

Test Report

號碼(No.): EKR24A01351 日期(Date): 06-Nov-2024 頁數(Page): 1 of 29

MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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)

MITSUI HIGH-TEC INC.
Ag PLATING MATERIAL

其他(Other Info.)

: ANALYSIS IS DONE ON Ag LAYER WHICH WAS SHAVED FROM SAMPLE

收件日(Sample Receiving Date)

收件口(Sample Receiving Da 測試期間(Testing Period) : 28-Oct-2024

: 28-Oct-2024 to 05-Nov-2024

測試需求(Test Requested)

- (1) 依據客戶指定·參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試 鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
- (2) 依據客戶要求,參考美國毒管法(TSCA) 第 6(h) 章節,進行5項持久性生物累積毒性物質 (PBTs) 測試,測試項目請參閱測試結果表格。 (As specified by client, the sample(s) was/were tested for 5 PBTs with reference to Regulation of Persistent, Bioaccumulative, Toxic (PBT) Chemicals under Toxic Substances Control Act (TSCA) Section 6(h). Please refer to result table for testing item(s).)
- (3) 其他測試項目請見下一頁。 (Please refer to next pages for the other item(s).) 請參閱下一頁 (Please refer to following pages.)

測試結果(Test Results) 結 論(Conclusion)

- (1) 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,其測試結果符合美國毒管法(TSCA) 第 6(h) 章節,持久性生物累積毒性物質 (PBTs)之限值要求。 (Based on the performed tests on submitted sample(s), the test result(s) comply with the limits as set by Persistent, Bioaccumulative, Toxic (PBT) Chemicals under Toxic Substances Control Act (TSCA) Section 6(h).)

報告簽署人/張伯睿 博士/部 室理**SGS**Ray Chang, Ph.D./ Department Manager
Signed for and on behali SGS TAIWAN LTD.

化學實驗室-高雄/Chemical Laboratory-Kaohsiung

PIN CODE: 7914C0B



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測試部位敘述 (Test Part Description)

No.1 : 銀色金屬 (SILVER COLORED METAL)

測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
鎘 (Cd) (Cadmium (Cd))	參考IEC 62321-5: 2013,以感應耦合電漿	mg/kg	2	n.d.	100
	發射光譜儀分析。(With reference to IEC				
	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	mg/kg	2	n.d.	1000
	發射光譜儀分析。(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 ·	mg/kg	2	n.d.	1000
	以感應耦合電漿發射光譜儀分析。(With				
	reference to IEC 62321-4: 2013+ AMD1:				
	2017, analysis was performed by ICP-				
	OES.)				
六價鉻 (Hexavalent Chromium) Cr(VI)	參考IEC 62321-7-1: 2015 · 以紫外光-可見	μg/cm²	0.1	n.d.	-
(#2)	光分光光度計分析。(With reference to				
	IEC 62321-7-1: 2015, analysis was				
	performed by UV-VIS.)				
一溴聯苯 (Monobromobiphenyl)		mg/kg	5	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)	● 参考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	mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)	J G G , 1415. /	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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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)	⇔ 老店C C2221 C. 2015 以复用屋长 <i>饰</i>	mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)	參考IEC 62321-6: 2015 · 以氣相層析儀/質 譜儀分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)	高麗方句。(With reference to IEC 62321-6: 2015, analysis was performed by	mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)	GC/MS.)	mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)	(GC) (VIS.)	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
多氯聯苯 (PCBs) (Polychlorinated		mg/kg	0.5	n.d.	-
biphenyls (PCBs))	参考US EPA 3550C: 2007,以氣相層析儀/				
多氯奈 (PCNs) (Polychlorinated	質譜儀分析。(With reference to US EPA	mg/kg	5	n.d.	-
naphthalene (PCNs))	3550C: 2007, analysis was performed by				
多氯三聯苯 (PCTs) (Polychlorinated	GC/MS.)	mg/kg	0.5	n.d.	-
terphenyls (PCTs))					
短鏈氯化石蠟(C10-C13) (SCCP) (Short	參考ISO 18219-1: 2021‧以氣相層析儀/	mg/kg	50	n.d.	-
Chain Chlorinated Paraffins(C10-C13)	質譜儀分析。(With reference to ISO				
(SCCP)) (CAS No.: 85535-84-8)	18219-1: 2021, analysis was performed				
(E) (E) (E)) (CACA) 14762 04	by GC/MS.)		F.0		
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-		mg/kg	50	n.d.	-
8)			Γ0	اء ما	
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537- 15-1)	參考BS EN 14582: 2016 · 以離子層析儀分	mg/kg	50	n.d.	-
溴 (Br) (Bromine (Br)) (CAS No.: 10097-	析。(With reference to BS EN 14582:	mg/kg	50	n.d.	_
(BI) (BIOTIIII (BI)) (CAS NO.: 10097- 32-2)	2016, analysis was performed by IC.)	mg/kg	30	11.0.	-
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	_
(i) (IOGITIC (I)) (CAS NO.: 17302-44-0)		mg/kg	30	11.0.	



