

#### **Test Report**

SUMCO CORPORATION

2201, OAZA-KAMIODA, KOUHOKU-CHO, KISHIMA-GUN, SAGA 849-0597, JAPAN

號碼(No.): ETR21405485

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) SUMCO CORPORATION

樣品名稱(Sample Name) SILICON WAFER 樣品型號(Style/Item No.) 200mm PW

\_\_\_\_\_\_

收件日(Sample Receiving Date)

23-Apr-2021

測試期間(Testing Period)

23-Apr-2021 to 07-May-2021

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).)

日期(Date): 07-May-2021

依據客戶指定,測試 PAHs 及其他測項。 (As specified by client, to test PAHs and other item(s).)

測試結果(Test Results)

結 論(Conclusion) 請參閱下一頁 (Please refer to following pages.)

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





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測試部位敘述 (Test Part Description)

No.1 : 晶圓 (WAFER)

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 ·	mg/kg	2	n.d.	1000
97-6)	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 Cr(VI) (Hexavalent Chromium	參考IEC 62321-7-2: 2017 · 以紫外光-可見	mg/kg	8	n.d.	1000
Cr(VI)) (CAS No.: 18540-29-9)	光分光光度計分析。(With reference to				
	IEC 62321-7-2: 2017, analysis was				
	performed by UV-VIS.)		_		
一溴聯苯 (Monobromobiphenyl)		mg/kg	5	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)	  参考IEC 62321-6: 2015・以氣相層析儀/質	mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)	iii 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)	GC/MS.)	mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)	30,1113.,	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)	   参考IEC 62321-6: 2015 · 以氣相層析儀/質	mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)	譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)		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/1V13.)	mg/kg	5	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl		mg/kg	50	n.d.	1000
phthalate (BBP)) (CAS No.: 85-68-7)					
鄰苯二甲酸二丁酯 (DBP) (Dibutyl		mg/kg	50	n.d.	1000
phthalate (DBP)) (CAS No.: 84-74-2)					
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-		mg/kg	50	n.d.	1000
(2-ethylhexyl) phthalate (DEHP)) (CAS					
No.: 117-81-7)					
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl		mg/kg	50	n.d.	1000
phthalate (DIBP)) (CAS No.: 84-69-5)					
鄰苯二甲酸二異癸酯 (DIDP) (Diisodecyl	參考IEC 62321-8: 2017 · 以氣相層析儀/質 譜儀分析。(With reference to IEC 62321-	mg/kg	50	n.d.	-
phthalate (DIDP)) (CAS No.: 26761-40-	8: 2017, analysis was performed by				
0, 68515-49-1)	GC/MS.)				
鄰苯二甲酸二異壬酯 (DINP) (Diisononyl	GC/1V13.)	mg/kg	50	n.d.	-
phthalate (DINP)) (CAS No.: 28553-12-					
0, 68515-48-0)					
鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl		mg/kg	50	n.d.	-
phthalate (DNOP)) (CAS No.: 117-84-0)					
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)					
鄰苯二甲酸二甲酯 (DMP) (Dimethyl		mg/kg	50	n.d.	-
phthalate (DMP)) (CAS No.: 131-11-3)		-			



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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				
	performed by LC/MS/MS.)				
多氯聯苯 (PCBs) (Polychlorinated	参考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	0.5	n.d.	-
biphenyls (PCBs))	質譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
多氯三聯苯 (PCTs) (Polychlorinated	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	0.5	n.d.	-
terphenyls (PCTs))	質譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
滅蟻靈 (Mirex) (CAS No.: 2385-85-5)	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	5	n.d.	-
	質譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
五氯酚及其鹽類 (Pentachlorophenol	參考US EPA 8041A: 2007,以氣相層析儀/	mg/kg	1	n.d.	-
and its salts) (CAS No.: 87-86-5 and its	質譜儀分析。(With reference to US EPA				
salts)	8041A: 2007, analysis was performed by				
	GC/MS.)				
多氯奈 (PCNs) (Polychlorinated	參考US EPA 3550C: 2007 · 以氣相層析儀/	mg/kg	5	n.d.	-
naphthalene (PCNs))	質譜儀分析。(With reference to US EPA				
	3550C: 2007, 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	
石綿 (Asbestos)					
陽起石綿 (Actinolite) (CAS No.: 77536-		%	-	Negative	-
66-4)	<b>☆ ** F.D.A. C.O.O. /D. O.O. // 1.1.C. 1.0.O.2</b>				
褐石綿/鐵石綿 (Amosite) (CAS No.:	參考EPA 600/R-93/116: 1993 · 以立體顯	%	-	Negative	-
12172-73-5)	微鏡(SM)與分散染色式偏光顯微鏡(DS-				
斜方角閃石綿 (Anthophyllite) (CAS No.:	PLM)及X光繞射光譜分析法(XRD)分析。	%	-	Negative	-
77536-67-5)	(With reference to EPA 600/R-93/116:				
白石綿/溫石綿 (Chrysotile) (CAS No.:	1993, analysis was performed by Stereo Microscope (SM), Dispersion Staining	%	-	Negative	-
12001-29-5)	Polarized Light Microscope (DS-PLM)				
青石綿 (Crocidolite) (CAS No.: 12001-	and X-ray Diffraction Spectrometer	%	-	Negative	-
28-4)	(XRD).)				
透閃石綿 (Tremolite) (CAS No.: 77536-	(XKD).)	%	-	Negative	-
68-6)					
聚氯乙烯 (Polyvinyl chloride) (PVC)	參考ASTM E1252: 2013 · 以傅立葉轉換紅	**	-	Negative	-
	外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.)				
偶氮染料 (AZO Dyes)					
4-氨基二苯 (4-aminodiphenyl) (CAS	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
No.: 92-67-1)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
聯苯胺 (Benzidine) (CAS No.: 92-87-5)	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	
	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
4-氯鄰甲苯胺 (4-chloro-o-toluidine)	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
(CAS No.: 95-69-2)	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.)				



