					
鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl	1	mg/kg	50	n.d.	-
phthalate (DNOP)) (CAS No.: 117-84-0)					
鄰苯二甲酸二異戊酯 (DIPP) (Diisopentyl]	mg/kg	50	n.d.	-
phthalate (DIPP)) (CAS No.: 605-50-5)					
鄰苯二甲酸二正己酯 (DNHP) (Di-n-hexyl		mg/kg	50	n.d.	-
phthalate (DNHP)) (CAS No.: 84-75-3)					

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 5 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
鄰苯二甲酸雙(2-甲氧基乙基)酯 (DMEP) (Bis(2-methoxyethyl) phthalate (DMEP)) (CAS No.: 117-82-8)	參考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	-
鄰苯二甲酸二(支鏈及直鏈戊基)酯 (DPP) (1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP)) (CAS No.: 84777-06-0)	参考IEC 62321-8.2017,以黑柏層術展/頁 譜儀分析。(With reference to IEC 62321- 8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
鄰苯二甲酸二正戊酯 (DNPP) (Di-n-pentyl phthalate (DNPP)) (CAS No.: 131-18-0)		mg/kg	50	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.	-
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.	-
氟 (F) (Fluorine (F)) (CAS No.: 14762-94- 8)		mg/kg	50	n.d.	-
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537- 15-1)	參考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.	-
多氯聯苯 (PCBs) (Polychlorinated biphenyls (PCBs))	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	0.5	n.d.	-
多氯三聯苯 (PCTs) (Polychlorinated terphenyls (PCTs))	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	0.5	n.d.	-

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Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 6 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
(Test items)	(Method)	(Onit)		No.1	(Linnt)
多氯奈 (PCNs) (Polychlorinated naphthalene (PCNs))	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.	-
短鏈氯化石蠟(C10-C13) (SCCP) (Short Chain Chlorinated Paraffins(C10-C13) (SCCP)) (CAS No.: 85535-84-8)	參考ISO 18219-1: 2021 · 以氣相層析儀/質 譜儀分析。(With reference to ISO 18219- 1: 2021, analysis was performed by GC/MS.)	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.	-
四溴雙酚-A-雙 (TBBP-A-bis) (CAS No.: 21850-44-2)	參考US EPA 3550C: 2007 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	5	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.	-
三丁基錫 (TBT) (Tributyl tin (TBT))	參考ISO 17353: 2004 · 以氣相層析儀/火焰	mg/kg	0.03	n.d.	-
三苯基錫 (TPT) (Triphenyl tin (TPT))	光度偵測器分析。(With reference to ISO	mg/kg	0.03	n.d.	-
二丁基錫 (DBT) (Dibutyl tin (DBT))	17353: 2004, analysis was performed by	mg/kg	0.03	n.d.	-
二辛基錫 (DOT) (Dioctyl tin (DOT))	GC/FPD.)	mg/kg	0.03	n.d.	-
氧化雙三丁基錫 (TBTO) (Bis(tributyltin) oxide (TBTO)) (CAS No.: 56-35-9)	由三丁基錫測試結果計算得之。(Calculated from the result of Tributyl Tin (TBT).)	mg/kg	0.03	n.d.	-

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Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 7 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
多環芳香烴 (Polycyclic Aromatic Hydrocarbons) (PAHs)					
苯駢(a)芘 (Benzo[a]pyrene) (CAS No.: 50-32-8)		mg/kg	0.2	n.d.	Δ
苯駢(e)芘 (Benzo[e]pyrene) (CAS No.: 192-97-2)		mg/kg	0.2	n.d.	Δ
苯駢蔥 (Benzo[a]anthracene) (CAS No.: 56-55-3)		mg/kg	0.2	n.d.	Δ
苯(b)苯駢芴 (Benzo[b]fluoranthene) (CAS No.: 205-99-2)		mg/kg	0.2	n.d.	Δ
苯(j)苯駢芴 (Benzo[j]fluoranthene) (CAS No.: 205-82-3)		mg/kg	0.2	n.d.	Δ
苯(k)苯駢芴 (Benzo[k]fluoranthene) (CAS No.: 207-08-9)	参考AfPS GS 2019:01 PAK · 以氣相層析儀/	mg/kg	0.2	n.d.	Δ
䓛 (Chrysene) (CAS No.: 218-01-9)	質譜儀分析。(With reference to AfPS GS	mg/kg	0.2	n.d.	Δ
二苯駢蒽 (Dibenzo[a,h]anthracene) (CAS No.: 53-70-3)	2019:01 PAK, analysis was performed by GC/MS.)	mg/kg	0.2	n.d.	Δ
苯駢苝 (Benzo[g,h,i]perylene) (CAS No.: 191-24-2)		mg/kg	0.2	n.d.	Δ
茚酮芘 (Indeno[1,2,3-c,d]pyrene) (CAS No.: 193-39-5)		mg/kg	0.2	n.d.	Δ
蒽 (Anthracene) (CAS No.: 120-12-7)		mg/kg	0.2	n.d.	Δ
苯駢芴 (Fluoranthene) (CAS No.: 206- 44-0)		mg/kg	0.2	n.d.	Δ
菲 (Phenanthrene) (CAS No.: 85-01-8)		mg/kg	0.2	n.d.	Δ
芘 (Pyrene) (CAS No.: 129-00-0)		mg/kg	0.2	n.d.	Δ
萘 (Naphthalene) (CAS No.: 91-20-3)		mg/kg	0.2	n.d.	Δ
多環芳香烴15項總和 (Sum of 15 PAHs)		mg/kg	-	n.d.	Δ

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 8 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
石綿 (Asbestos)					
陽起石綿 (Actinolite) (CAS No.: 77536- 66-4)		-	-	Negative	-
褐石綿/鐵石綿 (Amosite) (CAS No.: 12172-73-5)	参考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	-	-	Negative	-
斜方角閃石綿 (Anthophyllite) (CAS No.: 77536-67-5)	X光繞射光譜分析法(XRD)分析。(With reference to EPA 600/R-93/116: 1993,	-	-	Negative	-
白石綿/溫石綿 (Chrysotile) (CAS No.: 12001-29-5)	analysis was performed by Stereo Microscope (SM), Dispersion Staining	-	_	Negative	-
青石綿 (Crocidolite) (CAS No.: 12001- 28-4)	Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD).)	-	-	Negative	-
透閃石綿 (Tremolite) (CAS No.: 77536- 68-6)		-	-	Negative	-
偶氮染料 (AZO Dyes)					
4-氨基二苯 (4-aminodiphenyl) (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.	-

