

SPECIFICATION FOR APPROVAL

CUSTOMER : 建基股份有限公司

PART NAME : WLAN EMBEDDED ANTENNA

PART NO. : 59.WTG01.0020 REVISION :

BRITO P/NO. : DB1EM79-I5195

AD NO. : AD-B-1259-B

	MANUFACTURER			CUSTOMER		
	SIGNATURE			SIGNATURE		
APPROVED :	核 準	審 核	承 辦	核 準	審 核	承 辦
BY :	NISA	JOHN	LINDA			
DATE :	2015/07/17					

承認書目錄

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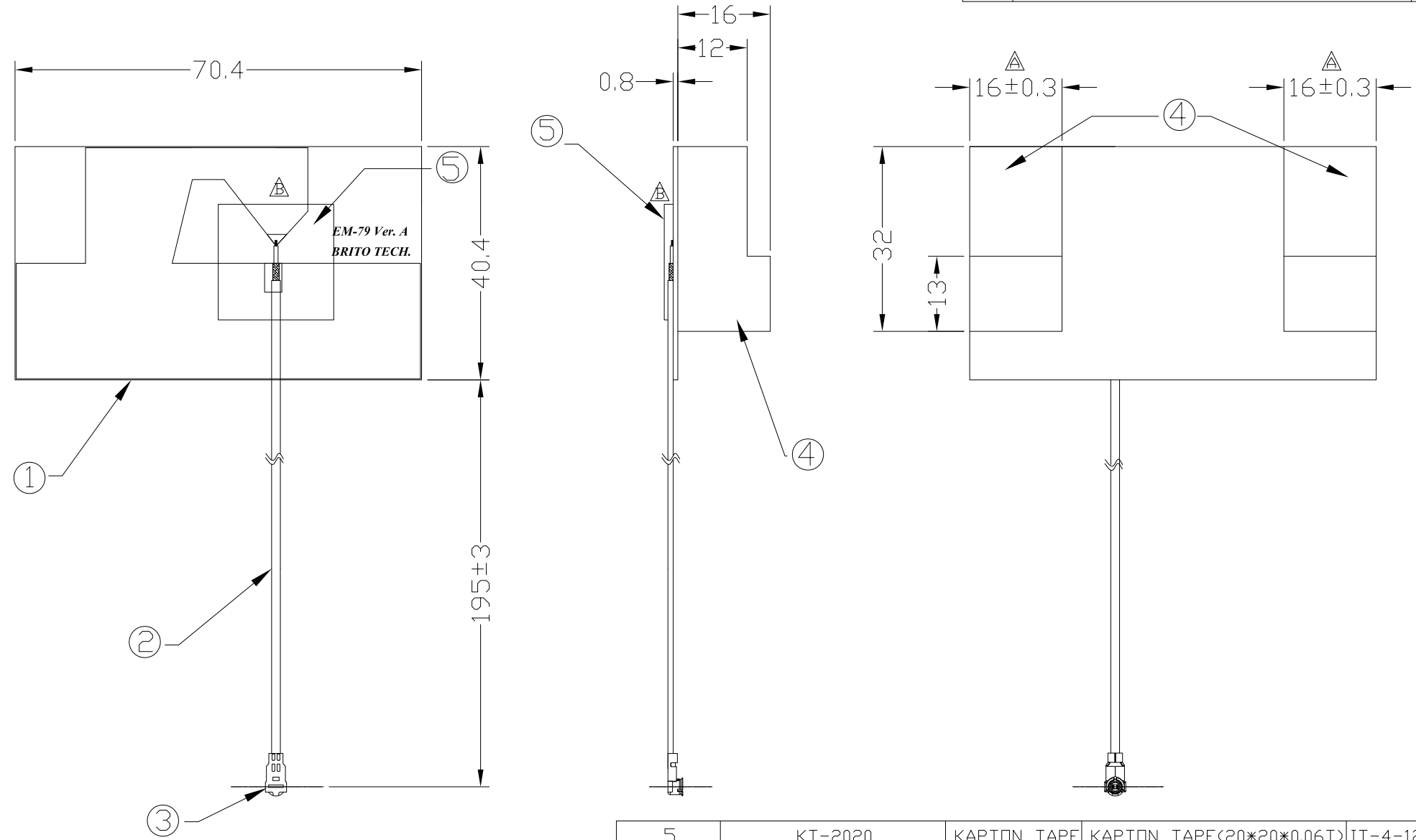
WLAN EMBEDDED ANTENNA