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



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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	
3,3'-二氯聯苯胺 (3,3'-dichlorobenzidine)	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
(CAS No.: 91-94-1)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
3,3'-二甲氧基聯苯胺 (3,3'-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
dimethoxybenzidine) (CAS No.: 119-	質譜儀及高效液相層析儀/二極體陣列偵測				
90-4)	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
3,3'-二甲基聯苯胺 (3,3'-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
dimethylbenzidine) (CAS No.: 119-93-	質譜儀及高效液相層析儀/二極體陣列偵測				
7)	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
3,3'-二甲基-4,4'-二胺基二苯甲烷 (3,3'-	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
dimethyl-4,4'-	質譜儀及高效液相層析儀/二極體陣列偵測				
diaminodiphenylmethane) (CAS No.:	器分析。(With reference to EN ISO				
838-88-0)	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
2-甲氧基-5-甲基苯胺 (2-methoxy-5-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
methylaniline) (CAS No.: 120-71-8)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
4,4'-亞甲雙(2-氯苯胺) (4,4'-methylene-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
bis-(2-chloroaniline)) (CAS No.: 101-14-	質譜儀及高效液相層析儀/二極體陣列偵測				
4)	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				



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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	
4,4'-二胺基二苯醚 (4,4'-oxydianiline)	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
(CAS No.: 101-80-4)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
4,4'-硫二苯胺 (4,4'-thiodianiline) (CAS	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
No.: 139-65-1)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
鄰-甲苯胺 (o-toluidine) (CAS No.: 95-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
53-4)	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.)				
2,4-甲苯二胺 (2,4-diaminotoluene) (CAS	參考EN ISO 14362-1: 2017 · 以氣相層析	mg/kg	3	n.d.	-
No.: 95-80-7)	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.)				
2,4,5-三甲苯胺 (2,4,5-trimethylaniline)	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
(CAS No.: 137-17-7)	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.)				
鄰-甲氧基苯胺 (o-anisidine) (CAS No.:	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
90-04-0)	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.)				



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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	
4-苯基偶氮基苯胺 (4-aminoazobenzene)	參考EN ISO 14362-1: 2017 or/and EN	mg/kg	3	n.d.	-
(CAS No.: 60-09-3)	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.)				
2,4-二甲基苯胺 (2,4-xylidine) (CAS No.:	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
95-68-1)	質譜儀及高效液相層析儀/二極體陣列偵測	<i>J. J</i>			
,	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
2,6-二甲基苯胺 (2,6-xylidine) (CAS No.:	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
87-62-7)	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.)				
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.	-
	焰光度偵測器分析。(With reference to				
	ISO 17353: 2004, analysis was				
	performed by GC/FPD.)				
三苯基錫 (TPhT) (Triphenyl tin (TPhT))	參考ISO 17353: 2004,以氣相層析儀/火	mg/kg	0.03	n.d.	-
	焰光度偵測器分析。(With reference to				
	ISO 17353: 2004, analysis was				
	performed by GC/FPD.)				
二丁基錫 (DBT) (Dibutyl tin (DBT))	參考ISO 17353: 2004,以氣相層析儀/火	mg/kg	0.03	n.d.	-
	焰光度偵測器分析。(With reference to				
	ISO 17353: 2004, analysis was				
	performed by GC/FPD.)				
四丁基錫 (TeBT) (Tetrabutyl tin (TeBT))	參考ISO 17353: 2004,以氣相層析儀/火	mg/kg	0.03	n.d.	-
	焰光度偵測器分析。(With reference to				
	ISO 17353: 2004, analysis was				
	performed by GC/FPD.)				
	ı: •				