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 9 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
2-萘胺 (2-naphthylamine) (CAS No.: 91-	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
59-8)	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.)				
鄰-胺基偶氮甲苯 (o-aminoazotoluene)	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
(CAS No.: 97-56-3)	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.)				
2-胺基-4-硝基甲苯 (5-nitro-o-toluidine)	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
(CAS No.: 99-55-8)	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-氯苯胺 (4-chloroaniline) (CAS No.:	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
106-47-8)	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.)				
2,4-二氨基苯甲醚 (2,4-diaminoanisole)	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
(CAS No.: 615-05-4)	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.)				
4,4'-二胺基二苯甲烷 (4,4'-	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
diaminodiphenylmethane (MDA)) (CAS	譜儀及高效液相層析儀/二極體陣列偵測器分				
No.: 101-77-9)	析。(With reference to EN ISO 14362-1:				
	2017, analysis was performed by GC/MS				
	and HPLC/DAD.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 10 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
3,3'-二氯聯苯胺 (3,3'-dichlorobenzidine)	參考EN ISO 14362-1: 2017,以氣相層析質	mg/kg	3	n.d.	-
(CAS No.: 91-94-1)	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 · 以氣相層析質	mg/kg	3	n.d.	-
dimethoxybenzidine) (CAS No.: 119-	譜儀及高效液相層析儀/二極體陣列偵測器分				
90-4)	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 · 以氣相層析質	mg/kg	3	n.d.	-
dimethylbenzidine) (CAS No.: 119-93-	譜儀及高效液相層析儀/二極體陣列偵測器分				
7)	析。(With reference to EN ISO 14362-1:				
	2017, analysis was performed by GC/MS				
	and HPLC/DAD.)		2		
3,3'-二甲基-4,4'-二胺基二苯甲烷 (3,3'- dimethyl-4,4'-	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	mg/kg	3	n.d.	-
diaminodiphenylmethane) (CAS No.:	甫				
838-88-0)	2017, analysis was performed by GC/MS				
	and HPLC/DAD.)				
	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	_
methylaniline) (CAS No.: 120-71-8)	譜儀及高效液相層析儀/二極體陣列偵測器分	iiig/ kg	5	n.a.	
	析。(With reference to EN ISO 14362-1:				
	2017, analysis was performed by GC/MS				
	and HPLC/DAD.)				
4,4'-亞甲雙(2-氯苯胺) (4,4'-methylene-	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
bis-(2-chloroaniline)) (CAS No.: 101-14-	譜儀及高效液相層析儀/二極體陣列偵測器分	J. J			
4)	析。(With reference to EN ISO 14362-1:				
	2017, analysis was performed by GC/MS				
	and HPLC/DAD.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 11 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
4,4'-二胺基二苯醚 (4,4'-oxydianiline)	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
(CAS No.: 101-80-4)	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.)				
4,4'-硫二苯胺 (4,4'-thiodianiline) (CAS	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
No.: 139-65-1)	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.)				
鄰-甲苯胺 (o-toluidine) (CAS No.: 95-	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
53-4)	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.)				
	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
No.: 95-80-7)	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.)				
2,4,5-三甲苯胺 (2,4,5-trimethylaniline)	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
(CAS No.: 137-17-7)	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.)		-	. I	
鄰-甲氧基苯胺 (o-anisidine) (CAS No.:	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
90-04-0)	譜儀及高效液相層析儀/二極體陣列偵測器分				
	$ff \circ$ (With reference to EN ISO 14362-1:				
	2017, analysis was performed by GC/MS				
	and HPLC/DAD.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 12 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
	參考EN ISO 14362-1: 2017 or/and EN ISO	mg/kg	3	n.d.	-
(CAS No.: 60-09-3)	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				
	or/and EN ISO 14362-3: 2017, analysis				
	was performed by GC/MS & HPLC/DAD.)				
2,4-二甲基苯胺 (2,4-xylidine) (CAS No.:	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
95-68-1)	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.)				
2,6-二甲基苯胺 (2,6-xylidine) (CAS No.:	參考EN ISO 14362-1: 2017 · 以氣相層析質	mg/kg	3	n.d.	-
87-62-7)	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.)				
聚氯乙烯 (Polyvinyl chloride) (PVC)	參考ASTM E1252: 2021,以傅立葉轉換紅	**	-	Negative	-
	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.)				
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.)				
甲醛 (Formaldehyde) (CAS No.: 50-00-	參考ISO 17226-1: 2021 · 以液相層析儀/二	mg/kg	3	n.d.	-
0)	極體陣列偵測器分析。(With reference to				
	ISO 17226-1: 2021, analysis was				
	performed by LC/DAD.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 13 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
銻 (Sb) (Antimony (Sb)) (CAS No.: 7440-	參考US EPA 3052: 1996,以感應耦合電漿	mg/kg	2	n.d.	-
36-0)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
砷 (As) (Arsenic (As)) (CAS No.: 7440-	參考US EPA 3052: 1996,以感應耦合電漿	mg/kg	2	n.d.	-
38-2)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-	參考US EPA 3052: 1996 · 以感應耦合電漿	mg/kg	2	n.d.	-
41-7)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)		0.1		
	以離子層析儀分析。(Analysis was	µg/g	0.1	n.d.	-
73-0)	performed by IC.)				
全氟/多氟烷基物質 (PFAS) 全氟丁酸及其鹽類 (PFBA and its salts)		m a /l ca	0.01	nd	
主無」酸次其鹽類 (PFBA and its salts) (Perfluorobutane acid and its salts	参考CEN/TS 15968: 2010,以液相層析串聯 質譜儀分析。(With reference to CEN/TS	mg/kg	0.01	n.d.	-
•	頁				
and its salts)	LC/MS/MS.)				
全氟丁磺酸及其鹽類 (PFBS and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	
(Perfluorobutane sulfonate and its salts)	質譜儀分析。(With reference to CEN/TS	шу/ку	0.01	n.u.	
(PFBS and its salts)) (CAS No.: 375-73-5	15968: 2010, analysis was performed by				
and its salts)	LC/MS/MS.)				
N-(2-羥乙基)-N-甲基全氟丁烷磺醯胺	参考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	_
(PFBS-NC3H8O) (1,1,2,2,3,3,4,4,4-	質譜儀分析。(With reference to CEN/TS	ing, kg	0.01	11.01.	
nonafluoro-N-(2-hydroxyethyl)-N-	15968: 2010, analysis was performed by				
methylbutane-1-sulphonamide (PFBS-	LC/MS/MS.)				
NC3H8O)) (CAS No.: 34454-97-2)					
1H,1H,2H,2H-甲基丙烯酸全氟己酯 (4:2	参考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
FTMA) (1H,1H,2H,2H-Perfluorohexyl	質譜儀分析。(With reference to CEN/TS	J. J			
methacrylate (4:2 FTMA)) (CAS No.:	15968: 2010, analysis was performed by				
1799-84-4)	GC/MS.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 14 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
全氟戊酸及其鹽類 (PFPA and its salts)	參考CEN/TS 15968: 2010,以液相層析串聯	mg/kg	0.01	n.d.	-
(Perfluoropentane acid and its salts	質譜儀分析。(With reference to CEN/TS				
(PFPA and its salts)) (CAS No.: 2706-90-	15968: 2010, analysis was performed by				
3 and its salts)	LC/MS/MS.)				
全氟已酸及其鹽類 (PFHxA and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(Perfluorohexane acid and its salts	質譜儀分析。(With reference to CEN/TS				
(PFHxA and its salts)) (CAS No.: 307-24-	15968: 2010, analysis was performed by				
4 and its salts)	LC/MS/MS.)				
1H,1H,2H,2H-全氟-1-辛醇 (6:2 FTOH)	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(1H,1H,2H,2H-Perfluoro-1-octanol	質譜儀分析。(With reference to CEN/TS				
(6:2FTOH)) (CAS No.: 647-42-7)	15968: 2010, analysis was performed by				
	GC/MS.)				
1H,1H,2H,2H-全氟辛基丙烯酸酯 (6:2	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
FTA) (1H,1H,2H,2H-	質譜儀分析。(With reference to CEN/TS				
Perfluorooctylacrylate (6:2FTA)) (CAS	15968: 2010, analysis was performed by				
No.: 17527-29-6)	GC/MS.)				
1H,1H,2H,2H-全氟辛基甲基丙烯酸酯(6_2	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
FTMAC) (1H,1H,2H,2H-Perfluorooctyl	質譜儀分析。(With reference to CEN/TS				
methacrylate (6:2 FTMAC)) (CAS No.:	15968: 2010, analysis was performed by				
2144-53-8)	GC/MS.)				
1H,1H,2H,2H-全氟辛磺酸及其鹽類 (6:2	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
FTS and its salts) (1H,1H,2H,2H-	質譜儀分析。(With reference to CEN/TS				
Perfluorooctanesulphonic acid and its	15968: 2010, analysis was performed by				
salts (6:2 FTS and its salts)) (CAS No.:	LC/MS/MS.)				
27619-97-2 and others)					
全氟己基磺酸及其鹽類 (PFHxS and its	參考CEN/TS 15968: 2010,以液相層析串聯	mg/kg	0.01	n.d.	-
salts) (Perfluorohexane sulfonate and	質譜儀分析。(With reference to CEN/TS	2 3			
its salts (PFHxS and its salts)) (CAS No.:	15968: 2010, analysis was performed by				
355-46-4 and its salts)	LC/MS/MS.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 15 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
N-甲基全氟-1-己烷磺醯胺 (N-MeFHxSA) (N-Methylperfluoro-1- hexanesulfonamide (N-Me-FHxSA)) (CAS No.: 68259-15-4)	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.	-
全氟己烷磺醯胺 (PFHxSA) (Perfluorohexane sulfonamide (PFHxSA)) (CAS No.: 41997-13-1)	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.	-
(N-AP-FHxSA) (N-[3- (dimethylamino)propyl]tridecafluorohe xanesulphonamide (N-AP-FHxSA)) (CAS No.: 50598-28-2)	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.	-
2-[甲基[(十三氟己基)磺醯基]氨基]丙烯酸 乙酯 (N-MeFHSEA) (2- [Methyl[(tridecafluorohexyl)sulphonyl]a mino]ethyl acrylate (N-MeFHSEA)) (CAS No.: 67584-57-0)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.5	n.d.	-
全氟庚酸及其鹽類 (PFHpA and its salts) (Perfluoroheptane acid and its salts (PFHpA and its salts)) (CAS No.: 375-85- 9 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.	-
7H-十二氟庚酸 (HPFHpA) (7H- Dodecanefluoroheptane Acid (HPFHpA)) (CAS No.: 1546-95-8)	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.	-
全氟庚基磺酸及其鹽類 (PFHpS and its salts) (Perfluoroheptane sulfonate and its salts (PFHpS and its salts)) (CAS No.: 375-92-8 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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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 16 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
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.	-
N-乙基全氟正辛磺醯胺 (EtFOSA) (N- ethylperfluoro-1-octanesulfonamide (EtFOSA)) (CAS No.: 4151-50-2)	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.	-
N-甲基全氟正辛磺醯胺 (N-Me-FOSA) (N-Methyl-Perfluoroctanesulfonamide (N-Me-FOSA)) (CAS No.: 31506-32-8)	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.	-
	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.	-
alcohol) (N-Methyl- Perfluoroctanesulfonamidoethanol (N- Me-FOSE alcohol)) (CAS No.: 24448- 09-7)	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.	-
全氟辛基磺醯胺及其鹽類 (PFOSA and its salts) (Perfluoroctanesulfonamide and its salts (PFOSA and its salts)) (CAS No.: 754-91-6 and others)	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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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 17 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
全氟辛酸甲酯 (Me-PFOA) (Methyl perfluorooctanoate (Me-PFOA)) (CAS No.: 376-27-2)	參考CEN/TS 15968: 2010,以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
全氟辛酸乙酯 (Et-PFOA) (Ethyl perfluorooctanoate (Et-PFOA)) (CAS No.: 3108-24-5)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
全氟辛基碘烷 (PFOI) (Perfluoro-1- iodooctane (PFOI)) (CAS No.: 507-63-1)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-全氟癸磺酸及其鹽類 (8:2 FTS and its salts) (1H,1H,2H,2H- Perfluorodecanesulfonic acid and its salts (8:2 FTS and its salts)) (CAS No.: 39108-34-4 and others)	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.	-
1H,1H,2H,2H-全氟-1-癸醇 (8:2 FTOH) (1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)) (CAS No.: 678-39-7)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-全氟癸基丙烯酸酯 (8:2 FTA) (1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)) (CAS No.: 27905-45- 9)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-全氟癸基甲基丙烯酸鹽 (8:2 FTMA) (1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)) (CAS No.: 1996-88-9)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 18 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
2H,2H-全氟癸酸及其鹽類 (H2PFDA and its salts) (2H,2H-Perfluorodecane acid and its salts (H2PFDA and its salts)) (CAS No.: 27854-31-5 and others)	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.	-
•	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-3,7-二甲基辛酸 (PF-3,7-DMOA) (Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)) (CAS No.: 172155-07- 6)	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.	-
全氟癸酸及其鹽類 (PFDA and its salts) (Perfluorodecane acid and its salts (PFDA and its salts)) (CAS No.: 335-76-2 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.	-
全氟十一烷酸及其鹽類 (PFUnDA and its salts) (Perfluoroundecanoic acid and its salts (PFUnDA and its salts)) (CAS No.: 2058-94-8 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.	-
全氟十二烷酸及其鹽類 (PFDoDA and its salts) (Perfluorododecanoic acid and its salts (PFDoDA and its salts)) (CAS No.: 307-55-1 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.	-
全氟癸烷磺酸及其鹽類 (PFDS and its salts) (Perfluorodecane sulfonate and its salts (PFDS and its salts)) (CAS No.: 335-77-3 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.	-
全氟十三烷酸及其鹽類 (PFTrDA and its salts) (Pentacosafluorotridecanoic acid and its salts (PFTrDA and its salts)) (CAS No.: 72629-94-8 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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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 19 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
全氟十四烷酸及其鹽類 (PFTDA and its	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
salts) (Perfluorotetradecanoic acid and	質譜儀分析。(With reference to CEN/TS				
its salts (PFTDA and its salts)) (CAS No.:	15968: 2010, analysis was performed by				
376-06-7 and its salts)	LC/MS/MS.)				
1H,1H,2H,2H-全氟-1-十二醇 (10:2	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
FTOH) (1H,1H,2H,2H-Perfluoro-1-	質譜儀分析。(With reference to CEN/TS				
dodecanol (10:2FTOH)) (CAS No.: 865-	15968: 2010, analysis was performed by				
86-1)	GC/MS.)				
1H,1H,2H,2H-全氟十二烷基丙烯酸酯	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(10:2 FTA) (1H,1H,2H,2H-	質譜儀分析。(With reference to CEN/TS				
Perfluorododecylacrylate (10:2FTA))	15968: 2010, analysis was performed by				
(CAS No.: 17741-60-5)	GC/MS.)				
1H,1H,2H,2H-全氟癸基碘 (8_2 FTI)	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(1H,1H,2H,2H-Perfluorodecyl iodide	質譜儀分析。(With reference to CEN/TS				
(8_2 FTI)) (CAS No.: 2043-53-0)	15968: 2010, analysis was performed by				
	GC/MS.)				
1H,1H,2H,2H-全氟十七烷三甲基氧矽烷	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(8:2 FTSi(OC2H5)3) (1H,1H,2H,2H-	質譜儀分析。(With reference to CEN/TS				
Perfluorodecyltriethoxysilane (8:2	15968: 2010, analysis was performed by				
FTSi(OC2H5)3)) (CAS No.: 101947-16-4)	-				
2H,2H,3H,3H-全氟癸酸及其鹽類	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(4HPFUnA and its salts) (2H,2H,3H,3H-	質譜儀分析。(With reference to CEN/TS				
Perfluoroundecanoic Acid and its salts	15968: 2010, analysis was performed by				
(4HPFUnA and its salts)) (CAS No.:	LC/MS/MS.)				
34598-33-9 and its salts)					
1H,1H,2H,2H-全氟十二烷基甲基丙烯酸酯	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(10:2 FTMA) (1H,1H,2H,2H-	質譜儀分析。(With reference to CEN/TS				
Perfluorododecyl methacrylate (10:2	15968: 2010, analysis was performed by				
FTMA)) (CAS No.: 2144-54-9)	GC/MS.)				