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
(Test items)	(Method)	(Unit)		No.1	(Limit)
三丁基錫 (TBT) (Tributyl tin (TBT))	參考ISO 17353: 2004 · 以氣相層析儀/火	mg/kg	0.03	n.d.	_
三苯基錫 (TPT) (Triphenyl tin (TPT))	焰光度偵測器分析。(With reference to	mg/kg	0.03	n.d.	-
二丁基錫 (DBT) (Dibutyl tin (DBT))	ISO 17353: 2004, analysis was	mg/kg	0.03	n.d.	-
二辛基錫 (DOT) (Dioctyl tin (DOT))	performed by GC/FPD.)	mg/kg	0.03	n.d.	-
氧化雙三丁基錫 (TBTO) (Bis(tributyItin)	由三丁基錫測試結果計算得之。	mg/kg	0.03 🛦	n.d.	-
oxide (TBTO)) (CAS No.: 56-35-9)	(Calculated from the result of Tributyl Tin (TBT).)				
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.	-
聚氯乙烯 (Polyvinyl chloride) (PVC)	參考ASTM E1252: 2021·以傅立葉轉換紅外線光譜儀及焰色法分析。(With reference to ASTM E1252: 2021, analysis was performed by FT-IR and Flame Test.)	**	-	Negative	-
銻 (Sb) (Antimony (Sb)) (CAS No.: 7440-36-0)	參考US EPA 3052: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-
三氧化二銻(Sb ₂ O ₃) (Antimony trioxide (Sb ₂ O ₃)) (CAS No.: 1309-64-4)	由銻結果計算得之。(Calculated from the result of Antimony.)	mg/kg	2▲	n.d.	-
鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	參考US EPA 3052: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-
砷 (As) (Arsenic (As)) (CAS No.: 7440-38-2)	參考US EPA 3052: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
紅磷 (Red Phosphorus)	以熱裂解-氣相層析儀/質譜儀分析。	**	-	Negative	-
	(Analysis was performed by Pyrolyzer-				
	GC/MS.)				
鄰苯二甲酸二丁酯 (DBP) (Dibutyl		mg/kg	50	n.d.	1000
phthalate (DBP))					
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl		mg/kg	50	n.d.	1000
phthalate (BBP))					
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl		mg/kg	50	n.d.	1000
phthalate (DIBP))					
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-		mg/kg	50	n.d.	1000
(2-ethylhexyl) phthalate (DEHP))					
鄰苯二甲酸二異癸酯 (DIDP) (Diisodecyl		mg/kg	50	n.d.	-
phthalate (DIDP)) (CAS No.: 26761-40-					
0, 68515-49-1)					
鄰苯二甲酸二異壬酯 (DINP) (Diisononyl		mg/kg	50	n.d.	-
phthalate (DINP)) (CAS No.: 28553-12-	 參考IEC 62321-8: 2017 · 以氣相層析儀/質				
0, 68515-48-0)	参考IEC 02321-8. 2017,以無怕層別議/員 譜儀分析。(With reference to IEC 62321-				
鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl	8: 2017, analysis was performed by	mg/kg	50	n.d.	-
phthalate (DNOP)) (CAS No.: 117-84-0)	GC/MS.)				
鄰苯二甲酸二正戊酯 (DNPP) (Di-n-	GC/1VI3.)	mg/kg	50	n.d.	-
pentyl phthalate (DNPP)) (CAS No.:					
131-18-0)					
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)					
鄰苯二甲酸二(2-甲氧基乙基)酯 (DMEP)		mg/kg	50	n.d.	-
(Bis(2-methoxyethyl) phthalate (DMEP))					
(CAS No.: 117-82-8)					
鄰苯二甲酸二(C7-11支鏈與直鏈)烷基酯		mg/kg	50	n.d.	-
(DHNUP) (1,2-Benzenedicarboxylic					
acid, di-C7-11-branched and linear					
alkyl esters (DHNUP)) (CAS No.: 68515-					
42-4)					



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
(rest items)	(Method)	(01111)		No.1	(=)
鄰苯二甲酸二 (C6-8支鏈)烷基酯,富C7 (DIHP) (1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)) (CAS No.: 71888-89-6)	參考IEC 62321-8: 2017·以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-
十溴聯苯醚 (DecaBDE) (Decabromodiphenyl ether (DecaBDE)) (CAS No.: 1163-19-5)	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.	Prohibited / N/A(*3)
異丙基化磷酸三苯酯 (PIP 3:1) (Phenol, isopropylated, phosphate (3:1) (PIP 3:1)) (CAS No.: 68937-41-7)	參考US EPA 3550C: 2007·以氣相層析儀/ 質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	5	n.d.	Prohibited / N/A(*1)
2,4,6-三叔丁基酚 (2,4,6-TTBP) (2,4,6- Tris(tert-butyl)phenol (2,4,6-TTBP)) (CAS No.: 732-26-3)	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.	3000 / N/A(*2)
五氯苯硫酚 (PCTP) (Pentachlorothiophenol (PCTP)) (CAS No.: 133-49-3)	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.	10000
六氯丁二烯 (HCBD) (Hexachlorobutadiene (HCBD)) (CAS No.: 87-68-3)	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.	Prohibited
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.	-