Specification


1. FREQUENCY RANGE ----- 2.4~2.5/5.15~5.85 GHz
2. V.S.W.R----- ≤ 2.0
3. IMPEDANCE----- 50Ω
4. WIRE----- OD0.81 CABLE BLACK
5. PCB----- FR4
6. GAIN----- 2 dBi (peak gain)
7. ANTENNA PATTERN----- Omni-directional
8. ANTENNA TYPE----- LOOP
9. WEIGHT----- 13g /PCS

A | B | C | D | E | F

R E V I S I O N S				
REV	DESCRIPTION	LOCATION	DRAWN	DATE
△	MODIFY SPONGE	D2 · E2	ALGER	2015/7/13
△	KAPTON TAPE	C2 · D2	ALGER	2015/7/14

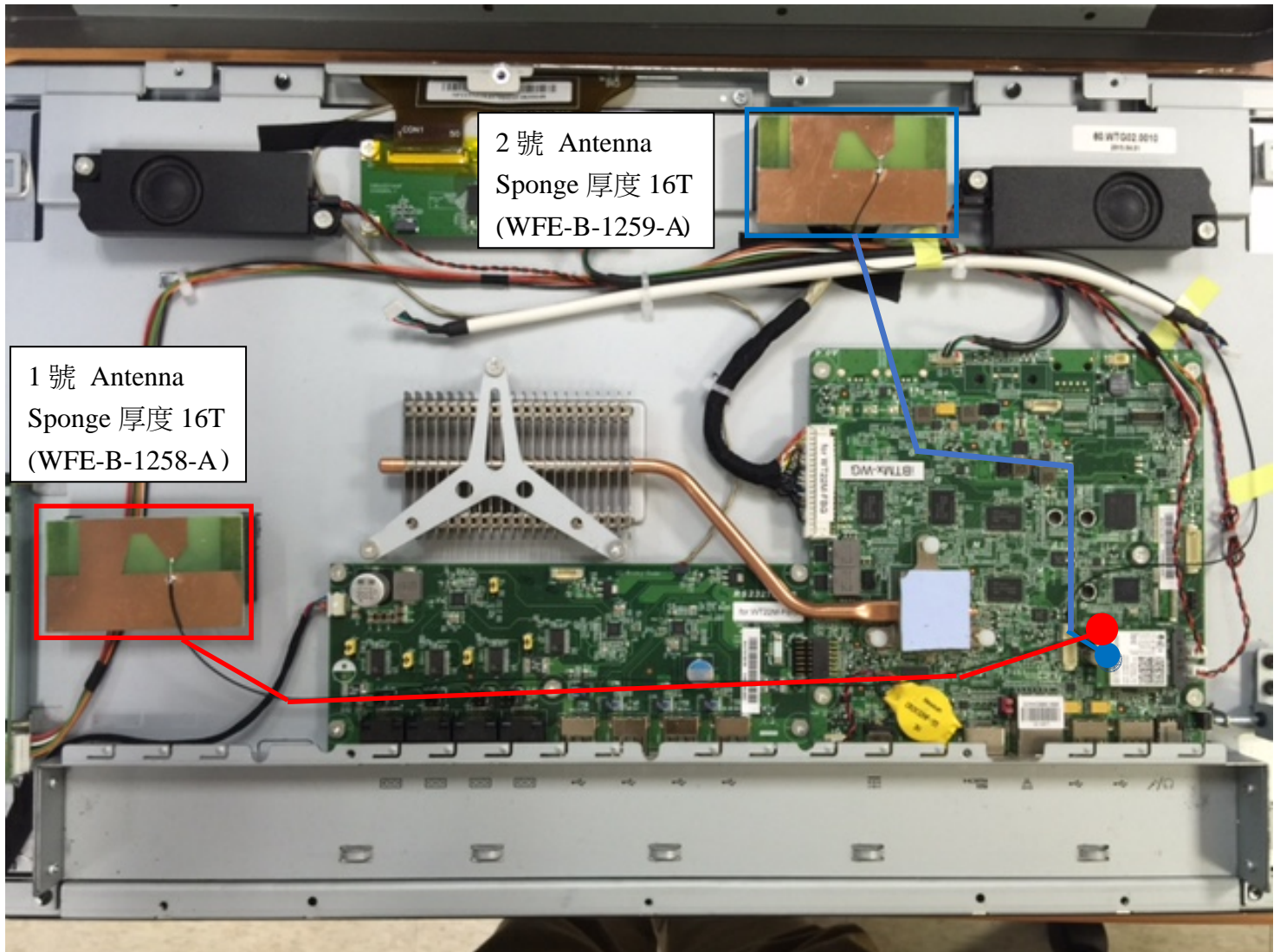


5	KT-2020	KAPTON TAPE	KAPTON TAPE(20*20*0.06T)	IT-4-1270 △	1PCS	N/A
4	N/A	SPONGE	3M9448A+HH48C (16T)	HH-4-1257-A △	2PCS	N/A
3	N/A	CONNECTOR	IPEX(IV)	RCA-338-1261	1PCS	N/A
2	N/A	CABLE	Ø0.81 CABLE;BLACK	RCA-338-1261	1PCS	N/A
1	EM79-PCB	PCB	FR-4	PCB-B-1213	1PCS	N/A
ITEM	PART NO.	PART NAME	MATERIAL	DWG NO.	QT'Y	REMARKS

RANGE	TOLERANCE	BRITO 昶陽科技有限公司			MODEL NAME	
X.xx	± 0.10	MATERIAL: See Table			WLAN ANTENNA	
X.x	± 0.15				DRAWN: ALGER	
X	± 0.25	FINISH: WLAN ASSY			DATE: 2015/7/14	
 THE 3RD PROJECTION		UNIT: mm			DATE: 2015/7/14	
		APPROVED: JOHN			DATE: 2015/7/14	
				SIZE: A3	PART NO. DB1EM79-I5195	
SCALE : N/A					SHEET 1 OF 1	