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Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 20 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
1H,1H,2H,2H-全氟十四烷基醇 (12:2 FTOH) (1H,1H,2H,2H- perfluorotetradecan-1-ol (12:2 FTOH)) (CAS No.: 39239-77-5)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-全氟十二烷磺酸 (10:2 FTS) (1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS)) (CAS No.: 120226-60-0)	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.	-
1H,1H,2H,2H-全氟十二烷基碘 (10:2 FTI) (1H,1H,2H,2H-Perfluorododecyl iodide (10:2 FTI)) (CAS No.: 2043-54-1)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-全氟十四烷基碘 (12:2 FTI) (1H,1H,2H,2H-Perfluorotetradecyl iodide (12:2 FTI)) (CAS No.: 30046-31-2)	參考CEN/TS 15968: 2010,以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
全氟十五烷酸及其鹽類 (PFPeDA and its salts, C15) (Perfluoropentadecanoic acid and its salts (PFPeDA and its salts, C15)) (CAS No.: 141074-63-7 and its salts)	参考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.	-
全氟十六烷酸及其鹽類 (PFHxDA and its salts, C16) (Perfluorohexadecanoic acid and its salts (PFHxDA and its salts, C16)) (CAS No.: 67905-19-5 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.	-
全氟十八烷酸及其鹽類 (PFODA and its salts, C18) (Perfluorooctadecanoic acid and its salts (PFODA and its salts, C18)) (CAS No.: 16517-11-6 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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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 21 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
全氟壬烷磺酸及其鹽類 (PFNS and its salts) (Perfluorononane sulfonic acid and its salts (PFNS and its salts)) (CAS No.: 68259-12-1 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.	-
全氟十一烷磺酸及其鹽類 (PFUnS and its salts) (Perfluoroundecane sulfonic acid and its salts (PFUnS and its salts)) (CAS No.: 749786-16-1 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.	-
(CAS No.: 79780-39-5 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.	-
全氟十三烷磺酸及其鹽類 (PFTrDS and its salts) (Perfluorotridecane sulfonic acid and its salts (PFTrDS and its salts)) (CAS No.: 791563-89-8 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.	-
1H,1H,2H-全氟-1-癸烯 (PFDE) (1H,1H,2H-Heptadecafluoro-1-decene (PFDE)) (CAS No.: 21652-58-4)	參考CEN/TS 15968: 2010 · 以氣相層析儀/ 質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
全氟-3-甲氧基丙酸 (PFMPA) (Perfluoro- 3-methoxypropanoic acid (PFMPA)) (CAS No.: 377-73-1)	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 4-甲氧基丁酸 (PFMBA) (Perfluoro- 4-methoxybutanoic acid (PFMBA)) (CAS No.: 863090-89-5)	15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	-
全氟-3,6-二氧雜庚酸 (NFDHA) (Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)) (CAS No.: 151772-58-6)	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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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



測試報告 _____

Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 22 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
4,8-三氧雜-3H-全氟壬酸 (ADONA) (4,8-	參考CEN/TS 15968: 2010 · 以液相層析串聯 質譜儀分析。(With reference to CEN/TS	mg/kg	0.01	n.d.	-
Dioxa-3H-perfluorononanoic acid (ADONA)) (CAS No.: 919005-14-4)	頁簡限力们。(With reference to CEN/TS 15968: 2010, analysis was performed by				
	LC/MS/MS.)				
1H,1H,2H,2H-全氟-1-己醇 (4:2 FTOH)	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(1H,1H,2H,2H-Perfluoro-1-hexanol	質譜儀分析。(With reference to CEN/TS				
(4:2FTOH)) (CAS No.: 2043-47-2)	15968: 2010, analysis was performed by GC/MS.)				
2,3,3,3-四氟-2-(七氟丙氧基)丙酸及其鹽類	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(HFPO-DA and its salts) (2,3,3,3-	質譜儀分析。(With reference to CEN/TS				
tetrafluoro-2-	15968: 2010, analysis was performed by				
(heptafluoropropoxy)propionic acide	LC/MS/MS.)				
and its salts (HFPO-DA and its salts))					
(CAS No.: 13252-13-6 and its salts)					
1H,1H,2H,2H-全氟己磺酸 (4:2 FTS)	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(1H,1H,2H,2H-Perfluorohexanesulfonic	質譜儀分析。(With reference to CEN/TS				
Acid (4:2 FTS)) (CAS No.: 757124-72-4)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				
全氟辛烷磺酰胺乙酸 (FOSAA)	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(Perfluorooctane sulfonamidoacetic	質譜儀分析。(With reference to CEN/TS				
acid (FOSAA)) (CAS No.: 2806-24-8)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				
N-甲基全氟辛烷磺酰胺乙酸(N-	參考CEN/TS 15968: 2010,以液相層析串聯	mg/kg	0.01	n.d.	-
MeFOSAA) (N-methylperfluorooctane	質譜儀分析。(With reference to CEN/TS				
sulfonamidoacetic acid (N-MeFOSAA))	15968: 2010, analysis was performed by				
(CAS No.: 2355-31-9)	LC/MS/MS.)				
	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(N-ethylperfluorooctane	質譜儀分析。(With reference to CEN/TS				
sulfonamidoacetic acid (N-EtFOSAA))	15968: 2010, analysis was performed by				
(CAS No.: 2991-50-6)	LC/MS/MS.)				