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
單辛基錫 (MOT) (Monooctyl tin (MOT))	參考ISO 17353: 2004·以氣相層析儀/火焰光度偵測器分析。(With reference to ISO 17353: 2004, analysis was performed by GC/FPD.)	mg/kg	0.03	n.d.	-
二辛基錫 (DOT) (Dioctyl tin (DOT))	參考ISO 17353: 2004·以氣相層析儀/火焰光度偵測器分析。(With reference to ISO 17353: 2004, analysis was performed by GC/FPD.)	mg/kg	0.03	n.d.	-
二苯基錫 (DPhT) (Diphenyl tin (DPhT))	參考ISO 17353: 2004·以氣相層析儀/火焰光度偵測器分析。(With reference to ISO 17353: 2004, analysis was performed by GC/FPD.)	mg/kg	0.03	n.d.	-
單苯基錫 (MPhT) (MonoPhenyl tin (MPhT))	參考ISO 17353: 2004·以氣相層析儀/火焰光度偵測器分析。(With reference to ISO 17353: 2004, analysis was performed by GC/FPD.)	mg/kg	0.03	n.d.	-
三環己基錫 (TcyT) (Tricyclohexyltin (TcyT))	參考ISO 17353: 2004·以氣相層析儀/火焰光度偵測器分析。(With reference to ISO 17353: 2004, analysis was performed by GC/FPD.)	mg/kg	0.03	n.d.	-
氧化雙三丁基錫 (TBTO) (Bis(tributyltin) oxide (TBTO)) (CAS No.: 56-35-9)	由三丁基錫測試結果計算得之。 (Calculated from the result of Tributyl Tin (TBT).)	mg/kg	0.03 🛦	n.d.	-
單丁基錫 (MBT) (Monobutyl tin (MBT))	參考ISO 17353: 2004·以氣相層析儀/火焰光度偵測器分析。(With reference to ISO 17353: 2004, analysis was performed by GC/FPD.)	mg/kg	0.03	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)
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.	-
CFC-212 (CAS No.: 3182-26-1)	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.	-
CFC-213 (CAS No.: 2354-06-5)	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.	-
CFC-214 (CAS No.: 29255-31-0)	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-215 (CAS No.: 4259-43-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
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.)				
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.)				

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
氟氯氫烷碳化物   (Hydrochlorofluorocarbons) (HCFCs)					
HCFC-21 (CAS No.: 75-43-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-22 (CAS No.: 75-45-6)	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-31 (CAS No.: 593-70-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-121 (CAS No.: 354-14-3)	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-122 (CAS No.: 354-21-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-123 (CAS No.: 306-83-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-124 (CAS No.: 2837-89-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-131 (CAS No.: 359-28-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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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-132b (CAS No.: 1649-08-7)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-133a (CAS No.: 75-88-7)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-142b (CAS No.: 75-68-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-221 (CAS No.: 422-26-4)	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-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.)				
HCFC-223 (CAS No.: 422-52-6)	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-224 (CAS No.: 422-54-8)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-225ca (CAS No.: 422-56-0)	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.)				



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



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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-242 (CAS No.: 460-63-9)	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-244	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-251 (CAS No.: 421-41-0)	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-252 (CAS No.: 819-00-1)	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-261 (CAS No.: 420-97-3)	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-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.	-



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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-243 (CAS No.: 460-69-5)	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-253 (CAS No.: 460-35-5)	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.)				
海龍 (Halons)					
Halon-1211 (CAS No.: 353-59-3)	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.)				
Halon-1301 (CAS No.: 75-63-8)	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.)				
Halon-2402 (CAS No.: 124-73-2)	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.)				
溴甲烷 (Bromomethane) (CAS No.: 74-	参考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.)				



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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)
不完全鹵化氟溴化物 (Hydrobromofluorocarbons) (HBFCs)					
HBFC-271B1 (C3H6FBr)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-262B1 (C3H5F2Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-261B2 (C3H5FBr2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-253B1 (C3H4F3Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-252B2 (C3H4F2Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-251B3 (C3H4FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-244B1 (C3H3F4Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-243B2 (C3H3F3Br2)	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	
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.)				
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)	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-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.)				



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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-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.)				
HBFC-222B5 (C3HF2Br5)	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-221B6 (C3HFBr6)	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-151B1 (C2H4FBr)	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-142B1 (C2H3F2Br)	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-141B2 (C2H3FBr2)	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-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.	=
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
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.)				



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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-22B1 (CHF2Br) (CAS No.: 1511-	参考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				
	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				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-32 (CH2F2) (CAS No.: 75-10-5)	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.)				
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.)				



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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)
HFC-134a (CH2FCF3) (CAS No.: 811- 97-2)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-143 (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-143a (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-152a (C2H4F2) (CAS No.: 75-37-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-227ea (C3HF7) (CAS No.: 431-89- 0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-236fa (CAS No.: 431-63-0)	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.	-
HFC-245ca (C3H3F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-245fa (C3H3F5)	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	
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-	参考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)					
全氟己烷 (Perfluorohexane) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
355-42-0)	質譜儀分析。(With reference to US EPA	3 3			
	5021A: 2014, analysis was performed by				
	GC/MS.)				
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.)				
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.)				
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.)				
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.)				
全氟異丁烯 (Perfluorisobutene) (CAS	参考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	
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.)				
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.)				
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.)				
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.)				
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.)				
全氟-1-丁烯 (Perfluor-1-butene) (CAS	参考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)					
反-1,3-二氯丙烯 (trans-1,3-	参考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.)				
反-1,2-二氯乙烯 (trans-1,2-	参考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.)				