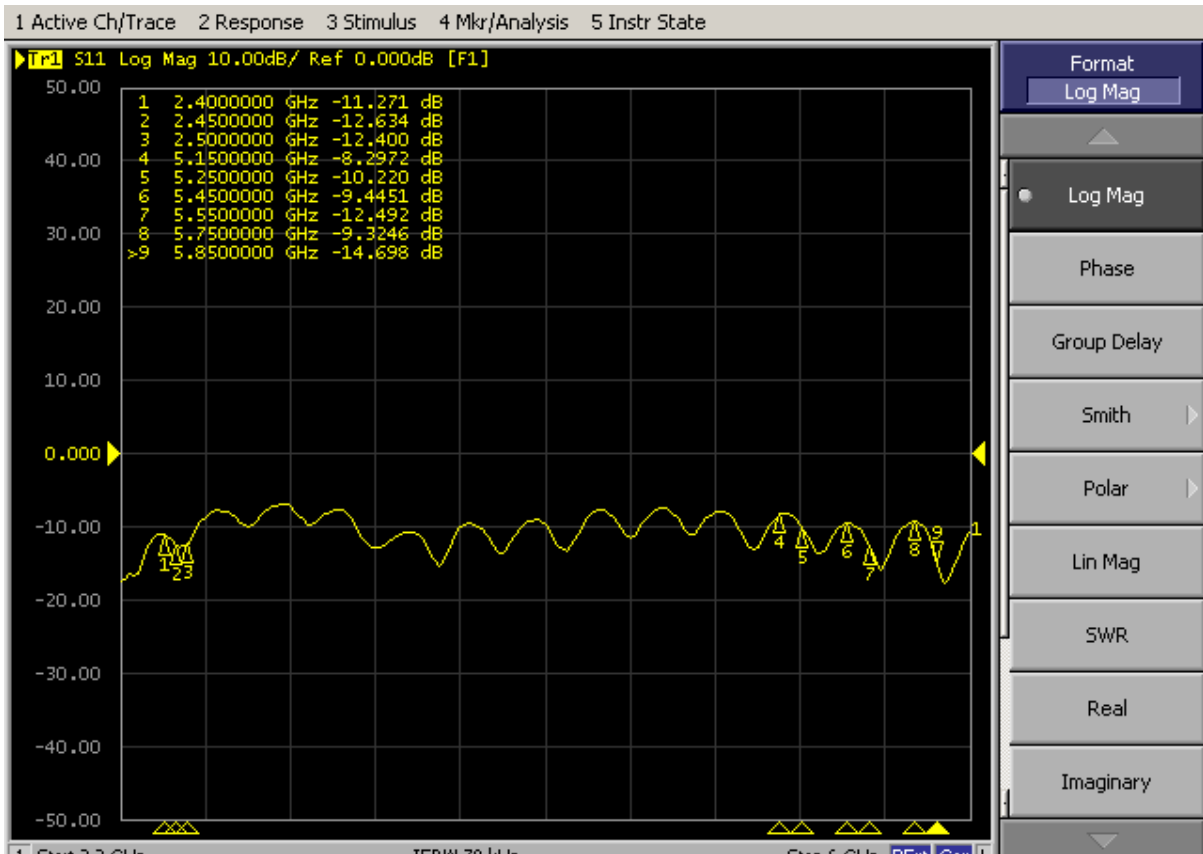
DWG NO. WFE-B-1259-B REV. B

1. Placement and routing of antenna