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 23 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
全氟戊磺酸及其鹽類 (PFPeS and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(Perfluoropentane sulfonic acid and its	質譜儀分析。(With reference to CEN/TS				
salts (PFPeS and its salts)) (CAS No.:	15968: 2010, analysis was performed by				
2706-91-4 and its salts)	LC/MS/MS.)				
3-全氟丙基丙酸 (3:3 FTCA) (3-	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
Perfluoropropyl propanoic acid (3:3	質譜儀分析。(With reference to CEN/TS				
FTCA)) (CAS No.: 356-02-5)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				
2-全氟己基乙酸 (6:2 FTCA) (2-	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
Perfluorohexyl ethanoic acid (6:2	質譜儀分析。(With reference to CEN/TS				
FTCA)) (CAS No.: 53826-12-3)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				
3-全氟戊基丙酸 (5:3 FTCA) (3-	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
Perfluoropentyl propanoic acid (5:3	質譜儀分析。(With reference to CEN/TS	5 5			
FTCA)) (CAS No.: 914637-49-3)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				
3-全氟庚基丙酸 (7:3 FTCA) (3-	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
Perfluoroheptyl propanoic acid (7:3	質譜儀分析。(With reference to CEN/TS				
FTCA)) (CAS No.: 812-70-4)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				
雙(1H,1H,2H,2H-全氟癸基)磷酸酯及其鹽	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
類 (8_2diPAP and its salts)	質譜儀分析。(With reference to CEN/TS	5 5			
(Bis(1H,1H,2H,2H-	15968: 2010, analysis was performed by				
Perfluorodecyl)phosphate and its salts	LC/MS/MS.)				
(8_2diPAP and its salts)) (CAS No.: 678-					
41-1 and its salts)					
全氟(2-乙氧基乙烷)磺酸 (PFEESA)	参考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
(Perfluoro(2-ethoxyethane)sulfonic	質譜儀分析。(With reference to CEN/TS	و- بر			
acid (PFEESA)) (CAS No.: 113507-82-7)	15968: 2010, analysis was performed by				
	LC/MS/MS.)				

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測試報告 T 1 D

Test Report

號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 24 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
9-氯十六氟-3-氧雜壬烷-1-磺酸 (9Cl-	參考CEN/TS 15968: 2010,以液相層析串聯	mg/kg	0.01	n.d.	-
PF3ONS) (9-Chlorohexadecafluoro-3-	質譜儀分析。(With reference to CEN/TS				
oxanonane-1-sulfonic acid (9Cl-	15968: 2010, analysis was performed by				
PF3ONS)) (CAS No.: 756426-58-1)	LC/MS/MS.)				
11-氯二十氟-3-氧雜十一烷-1-磺酸 (11Cl-	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
PF3OUdS) (11-Chloroeicosafluoro-3-	質譜儀分析。(With reference to CEN/TS				
oxaundecane-1-sulfonic acid (11Cl-	15968: 2010, analysis was performed by				
PF3OUdS)) (CAS No.: 763051-92-9)	LC/MS/MS.)				
2-(N-乙基全氟辛烷磺醯胺基)丙烯酸乙酯	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(EtFOSAC) (2-(N-	質譜儀分析。(With reference to CEN/TS				
ethylperfluorooctanesulfamido)ethyl	15968: 2010, analysis was performed by				
acrylate (EtFOSAC)) (CAS No.: 423-82-	GC/MS.)				
5)					
全氟辛基三乙氧基矽烷 (POTS)	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(Perfluorooctyl triethoxysilane (POTS))	質譜儀分析。(With reference to CEN/TS				
(CAS No.: 51851-37-7)	15968: 2010, analysis was performed by				
	GC/MS.)				
全氟碘代十二烷 (PFDoDI)	參考CEN/TS 15968: 2010,以氣相層析儀/	mg/kg	0.1	n.d.	-
(Perfluorododecyl iodide (PFDoDI))	質譜儀分析。(With reference to CEN/TS				
(CAS No.: 307-60-8)	15968: 2010, analysis was performed by				
	GC/MS.)				
1-碘全氟癸烷 (PFDI) (Perfluorodecyl	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
iodide (PFDI)) (CAS No.: 423-62-1)	質譜儀分析。(With reference to CEN/TS				
	15968: 2010, analysis was performed by				
	GC/MS.)				
11H-全氟十一烷酸及其鹽類 (11H-	參考CEN/TS 15968: 2010 · 以液相層析串聯	mg/kg	0.01	n.d.	-
PFUnDA and its salts) (11H-	質譜儀分析。(With reference to CEN/TS				
Perfluoroundecanoic acid (11H-	15968: 2010, analysis was performed by				
PFUnDA and its salts)) (CAS No.: 1765-	LC/MS/MS.)				
48-6 and others)					

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 25 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
全氟己基碘 (PFHxl) (Perfluorohexyl	參考CEN/TS 15968: 2010,以氣相層析儀/	mg/kg	1	n.d.	-
iodide (PFHxI)) (CAS No.: 355-43-1)	質譜儀分析。(With reference to CEN/TS				
	15968: 2010, analysis was performed by				
	GC/MS.)				
全氟己基乙烯 (PFHxE) (Perfluorohexyl	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	1	n.d.	-
ethylene (PFHxE)) (CAS No.: 25291-17-	質譜儀分析。(With reference to CEN/TS				
2)	15968: 2010, analysis was performed by				
	GC/MS.)				
1H,1H,2H,2H-全氟辛基碘 (6_2FOI)	參考CEN/TS 15968: 2010 · 以氣相層析儀/	mg/kg	0.1	n.d.	-
(1H,1H,2H,2H-Perfluorooctyl iodide	質譜儀分析。(With reference to CEN/TS				
(6_2FOI)) (CAS No.: 2043-57-4)	15968: 2010, analysis was performed by				
	GC/MS.)				

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頁數(Page): 26 of 58

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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. **= 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. ▲: 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
氧化雙三丁基錫	二丁甘纪 (Tributul Tip) (TPT)	1.0276
(Bis(tributyltin)oxide) (TBTO)	三丁基錫 (Tributyl Tin) (TBT)	1.0270

參數換算表 (Parameter Conversion Table):

https://eecloud.sgs.com/Region_TW/DocDownload.aspx?name=Others

9. 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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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 27 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

PAHs Remark :

△ 德國產品安全委員會(AfPS): GS PAHs 要求

AfPS (German commission for Product Safety): GS PAHs requirements

- (·····,				
	第1類(Category 1)	第 2 類(Cate	egory 2)	第 3 類(Cat	egory 3)
項目 (Parameter)	觸皮膚(超過 30 秒)的 2009/48/EC 定義的玩具材料和 3 歲以下兒童使用的產品(Materials intended to be placed in the mouth, or materials in toys (Directive 2009/48/EC) or articles for children up to 3 years of age with intended	 · 不屬於第 1 類的材料 · 並意圖或可預 見與皮膚接觸逾 30 秒(長期皮膚接觸) 或重複的短時間接觸(Materials that are not in Category 1, with intended or foreseeable long-term skin contact (> 30 seconds) or short-term repetitive contact with the skin) 		不屬於第 1 類或第 2 類的材料 · 並意 圖或可預見與皮膚接觸不超過 30 秒 (短期皮膚接觸)(Materials not covered by Category 1 or 2, with intended or foreseeable short- term skin contact (≦ 30 seconds)) a. b.	
	long-term skin contact (> 30			供14 歲以下兒童使	`
	seconds))		consumer		consumer
		children under 14)		children under 14)	
Naphthalene	< 1	< 2	2	< 10)
Phenanthrene					
Anthracene	- < 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Fluoranthene					
Pyrene					
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d] pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
15 項 PAH 總濃度 (Sum of 15 PAH)	< 1	< 5	< 10	< 20	< 50

單位(Unit):mg/kg

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號碼(No.): ETR23A04122

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頁數(Page): 28 of 58

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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.))

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟丁酸及其鹽類 Perfluorobutane acid and its salts	全氟丁酸銨 (PFBA-NH ₄) Ammonium perfluorobutanoate (PFBA-NH ₄)	10495-86-0
(PFBA and its salts) (CAS No.: 375-22-4 and its salts)	全氟丁酸鈉 (PFBA-Na) Sodium perfluorobutanoate (PFBA-Na)	2218-54-4
	全氟丁酸鉀 (PFBA-K) Potassium heptafluorobutanoate (PFBA-K)	2966-54-3
	全氟丁酸銀 (PFBA-Ag) Silver perfluorobutanoate (PFBA-Ag)	3794-64-7
	全氟丁酸鋰 (PFBA-Li) Lithium perfluorobutanoate (PFBA-Li)	4146-76-3
全氟丁磺酸及其鹽類 Perfluorobutane sulfonate and its salts (PFBS and its salts)	全氟丁基磺酸鈉 (PFBS-Na) 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, sodium salt (1:1) (PFBS-Na)	60453-92-1
(CAS No.: 375-73-5 and its salts)	全氟丁基磺酸鋰 (PFBS-Li) Lithium perfluorobutanesulfonate (PFBS-Li)	131651-65-5
	全氟丁基磺酸鎂 (PFBS-Mg) Magnesium perfluorobutanesulfonate (PFBS-Mg)	507453-86-3
	全氟丁基磺酸鉀 (PFBS-K) Perfluorobutane Sulfonate K-salt (PFBS-K)	29420-49-3
	全氟丁基磺酸氟 (PFBS-F) Perfluorobutane sulfonyl fluoride (PFBS-F)	375-72-4

