

Test Report

頁數(Page): 1 of 28 號碼(No.): ETR23900698 日期(Date): 13-Sep-2023

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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)

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION)

樣品名稱(Sample Name)

EASY FUN GREASEPROOF PAPER (FLUOROCABON-FREE) (益利FUN非氟防油紙)

收件日(Sample Receiving Date)

06-Sep-2023

測試期間(Testing Period)

06-Sep-2023 to 13-Sep-2023

測試結果(Test Results) 請參閱下一頁 (Please refer to following pages.)

測試需求(Test Requested)	總 結(Summary)
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223項,包括86項檢測項和137項列表項 (see remark)。評估結果的總結請參考右表。(As requested by the client, the risk of specific PFAS in the selected sample is evaluated. The total amounts of evaluated PFAS are 223 items, concluding 86 tested items and 137 listed items (see remark). The summary of evaluated results are displayed in right table.)	未檢出 (Not Detected)





PIN CODE: 14B34730



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 2 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試部位敘述 (Test Part Description)

No.1 : 白色紙 (WHITE PAPER)

測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
全氟/多氟烷基物質 (PFAS)				
全氟丁酸及其鹽類 (PFBA and its salts)	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
(Perfluorobutane acid and its salts	儀分析。(With reference to CEN/TS 15968:			
(PFBA and its salts)) (CAS No.: 375-22-4	2010, analysis was performed by LC/MS/MS.)			
and its salts)				
全氟丁磺酸及其鹽類 (PFBS and its salts)	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
(Perfluorobutane sulfonate and its salts	儀分析。(With reference to CEN/TS 15968:			
(PFBS and its salts)) (CAS No.: 375-73-5	2010, analysis was performed by LC/MS/MS.)			
and its salts)				
N-(2-羥乙基)-N-甲基全氟丁烷磺醯胺	參考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
(PFBS-NC3H8O) (1,1,2,2,3,3,4,4,4-	儀分析。(With reference to CEN/TS 15968:			
nonafluoro-N-(2-hydroxyethyl)-N-	2010, analysis was performed by LC/MS/MS.)			
methylbutane-1-sulphonamide (PFBS-				
NC3H8O)) (CAS No.: 34454-97-2)				
1H,1H,2H,2H-甲基丙烯酸全氟己酯 (4:2	參考CEN/TS 15968: 2010,以氣相層析儀/質譜	mg/kg	0.1	n.d.
FTMA) (1H,1H,2H,2H-Perfluorohexyl	儀分析。(With reference to CEN/TS 15968:			
methacrylate (4:2 FTMA)) (CAS No.:	2010, analysis was performed by GC/MS.)			
1799-84-4)				
全氟戊酸及其鹽類 (PFPA and its salts)	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
(Perfluoropentane acid and its salts	儀分析。(With reference to CEN/TS 15968:			
(PFPA and its salts)) (CAS No.: 2706-90-	2010, analysis was performed by LC/MS/MS.)			
3 and its salts)				
全氟已酸及其鹽類 (PFHxA and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
(Perfluorohexane acid and its salts	儀分析。(With reference to CEN/TS 15968:	-		
(PFHxA and its salts)) (CAS No.: 307-24-	2010, analysis was performed by LC/MS/MS.)			
4 and its salts)				