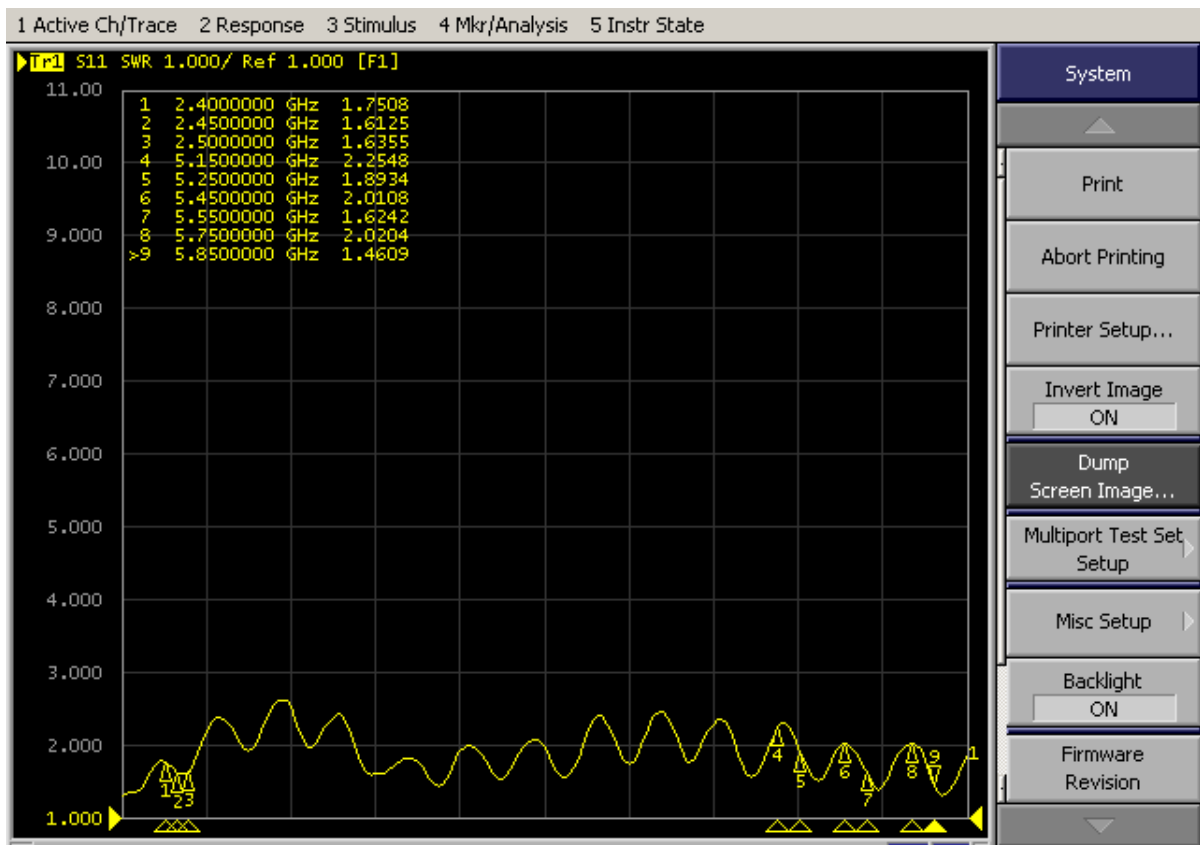


Reference

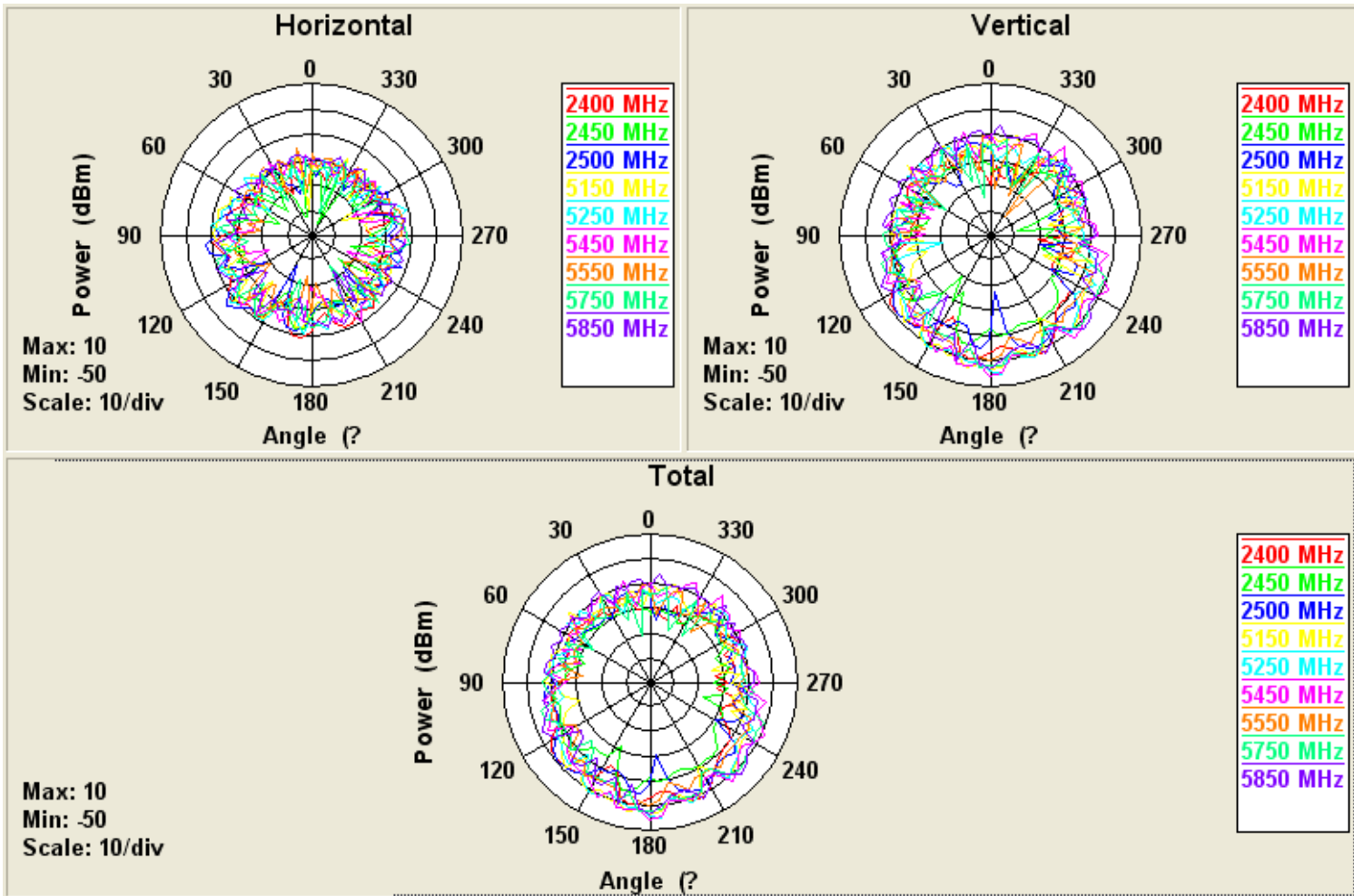
RETURN LOSS



VSWR



Chamber Test



DRAW
DATE

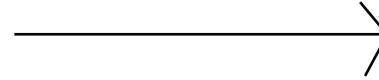
我司有權修改包裝方式

REVISION HISTORY			
REV.	CONTENTS	DATE	ECN NO.