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(Method)	測試項目	測試方法	單位	MDL	結果	限值
N-甲基全氟正辛磺醯胺 (N-Me-FOSA)	(Test Items)	(Method)	(Unit)		(Result)	(Limit)
(N-Methyl-Perfluoroctanesulfonamide (N-Me-FOSA)) (CAS No.: 31506-32-8)					No.1	
CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	· · · · · · · · · · · · · · · · · · ·		mg/kg	0.01	n.d.	-
Performed by LC/MS/MS.) Performed by LC	l'	· ·				
N-乙基全氟辛基磺醯胺乙醇 (N-Et-FOSE alcohol) (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Ethyl-Perfluoroctanesulfonamidoethanol (N-Perfluoroctanesulfonamidoethanol (N-Perfluoroctanesulfonamidoeth	(N-Me-FOSA)) (CAS No.: 31506-32-8)	=				
alcohol) (N-Ethyl- Perfluoroctanesulfonamidoethanol (N- Et-FOSE alcohol)) (CAS No.: 1691-99-2) N-甲基全氣辛基磺醯胺乙醇 (N-Me-FOSE # 8		,				
Perfluoroctanesulfonamidoethanol (N-Et-FOSE alcohol)) (CAS No: 1691-99-2) performed by LC/MS/MS.) 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) 全氟辛基磺醯胺及其鹽類 (PFOSA and its salts) (CAS No: 24448-09-7) 全氟辛基磺酚 (PFOSA and its salts) (CAS No: 24448-09-7) 全氟辛基磺酚 (PFOSA and its salts) (CAS No: 24448-09-7) 全氟辛基磺酚 (PFOSA and its salts) (CAS No: 24448-09-7) 全氟辛基 (PFOSA and its salts) (CAS No: 24448-09-7) 全氟辛基 (PFOSA and its salts) (CAS No: 24448-09-7) 李老CEN/TS 15968: 2010 · 以该相層析串 mg/kg nmg/kg nmg/k	•	•	mg/kg	0.01	n.d.	-
BET-FOSE alcohol)) (CAS No.: 1691-99-2) performed by LC/MS/MS.) タ考CEN/TS 15968: 2010・以液相層析串 勝質譜儀分析。(With reference to CEN/TS 15968: 2010・以液相層析串 勝質譜像分析。(With reference to CEN/TS 15968: 2010・以液相層析串 聯質譜像分析。(With reference to CEN/TS 15968: 2010・以液相層析串 聯質譜像分析。(With reference to CEN/TS 15968: 2010・以液相層析串 聯質譜像分析。(With reference to CEN/TS 15968: 2010・以藻相層析胃 mg/kg の.0 n.d. ・ 参考CEN/TS 15968: 2010・以藻相層析質 perfluorooctanoate (Me-PFOA) (CAS No.: 376-27-2)		•				
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) 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.: 2549-1-6 and its salts) (CAS No.: 2549-1-6 and its salts) (CAS No.: 2549-1-6 and its salts) (Perfluoroctanesulfonamide and its salts) (Pe	I '	,				
alcohol) (N-Methyl-Perfluoroctanesulfonamidoethanol (N-Me-FOSE alcohol)) (CAS No.: 24448-09-7) 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 its salts) (Perfluoroctanoic acid and its salts (PFOA and its salts)) (CAS No.: 335-67-1 and its salts) (Perfluoroctanoic acid and its salts (PFOA and its salts)) (CAS No.: 335-67-1 and its salts) (Perfluoroctanoic acid and its salts (PFOA)) (CAS No.: 376-27-2)	Et-FOSE alcohol)) (CAS No.: 1691-99-2)	performed by LC/MS/MS.)				
Perfluoroctanesulfonamidoethanol (N-Me-FOSE alcohol)) (CAS No.: 24448-09-7) 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.: 26氟辛酸及其鹽類 (PFOA and its salts) (CAS No.: 335-67-1 and its salts)) (CAS No.: 335-67-1 and its salts) (PERFLOROCTANCE (Me-PFOA)) (CAS No.: 335-67-1 sand its salts) (PERFLOROCTANCE (Me-PFOA)) (CAS No.: 376-27-2) (PERFLOROCTANCE (Me-PFOA)) (CAS No.: 376-27-2) (PERFLOROCTANCE (ET-PFOA)) (CAS No.: 376-27-2) (PERFLOROCTANCE (ET-PFOA)) (CAS No.: 3108-24-5) (PERFLOROCTANCE (ET-PFOA)) (CAS No.: 3108-24-5) (PERFLOROCTANCE (ET-PFOA)) (CAS No.: 507-63-1) (PERFLOROCTANCE (PFOI)) (PERFLOROCTANCE (1		mg/kg	0.01	n.d.	-
Me-FOSE alcohol)) (CAS No.: 24448- 09-7) 全 第 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 its salts) (CAS No.: 2 年 新文	7 .	· ·				
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.: CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.) 全氟辛酸及其鹽類 (PFOA and its salts) 全氟辛酸及其鹽類 (PFOA and its salts) (Perfluorooctanoic acid and its salts) (POA and its salts) (CAS No.: 335-67-1 and its salts) 全氟辛酸甲酯 (Me-PFOA) (Methyl perfluorooctanoate (Me-PFOA)) (CAS No.: 376-27-2) 全氟辛酸乙酯 (Et-PFOA) (Ethyl perfluorooctanoate (Et-PFOA)) (CAS No.: 3108-24-5) 全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1) 全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1) **** *** *** *** *** ** ** **	Perfluoroctanesulfonamidoethanol (N-	CEN/TS 15968: 2010, analysis was				
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 its salts) (CAS No.: 754-91-6 and its salts) (Perfluoroctanoic acid and its salts) (Perfluoroctanoic acid and its salts) 参考CEN/TS 15968: 2010,以液相層析串 mg/kg (PFOA and its salts) 参考CEN/TS 15968: 2010,以液相層析串 mg/kg (PFOA and its salts) (Perfluoroctanoic acid and its salts) (Perfluoroctanoic acid and its salts) (PFOA mid its salts) (Me-FOSE alcohol)) (CAS No.: 24448-	performed by LC/MS/MS.)				
salts) (Perfluoroctanesulfonamide and its salts (PFOSA and its salts)) (CAS No.: 754-91-6 and its salts) 全氟辛酸及其鹽類 (PFOA and its salts) (Perfluoroctanoic acid and its salts) (PFOA and its salts) (CAS No.: 335-67-1 and its salts) (PFOA) (Methyl perfluoroctanoate (Me-PFOA)) (CAS No.: 376-27-2) 全氟辛酸乙酯 (Et-PFOA) (Ethyl perfluoroctanoate (Et-PFOA)) (CAS No.: 3108-24-5) 全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1) *** *** ** ** ** ** ** ** ** ** ** **	09-7)					
its salts (PFOSA and its salts) (CAS No.: 754-91-6 and its salts) (CAS No.: 754-91-6 and its salts)	1		mg/kg	0.01	n.d.	-
字54-91-6 and its salts) performed by LC/MS/MS.)	· · ·	,				
全氟辛酸及其鹽類 (PFOA and its salts) (Perfluorooctanoic acid and its salts) (PFOA and its salts) (PFOA and its salts) (PFOA and its salts) (PFOA and its salts) (CAS No.: 335-67-1 and its salts) (PFOA) (Methyl sefformed by LC/MS/MS.)	1	-				
(Perfluorooctanoic acid and its salts (PFOA and its salts)) (CAS No.: 335-67-1 and its salts)) (CAS No.: 376-27-2)		1.				
(PFOA and its salts)) (CAS No.: 335-67-1 CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.) 全氟辛酸甲酯 (Me-PFOA) (Methyl perfluorooctanoate (Me-PFOA)) (CAS No.: 376-27-2)	· · · · · · · · · · · · · · · · · · ·		mg/kg	0.01	n.d.	=
and its salts) performed by LC/MS/MS.)	`	•				
全氟辛酸甲酯 (Me-PFOA) (Methyl perfluorooctanoate (Me-PFOA)) (CAS No.: 376-27-2)	** **	, ,				
perfluorooctanoate (Me-PFOA)) (CAS No.: 376-27-2)	,	<u>-</u>				
No.: 376-27-2) 15968: 2010, analysis was performed by GC/MS.) 全氟辛酸乙酯 (Et-PFOA) (Ethyl perfluorooctanoate (Et-PFOA)) (CAS No.: 3108-24-5) 全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1) 15968: 2010, analysis was performed by GC/MS.) ***********************************	1	•	mg/kg	0.1	n.d.	-
GC/MS.) 全氟辛酸乙酯 (Et-PFOA) (Ethyl 参考CEN/TS 15968: 2010 · 以氣相層析質 perfluorooctanoate (Et-PFOA)) (CAS No.: 3108-24-5) 名		譜儀分析。(With reference to CEN/TS				
全氟辛酸乙酯 (Et-PFOA) (Ethyl perfluorooctanoate (Et-PFOA)) (CAS No.: 3108-24-5) 全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1) 参考CEN/TS 15968: 2010,以氣相層析質 mg/kg	No.: 376-27-2)					
perfluorooctanoate (Et-PFOA)) (CAS		GC/MS.)				
No.: 3108-24-5)	全氟辛酸乙酯 (Et-PFOA) (Ethyl	參考CEN/TS 15968: 2010 · 以氣相層析質	mg/kg	0.1	n.d.	-
GC/MS.) 全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1) iii 儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by	perfluorooctanoate (Et-PFOA)) (CAS	譜儀分析。(With reference to CEN/TS				
全氟辛基碘烷 (PFOI) (Perfluoro-1-iodooctane (PFOI)) (CAS No.: 507-63-1)	No.: 3108-24-5)	15968: 2010, analysis was performed by				
iodooctane (PFOI)) (CAS No.: 507-63-1) iii 儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by		GC/MS.)				
15968: 2010, analysis was performed by	全氟辛基碘烷 (PFOI) (Perfluoro-1-	參考CEN/TS 15968: 2010,以氣相層析質	mg/kg	0.1	n.d.	-
	iodooctane (PFOI)) (CAS No.: 507-63-1)	譜儀分析。(With reference to CEN/TS				
GC/MS.)		15968: 2010, analysis was performed by				
		GC/MS.)				