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 3 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
(rest items)	(Wictiod)	(Offic)		No.1
1H,1H,2H,2H-全氟-1-辛醇 (6:2 FTOH) (1H,1H,2H,2H-Perfluoro-1-octanol (6:2FTOH)) (CAS No.: 647-42-7)	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-全氟辛基丙烯酸酯 (6:2 FTA) (1H,1H,2H,2H- Perfluorooctylacrylate (6:2FTA)) (CAS No.: 17527-29-6)	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-全氟辛基甲基丙烯酸酯(6_2 FTMAC) (1H,1H,2H,2H-Perfluorooctyl methacrylate (6:2 FTMAC)) (CAS No.: 2144-53-8)	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-全氟辛磺酸及其鹽類 (6:2 FTS and its salts) (1H,1H,2H,2H- Perfluorooctanesulphonic acid and its salts (6:2 FTS and its salts)) (CAS No.: 27619-97-2 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.
全氟己基磺酸及其鹽類 (PFHxS and its salts) (Perfluorohexane sulfonate and its salts (PFHxS and its salts)) (CAS No.: 355-46-4 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-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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 4 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result) No.1
(N-AP-FHxSA) (N-[3-	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-	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.
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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 5 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1
N-乙基全氟辛基磺醯胺乙醇 (N-Et-FOSE alcohol) (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Et-FOSE alcohol)) (CAS No.: 1691-99-2)	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-甲基全氟辛基磺醯胺乙醇 (N-Me-FOSE 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.
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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 6 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1
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.
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.
(PFNA and its salts)) (CAS No.: 375-95-1 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-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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 7 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
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	No.1 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.
全氟十四烷酸及其鹽類 (PFTDA and its salts) (Perfluorotetradecanoic acid and its salts (PFTDA and its salts)) (CAS No.: 376-06-7 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,2H-全氟-1-十二醇 (10:2 FTOH) (1H,1H,2H,2H-Perfluoro-1- dodecanol (10:2FTOH)) (CAS No.: 865- 86-1)	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-全氟十二烷基丙烯酸酯 (10:2 FTA) (1H,1H,2H,2H- Perfluorododecylacrylate (10:2FTA)) (CAS No.: 17741-60-5)	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-全氟癸基碘 (8_2 FTI) (1H,1H,2H,2H-Perfluorodecyl iodide (8_2 FTI)) (CAS No.: 2043-53-0)	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	0.1	n.d.
1H,1H,2H,2H-全氟十七烷三甲基氧矽烷 (8:2 FTSi(OC2H5)3) (1H,1H,2H,2H- Perfluorodecyltriethoxysilane (8:2 FTSi(OC2H5)3)) (CAS No.: 101947-16-4)	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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 8 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1
2H,2H,3H,3H-全氟癸酸及其鹽類 (4HPFUnA and its salts) (2H,2H,3H,3H- Perfluoroundecanoic Acid and its salts (4HPFUnA and its salts)) (CAS No.: 34598-33-9 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.
1H,1H,2H,2H-全氟十二烷基甲基丙烯酸酯 (10:2 FTMA) (1H,1H,2H,2H- Perfluorododecyl methacrylate (10:2 FTMA)) (CAS No.: 2144-54-9)	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)	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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 9 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
全氟十六烷酸及其鹽類 (PFHxDA and its	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
salts, C16) (Perfluorohexadecanoic acid	儀分析。(With reference to CEN/TS 15968:			
1	2010, analysis was performed by LC/MS/MS.)			
(CAS No.: 67905-19-5 and its salts)				
全氟十八烷酸及其鹽類 (PFODA and its	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
salts, C18) (Perfluorooctadecanoic acid	儀分析。(With reference to CEN/TS 15968:			
and its salts (PFODA and its salts, C18))	2010, analysis was performed by LC/MS/MS.)			
(CAS No.: 16517-11-6 and its salts)				
全氟壬烷磺酸及其鹽類 (PFNS and its	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
salts) (Perfluorononane sulfonic acid	儀分析。(With reference to CEN/TS 15968:			
and its salts (PFNS and its salts)) (CAS	2010, analysis was performed by LC/MS/MS.)			
No.: 68259-12-1 and its salts)				
全氟十一烷磺酸及其鹽類 (PFUnS and its	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
salts) (Perfluoroundecane sulfonic acid	儀分析。(With reference to CEN/TS 15968:			
and its salts (PFUnS and its salts)) (CAS	2010, analysis was performed by LC/MS/MS.)			
No.: 749786-16-1 and its salts)				
全氟十二烷磺酸及其鹽類 (PFDoDS and	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
its salts) (Perfluorododecane sulfonic	儀分析。(With reference to CEN/TS 15968:			
	2010, analysis was performed by LC/MS/MS.)			
(CAS No.: 79780-39-5 and its salts)				
,	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
salts) (Perfluorotridecane sulfonic acid	儀分析。(With reference to CEN/TS 15968:			
and its salts (PFTrDS and its salts)) (CAS	2010, analysis was performed by LC/MS/MS.)			
No.: 791563-89-8 and its salts)				
1H,1H,2H-全氟-1-癸烯 (PFDE)	參考CEN/TS 15968: 2010,以氣相層析儀/質譜	mg/kg	0.1	n.d.
(1H,1H,2H-Heptadecafluoro-1-decene	儀分析。(With reference to CEN/TS 15968:			
(PFDE)) (CAS No.: 21652-58-4)	2010, analysis was performed by GC/MS.)			
全氟-3-甲氧基丙酸 (PFMPA) (Perfluoro-	參考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
3-methoxypropanoic acid (PFMPA))	儀分析。(With reference to CEN/TS 15968:			
(CAS No.: 377-73-1)	2010, analysis was performed by LC/MS/MS.)			



