

Test Report

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UMICORE THIN FILM PRODUCTS AG. ALTE LANDSTRASSE 8, P.O. BOX 364, FL-9496 BALZERS

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/on behalf of the applicant as):

送樣廠商(Sample Submitted By) : 優美科薄膜材料股份有限公司 (UMICORE THIN FILM PRODUCTS TAIWAN CO.,

LTD.)

樣品名稱(Sample Name) : WTi10 4N5

收件日(Sample Receiving Date)

: 11-Jan-2022

測試期間(Testing Period)

: 11-Jan-2022 to 22-Jan-2022

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) 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,其編、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.)





PIN CODE: 52F10485



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測試部位敘述 (Test Part Description)

No.1 : 銀灰色金屬 (SILVER-GRAY 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)) (CAS No.: 7440-	參考IEC 62321-5: 2013 · 以感應耦合電漿	mg/kg	2	n.d.	100
43-9)	發射光譜儀分析。(With reference to IEC				
	62321-5: 2013, analysis was performed				
	by ICP-OES.)				
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)	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)) (CAS No.: 7439-	參考IEC 62321-4: 2013+ AMD1: 2017・以	mg/kg	2	n.d.	1000
97-6)	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.)				
		, ,	0.1		
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.	-
(CAS No.: 18540-29-9) (#2)	光分光光度計分析。(With reference to				
!	IEC 62321-7-1: 2015, analysis was				
一溴聯苯 (Monobromobiphenyl)	performed by UV-VIS.)	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)		mg/kg	5	n.d.	_
五溴聯苯 (Pentabromobiphenyl)	參考IEC 62321-6: 2015 · 以氣相層析儀/質	mg/kg	5	n.d.	_
六溴聯苯 (Hexabromobiphenyl)	譜儀分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)	6: 2015, analysis was performed by	mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)	GC/MS.)	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	1	n.d.	1000

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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)	(ivietilou)	(OIIII)		No.1	(LIIIIII)
一溴聯苯醚 (Monobromodiphenyl ether)		mg/kg	5	n.d.	-
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.	-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.	-
四溴聯苯醚 (Tetrabromodiphenyl ether)	 	mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)	参考IEC 62321-6: 2015・以氣相層析儀/質	mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)	譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)	(GC/1VI3.)	mg/kg	5	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP)) (CAS No.: 85-68-7)		mg/kg	50	n.d.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP)) (CAS No.: 84-74-2)	参考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di- (2-ethylhexyl) phthalate (DEHP)) (CAS No.: 117-81-7)	譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP)) (CAS No.: 84-69-5)		mg/kg	50	n.d.	1000
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-8)		mg/kg	50	n.d.	-
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537- 15-1)	参考BS EN 14582: 2016 · 以離子層析儀分	mg/kg	50	n.d.	-
溴 (Br) (Bromine (Br)) (CAS No.: 10097- 32-2)	析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	-
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	-



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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	
全氟辛烷磺酸及其鹽類 (PFOS and its	參考CEN/TS 15968: 2010,以液相層析串	mg/kg	0.01	n.d.	-
salts) (CAS No.: 1763-23-1 and its salts)	聯質譜儀分析。(With reference to				
	CEN/TS 15968: 2010, analysis was				
	performed by LC/MS/MS.)				
全氟辛酸及其鹽類 (PFOA and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串	mg/kg	0.01	n.d.	-
(CAS No.: 335-67-1 and its salts)	聯質譜儀分析。(With reference to				
	CEN/TS 15968: 2010, analysis was				
タ厚W++ (DCD-) (D-L)	performed by LC/MS/MS.)		0.5		
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		0.5		
多氯三聯苯 (PCTs) (Polychlorinated	GC/MS.)	mg/kg	0.5	n.d.	-
terphenyls (PCTs))	A ** UC FD & 3FFOC: 2007 以复担展长度/		F0	اء ما	
短鏈氯化石蠟(C10-C13) (SCCP) (Short	参考US EPA 3550C: 2007・以氣相層析儀/ 無逆係へた、(A/ith reference to US FDA	mg/kg	50	n.d.	-
Chain Chlorinated Paraffins(C10-C13) (SCCP)) (CAS No.: 85535-84-8)	質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by				
(SCCP)) (CAS No.: 65555-64-6)	GC/MS.)				
三丁基錫 (TBT) (Tributyl tin (TBT))	参考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(tributyltin)	由三丁基錫測試結果計算得之。(Calculated	mg/kg	0.03 🛦	n.d.	
oxide (TBTO)) (CAS No.: 56-35-9)	from the result of Tributyl Tin (TBT).)	J. J			
聚氯乙烯 (Polyvinyl chloride) (PVC)	參考ASTM E1252: 2013 · 以傅立葉轉換紅外	**	-	Negative	-
	線光譜儀及焰色法分析。(With reference to				
	ASTM E1252: 2013, analysis was				
	performed by FT-IR and Flame Test.)				