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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
3-全氟庚基丙酸 (7:3 FTCA) (3- Perfluoroheptyl propanoic acid (7:3 FTCA)) (CAS No.: 812-70-4)	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 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-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 · 以氣相層析質 譜儀及液相層析串聯質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS and LC/MS/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酯 (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 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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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
1H,1H,2H,2H-全氟十七烷三甲基氧矽烷	參考CEN/TS 15968: 2010,以氣相層析質	mg/kg	0.1	n.d.	-
(8:2 FTSi(OC ₂ H ₅) ₃) (1H,1H,2H,2H-	譜儀分析。(With reference to CEN/TS				
Perfluorodecyltriethoxysilane (8:2	15968: 2010, analysis was performed by				
FTSi(OC ₂ H ₅) ₃)) (CAS No.: 101947-16-4)	GC/MS.)				
2H,2H,3H,3H-全氟癸酸及其鹽類	參考CEN/TS 15968: 2010 · 以液相層析串	mg/kg	0.01	n.d.	=
(4HPFUnA and its salts) (2H,2H,3H,3H-	聯質譜儀分析。(With reference to				
Perfluoroundecanoic acid and its salts	CEN/TS 15968: 2010, analysis was				
(4HPFUnA and its salts)) (CAS No.:	performed by LC/MS/MS.)				
34598-33-9 and its salts)					
1H,1H,2H-全氟-1-癸烯 (PFDE)	參考CEN/TS 15968: 2010 · 以氣相層析質	mg/kg	0.1	n.d.	-
(1H,1H,2H-Heptadecafluoro-1-decene	譜儀分析。(With reference to CEN/TS				
(PFDE)) (CAS No.: 21652-58-4)	15968: 2010, analysis was performed by				
	GC/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	mg/kg	0.01	n.d.	-
類 (8:2 diPAP and its salts)	聯質譜儀分析。(With reference to				
(Bis(1H,1H,2H,2H-	CEN/TS 15968: 2010, analysis was				
Perfluorodecyl)phosphate and its salts	performed by LC/MS/MS.)				
(8:2 diPAP and its salts)) (CAS No.: 678-					
41-1 and its salts)					