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 29 of 58

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物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟丁磺酸及其鹽類 Perfluorobutane sulfonate and its salts (PFBS and its salts)	全氟丁基磺酸四乙基銨 (PFBS-N(CH ₃ CH ₂) ₄) Tetraethylammonium perfluorobutanesulfonate (PFBS- N(CH ₃ CH ₂) ₄)	25628-08-4
(CAS No.: 375-73-5 and its salts)	全氟丁基磺酸三苯基鋶 (TPS-PFBS) Triphenylsulfanium perfluorobutane sulfonate (TPS-PFBS)	144317-44-2
	全氟丁基磺酸二甲基(苯基)硫 Dimethyl(phenyl)sulfanium perfluorobutane sulfonate	220133-51-7
	全氟丁基磺酸四丁基磷 Tetrabutyl-phosphonium nonafluoro-butane-1-sulfonate	220689-12-3
	全氟丁基磺酸嗎啉 Morpholinium perfluorobutanesulfonate	503155-89-3
	全氟丁基磺酸銨 (PFBS-NH ₄) Ammonium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1- sulphonate (PFBS-NH ₄)	68259-10-9
	全氟丁基磺酸水合物 Nonafluorobutanesulfonic acidHydrate	59933-66-3
	全氟丁基磺酸氯 (PFBS-Cl) Nonafluoro-1-butanesulfonyl chloride (PFBS-Cl)	2991-84-6
	全氟-1-丁磺酸雙(4-叔丁基苯基)碘鎓 (PFBS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂) Bis(4-tert-butylphenyl)iodonium perfluoro-1- butanesulfonate (PFBS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂)	194999-85-4
	1,1,2,2,3,4,4,4-一氟丁烷-1-磺酸與2,2'-亞氨基二乙醇的化合物 (1:1) (PFBS-NH(C ₂ H ₅ O) ₂) 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid, compound with 2,2'-iminodiethanol (1:1) (PFBS-NH(C ₂ H ₅ O) ₂)	70225-18-2
	1-(4-丁氧基-1-萘基)四氫噻吩九氟丁烷-1-磺酸鹽 (PFBS- SC ₁₈ H ₂₃ O) 1-(4-butoxy-1-naphthyl)tetrahydrothiophenium nonafluorobutane-1-sulfonate (PFBS-SC ₁₈ H ₂₃ O)	209482-18-8
全氟戊酸及其鹽類 Perfluoropentane acid and its salts	全氟戊酸鈉 (PFPA-Na) Sodium perfluoropentanoate (PFPA-Na)	2706-89-0
(PFPA and its salts) (CAS No.: 2706-90-3 and its salts)	全氟戊酸鉀 (PFPA-K) Potasium perfluoropentanoate (PFPA-K)	336-23-2

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 30 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

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物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟戊酸及其鹽類 Perfluoropentane acid and its salts	全氟戊酸銨 (PFPA-NH4) Ammonium perfluoropentanoate (PFPA-NH4)	68259-11-0
(PFPA and its salts) (CAS No.: 2706-90-3 and its salts)	全氟戊酸鋰 (PFPA-Li) Lithium perfluoropentanoate (PFPA-Li)	198482-22-3
	全氟戊酸銀 (PFPA-Ag) Silver perfluoropentanoate (PFPA-Ag)	2795-30-4
全氟已酸及其鹽類 Perfluorohexane acid and its salts	全氟已酸銨 (PFHxA-NH ₄) Ammonium perfluorohexanoate (PFHxA-NH ₄)	21615-47-4
(PFHxA and its salts) (CAS No.: 307-24-4 and its salts)	全氟已酸鈉 (PFHxA-Na) Sodium perfluorohexanoate (PFHxA-Na)	2923-26-4
	全氟已酸鉀 (PFHxA-K) Potassium perfluorohexanoate (PFHxA-K)	3109-94-2
	全氟己酸氟 (PFHxA-F) Perfluorohexanoyl fluoride (PFHxA-F)	355-38-4
	全氟己酸銀 (PFHxA-Ag) Silver perfluorohexanoate (PFHxA-Ag)	336-02-7
	全氟己酸鋰 (PFHxA-Li) Lithium perfluorohexanoate (PFHxA-Li)	90430-61-8
1H,1H,2H,2H-全氟辛磺酸及其鹽類 1H,1H,2H,2H- Perfluorooctanesulphonic acid and	1H, 1H, 2H, 2H-全氟辛烷磺酸鈉 (6:2 FTS-Na) Sodium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-Na)	27619-94-9
its salts (6:2 FTS and its salts) (CAS No.: 27619-97-2 and others)	1H, 1H, 2H, 2H-全氟辛烷磺酸鉀 (6:2 FTS-K) Potassium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-K)	59587-38-1
	1H, 1H, 2H, 2H-全氟辛烷磺酸銨 (6:2 FTS-NH ₄) Ammonium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-NH ₄)	59587-39-2
全氟己基磺酸及其鹽類 Perfluorohexane sulfonate and its salts (PFHxS and its salts) (CAS No.: 355-46-4 and its salts)	全氟己基磺酸鈉 (PFHxS-Na) Perfluorohexanesulfonate Na-salt (PFHxS-Na)	82382-12-5
	全氟己基磺酸鉀 (PFHxS-K) Perfluorohexanesulfonate K-salt (PFHxS-K)	3871-99-6
	全氟己基磺酸銨 (PFHxS-NH4) Ammonium perfluorohexanesulfonate (PFHxS-NH4)	68259-08-5

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 31 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟己基磺酸及其鹽類 Perfluorohexane sulfonate and its	全氟己基磺酸鋰 (PFHxS-Li) Perfluorohexanesulfonate Li-salt (PFHxS-Li)	55120-77-9
salts (PFHxS and its salts) (CAS No.: 355-46-4 and its salts)	全氟己基磺酸鋅 (PFHxS-Zn) Perfluorohexanesulfonate Zn-salt (PFHxS-Zn)	70136-72-0
	全氟己基磺醯氟 (PFHxS-F) Perfluorohexanesulfonate sulfonyl fluoride (PFHxS-F)	423-50-7
	三苯基(苯甲基)磷-, 1,1,2,2,3,3,4,4,5,5,6,6,6,6-十三氟-1-己烷磺 酸鹽 (1:1) Phosphonium, triphenyl(phenylmethyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	1000597-52-3
	N,N,N-三丁基-1-丁銨與十三氟-1-己烷磺酸的鹽 N,N,N-tributylbutan-1-aminium tridecafluorohexane-1- sulfonate	108427-54-9
	N,N,N-三乙基乙銨與十三氟-1-己烷磺酸的鹽 (1:1) N,N,N-triethylethanaminium tridecafluorohexane-1- sulfonate (1:1)	108427-55-0
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸與吡咯烷的化合物 (1:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. With pyrrolidine (1:1)	1187817-57-7
	N-[4-[[4-(二乙基氨基)苯基][4-(乙基氨基)-1-萘基]亞甲基]-2,5- 環己二-1-基]-N-乙基乙銨,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己 烷磺酸鹽 (1:1) Ethanaminium, N-[4-[[4-(diethylamino)phenyl][4- (ethylamino)-1-naphthalenyl]methylene]-2,5- cyclohexadien-1-ylidene]-N-ethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-1-hexanesulfonate (1:1)	1310480-24-0
	N-[4-[[4-(二甲基氨基)苯基][4-(乙基氨基)-1-萘基]亞甲基]-2,5- 環己二-1-基]-N-甲基甲銨,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己 烷磺酸鹽 (1:1) Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4- (ethylamino)-1-naphthalenyl]methylene]-2,5- cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	1310480-27-3

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 32 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟己基磺酸及其鹽類 Perfluorohexane sulfonate and its salts (PFHxS and its salts) (CAS No.: 355-46-4 and its salts)	N-[4-[[4-(二甲基氨基)苯基][4-(苯基氨基)-1-萘基]亞甲基]-2,5- 環己二-1-基]-N-甲基甲銨,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己 烷磺酸鹽 (1:1) Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4- (phenylamino)-1-naphthalenyl]methylene]-2,5- cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	1310480-28-4
	β-環糊精, 與1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸離 子(1-)的化合物 (1:1) Beta-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-1-hexanesulfonic acid ion(1-) (1:1)	1329995-45-0
	γ-環糊精, 與1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸離子(1-) 的化合物 (1:1) Gamma-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-1-hexanesulfonic acid ion(1-) (1:1)	1329995-69-8
	三苯基锍,1,1,2,2,3,3,4,4,5,5,6,6,6,6-十三氟-1-己烷磺酸鹽 (1:1) Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro- 1-hexanesulfonate (1:1)	144116-10-9
	喹啉鎓,1-(羧甲基)-4-[2-[4-[4-(2,2-二苯基乙烯基)苯基]- 1,2,3,3a,4,8b-六氫環戊[b]吲哚-7-基]乙烯基]- ,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸鹽 (1:1) Quinolinium, 1-(carboxymethyl)-4-[2-[4-[4-(2,2- diphenylethenyl)phenyl]-1,2,3,3a,4,8b- hexahydrocyclopent[b]indol-7-yl]ethenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	1462414-59-0
	二苯基碘鎓,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸鹽 (1:1) Iodonium, diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-1-hexanesulfonate (1:1)	153443-35-7
	N,N,N-三甲基甲銨與1,1,2,2,3,3,4,4,5,5,6,6,6,6-十三氟-1-己 烷磺酸的鹽 (1:1) Methanaminium, N,N,N-trimethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1)	189274-31-5