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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	
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.)				
	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.)				
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.)				
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.)				
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.)				
四氯甲烷 (四氯化碳) (Carbon	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
tetrachloride) (CAS No.: 56-23-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
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.)				
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.)				



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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	
1,1-二氯丙烯 (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.)				
1,2,3-三氯丙烷 (1,2,3-Trichloropropane)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 96-18-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯仿 (Chloroform) (CAS No.: 67-66-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,2-二氯丙烷 (1,2-Dichloropropane)	參考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.)				
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.)				



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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	
1,1-二氯乙烯 (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.)				
1,3-二氯丙烷 (1,3-Dichloropropane)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 142-28-9)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
溴氯甲烷 (Bromochloromethan) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 74-97-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
六氟化硫 (Sulfur hexafluoride) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
2551-62-4)	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	
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-		mg/kg	50	n.d.	-
8)					
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537-	<b> </b>	mg/kg	50	n.d.	-
15-1)	参考BS EN 14582: 2016 · 以離子層析儀分				
溴 (Br) (Bromine (Br)) (CAS No.: 10097-	析。(With reference to BS EN 14582:	mg/kg	50	n.d.	-
32-2)	2016, analysis was performed by IC.)	3 3			
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	-
		J. J			
2-[2-羥基-3',5'-二-叔-丁基苯基]-苯並三	參考US EPA 3550C: 2007 · 以氣相層析儀/	mg/kg	5	n.d.	-
型 (紫外線吸收劑320) (2-benzotriazol-2-	質譜儀分析。(With reference to US EPA	J. J			
yl-4,6-di-tert-butylphenol (UV-320))	3550C: 2007, analysis was performed by				
(CAS No.: 3846-71-7)	GC/MS.)				
苯 (Benzene) (CAS No.: 71-43-2)	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.)				
乙二醇甲醚 (Ethylene glycol	參考US EPA 3550C: 2007·以氣相層析儀/	mg/kg	10	n.d.	-
monomethyl ether) (CAS No.: 109-86-	質譜儀分析。(With reference to US EPA				
4)	3550C: 2007, analysis was performed by				
	GC/MS.)				
乙二醇乙醚 (2-Ethoxyethanol) (CAS No.:	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	10	n.d.	-
110-80-5)	質譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
乙二醇甲醚醋酸酯 (Ethylene glycol	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	10	n.d.	-
monomethyl ether acetate) (CAS No.:	質譜儀分析。(With reference to US EPA				
110-49-6)	3550C: 2007, analysis was performed by				
7 - T- 7 TWTH TATE (0	GC/MS.)	,,	4.5		
乙二醇乙醚醋酸酯 (2-methoxyethyl	參考US EPA 3550C: 2007 · 以氣相層析儀/	mg/kg	10	n.d.	-
acetate) (CAS No.: 111-15-9)	質譜儀分析。(With reference to US EPA				
	3550C: 2007, 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	
二乙二醇二甲醚 (DEGDME) (Diethylene	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	10	n.d.	-
glycol dimethyl ether (DEGDME)) (CAS	質譜儀分析。(With reference to US EPA				
No.: 111-96-6)	3550C: 2007, analysis was performed by				
	GC/MS.)				
二氯甲醚 (Bis(chloromethyl)ether) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 542-88-1)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
富馬酸二甲酯 (DMFu) (Dimethyl	参考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	0.1	n.d.	-
fumarate (DMFu)) (CAS No.: 624-49-7)	質譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
放射性物質 (Radioactive substances)	蓋革計數器。(Geiger counter.)	μSv/hour	-	Negative*	-
脂肪族氯化碳氫化合物 / Aliphatic CHCs					
(Chlorinated Hydrocarbons)					
五氯乙烷 (Pentachloroethane) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析/質	mg/kg	1	n.d.	-
76-01-7)	譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
三氯甲烷 (Trichloromethane) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析/質	mg/kg	1	n.d.	-
67-66-3)	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.)				
1,1,1,2-四氯乙烷 (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 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
1,1,2-三氯乙烷 (1,1,2-Trichloroethane) (CAS No.: 79-00-5)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
二氯乙烯 (Dichloroethene)	參考US EPA 5021A: 2014 · 以氣相層析/質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
三氯乙烯 (Trichloroethylene) (CAS No.: 79-01-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯乙烷 (1,1-Dichloroethane) (CAS No.: 75-34-3)	参考US EPA 5021A: 2014 · 以氣相層析/質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,2-二氯乙烷 (1,2-Dichloroethane) (CAS No.: 107-06-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
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.	-
四氯乙烯 (Perchloroethylene) (CAS No.: 127-18-4)	參考US EPA 5021A: 2014 · 以氣相層析/質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,2-二氯乙烯 (1,2-Dichloroethylene) (CAS No.: 156-59-2)	參考US EPA 5021A: 2014‧以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
Halogenated Aromatic Compounds (鹵化芳香族化合物)					
1,3,5-三氯苯 (1,3,5-Trichlorobenzene) (CAS No.: 108-70-3)	參考US EPA 3550C: 2007·以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
1,2,3-三氯苯 (1,2,3-Trichlorobenzene) (CAS No.: 87-61-6)	參考US EPA 3550C: 2007·以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
2,4,6-三氯酚 (2,4,6-Trichlorophenol) (CAS No.: 88-06-2)	參考US EPA 3550C: 2007 · 以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
2,4,5-三氯酚 (2,4,5-Trichlorophenol) (CAS No.: 95-95-4)	參考US EPA 3550C: 2007 · 以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
4-氯苯胺 (4-Chloroaniline) (CAS No.: 106-47-8)	參考US EPA 3550C: 2007·以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
1,2,4-三氯苯 (1,2,4-Trichlorobenzene) (CAS No.: 120-82-1)	參考US EPA 3550C: 2007·以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
2,4-二氯酚 (2,4-Dichlorophenol) (CAS No.: 120-83-2)	參考US EPA 3550C: 2007·以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-
1,3-二氯苯 (1,3-Dichlorobenzene) (CAS No.: 541-73-1)	參考US EPA 3550C: 2007·以氣相層析/質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	20	n.d.	-