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/未檢出); Positive = Detectable 陽性(已偵測到/檢出)
- 7. (#2) =
 - a. 當六價鉻結果大於0.13 μg/cm²·表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
 - b. 當六價鉻結果為n.d. (濃度小於 $0.10 \mu g/cm^2$),表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than $0.10 \mu g/cm^2$). The coating is considered a non-Cr(VI) based coating)
 - c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時,無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive unavoidable coating variations may influence the determination.)



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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 (Bis(tributyltin)oxide) (TBTO)	三丁基錫 (Tributyl Tin) (TBT)	1.0276
三氧化二銻 (Antimony trioxide) (Sb ₂ O ₃)	銻 (Antimony)	1.1971

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決定規則·採用簡單允收規則之二分法(w=0)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.)
- 10. 詳細法規說明請點以下網址連結。(Detail explanation of the regulation is available at the following link.) https://www.ecfr.gov/current/title-40/chapter-l/subchapter-R/part-751?toc=1
- 11. N/A(*1): 若產品/成品為以下‧則不適用 (The submitted sample is exempted from the regulated scope if it is anyone of the following):
 - 航空或軍事用液壓油 (Hydraulic fluids for aviation or military)
 - 潤滑劑和油脂 (Lubricants and grease)
 - 汽車和航空航天器的新零件和替換零件 (New and replacement parts for motor and aerospace vehicles)
 - 在封閉系統中製造氰基丙烯酸酯粘合劑 (Manufacture of cyanoacrylate adhesives in closed systems)
 - 火車和船舶應用的專用發動機空氣濾清器 (Specialized engine air filters for locomotive and marine applications)
 - 從含PIP(3:1)的產品或成品中回收的塑料 (Plastic for recycling from PIP (3:1)-containing products or articles)
 - 從包含PIP(3:1)的產品或成品中回收的塑料製成的成品或成品 (Finished products or articles made of plastic recycled from PIP (3:1)-containing products or articles)
 - 於2024/10/31前加工和分銷含PIP(3:1)的成品 (Processing and distribution in commerce of PIP (3:1)-containing articles, before October 31, 2024)
- 12. N/A(*2): 若產品為非作為潤滑油中添加劑,則不適用。(The submitted sample is exempted from the regulated scope if it is not oil and lubricant additives.)
- 13. N/A(*3): 若產品/成品為以下,則不適用 (The submitted sample is exempted from the regulated scope if it is anyone of the following):
 - 從產品或成品進行加工和分銷含十溴二苯醚回收的塑料或者由這種再生塑料製成的含十溴二苯醚的產品或成品。 (Exempts processing and distribution for recycling of DecaBDE-containing plastic from products or articles and DecaBDE-containing products or articles made from such recycled plastic.)



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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.))

群組名稱 (Group Name)	物質名稱 (Substance Name)	CAS No.
	全氟辛烷磺酸 (Perfluorooctane sulfonates) (PFOS)	1763-23-1
	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
	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
PFOS, 及其鹽&衍生物	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
(PFOS, its salts & derivatives)	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
	全氟辛基磺酸四丁基銨 (PFOS-N(C ₄ H ₉) ₄) TetrabutylAmmonium perfluorooctanesulfonate (PFOS-N(C ₄ H ₉) ₄)	111873-33-7
	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



Test Report

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

群組名稱 (Group Name)	物質名稱 (Substance Name)	CAS No.
	全氟辛烷磺酸哌啶 Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluorooctanesulfonate	71463-74-6
	全氟辛烷磺酸鹽 Perfluorooctanesulfonate (anion)	45298-90-6
	全氟辛烷磺酸與 N,N-二乙基乙胺 (1:1) (PFOS-N(C_2H_5) ₃) 1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with N,N-diethylethanamine (1:1) (PFOS-N(C_2H_5) ₃)	54439-46-2
	N,N,N-三甲基-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1-辛烷磺酸甲銨(1:1) (PFOS-N(CH ₃) ₄) Methanaminium, N,N,N-trimethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1- octanesulfonate (1:1) (PFOS-N(CH ₃) ₄)	56773-44-5
PFOS, 及其鹽&衍生物	1-五胺·N,N,N-三丙基-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1-辛烷磺酸鹽(1:1) (PFOS-N(C ₃ H ₇) ₃ (C ₅ H ₁₁)) 1-Pentanaminium, N,N,N-tripropyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N(C ₃ H ₇) ₃ (C ₅ H ₁₁))	56773-56-9
(PFOS, its salts & derivatives)	1-丁銨·N,N-二丁基-N-甲基-·1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- 十七氟-1-辛烷磺酸鹽 (1:1) (PFOS-N(C ₄ H ₉) ₃ (CH ₃)) 1-Butanaminium, N,N-dibutyl-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1- octanesulfonate (1:1) (PFOS-N(C ₄ H ₉) ₃ (CH ₃))	124472-68-0
	碘鎓·雙[4-(1,1-二甲基乙基)苯基]-·1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- 十七氟-1-辛烷磺酸鹽 (1:1) lodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)	213740-80-8
	二苯基鍺(2,4,6-三甲基苯基)-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1-辛烷磺酸鹽 (1:1) Sulfonium, diphenyl(2,4,6-trimethylphenyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)	258341-99-0
	吡啶鎓 · 1-十六烷基- · 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1 - 辛烷磺酸鹽 (1:1) Pyridinium, 1-hexadecyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)	334529-63-4