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 33 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟己基磺酸及其鹽類 Perfluorohexane sulfonate and its salts (PFHxS and its salts) (CAS No.: 355-46-4 and its salts)	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸與2-甲基-2-丙胺的 化合物 (1:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd.with 2-methyl-2-propanamine (1:1)	202189-84-2
	雙[4-(1,1-二甲基乙基)苯基]碘鎓, 1,2,2,3,3,4,4,5,5,6,6,6 -十三氟- 1-己烷磺酸鹽 (1:1) lodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	213740-81-9
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸鎵鹽 (9CI) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-, gallium salt (9CI)	341035-71-0
	雙(4-甲基苯基)苯基硫磺酸1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己 烷磺酸鹽 (1:1) Sulfonium, bis(4-methylphenyl)phenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	341548-85-4
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸鈧(3+)鹽 (3:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-, scandium(3+) salt (3:1) (PFHxS-Sc)	350836-93-0
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸釹(3+)鹽 (3:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-, neodymium(3+) salt (3:1) (PFHxS-Nd)	41184-65-0
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸釔(3+)鹽 (3:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-, yttrium(3+) salt (3:1) (PFHxS-Y)	41242-12-0
	(硫代二-4,1-亞苯基)雙[二苯基硫鹽與 1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸 (1:2) Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:2)	421555-73-9
	雙[4-(1,1-二甲基丙基)苯基]碘鎓鹽與1,1,2,2,3,3,4,4,5,5,6,6,6-十 三氟-1-己烷磺酸 lodonium, bis[4-(1,1-dimethylpropyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid	421555-74-0

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 34 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟己基磺酸及其鹽類 Perfluorohexane sulfonate and its salts (PFHxS and its salts) (CAS No.: 355-46-4 and its salts)	三[4-(1,1-二甲基乙基)苯基]锍-,1,1,2,2,3,3,4,4,5,5,6,6,6,6-十三 氟-1-己烷磺酸鹽 (1:1) Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	425670-70-8
	十三氟己烷磺酸與二乙醇胺的化合物 Tridecafluorohexanesulphonic acid, compound with 2,2'- iminodiethanol (1:1)	70225-16-0
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸與N·N-二乙基乙胺 的化合物 (1:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with N,N-diethylethanamine (1:1)	72033-41-1
	雙[(1,1-二甲基乙基)苯基]碘鎓鹽-與1,1,2,2,3,3,4,4,5,5,6,6,6-十三 氟-1-己烷磺酸 (1:1) (9Cl) lodonium, bis[(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (9Cl)	866621-50-3
	(4-甲基苯基)二苯基锍-,1,1,2,2,3,3,4,4,5,5,6,6,6,6-十三氟-1-己烷 磺酸鹽 (1:1) Sulfonium, (4-methylphenyl)diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	910606-39-2
	[4-[(2-甲基-1-氧-2-丙烯-1-基)氧基]苯基]二苯基锍- ,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸鹽 (1:1) Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1- yl)oxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-1-hexanesulfonate (1:1)	911027-68-4
	1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-1-己烷磺酸銫鹽 (1:1) 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, cesium salt (1:1) (PFHxS-CsH)	92011-17-1
	二苯並[k,n][1,4,7,10,13]四氧噻吩基環戊二烯鎓,19-[4-(1,1-二 甲基乙基)苯基]-6,7,9,10,12,13-六氫-,1,1,2,2,3,3,4,4,5,5,6,6,6- 十三氟-1-己烷磺酸鹽 (1:1) Dibenzo[k,n][1,4,7,10,13]tetraoxathiacyclopentadecinium, 19-[4-(1,1-dimethylethyl)phenyl]-6,7,9,10,12,13-hexahydro-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	928049-42-7
	全氟己基磺酸氯 (PFHxS-Cl) Perfluorohexylsulfonyl chloride (PFHxS-Cl)	55591-23-6

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 35 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟己基磺酸及其鹽類 Perfluorohexane sulfonate and its salts (PFHxS and its salts) (CAS No.: 355-46-4 and its salts)	PFHxS-磺酸酯聚合物 Sulfonium, [4-[(2-methyl-1-oxo-2- propenyl)oxy]phenyl]diphenyl-, salt with1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1), polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2- methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2- methyl-2-propenoate	911027-69-5
全氟庚酸及其鹽類 Perfluoroheptane acid and its salts	全氟庚酸鈉 (PFHpA-Na) Sodium perfluoroheptanoate (PFHpA-Na)	20109-59-5
(PFHpA and its salts) (CAS No.: 375-85-9 and its salts)	全氟庚酸鉀 (PFHpA-K) Potassium perfluoroheptanoate (PFHpA-K)	21049-36-5
	全氟庚酸銨 (PFHpA-NH4) Ammonium perfluoroheptanoate (PFHpA-NH4)	6130-43-4
	全氟庚酸銫 (PFHpA-Cs) Cesium perfluoroheptanoate (PFHpA-Cs)	171198-24-6
	全氟庚酸銀 (PFHpA-Ag) Silver perfluoroheptanoate (PFHpA-Ag)	424-05-5
	全氟庚酸鋰 (PFHpA-Li) Lithium perfluoroheptanoate (PFHpA-Li)	60871-90-1
全氟庚基磺酸及其鹽類 Perfluoroheptane sulfonate and its	全氟庚基磺酸鈉 (PFHpS-Na) Perfluoroheptanesulfonate Na-salt (PFHpS-Na)	21934-50-9
salts (PFHpS and its salts) (CAS No.: 375-92-8 and its salts)	全氟庚基磺酸鉀 (PFHpS-K) Potassium perfluoroheptanesulfonate (PFHpS-K)	60270-55-5
	全氟庚基磺酸銨 (PFHpS-NH ₄) Ammonium perfluoroheptanesulfonate (PFHpS-NH ₄)	68259-07-4
	全氟庚基磺酸鋰 (PFHpS-Li) Lithium perfluoroheptanesulfonate (PFHpS-Li)	117806-54-9
全氟辛烷磺酸及其鹽類 Perfluorooctane sulfonates and its salts (PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	全氟辛基磺酸鉀 (PFOS-K) Potassium perfluorooctanesulfonate (PFOS-K)	2795-39-3
	全氟辛基磺酸鋰 (PFOS-Li) Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5
	全氟辛基磺酸銨 (PFOS-NH ₄) Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH ₄)	29081-56-9

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 36 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟辛烷磺酸及其鹽類 Perfluorooctane sulfonates and its salts (PFOS and its salts)	全氟辛基磺酸二乙醇銨 (PFOS-NH(OH) ₂) Perfluorooctane sulfonate diethanolamine salt (PFOS- NH(OH) ₂)	70225-14-8
(CAS No.: 1763-23-1 and its salts)	全氟辛基磺酸四乙基銨 (PFOS-N(C ₂ H ₅) ₄) Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-N(C ₂ H ₅) ₄)	56773-42-3
	全氟辛基磺酸二癸二甲基銨 (PFOS-DDA) 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
	全氟辛基磺醯氟 (POSF) Perfluorooctane sulfonyl fluoride (POSF)	307-35-7
	全氟辛基磺酸鎂 (PFOS-Mg) Perfluorooctanesulfonic acid, magnesium salt (PFOS- Mg)	91036-71-4
	全氟辛基磺酸鈉 (PFOS-Na) Perfluorooctanesulfonic acid, sodium salt (PFOS-Na)	4021-47-0
全氟辛基磺醯胺及其鹽類 Perfluoroctanesulfonamide and its salts (PFOSA and its salts) (CAS No.: 754-91-6 and others)	全氟辛基磺醯胺鋰鹽 (1:1) (PFOSA-Li) Perfluorooctanesulfonamide lithium salt (1:1) (PFOSA-Li)	76752-79-9
全氟辛酸及其鹽類 Perfluorooctanoic acid and its salts	全氟辛酸鈉 (PFOA-Na) Sodium perfluorooctanoate (PFOA-Na)	335-95-5
(PFOA and its salts) (CAS No.: 335-67-1 and its salts)	全氟辛酸鉀 (PFOA-K) Potassium perfluorooctanoate (PFOA-K)	2395-00-8
	全氟辛酸銀 (PFOA-Ag) Silver perfluorooctanote (PFOA-Ag)	335-93-3
	全氟辛氟 (PFOA-F) Perfluorooctanoyl fluoride (PFOA-F)	335-66-0
	全氟辛酸銨 (APFO) Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
	全氟辛酸鋰 (PFOA-Li) Lithium perfluorooctanoate (PFOA-Li)	17125-58-5