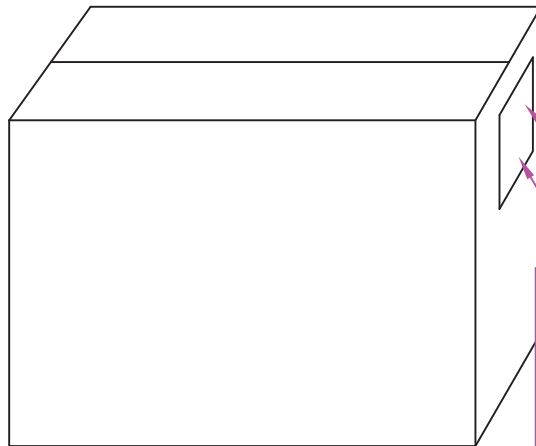
單PCS包裝



每1000PCS/BOX




上下以氣泡紙包覆



LABLE
(PRODUCT LABEL)

CUSTOMER:
P/N.:
PART NO.:
SPEC
Q'TY: , PCS
DATE:
C/T NO.

外箱需貼1pcs/外箱標籤於側麥右上角

DIMENSION TOLERANCE		APPROVED:	TITLE:	MODE NO:	
X. ± 0.25	X.* ± 3.0*	BRUCE	包裝方式	PART NO:	
.X ± 0.15	.X* ± 2.0*	CHECKED:	NOTICE:	DWG. NO:	
.XX ± 0.10	.XX* ± 1.0*	JOHN	MATERIAL:	UNIT: mm	Rev. C
.XXX ± 0.05	DATE:	DRAWN:			SHEET
.XXX* ± 0.5*	SCALE: NONE	JOHN			SIZE A4

測試報告

Test Report

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南亞塑膠工業股份有限公司(台灣) / NAN YA PLASTICS CORPORATION (TAIWAN)

(南亞電子材料(昆山)有限公司 / NAN YA ELECTRONIC MATERIALS (KUNSHAN) CORP., LTD)

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(廣東省惠州市博羅縣石灣鎮永石大道 / YONGSHI BOULEVARD SHIWAN TOWN BOLUO COUNTY HUIZHOU CITY GUANG DONG)

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) : 南亞塑膠工業股份有限公司 (NAN YA PLASTICS CORPORATION)
樣品名稱(Sample Description) : LAMINATE (UL E98983)
樣品型號(Style/Item No.) : UV BLOCK FR-4-86/NP-140TL
買主/訂單號碼(Buyer/Order No.) : 5106236
收件日期(Sample Receiving Date) : 2015/02/02
測試期間(Testing Period) : 2015/02/02 TO 2015/02/16

測試需求(Test Requested) :

- (1) 依據客户要求, 参考RoHS 2011/65/EU Annex II 指令測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚。(As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)
- (2) 依據客户要求, 参考 WTO/TBT 通報 G/TBT/N/EU/256, 檢測 DBP, BBP, DEHP, DIBP. (As specified by client, with reference to G/TBT/N/EU/256 of WTO/TBT to test DBP, BBP, DEHP, DIBP.)
- (3) 依據客户要求, 檢測 PAHs 及其他測項. / As specified by client, to test PAHs and other item(s).

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結論(Conclusion) : 請見下一頁 (Please refer to next pages).


Troy Chang / Manager - Tech
Signed for and on Behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

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- 結論(Conclusion) :**
- (1) 根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚的測試結果符合 RoHS 指令 2011/65/EU Annex II 之要求 (Based on the performed tests on submitted samples, the test result(s) of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II.)
 - (2) 根據客戶所提供的樣品，其 DBP, BBP, DEHP, DIBP 之測試結果符合 WTO/TBT 通報 G/TBT/N/EU/256 之限值要求 (Based on the performed tests on submitted samples, the test results of DBP, BBP, DEHP, DIBP comply with the limits as set by G/TBT/N/EU/256 of WTO/TBT.)
 - (3) 根據客戶所提供的樣品，其 PAHs 的測試結果符合德國 ZLS 的 ZEK 01.4-08 及其相關修訂文件中的第 1 類 PAHs 要求 (Base upon the performed tests by submitted samples, the test results of PAHs comply with the PAHs requirement according to (Category 1) of ZEK 01.4-08 of German ZLS and its amendments.)