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
石綿 (Asbestos)					
陽起石綿 (Actinolite) (CAS No.: 77536- 66-4)		% (w/w)	-	Negative	-
褐石綿/鐵石綿 (Amosite) (CAS No.: 12172-73-5)	參考EPA 600/R-93/116: 1993·以立體顯 微鏡(SM)與分散染色式偏光顯微鏡(DS-	% (w/w)	-	Negative	-
斜方角閃石綿 (Anthophyllite) (CAS No.: 77536-67-5)	PLM)及X光繞射光譜分析法(XRD)分析。 (With reference to EPA 600/R-93/116:	% (w/w)	-	Negative	-
白石綿/溫石綿 (Chrysotile) (CAS No.: 12001-29-5)	1993, analysis was performed by Stereo Microscope (SM), Dispersion Staining	% (w/w)	-	Negative	-
青石綿 (Crocidolite) (CAS No.: 12001- 28-4)	Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD).)	% (w/w)	-	Negative	-
透閃石綿 (Tremolite) (CAS No.: 77536- 68-6)	(ARD).)	% (w/w)	-	Negative	-
氟氯碳化物 (Chlorofluorocarbons) (CFCs)					
CFC-13 (CAS No.: 75-72-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-111 (CAS No.: 354-56-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-112 (CAS No.: 76-12-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-211 (CAS No.: 422-78-6)	參考US EPA 5021A: 2014·以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
CFC-212 (CAS No.: 3182-26-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-213 (CAS No.: 2354-06-5)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-214 (CAS No.: 29255-31-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-215 (CAS No.: 4259-43-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-216 (CAS No.: 661-97-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-217 (CAS No.: 422-86-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-12 (CAS No.: 75-71-8)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-11 (CAS No.: 75-69-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
CFC-115 (CAS No.: 76-15-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-114 (CAS No.: 76-14-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-113 (CAS No.: 76-13-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氟氯氫烷碳化物					
(Hydrochlorofluorocarbons) (HCFCs)					
HCFC-21 (CAS No.: 75-43-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA	3 3			
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-22 (CAS No.: 75-45-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-31 (CAS No.: 593-70-4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-121 (CAS No.: 354-14-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-122 (CAS No.: 354-21-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HCFC-123 (CAS No.: 306-83-2)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-124 (CAS No.: 2837-89-0)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-131 (CAS No.: 359-28-4)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-132b (CAS No.: 1649-08-7)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-133a (CAS No.: 75-88-7)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-142b (CAS No.: 75-68-3)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-221 (CAS No.: 422-26-4)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-222 (CAS No.: 422-49-1)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-]
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-223 (CAS No.: 422-52-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-224 (CAS No.: 422-54-8)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-225ca (CAS No.: 422-56-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-225cb (CAS No.: 507-55-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-226 (CAS No.: 431-87-8)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-231 (CAS No.: 421-94-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-232 (CAS No.: 460-89-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-233 (CAS No.: 7125-84-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HCFC-234 (CAS No.: 425-94-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-235 (CAS No.: 460-92-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-241 (CAS No.: 666-27-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-242 (CAS No.: 460-63-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-244	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-251 (CAS No.: 421-41-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-252 (CAS No.: 819-00-1)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-261 (CAS No.: 420-97-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-262 (CAS No.: 421-02-03)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-271 (CAS No.: 430-55-7)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-141b (CAS No.: 1717-00-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-243 (CAS No.: 460-69-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-253 (CAS No.: 460-35-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-141	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-142	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-151	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HCFC-225	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
海龍 (Halons)					
Halon-1211 (CAS No.: 353-59-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
Halon-1301 (CAS No.: 75-63-8)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
海龍-2402 (Halon-2402) (CAS No.: 124-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
73-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
溴甲烷 (Bromomethane) (CAS No.: 74-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
83-9)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
不完全鹵化氟溴化物					
HBFC-271B1 (C3H6FBr)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-262B1 (C3H5F2Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-261B2 (C3H5FBr2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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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	
HBFC-253B1 (C3H4F3Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-252B2 (C3H4F2Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-251B3 (C3H4FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-244B1 (C3H3F4Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-243B2 (C3H3F3Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-242B3 (C3H3F2Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-241B4 (C3H3FBr4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-235B1 (C3H2F5Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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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	
HBFC-234B2 (C3H2F4Br2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-233B3 (C3H2F3Br3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-232B4 (C3H2F2Br4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-231B5 (C3H2FBr5)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-226B1 (C3HF6Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-225B2 (C3HF5Br2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-224B3 (C3HF4Br3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-223B4 (C3HF3Br4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HBFC-222B5 (C3HF2Br5)	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	=
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-221B6 (C3HFBr6)	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-151B1 (C2H4FBr)	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-142B1 (C2H3F2Br)	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-141B2 (C2H3FBr2)	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-133B1 (C2H2F3Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-132B2 (C2H2F2Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-131B3 (C2H2FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	- 7
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目 (Task Marra)	測試方法	單位	MDL	結果 (Posult)	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
LIDEC 104D1 (COLUEAD)	# */US FDA F001 A 001 4 N/= ID=+/*/	/1	-	No.1	
HBFC-124B1 (C2HF4Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-123B2 (C2HF3Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-122B3 (C2HF2Br3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-121B4 (C2HFBr4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-31B1 (CH2FBr) (CAS No.: 373-52-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-22B1 (CHF2Br) (CAS No.: 1511-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
62-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-21B2 (CHFBr2) (CAS No.: 1868-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
53-7)	質譜儀分析。(With reference to US EPA	3 3			
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氫氟碳化合物 (Hydrofluorocarbon)	·				
(HFCs)					
HFC-23 (CHF3) (CAS No.: 75-46-7)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
,	質譜儀分析。(With reference to US EPA	J, J			
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HFC-32 (CH2F2) (CAS No.: 75-10-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-41 (CH3F) (CAS No.: 593-53-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-43-10mee (C5H2F10)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-125 (C2HF5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-134 (C2H2F4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-134a (CH2FCF3) (CAS No.: 811-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
97-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-143 (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-143a (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HFC-152a (C2H4F2) (CAS No.: 75-37-6)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-227ea (C3HF7) (CAS No.: 431-89-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
0)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-236fa (CAS No.: 431-63-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-245ca (C3H3F5)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-245fa (C3H3F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-365mfc (C4H5F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-236ea (C3H2F6) (CAS No.: 431-63-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
0)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟化碳 (Perfluorocarbon) (PFCs)					
1,4-二氫八氟丁烷 (1,4-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
dihydrooctafluorobutane) (CAS No.:	質譜儀分析。(With reference to US EPA				
377-36-6)	5021A: 2014, analysis was performed by				
	GC/MS.)				