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 10 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1
全氟 4-甲氧基丁酸 (PFMBA) (Perfluoro- 4-methoxybutanoic acid (PFMBA)) (CAS No.: 863090-89-5)	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-3,6-二氧雜庚酸 (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.
4,8-二氧雜-3H-全氟壬酸 (ADONA) (4,8-Dioxa-3H-perfluorononanoic acid (ADONA)) (CAS No.: 919005-14-4)	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.
1H,1H,2H,2H-全氟-1-己醇 (4:2 FTOH) (1H,1H,2H,2H-Perfluoro-1-hexanol (4:2FTOH)) (CAS No.: 2043-47-2)	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.
2,3,3,3-四氟-2-(七氟丙氧基)丙酸及其鹽類 (HFPO-DA and its salts) (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)	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-全氟己磺酸 (4:2 FTS) (1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2 FTS)) (CAS No.: 757124-72-4)	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.
全氟辛烷磺酰胺乙酸 (FOSAA) (Perfluorooctane sulfonamidoacetic acid (FOSAA)) (CAS No.: 2806-24-8)	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.
N-甲基全氟辛烷磺酰胺乙酸(N-MeFOSAA) (N-methylperfluorooctane sulfonamidoacetic acid (N-MeFOSAA)) (CAS No.: 2355-31-9)	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.



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 11 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
N-乙基全氟辛烷磺酰胺乙酸 (N-EtFOSAA)	,	mg/kg	0.01	n.d.
(N-ethylperfluorooctane	儀分析。(With reference to CEN/TS 15968:			
sulfonamidoacetic acid (N-EtFOSAA))	2010, analysis was performed by LC/MS/MS.)			
(CAS No.: 2991-50-6)				
` '	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
(Perfluoropentane sulfonic acid and its	儀分析。(With reference to CEN/TS 15968:			
salts (PFPeS and its salts)) (CAS No.:	2010, analysis was performed by LC/MS/MS.)			
2706-91-4 and its salts)				
3-全氟丙基丙酸 (3:3 FTCA) (3-	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
Perfluoropropyl propanoic acid (3:3	儀分析。(With reference to CEN/TS 15968:			
FTCA)) (CAS No.: 356-02-5)	2010, analysis was performed by LC/MS/MS.)			
2-全氟己基乙酸 (6:2 FTCA) (2-	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
Perfluorohexyl ethanoic acid (6:2	儀分析。(With reference to CEN/TS 15968:			
FTCA)) (CAS No.: 53826-12-3)	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 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
Perfluoropentyl propanoic acid (5:3	儀分析。(With reference to CEN/TS 15968:			
FTCA)) (CAS No.: 914637-49-3)	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,以液相層析串聯質譜	mg/kg	0.01	n.d.
Perfluoroheptyl propanoic acid (7:3	儀分析。(With reference to CEN/TS 15968:			
FTCA)) (CAS No.: 812-70-4)	2010, analysis was performed by LC/MS/MS.)			
雙(1H,1H,2H,2H-全氟癸基)磷酸酯及其鹽	参考CEN/TS 15968: 2010,以液相層析串聯質譜	mg/kg	0.01	n.d.
類 (8_2diPAP and its salts)	儀分析。(With reference to CEN/TS 15968:			
(Bis(1H,1H,2H,2H-	2010, analysis was performed by LC/MS/MS.)			
Perfluorodecyl)phosphate and its salts				
(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,以液相層析串聯質譜	mg/kg	0.01	n.d.
(Perfluoro(2-ethoxyethane)sulfonic	儀分析。(With reference to CEN/TS 15968:			
acid (PFEESA)) (CAS No.: 113507-82-7)	2010, analysis was performed by LC/MS/MS.)			