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#### **Test Report**

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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	
4-氯苯基苯基醚 (4-Chlorophenyl phenyl	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
ether) (CAS No.: 7005-72-3)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
1,2-二氯苯 (1,2-Dichlorobenzene) (CAS	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
No.: 95-50-1)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
1,4-二氯苯 (1,4-Dichlorobenzene) (CAS	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
No.: 106-46-7)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
五氯酚 (Pentachlorophenol) (CAS No.:	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
87-86-5)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
4-氯-3-甲基酚 (4-Chloro-3-	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
methylphenol) (CAS No.: 59-50-7)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
六氯苯 (Hexachlorobenzene) (CAS No.:	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
118-74-1)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
2-氯苯酚 (2-Chlorophenol) (CAS No.:	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
95-57-8)	譜儀分析。(With reference to US EPA				
	3550C: 2007, analysis was performed by				
	GC/MS.)				
3,3'-dichlorobenzidine (CAS No.: 91-	參考US EPA 3550C: 2007,以氣相層析/質	mg/kg	20	n.d.	-
94-1)	譜儀分析。(With reference to US EPA				
	3550C: 2007, 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) No.1	(Limit)
N-苯基苯胺與苯乙烯和2,4,4-三甲基戊烯 的反應物 (Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene) (CAS No.: 68921-45-9)	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	100	n.d.	-
過氯酸鹽 (Perchlorates) (CAS No.: 7601-90-3)	以離子層析儀分析。(Analysis was performed by IC.)	μg/g	0.006	n.d.	-
六氯苯 (Hexachlorobenzene) (CAS No.: 118-74-1)	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.	-
甲醛 (Formaldehyde) (CAS No.: 50-00-0)	參考ISO 17226-1: 2018 · 以液相層析儀/ 二極體陣列偵測器分析。(With reference to ISO 17226-1: 2018, analysis was performed by LC/DAD.)	mg/kg	3	n.d.	-
鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	參考US EPA 3052: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-
氧化鈹 (BeO) (Beryllium oxide (BeO)) (CAS No.: 1304-56-9)	由鈹結果計算得之。(Calculated from the result of Beryllium.)	mg/kg	2▲	n.d.	-
飶 (Bi) (Bismuth (Bi)) (CAS No.: 7440-69-9)	參考US EPA 3052: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-
磷 (P) (Phosphorus (P)) (CAS No.: 7723- 14-0)	參考US EPA 3052: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	-
硒 (Se) (Selenium (Se)) (CAS No.: 7782-49-2)	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	
多環芳香烴 (Polycyclic Aromatic					
Hydrocarbons) (PAHs)		_			
苯駢(a)芘 (Benzo[a]pyrene) (CAS No.:		mg/kg	0.2	n.d.	Δ
50-32-8)					
苯駢(e)芘 (Benzo[e]pyrene) (CAS No.:		mg/kg	0.2	n.d.	Δ
192-97-2)					
苯駢蒽 (Benzo[a]anthracene) (CAS No.:		mg/kg	0.2	n.d.	Δ
56-55-3)					
苯(b)苯駢芴 (Benzo[b]fluoranthene)		mg/kg	0.2	n.d.	Δ
(CAS No.: 205-99-2)					
苯(j)苯駢芴 (Benzo[j]fluoranthene) (CAS		mg/kg	0.2	n.d.	Δ
No.: 205-82-3)					
苯(k)苯騈芴 (Benzo[k]fluoranthene)		mg/kg	0.2	n.d.	Δ
(CAS No.: 207-08-9)	參考AfPS GS 2019:01 PAK,以氣相層析儀				
蒀 (Chrysene) (CAS No.: 218-01-9)	/質譜儀分析。(With reference to AfPS GS	mg/kg	0.2	n.d.	Δ
二苯駢蒽 (Dibenzo[a,h]anthracene)	2019:01 PAK, analysis was performed by	mg/kg	0.2	n.d.	Δ
(CAS No.: 53-70-3)	GC/MS.)				
苯駢菲 (Benzo[g,h,i]perylene) (CAS No.:		mg/kg	0.2	n.d.	Δ
191-24-2)					
茚酮芘 (Indeno[1,2,3-c,d]pyrene) (CAS		mg/kg	0.2	n.d.	Δ
No.: 193-39-5)					
蒽 (Anthracene) (CAS No.: 120-12-7)		mg/kg	0.2	n.d.	Δ
苯駢芴 (Fluoranthene) (CAS No.: 206-		mg/kg	0.2	n.d.	Δ
44-0)		3 3			
菲 (Phenanthrene) (CAS No.: 85-01-8)		mg/kg	0.2	n.d.	Δ
芘 (Pyrene) (CAS No.: 129-00-0)		mg/kg	0.2	n.d.	Δ
萘 (Naphthalene) (CAS No.: 91-20-3)		mg/kg	0.2	n.d.	Δ
多環芳香烴15項總和 (Sum of 15 PAHs)		mg/kg	-	n.d.	Δ