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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	
2-全氟甲基戊烷 (2-	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
Perfluoromethylpentane) (CAS No.:	質譜儀分析。(With reference to US EPA				
355-04-4)	5021A: 2014, analysis was performed by				
	GC/MS.)				
十氟丁烷 (Decafluorobutane) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
355-25-9)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
四氟甲烷 (F14) (CAS No.: 75-73-0)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
六氟乙烷 (Fluorocarbon 116) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
76-16-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
八氟丙烷 (Freon 218) (CAS No.: 76-19-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
7)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
八氟環丁烷 (Freon C318) (CAS No.: 115-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
25-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
2-全氟甲基丁烷 (Nonafluor-2-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(trifluoromethyl)butane) (CAS No.: 594-	質譜儀分析。(With reference to US EPA				
91-2)	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟異丁烯 (Perfluorisobutene) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 382-21-8)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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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	
全氟己烷 (Perfluorohexane) (CAS No.:	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
355-42-0)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟戊烷 (Perfluoro-n-pentane) (CAS	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 678-26-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟-1-丁烯 (Perfluor-1-butene) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 357-26-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯碳氫化物 (Chlorinate hydrocarbon)					
(CHCs)					
1,1-二氯丙烯 (1,1-Dichloropropene)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 563-58-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,2-二氯乙烷 (1,2-Dichloroethane) (CAS	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 107-06-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
2,2-二氯丙烷 (2,2-Dichloropropane)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 594-20-7)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
四氯甲烷 (四氯化碳) (Carbon	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
tetrachloride) (CAS No.: 56-23-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)			_	
氯甲烷 (Chloromethane) (CAS No.: 74-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
87-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				