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 12 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
	 	/1	0.01	No.1
9-氯十六氟-3-氧雜壬烷-1-磺酸 (9Cl-	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
PF3ONS) (9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-	儀分析。(With reference to CEN/TS 15968:			
PF3ONS)) (CAS No.: 756426-58-1)	2010, analysis was performed by LC/MS/MS.)			
11-氯二十氟-3-氧雜十一烷-1-磺酸 (11Cl-	 参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
PF3OUdS) (11-Chloroeicosafluoro-3-	(最分析。(With reference to CEN/TS 15968:	mg/kg	0.01	11.0.
oxaundecane-1-sulfonic acid (11Cl-	2010, analysis was performed by LC/MS/MS.)			
PF3OUdS)) (CAS No.: 763051-92-9)	2010, analysis was performed by Ec, Wis, Wis.,			
2-(N-乙基全氟辛烷磺醯胺基)丙烯酸乙酯	参考CEN/TS 15968: 2010 · 以氣相層析儀/質譜	mg/kg	0.1	n.d.
(EtFOSAC) (2-(N-	儀分析。(With reference to CEN/TS 15968:	9, 9		
ethylperfluorooctanesulfamido)ethyl	2010, analysis was performed by GC/MS.)			
acrylate (EtFOSAC)) (CAS No.: 423-82-				
5)				
全氟辛基三乙氧基矽烷 (POTS)	參考CEN/TS 15968: 2010,以氣相層析儀/質譜	mg/kg	0.1	n.d.
(Perfluorooctyl triethoxysilane (POTS))	儀分析。(With reference to CEN/TS 15968:			
(CAS No.: 51851-37-7)	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/質譜	mg/kg	0.1	n.d.
(Perfluorododecyl iodide (PFDoDI))	儀分析。(With reference to CEN/TS 15968:			
(CAS No.: 307-60-8)	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/質譜	mg/kg	0.1	n.d.
iodide (PFDI)) (CAS No.: 423-62-1)	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-	参考CEN/TS 15968: 2010 · 以液相層析串聯質譜	mg/kg	0.01	n.d.
PFUnDA and its salts) (11H-	儀分析。(With reference to CEN/TS 15968:			
Perfluoroundecanoic acid (11H-	2010, analysis was performed by LC/MS/MS.)			
PFUnDA and its salts)) (CAS No.: 1765-				
48-6 and others)				
全氟己基碘 (PFHxI) (Perfluorohexyl	參考CEN/TS 15968: 2010 · 以氣相層析儀/質譜	mg/kg	1	n.d.
iodide (PFHxI)) (CAS No.: 355-43-1)	儀分析。(With reference to CEN/TS 15968:			
	2010, analysis was performed by GC/MS.)			



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 13 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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