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
砷 (As) (Arsenic (As)) (CAS No.: 7440-	參考US EPA 3052: 1996,以感應耦合電漿	mg/kg	2	n.d.	-
38-2)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
鎳 (Ni) (Nickel (Ni)) (CAS No.: 7440-02-	參考US EPA 3052: 1996·以感應耦合電漿	mg/kg	2	n.d.	-
0)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
銻 (Sb) (Antimony (Sb)) (CAS No.: 7440-	參考US EPA 3052: 1996·以感應耦合電漿	mg/kg	2	n.d.	-
36-0)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
六溴環十二烷及所有主要被辨別出的異構	参考IEC 62321: 2008 · 以氣相層析儀/質譜	mg/kg	5	n.d.	-
物(HBCDD) (α- HBCDD, β- HBCDD, γ-	儀分析。(With reference to IEC 62321:				
HBCDD) (Hexabromocyclododecane	2008, analysis was performed by				
(HBCDD) and all major	GC/MS.)				
diastereoisomers identified ( $\alpha$ - HBCDD,					
β- HBCDD, γ- HBCDD)) (CAS No.:					
25637-99-4, 3194-55-6 (134237-51-7,					
134237-50-6, 134237-52-8))					
海軍藍/藍色著色劑 (Navy blue) (CAS	參考DIN 54231: 2005 · 以高效液相層析儀	mg/kg	3	n.d.	-
No.: 118685-33-9)	/二極體陣列偵測器/質譜儀分析。(With	3. 3			
,	reference to DIN 54231: 2005, analysis				
	was performed by HPLC/DAD/MS.)				
短鏈氯化石蠟(C10-C13) (SCCP) (Short	参考ISO 18219: 2015 · 以氣相層析儀/質	mg/kg	50	n.d.	-
Chain Chlorinated Paraffins(C10-C13)	譜儀分析。(With reference to ISO 18219:	<i>J</i> , <i>J</i>			
(SCCP)) (CAS No.: 85535-84-8)	2015, analysis was performed by				
, , , , , , , , , , , , , , , , , , , ,	GC/MS.)				
<u> </u>	· ,				



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#### 備註(Note):

1. mg/kg = ppm; 0.1wt% = 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. ▲: 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	A	F
氧化鈹 (Beryllium oxide) (BeO)	鈹 (Beryllium)	2.7753
氧化雙三丁基錫 (Bis(tributyltin)oxide) (TBTO)	三丁基錫 (Tributyl Tin) (TBT)	1.024

參數換算表 (Parameter Conversion Table):

https://eecloud.sgs.com/Region TW/DocDownload.aspx#otherDoc

- 11. Negative\*/Positive\*: 蓋革計數器偵測放射性物質的檢測結果係利用檢測值與環境背景值相比較的結果,一般天然環境下都存在微量的輻射劑量(一般環境背景的輻射劑量約小於等於0.2µSv/hr)。如果檢測值低於環境背景值時,表示正常或無異常(Negative\*);相反地,檢測值高於環境背景值時,表示異常(Positive\*)。
  - (The test result of Geiger counter is from comparison between test outcome and environment background. In general, there is little radiation dose existing in environment. (Radiation dose from environment background usually less than or equal to  $0.2\mu Sv/hr$ )
  - The test result less than environment background was shown as Negative\*; the result greater than environment background was shown as Positive\*.)
- 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.)