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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
順-1,2-二氯乙烯 (cis-1,2-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
Dichloroethene) (CAS No.: 156-59-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
順-1,3-二氯丙烯 (cis-1,3-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
Dichloropropene) (CAS No.: 10061-01-	質譜儀分析。(With reference to US EPA				
5)	5021A: 2014, analysis was performed by				
	GC/MS.)				
六氯丁二烯 (Hexachlorobutadiene) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 87-68-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
反-1,2-二氯乙烯 (trans-1,2-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
Dichloroethene) (CAS No.: 156-60-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
反-1,3-二氯丙烯 (trans-1,3-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
Dichloropropene) (CAS No.: 10061-02-	質譜儀分析。(With reference to US EPA				
6)	5021A: 2014, analysis was performed by				
	GC/MS.)				
二氯甲烷 (Dichloromethane, Methylene	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
chloride) (CAS No.: 75-09-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,2-二氯丙烷 (1,2-Dichloropropane)	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 78-87-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1,1,2-四氯乙烷 (1,1,1,2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	=
Tetrachloroethane) (CAS No.: 630-20-	質譜儀分析。(With reference to US EPA				
6)	5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
1,1,1-三氯乙烷 (1,1,1-Trichloroethane)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 71-55-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1,2-三氯乙烷 (1,1,2-Trichloroethane)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 79-00-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1,2,2-四氯乙烷 (1,1,2,2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
Tetrachloroethane) (CAS No.: 79-34-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1-二氯乙烯 (1,1-Dichloroethylene)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 75-35-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1-二氯乙烷 (1,1-Dichloroethane) (CAS	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 75-34-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯乙烷 (Chloroethane) (CAS No.: 75-00-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
四氯乙烯 (Tetrachloroethene) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
127-18-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
三氯乙烯 (Trichloroethylene) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
79-01-6)	質譜儀分析。(With reference to US EPA	_			
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
1,3-二氯丙烷 (1,3-Dichloropropane) (CAS No.: 142-28-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
氯仿 (Chloroform) (CAS No.: 67-66-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	1
1,2,3-三氯丙烷 (1,2,3-Trichloropropane) (CAS No.: 96-18-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	1
溴氯甲烷 (Bromochloromethan) (CAS No.: 74-97-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
六氟化硫 (Sulfur hexafluoride) (CAS No.: 2551-62-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
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.	-
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 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
偶氮染料 (AZO Dyes)					
4-氨基二苯 (4-aminodiphenyl) (CAS No.: 92-67-1)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
聯苯胺 (Benzidine) (CAS No.: 92-87-5)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	ന	n.d.	-
4-氯鄰甲苯胺 (4-chloro-o-toluidine) (CAS No.: 95-69-2)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2-萘胺 (2-naphthylamine) (CAS No.: 91-59-8)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-胺基偶氮甲苯 (o-aminoazotoluene) (CAS No.: 97-56-3)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2-胺基-4-硝基甲苯 (5-nitro-o-toluidine) (CAS No.: 99-55-8)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
4-氯苯胺 (4-chloroaniline) (CAS No.: 106-47-8)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	n	n.d.	-
2,4-二氨基苯甲醚 (2,4-diaminoanisole) (CAS No.: 615-05-4)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-二胺基二苯甲烷 (4,4'-diaminodiphenylmethane (MDA)) (CAS No.: 101-77-9)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
3,3'-二氯聯苯胺 (3,3'-dichlorobenzidine) (CAS No.: 91-94-1)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
3,3'-二甲氧基聯苯胺 (3,3'- dimethoxybenzidine) (CAS No.: 119- 90-4)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
3,3'-二甲基聯苯胺 (3,3'- dimethylbenzidine) (CAS No.: 119-93- 7)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
3,3'-二甲基-4,4'-二胺基二苯甲烷 (3,3'-dimethyl-4,4'-diaminodiphenylmethane) (CAS No.: 838-88-0)	參考EN ISO 14362-1: 2017.以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	З	n.d.	-
2-甲氧基-5-甲基苯胺 (2-methoxy-5-methylaniline) (CAS No.: 120-71-8)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-亞甲雙(2-氯苯胺) (4,4'-methylene- bis-(2-chloroaniline)) (CAS No.: 101-14- 4)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-二胺基二苯醚 (4,4'-oxydianiline) (CAS No.: 101-80-4)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-硫二苯胺 (4,4'-thiodianiline) (CAS No.: 139-65-1)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-甲苯胺 (o-toluidine) (CAS No.: 95-53-4)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
2,4-甲苯二胺 (2,4-diaminotoluene) (CAS No.: 95-80-7)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2,4,5-三甲苯胺 (2,4,5-trimethylaniline) (CAS No.: 137-17-7)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-甲氧基苯胺 (o-anisidine) (CAS No.: 90-04-0)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4-苯基偶氮基苯胺 (4-aminoazobenzene) (CAS No.: 60-09-3)	參考EN ISO 14362-1: 2017 or/and EN ISO 14362-3: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017 or/and EN ISO 14362-3: 2017, analysis was performed by GC/MS & HPLC/DAD.)	mg/kg	3	n.d.	-
2,4-二甲基苯胺 (2,4-xylidine) (CAS No.: 95-68-1)	參考EN ISO 14362-1: 2017 · 以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2,6-二甲基苯胺 (2,6-xylidine) (CAS No.: 87-62-7)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
六溴環十二烷及所有主要被辨別出的異構	參考IEC 62321-9: 2021,以氣相層析儀/質	mg/kg	20	n.d.	-
	譜儀分析。(With reference to IEC 62321-				
HBCDD) (Hexabromocyclododecane	9: 2021, analysis was performed by				
(HBCDD) and all major	GC/MS.)				
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))					