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 37 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
1H,1H,2H,2H-全氟癸磺酸及其鹽類 1H,1H,2H,2H- Perfluorodecanesulfonic acid and its salts (8:2 FTS and its salts) (CAS No.: 39108-34-4 and others)	1H, 1H, 2H, 2H-全氟癸磺酸鉀 (8:2 FTS-K) 1H,1H,2H,2H-Perfluorodencane sulfonate acid Potassium salt (8:2 FTS-K)	438237-73-1
	1H, 1H, 2H, 2H-全氟癸磺酸銨 (8:2 FTS-NH ₄) 1H,1H,2H,2H-Perfluorodencane sulfonate acid Ammonium salt (8:2 FTS-NH ₄)	149724-40-3
1H,1H,2H,2H-全氟癸磺酸及其鹽類 1H,1H,2H,2H- Perfluorodecanesulfonic acid and its salts (8:2 FTS and its salts) (CAS No.: 39108-34-4 and others)	1H, 1H, 2H, 2H-全氟癸磺酸鈉 (8:2 FTS-Na) 1H,1H,2H,2H-Perfluorodencane sulfonate acid Sodium salt (8:2 FTS-Na)	27619-96-1
全氟壬酸及其鹽類 Perfluorononan-1-oic acid and its salts (PFNA and its salts) (CAS No.: 375-95-1 and its salts)	全氟壬酸鈉 (PFNA-Na) Perfluorononanoate Na-salt (PFNA-Na)	21049-39-8
	全氟壬酸銨 (APFN) Perfluorononanoate ammounium salt (APFN)	4149-60-4
	全氟壬酸鉀 (PFNA-K) Potassium perfluorononanoate (PFNA-K)	21049-38-7
	全氟壬酸鋰 (PFNA-Li) Perfluorononanoate Li-Salt (PFNA-Li)	60871-92-3
	全氟壬酸銀 (PFNA-Ag) Silver perfluorononanoate (PFNA-Ag)	7358-16-9
全氟癸酸及其鹽類 Perfluorodecane acid and its salts (PFDA and its salts) (CAS No.: 335-76-2 and its salts)	全氟癸酸鈉 (PFDA-Na) Perfluorodecanoate Na-salt (PFDA-Na)	3830-45-3
	全氟癸酸氨 (APFDA) Perfluorodecanoate ammonium salt (APFDA)	3108-42-7
	全氟癸酸鉀 (PFDA-K*) Potassium perfluorodecanoate (PFDA-K*)	51604-85-4
	全氟癸酸銀 (PFDA-Ag) Silver perfluorodecanoate (PFDA-Ag)	5784-82-7
	全氟癸酸鋰 (PFDA-Li) Lithium perfluorodecanoate (PFDA-Li)	84743-32-8

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 38 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟十一烷酸及其鹽類 Perfluoroundecanoic acid and its salts (PFUnDA and its salts) (CAS No.: 2058-94-8 and its salts)	全氟十一烷酸銨 (PFUnDA-NH4) Ammonium perfluoroundecanoate (PFUnDA-NH4)	4234-23-5
	全氟十一烷酸鈉 (PFUnDA-Na) Perfluoroundecanoic acid sodium salt (PFUnDA-Na)	60871-96-7
	全氟十一烷酸鉀 (PFUnDA-K) Potassium perfluoroundecanoate (PFUnDA-K)	30377-53-8
全氟十二烷酸及其鹽類 Perfluorododecanoic acid and its salts (PFDoDA and its salts) (CAS No.: 307-55-1 and its salts)	全氟十二烷酸銨 (APFDoDA) Ammonium perfluorododecanoate (APFDoDA)	3793-74-6
	全氟十二烷酸鈉 (PFDoDA-Na) Sodium perfluorododecanoate (PFDoDA-Na)	60872-01-7
全氟十三烷酸及其鹽類 Pentacosafluorotridecanoic acid and its salts (PFTrDA and its salts) (CAS No.: 72629-94-8 and its salts)	全氟十三烷酸銨 (PFTrDA-NH ₄) Ammonium perfluorotridecanoate (PFTrDA-NH ₄)	4288-72-6
全氟壬烷磺酸及其鹽類 Perfluorononane sulfonic acid and its salts (PFNS and its salts) (CAS No.: 68259-12-1 and its salts)	全氟壬烷磺酸鈉 (PFNS-Na*) Sodium perfluoro-1-nonanesulfonate (PFNS-Na*)	98789-57-2
	全氟壬烷磺酸銨 (PFNS-NH ₄) Ammonium nonadecafluorononanesulphonate (PFNS- NH ₄)	17202-41-4
	全氟壬烷磺酸鉀 (PFNS-K*) Potassium perfluorononanesulfonate (PFNS-K*)	29359-39-5
全氟十一烷磺酸及其鹽類 Perfluoroundecane sulfonic acid and its salts (PFUnS and its salts) (CAS No.: 749786-16-1 and its salts)	全氟十一烷磺酸鈉 (PFUnS-Na+) Sodium perfluoroundecane sulfonic (PFUnS-Na+)	441296-91-9
全氟十二烷磺酸及其鹽類 Perfluorododecane sulfonic acid and its salts (PFDoDS and its salts) (CAS No.: 79780-39-5 and its salts)	全氟十二烷磺酸鈉 (PFDoDS-Na*) Sodium perfluoro-1-dodecanesulfonate (PFDoDS-Na*)	1260224-54-1
全氟十三烷磺酸及其鹽類 Perfluorotridecane sulfonic acid and its salts (PFTrDS and its salts) (CAS No.: 791563-89-8 and its salts)	全氟十三烷磺酸鈉 (PFTrDS-Na*) Sodium perfluoro-1-tridecanesulfonate (PFTrDS-Na*)	174675-49-1

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 39 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟癸烷磺酸及其鹽類 (PFDS and its salts) (Perfluorodecane sulfonate and its salts (PFDS and its salts)) (CAS No.: 335-77-3 and its salts)	全氟癸烷磺酸鈉 (PFDS-Na) Perfluorodecanesulfonate Na-salt (PFDS-Na)	2806-15-7
	全氟癸烷磺酸鉀 (PFDS-K) Perfluorodecanesulfonate K-salt (PFDS-K)	2806-16-8
	全氟癸基磺酸銨 (PFDS-NH ₄) Perfluoroaliphatic dean-sulfonate salt of NH ₄ (PFDS- NH ₄)	67906-42-7
2H,2H-全氟癸酸及其鹽類 2H,2H-Perfluorodecane acid and its salts (H2PFDA and its salts) (CAS No.: 27854-31-5 and others)	四丁基磷2H,2H-全氟癸酸酯 Tetrabutylphosphonium 2H,2H-Perfluorodecanoate	882489-14-7
2,3,3,3-四氟-2-(七氟丙氧基)丙酸及其 鹽類 2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)propionic acide and its salts (HFPO-DA and its salts) (CAS No.: 13252-13-6 and its salts)	2,3,3,3-四氟-2-(七氟丙氧基)丙酸鉀 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionicacid, K- salts	67118-55-2
	2,3,3,3-四氟-2-(七氟丙氧基)丙酸銨 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionicacid, ammonium salts	62037-80-3
	2,3,3,3-四氟-2-(七氟丙氧基)丙酸醯基氟化物 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionicacid, its acyl halides	2062-98-8
2H,2H,3H,3H-全氟癸酸及其鹽類 2H,2H,3H,3H-Perfluoroundecanoic Acid and its salts (4HPFUnA and its salts) (CAS No.: 34598-33-9 and its salts)	2H,2H,3H,3H-全氟癸酸鉀 (H4PFUnA-K) Potassium 2H,2H,3H,3H-Perfluoroundecanoate (H4PFUnA-K)	83310-58-1
全氟戊磺酸及其鹽類 Perfluoropentane sulfonic acid and its salts (PFPeS and its salts) (CAS No.: 2706-91-4 and its salts)	全氟戊磺酸鈉 (PFPeS-Na*) Sodium perfluoro-1-pentanesulfonate (PFPeS-Na*)	630402-22-1
	全氟戊磺酸鉀 (PFPeS-K) Potassium perfluoropentane-1-sulphonate (PFPeS-K)	3872-25-1
	全氟辛戊磺酸銨 (PFPeS-NH ₄ *) Ammonium perfluoropentanesulfonate (PFPeS-NH ₄ *)	68259-09-6

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 40 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
雙(1H,1H,2H,2H-全氟癸基)磷酸酯及其 鹽類 Bis(1H,1H,2H,2H- Perfluorodecyl)phosphate and its salts (8_2diPAP and its salts) (CAS No.: 678-41-1 and its salts)	雙(1H,1H,2H,2H-全氟癸基)磷酸酯鈉 (8:2diPAP-Na) Sodium bis(1H,1H,2H,2H-perfluorodecyl)phosphate (8:2diPAP-Na)	114519-85-6
11H-全氟十一烷酸及其鹽類 11H-Perfluoroundecanoic acid (11H-PFUnDA and its salts) (CAS No.: 1765-48-6 and others)	11H-全氟十一烷酸鉀 (11H-PFUnDA-K) potassium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11- icosafluoroundecanoate (11H-PFUnDA-K)	307-71-1
	11H-全氟十一烷酸銨 (11H-PFUnDA-NH ₄) Ammonium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11- icosafluoroundecanoate (11H-PFUnDA-NH ₄)	5081-02-7

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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 41 of 58

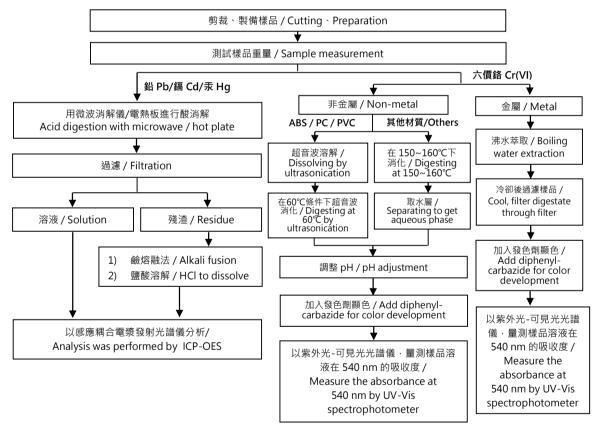
陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.)