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#### Remark:

#### △ 德國產品安全委員會(AfPS): GS PAHs 要求

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

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

單位(Unit): mg/kg



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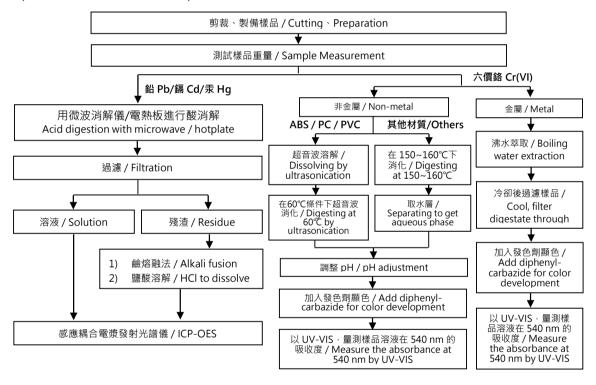
#### 重金屬流程圖 / Analytical flow chart of Heavy Metal

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)

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These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)





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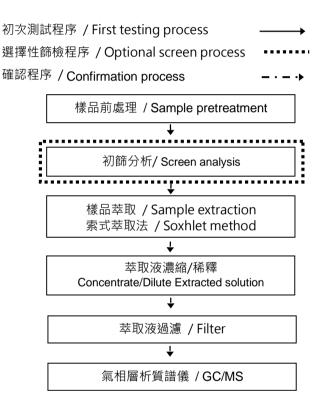
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#### 多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs





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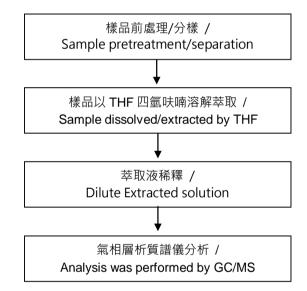
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#### 可塑劑分析流程圖 / Analytical flow chart - Phthalate

#### 【測試方法/Test method: IEC 62321-8】





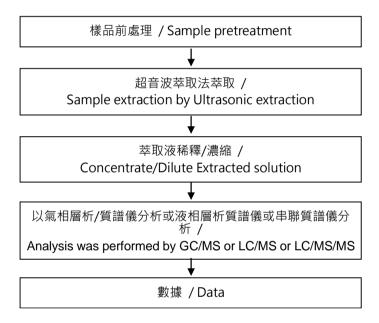
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全氟化合物(包含全氟辛酸/全氟辛烷磺酸/其相關化合物等等)分析流程圖 / Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)





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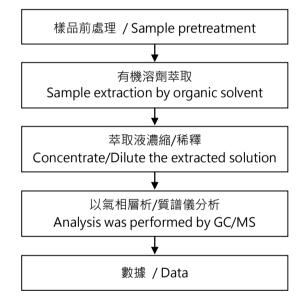
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#### 分析流程圖 / Analytical flow chart

【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





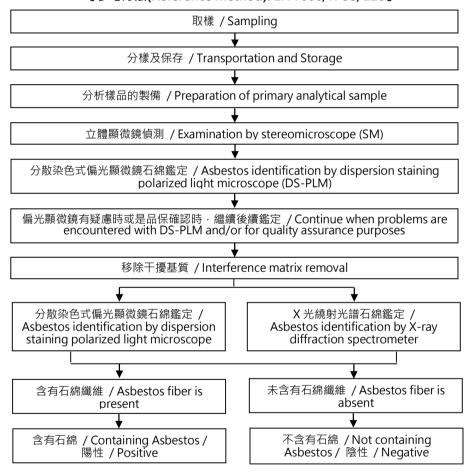
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#### 石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos 【參考方法(Reference method): EPA 600/R-93/116】





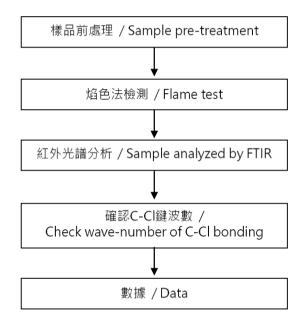
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#### 聚氯乙烯物質判定分析流程圖 / Analysis flow chart - PVC





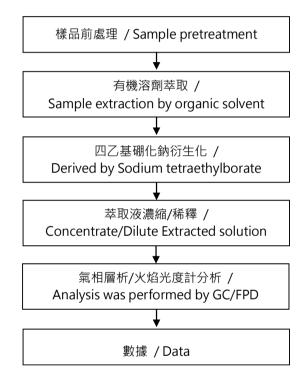
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#### 有機錫分析流程圖 / Analytical flow chart - Organic-Tin





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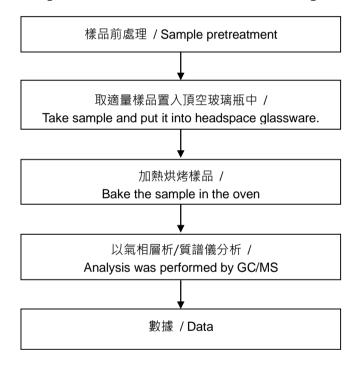
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### 揮發性有機化合物分析流程圖 / Analytical flow chart of volatile organic compounds (VOCs)

【参考方法/Reference method: US EPA 5021A】





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

樣品前處理/分樣 / Sample pretreatment/separation

平重及將樣品放入樣品槽中 / Weighting and putting sample in cell

| 燃燒彈/吸收 Oxygen Bomb Combustion / Absorption
| 稀釋至固定體積 / Dilution to fixed volume
| 離子層析儀分析 /