備註(Note):

- 1. mg/kg = ppm; 0.1wt% = 0.1% = 1000ppm
- 2. MDL = Method Detection Limit (方法偵測極限值)
- 3. n.d. = Not Detected (未檢出); 小於MDL / Less than MDL
- 4. "-" = Not Regulated (無規格值)
- 5. **= Qualitative analysis (No Unit) 定性分析(無單位)
- 6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
- 7. 石綿定性分析試驗範圍: <0.1%~100%,石綿鑑定的判定基準是以檢出含有石綿纖維為『Positive』,未檢出石綿纖維為『Negative』。(Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".)
- 8. 全氟辛烷磺酸及其鹽類包含 (PFOS and its salts including):
 - CAS No.: 29081-56-9, 2795-39-3, 29457-72-5, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7.
- 9. 全氟辛酸及其鹽類包含 (PFOA and its salts including): CAS No.: 3825-26-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0.
- 10. (#2) =
 - a. 當六價鉻結果大於 $0.13~\mu g/cm^2$ ·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 $0.13~\mu g/cm^2$. The sample coating is considered to contain Cr(VI).)
 - b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²),表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
 - c. 當六價鉻結果介於 0.10 及 0.13 $\mu g/cm^2$ 時,無法確定塗層是否含有六價鉻。(The result between 0.10 $\mu g/cm^2$ and 0.13 $\mu g/cm^2$ is considered to be inconclusive unavoidable coating variations may influence the determination.)