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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 14 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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-NH4) Ammonium perfluorobutanoate (PFBA-NH4)	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) (CAS No.: 375-73-5 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
	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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 15 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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-CI) Nonafluoro-1-butanesulfonyl chloride (PFBS-CI)	2991-84-6
	全氟-1-丁磺酸雙(4-叔丁基苯基)碘鎓 (PFBS-I(C_6H_4) $_2$ (C_4H_9) $_2$) Bis(4-tert-butylphenyl)iodonium perfluoro-1-butanesulfonate (PFBS-I(C_6H_4) $_2$ (C_4H_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_2H_5O) $_2$) $1,1,2,2,3,3,4,4,4$ -nonafluorobutane- 1 -sulphonic acid, compound with $2,2$ '-iminodiethanol ($1:1$) (PFBS-NH(C_2H_5O) $_2$)	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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 16 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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-NH ₄) Ammonium perfluoropentanoate (PFPA-NH ₄)	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-NH4) Ammonium perfluorohexanoate (PFHxA-NH4)	21615-47-4
(PFHxA and its salts) (CAS No.: 307-24-4 and its salts)	全氟己酸鈉 (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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 17 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 18 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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) lodonium, 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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 19 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 20 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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) (9CI) 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) (9CI)	866621-50-3
	(4-甲基苯基)二苯基锍-,1,1,2,2,3,3,4,4,5,5,6,6,6-十三氟-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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 21 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
全氟庚酸及其鹽類 Perfluoroheptane acid and its salts (PFHpA and its salts) (CAS No.: 375-85-9 and its salts)	全氟庚酸鈉 (PFHpA-Na) Sodium perfluoroheptanoate (PFHpA-Na)	20109-59-5
	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	全氟辛基磺酸鉀 (PFOS-K) Potassium perfluorooctanesulfonate (PFOS-K)	2795-39-3
salts (PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	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
	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
	全氟辛基磺酸四乙基銨 (PFOS-N(C_2H_5) ₄) Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-N(C_2H_5) ₄)	56773-42-3



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 22 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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) (CAS No.: 1763-23-1 and its salts)	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
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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 23 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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	全氟壬酸鈉 (PFNA-Na) Perfluorononanoate Na-salt (PFNA-Na)	21049-39-8
salts (PFNA and its salts) (CAS No.: 375-95-1 and its salts)	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	全氟癸酸鈉 (PFDA-Na) Perfluorodecanoate Na-salt (PFDA-Na)	3830-45-3
(PFDA and its salts) (CAS No.: 335-76-2 and its salts)	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
全氟十一烷酸及其鹽類 Perfluoroundecanoic acid and its	全氟十一烷酸銨 (PFUnDA-NH ₄) Ammonium perfluoroundecanoate (PFUnDA-NH ₄)	4234-23-5
salts (PFUnDA and its salts) (CAS No.: 2058-94-8 and its salts)	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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 24 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
Perfluorododecanoic acid and its	全氟十二烷酸銨 (APFDoDA) Ammonium perfluorododecanoate (APFDoDA)	3793-74-6
salts (PFDoDA and its salts) (CAS No.: 307-55-1 and its salts)	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	全氟壬烷磺酸鈉 (PFNS-Na*) Sodium perfluoro-1-nonanesulfonate (PFNS-Na*)	98789-57-2
its salts (PFNS and its salts) (CAS No.: 68259-12-1 and its salts)	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
全氟癸烷磺酸及其鹽類 (PFDS and its salts) (Perfluorodecane sulfonate	全氟癸烷磺酸鈉 (PFDS-Na) Perfluorodecanesulfonate Na-salt (PFDS-Na)	2806-15-7
and its salts (PFDS and its salts)) (CAS No.: 335-77-3 and its salts)	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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 25 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路三段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
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
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



Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 26 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

物質濃度分類 (Classification of Substance Concentration)	物質名稱 (Substance Name)	CAS No.
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

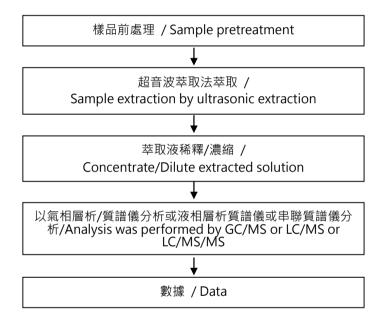


Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 27 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

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.)





Test Report

號碼(No.): ETR23900698 日期(Date): 13-Sep-2023 頁數(Page): 28 of 28

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 台北市中正區重慶南路二段51號12樓 (12F., NO. 51, SEC. 2, CHUNGCHING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.)

* 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.)

ETR23900698



** 報告結尾 (End of Report) **