台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

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. (Cr⁶⁺ test method excluded)



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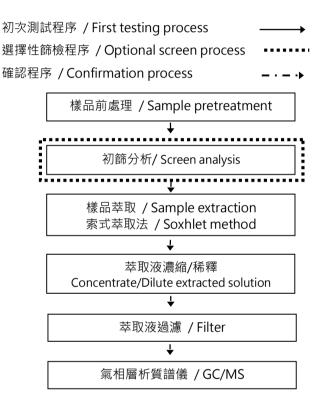
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日期(Date): 02-Nov-2023

頁數(Page): 42 of 58

陸昌化工股份有限公司 (PAN-CONTINENTAL CHEMICAL CO., LTD.) 台中市大甲區幼獅工業區青年路159號 (NO. 159, CHINGNIAN RD., TACHIA (437), TAICHUNG CITY, TAIWAN)

多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs



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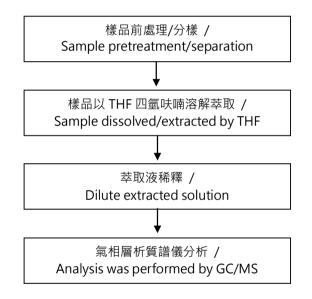
日期(Date): 02-Nov-2023

頁數(Page): 43 of 58

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可塑劑分析流程圖 / Analytical flow chart - Phthalate

【測試方法/Test method: IEC 62321-8】



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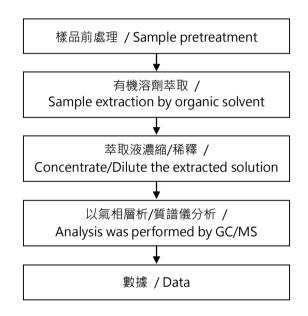
頁數(Page): 44 of 58

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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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號碼(No.): ETR23A04122 日

日期(Date): 02-Nov-2023

頁數(Page): 45 of 58

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> 様品前處理 / Sample pretreatment 超音波萃取法萃取 / Sample extraction by ultrasonic extraction 萃取液稀釋/濃縮 / Concentrate/Dilute extracted solution 以液相層析質譜儀分析萃取液 / Analysis was performed by LC/MS

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

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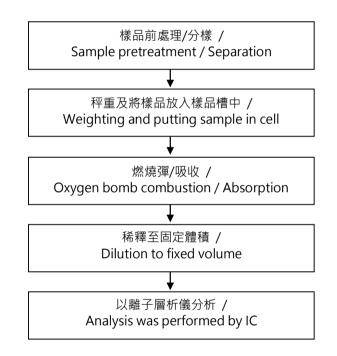
號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 46 of 58

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鹵素分析流程圖 / Analytical flow chart - Halogen



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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 47 of 58

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様品前處理 / Sample pretreatment 様品萃取 Sample extraction / 超音波萃取法 Ultrasonic method 本取液濃縮/稀釋 / Concentrate/Dilute extracted solution 本取液過濾 / Filter ↓ 以氣相層析/質譜儀分析 / Analysis was performed by GC/MS ↓

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

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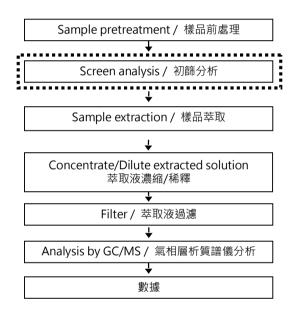
日期(Date): 02-Nov-2023

頁數(Page): 48 of 58

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四溴雙酚-A-雙分析流程圖 / Analytical flow chart - TBBP-A-bis

初次測試程序 / First testing process →→ 選擇性篩檢程序 / Optional screen process →→→→ 確認程序 / Confirmation process → · → →



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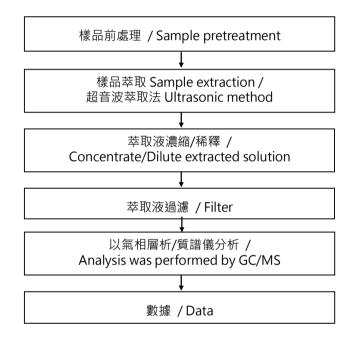
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日期(Date): 02-Nov-2023

頁數(Page): 49 of 58

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富馬酸二甲酯分析流程圖 / Analytical flow chart - Dimethyl Fumarate



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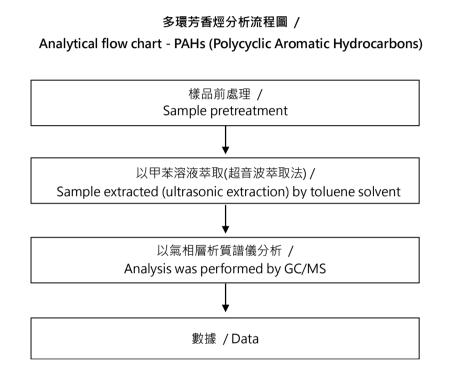


號碼(No.): ETR23A04122 日期

日期(Date): 02-Nov-2023

頁數(Page): 50 of 58

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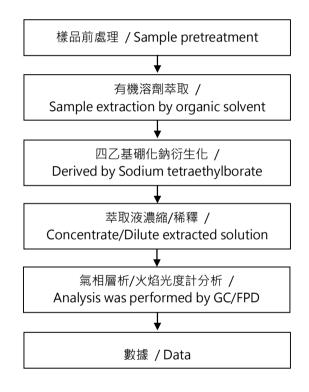
號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 51 of 58

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



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號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 52 of 58

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【參考方法(Reference method): EPA 600/R-93/116】 取樣 / Sampling 分樣及保存 / Transportation and Storage 分析樣品的製備 / Preparation of primary analytical sample 立體顯微鏡偵測 / Examination by stereomicroscope (SM) 分散染色式偏光顯微鏡石綿鑑定 / Asbestos identification by dispersion staining polarized light microscope (DS-PLM) 偏光顯微鏡有疑慮時或是品保確認時,繼續後續鑑定 / Continue when problems are encountered with DS-PLM and/or for quality assurance purposes 移除干擾基質 / Interference matrix removal Ł 分散染色式偏光顯微鏡石綿鑑定 / X光繞射光譜石綿鑑定 / Asbestos identification by dispersion Asbestos identification by X-ray staining polarized light microscope diffraction spectrometer (XRD) (DS-PLM) 含有石綿纖維 / Asbestos fiber is 未含有石綿纖維 / Asbestos fiber is present absent 含有石綿 (陽性) / Containing 不含有石綿 (陰性) / Not

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

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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

Asbestos (Positive)

新北市五股區新北產業園區五權七路 25號 t+886(02)2299 3939 f+886(02)2299 3237 25, Wu Chyuan 7th Road, New Taipei Industrial Park, Wu Ku District, New Taipei City, Taiwan

containing Asbestos (Negative)



號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 53 of 58

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> 樣品前處理 / Sample pre-treatment 焰色法檢測 / Flame test 紅外光譜分析 / Sample analyzed by FTIR 確認C-Cl鍵波數 / Check wave-number of C-Cl bonding 數據 / Data

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

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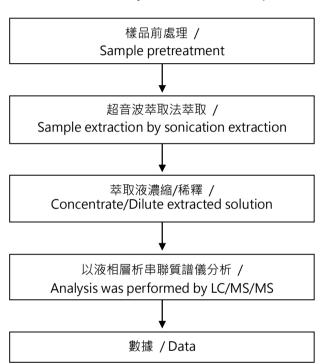


號碼(No.): ETR23A04122

日期(Date): 02-Nov-2023

頁數(Page): 54 of 58

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雙酚A分析流程圖 / Analytical flow chart - Bisphenol A

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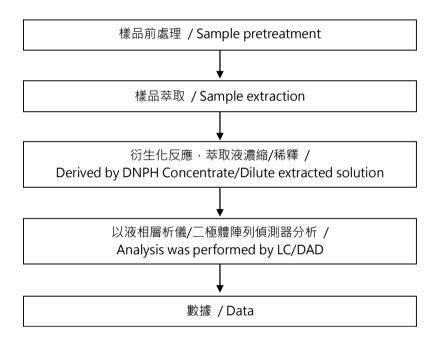
日期(Date): 02-Nov-2023

頁數(Page): 55 of 58

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



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測試報告 Test Report _{號碼(No.): ETR23A04122}

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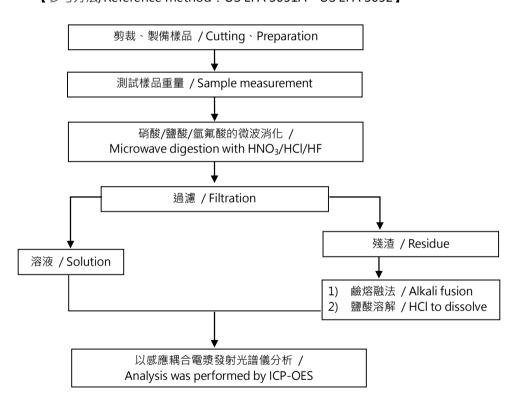
頁數(Page): 56 of 58

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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 3051A、US EPA 3052】



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

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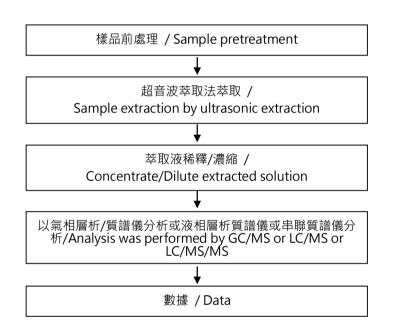
日期(Date): 02-Nov-2023

頁數(Page): 57 of 58

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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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號碼(No.): ETR23A04122 目

日期(Date): 02-Nov-2023

頁數(Page): 58 of 58

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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.)



ETR23A04122

** 報告結尾 (End of Report) **

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