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11. ▲: MDL是針對元素/測試化合物之評估。(The MDL was evaluated for element / tested substance.)

換算公式 (Conversion Formula): AX = A × F

35.57 27 0 (00000000000000000000000000000000		
AX	Α	F
氧化雙三丁基錫 (Bis(tributyltin)oxide) (TBTO)	三丁基錫 (Tributyl Tin) (TBT)	1.024

參數換算表 (Parameter Conversion Table):

https://eecloud.sgs.com/Region_TW/DocDownload.aspx#otherDoc

12. 符合性結果之判定係以測試結果與限值做比較。(The statement of compliance conformity is based on comparison of testing results and limits.)



Test Report

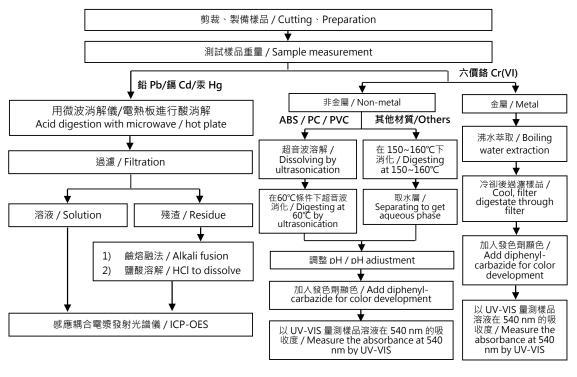
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重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

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



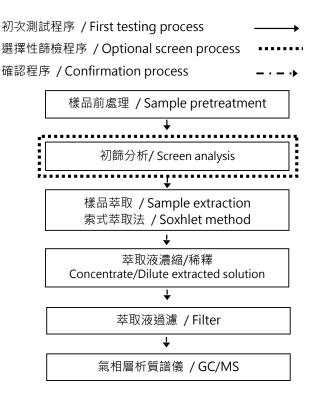


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多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs





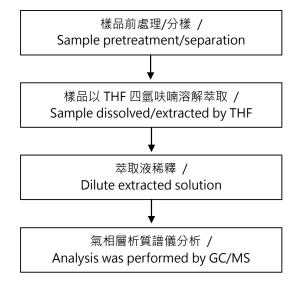
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可塑劑分析流程圖 / Analytical flow chart - Phthalate

【測試方法/Test method: IEC 62321-8】



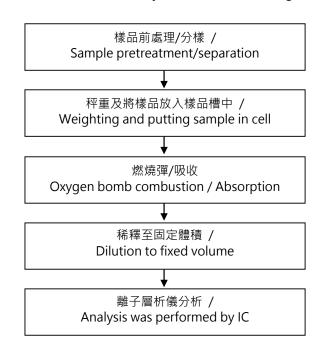


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鹵素分析流程圖 / Analytical flow chart - Halogen



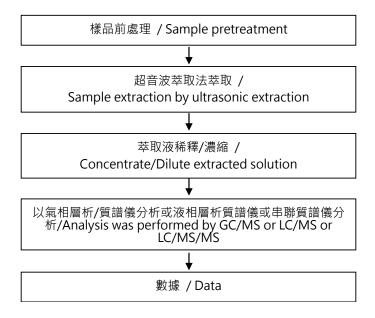


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全氟化合物(包含全氟辛酸/全氟辛烷磺酸/其相關化合物等等)分析流程圖 / Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)





Test Report

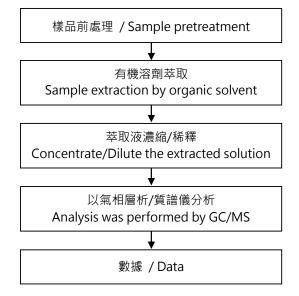
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分析流程圖 / Analytical flow chart