Analysis was performed by IC



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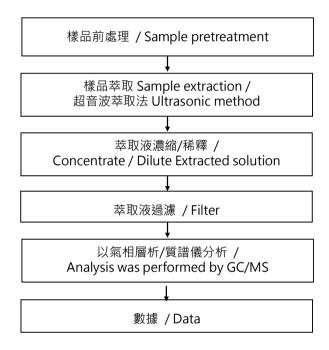
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#### 乙二醇醚及其酯類分析流程圖 / Analytical flow chart - Ethylene glycol ether



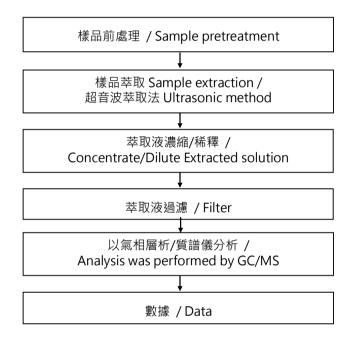


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#### 富馬酸二甲酯分析流程圖 / Analytical flow chart - Dimethyl Fumarate





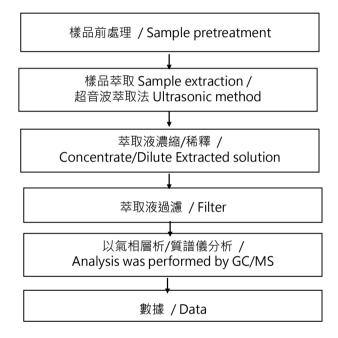
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#### BNST分析流程圖 / Analytical flow chart - BNST





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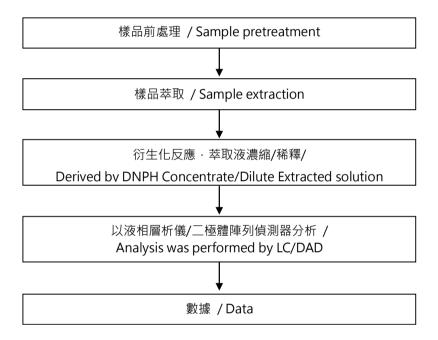
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#### 甲醛分析流程圖 / Analytical flow chart - Formaldehyde





# 測試報告

### **Test Report**

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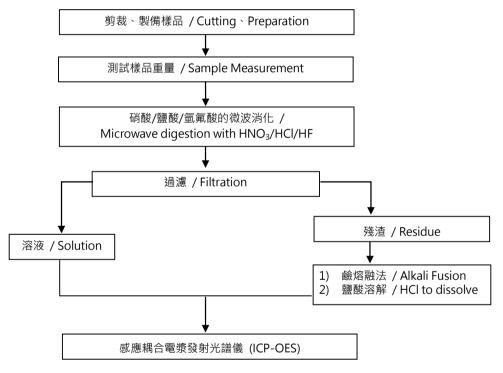
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#### 重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件,樣品已完全溶解。

These samples were dissolved totally by pre-conditioning method according to below flow chart.

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



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



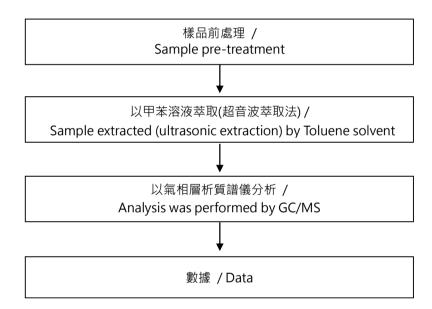
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#### 多環芳香烴分析流程圖 / Analytical flow chart - PAHs (Polycyclic Aromatic Hydrocarbons)



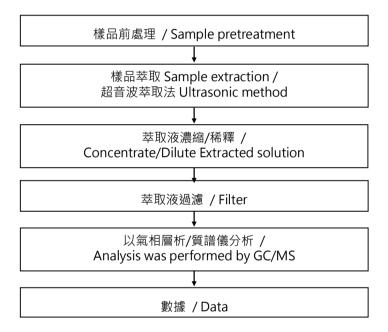


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#### 六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD





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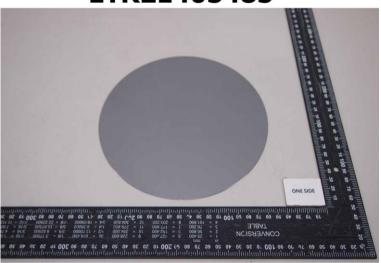
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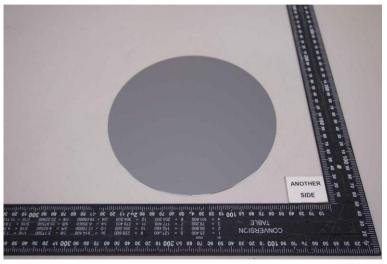
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\* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. \* (The tested sample / part is marked by an arrow if it's shown on the photo.)

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\*\* 報告結尾 (End of Report) \*\*