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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

群組名稱	物質名稱	CAS No.
(Group Name)	(Substance Name)	
	1-癸胺·N,N,N-三乙基-·1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-1-辛 烷磺酸鹽(1:1) 1-Decanaminium, N,N,N-triethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluoro-1-octanesulfonate (1:1)	773895-92-4
	全氟辛烷磺酸四丁基鏻 (PFOS-P(C_4H_9) $_4$)) Tetrabutylphosphonium perfluorooctane sulfonate (PFOS-P(C_4H_9) $_4$))	2185049-59-4
PFOS, 及其鹽&衍生物 (PFOS, its salts & derivatives)	全氟辛烷磺酸二乙胺鹽 (PFOS-C ₄ H ₁₁ N) Perfluorooctanesulfonic acid diethylamine salt (PFOS-C ₄ H ₁₁ N)	2205029-08-7
(FFO3, its saits & delivatives)	庚基二甲基 $\{2-[(2-甲基丙-2-烯酰基)氧基]乙基\}$ 全氟辛烷磺酸氮紮鹽 (PFOS- $C_{15}H_{30}NO_2$) Heptyldimethyl $\{2-[(2-methylprop-2-enoyl)oxy]ethyl\}$ azanium perfluorooctanesulfonate (PFOS- $C_{15}H_{30}NO_2$)	1203998-97-3
	1-辛烷磺酸·1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-,1,1' -酸酐 (PFOSAN) 1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluoro-, 1,1'-anhydride (PFOSAN)	423-92-7
	全氟辛基磺醯胺 (Perfluoroctanesulfonamide) (PFOSA)	754-91-6
	全氟辛基磺醯胺鋰鹽 (1:1) (PFOSA-Li) Perfluorooctanesulfonamide lithium salt (1:1) (PFOSA-Li)	76752-79-9
	全氟辛基磺醯胺鈉鹽 (1:1) (PFOSA-Na) Perfluorooctanesulfonamide Sodium salt (1:1) (PFOSA-Na)	76752-78-8
PFOSA, 及其鹽 (PFOSA, its salts)	全氟辛基磺醯胺鉀鹽 (1:1) (PFOSA-K) Perfluorooctanesulfonamide Potassium salt (1:1) (PFOSA-K)	76752-70-0
	全氟辛基磺醯胺銨鹽 (1:1) (PFOSA-NH ₄) Perfluorooctanesulfonamide Ammonium salt (1:1) (PFOSA-NH ₄)	76752-72-2
	全氟辛基磺醯胺三乙胺的化合物(1:1) (PFOSA- $C_6H_{15}N$) heptadecafluorooctane-1-sulphonamide, compound with triethylamine(1:1) (PFOSA- $C_6H_{15}N$)	76752-82-4
	全氟辛酸 (Perfluorooctanoic acid) (PFOA)	335-67-1
PFOA, 及其鹽&衍生物 (PFOA, its salts & derivatives)	全氟辛酸鈉 (PFOA-Na) Sodium perfluorooctanoate (PFOA-Na)	335-95-5
	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



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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

群組名稱 (Group Name)	物質名稱 (Substance Name)	CAS No.
PFOA, 及其鹽&衍生物 (PFOA, its salts & derivatives)	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
	全氟辛酸鈷 (PFOA-Co) Cobalt perfluorooctanoate (PFOA-Co)	35965-01-6
	全氟辛酸銫 (PFOA-Cs) Cesium perfluorooctanoate (PFOA-Cs)	17125-60-9
	全氟辛酸鉻 (PFOA-Cr(3 ⁺)) Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) (PFOA-Cr(3 ⁺))	68141-02-6
	全氟辛酸-哌嗪(2:1) PFOA-NH(C ₄ H ₁₀ N) Pentadecafluorooctanoic acidpiperazine (2/1)PFOA-NH(C ₄ H ₁₀ N)	423-52-9
	全氟辛酸鹽 Pentadecafluorooctanoate (anion)	45285-51-6
	全氟辛酸酐 Perfluorooctanoic Anhydride	33496-48-9
	乙銨·N,N,N-三乙基-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟辛酸 (1:1) Ethanaminium, N,N,N-triethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- pentadecafluorooctanoate (1:1)	98241-25-9
	全氟辛酸四甲銨鹽 Tetramethylammoniumperfluoroctanoat	32609-65-7
	1-丙銨·N,N,N-三丙基-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟辛酸 (1:1) 1-Propanaminium, N,N,N-tripropyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1)	277749-00-5
	辛酸・2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟-鉀鹽・水合物 (1:1:2) (PFOA-K(H ₂ O) ₂) Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, potassium salt, hydrate (1:1:2) (PFOA-K(H ₂ O) ₂)	98065-31-7
	辛酸·2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟-·化合物。與乙胺 (1:1) (PFOA-C ₂ H ₇ N) Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, compd. with ethanamine (1:1) (PFOA-C ₂ H ₇ N)	1376936-03-6