【適用於:多氯聯苯、多氯奈、多氯三聯苯、滅蟻靈、氯化石蠟、DBBT】

*Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



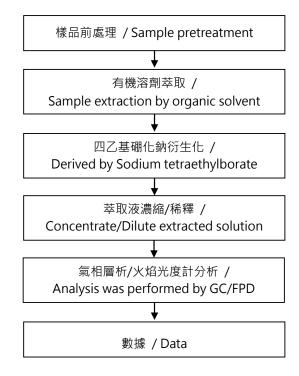


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有機錫分析流程圖 / Analytical flow chart - Organic-Tin



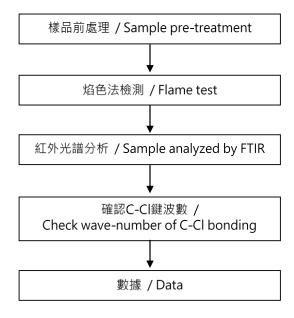


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聚氯乙烯物質判定分析流程圖 / Analysis flow chart - PVC



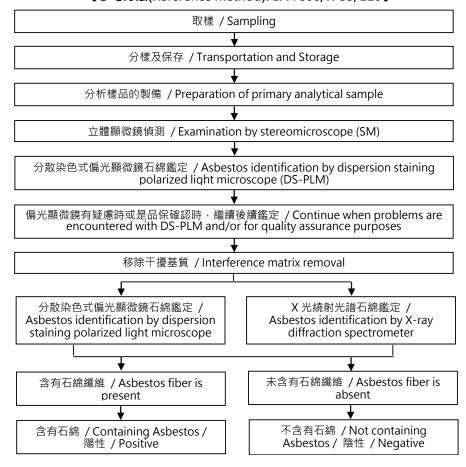


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石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos 【參考方法(Reference method): EPA 600/R-93/116】





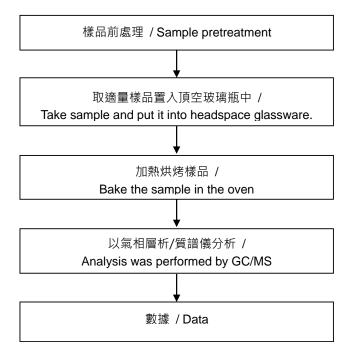
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揮發性有機化合物分析流程圖 / Analytical flow chart of volatile organic compounds (VOCs)

【參考方法/Reference method: US EPA 5021A】





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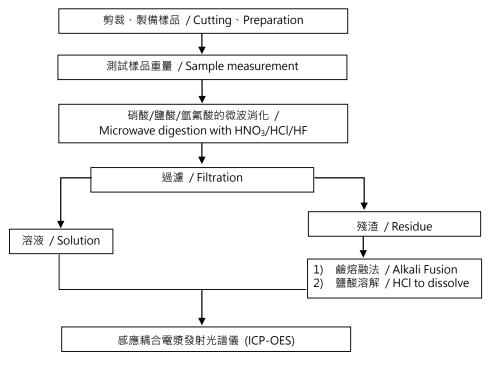
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元素(含重金屬)分析流程圖 / Analytical flow chart of Elements (Heavy metal included)

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 3051A、US EPA 3052】



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

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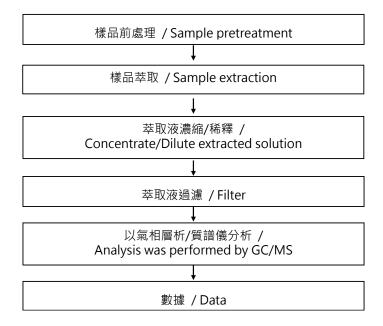


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六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD





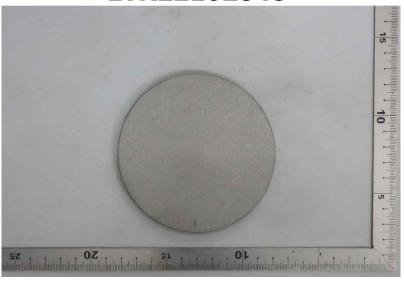
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* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. * (The tested sample / part is marked by an arrow if it's shown on the photo.)

ETR22102848



** 報告結尾 (End of Report) **