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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

群組名稱	物質名稱	CAS No.
(Group Name)	(Substance Name)	
PFOA, 及其鹽&衍生物 (PFOA, its salts & derivatives)	十五氟辛酸化合物與吡啶 (1:1) (9Cl) (PFOA-C₅H₅N) Octanoic acid, pentadecafluoro-, compd. with pyridine (1:1) (9Cl) (PFOA-C₅H₅N)	95658-47-2
	十五氟辛酸-1-苯基哌嗪(1:1) (PFOA- $C_{10}H_{14}N_2$) Pentadecafluorooctanoic acid- 1-phenylpiperazine(1:1) (PFOA- $C_{10}H_{14}N_2$)	1514-68-7
	1-辛胺·N,N,N-三甲基-·2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十五氟辛酸 (1:1) (PFOA- C ₁₁ H ₂₆ N) 1-Octanaminium, N,N,N-trimethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) (PFOA- C ₁₁ H ₂₆ N)	927835-01-6
8:2 FTS, 及其鹽 (8:2 FTS, its salts)	1H,1H,2H,2H-全氟癸磺酸 (1H,1H,2H,2H- Perfluorodecanesulfonic acid) (8:2 FTS)	39108-34-4
	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-全氟癸磺酸鈉 (8:2 FTS-Na) 1H,1H,2H,2H-Perfluorodencane sulfonate acid Sodium salt (8:2 FTS-Na)	27619-96-1
	1H,1H,2H,2H-全氟癸磺酸鹽 (8:2 FTS(anion)) 8: 2 Fluorotelomer sulfonate (anion) (8:2 FTS(anion))	481071-78-7
H2PFDA, 及其鹽 (H2PFDA, its salts)	2H,2H-全氟癸酸 (2H,2H-Perfluorodecane acid) (H2PFDA)	27854-31-5
	四丁基磷2H,2H-全氟癸酸酯 Tetrabutylphosphonium 2H,2H-Perfluorodecanoate	882489-14-7
4HPFUnA, 及其鹽 (4HPFUnA, its salts)	2H,2H,3H,3H-全氟癸酸 (2H,2H,3H,3H-Perfluoroundecanoic Acid) (4HPFUnA)	34598-33-9
	2H,2H,3H,3H-全氟癸酸鉀 (H4PFUnA-K) Potassium 2H,2H,3H,3H-Perfluoroundecanoate (H4PFUnA-K)	83310-58-1
	2H,2H,3H,3H-全氟癸酸鋰 (H4PFUnA-Li) Lithium 3-(perfluorooctyl)propanoate (H4PFUnA-Li)	67304-23-8



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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

群組名稱 (Group Name)	物質名稱 (Substance Name)	CAS No.
8:2diPAP, 及其鹽 (8:2diPAP, its salts)	雙(1H,1H,2H,2H-全氟癸基)磷酸酯 (Bis(1H,1H,2H,2H- Perfluorodecyl)phosphate) (8:2diPAP)	678-41-1
	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
	雙(2-羥乙基)雙((全氟辛基)乙基)磷酸氫銨 Bis(2-hydroxyethyl)ammonium bis((perfluorooctyl)ethyl) hydrogen phosphate	57677-97-1
	雙[2-(全氟辛基)乙基]磷酸銨鹽 (8:2diPAP-NH ₄) Bis[2-(perfluorooctyl)ethyl] phosphate ammonium salt (8:2diPAP- NH ₄)	93776-20-6
	8:2 氟調聚物磷酸二酯離子 8:2 Fluorotelomer phosphate diester ion	1411713-91-1



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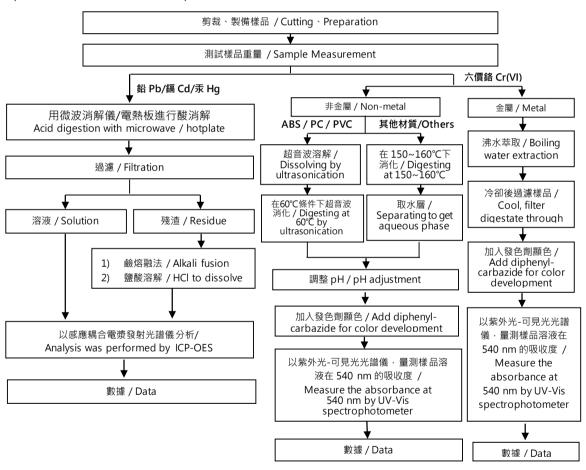
MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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

根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)





測試報告 Test Report

號碼(No.): EKR24A01351

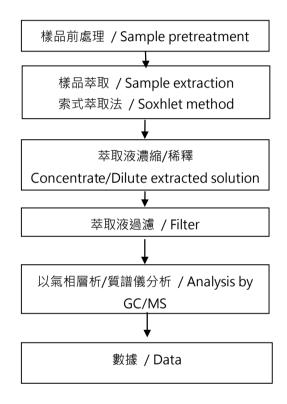
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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART





測試報告 Test Report

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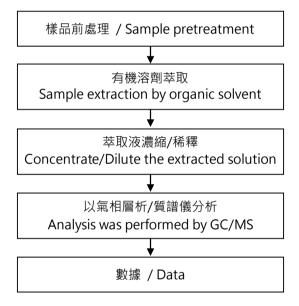
MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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





Test Report

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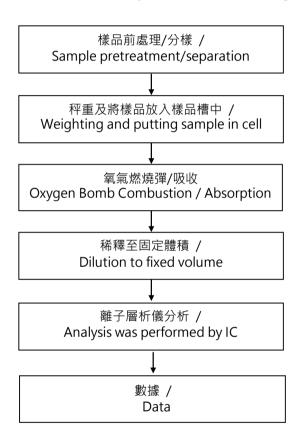
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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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





Test Report

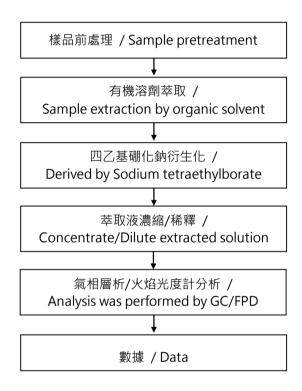
號碼(No.): EKR24A01351 日期(Date): 06-Nov-2024

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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





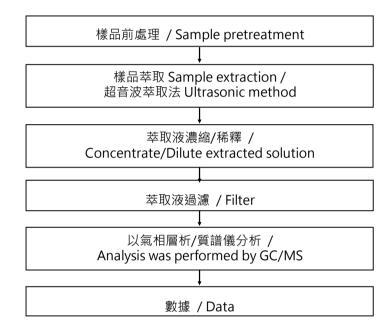
Test Report

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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





Test Report

號碼(No.): EKR24A01351

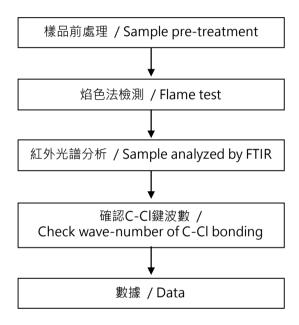
日期(Date): 06-Nov-2024

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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





Test Report

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MITSUI HIGH-TEC INC.

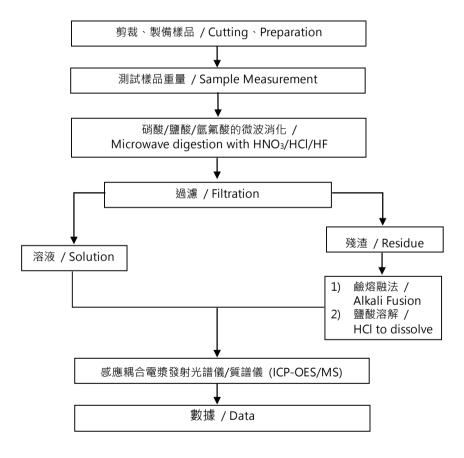
10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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.

【参考方法/Reference method: US EPA 3051、US EPA 3052】



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



Test Report

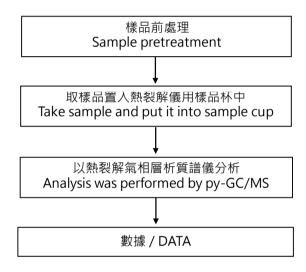
號碼(No.): EKR24A01351 日期(Date): 06-Nov-2024

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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





測試報告 Test Report

號碼(No.): EKR24A01351

日期(Date): 06-Nov-2024

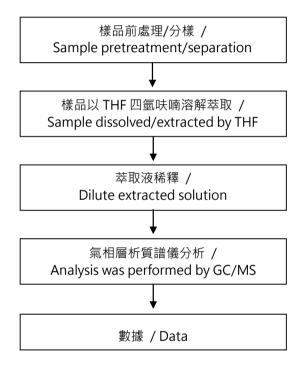
頁數(Page): 26 of 29

MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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

【測試方法/Test method: IEC 62321-8】





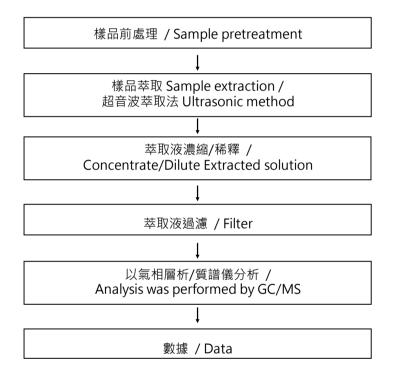
測試報告 Test Report

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

持久性生物累積毒性物質 (PBTs) 分析流程圖 / Analytical flow chart - Persistent, Bioaccumulative, Toxic (PBTs)





Test Report

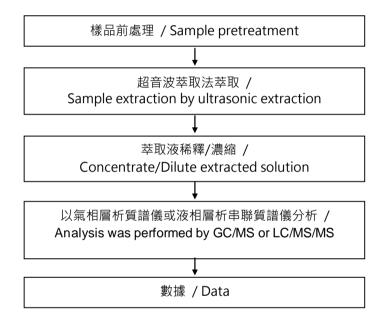
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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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

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MITSUI HIGH-TEC INC.

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

* 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.)

EKR24A01351



** 報告結尾 (End of Report) **