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測試結果(Test Results)

測試部位(PART NAME)No.1 : 銅色板子 (COPPER COLORED SHEET)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	9	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS 檢測. / With reference to IEC 62321: 2008 and performed by UV- VIS.	2	n.d.	1000
鈹 / Beryllium (Be)	mg/kg	參考US EPA 3052方法, 以感應耦合電 漿原子發射光譜儀檢測. / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n.d.	-
氧化鈹 / Beryllium oxide (BeO)***	mg/kg	參考US EPA 3052方法, 以感應耦合電 漿原子發射光譜儀檢測. / With reference to US EPA Method 3052. Analysis was performed by ICP- AES.***	-	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No. 1	
砷 / Arsenic (As) (※2)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測。 / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.	50	n.d.	-
五氧化二砷 / Diarsenic pentaoxide*** (CAS No.: 1303-28-2)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測。 / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.***	-	n.d.	-
三氧化二砷 / Diarsenic trioxide*** (CAS No.: 1327-53-3)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測。 / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.***	-	n.d.	-
銻 / Antimony (Sb)	mg/kg	參考US EPA 3052方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n.d.	-
硼 / Boron (B) (※2)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測。 / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.	50	n.d.	-
硼酸 / Boric acid*** (CAS No.: 10043-35-3; 11113-50-1)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測。 / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.***	-	n.d.	-
無水四硼酸二鈉 / Disodium tetraborate, anhydrous*** (CAS No.: 1303-96-4, 1330-43-4, 12179-04-3)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測。 / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.***	-	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
水合硼酸鈉 / Tetraboron disodium heptaoxide, hydrate (CAS No.: 12267-73-1) (*2)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測. / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.	-	n.d.	-
四溴雙酚-A / Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)	mg/kg	參考Global SOP RSTS-E&E-121方法, 以液相層析/質譜儀分析. / With reference to Global SOP RSTS-E&E-121. Analysis was performed by LC/MS.	10	n.d.	-
雙酚 A / Bisphenol A (CAS No.: 80-05-7)	mg/kg	參考RSTS-HL-229-1方法, 以超高效能液相層析串聯質譜儀檢測. / With reference to RSTS-HL-229-1 method. Analysis was performed by UPLC-MSMS.	1	n.d.	-
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C: 2007方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3550C: 2007方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
2-(3', 5'-二叔丁基-2'-羥基苯基)苯並三氮唑 / 2-(3,5-di-tert-butyl-2-hydroxyphenyl)-2H-benzotriazole (CAS No.: 3846-71-7)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測之. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	5	n.d.	-
二氯化鈷 / Cobalt dichloride (CAS No.: 7646-79-9)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以感應耦合電漿原子發射光譜儀檢測. / SGS In-House method-RSTS-EE-SVHC-007. Analyzed by ICP-AES.	50	n.d.	-

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(廣東省惠州市博羅縣石灣鎮永石大道 / YONGSHI BOULEVARD SHIWAN TOWN BOLUO COUNTY HUIZHOU CITY GUANG DONG)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
多氯聯苯 / Polychlorinated Biphenyls (PCBs) (CAS No.: 1336-36-3)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	-
多氯萘 / Polychlorinated Naphthalene (PCNs)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	5	n.d.	-
多氯三聯苯 / Polychlorinated Terphenyls (PCTs)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	-
短鏈氯化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	mg/kg	參考US EPA 3540C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	100	n.d.	-
甲醛 / Formaldehyde (CAS No.: 50-00-0)	mg/kg	參考ISO 17226-1(2008)方法, 以高效液相層析儀/二極體陣列偵測器檢測. / With reference to ISO 17226-1(2008). Analysis was performed by HPLC/DAD.	3	n.d.	-
聚氯乙稀 / PVC	**	以紅外光譜分析及焰色法檢測. / Analysis was performed by FTIR and FLAME Test.	-	Negative	-
六氟化硫 / Sulfur Hexafluoride (SF6) (CAS No.: 2551-62-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
富馬酸二甲酯 / Dimethyl Fumarate (CAS No.: 624-49-7)	mg/kg	參考US EPA 3550C方法, 以氣相層析/ 質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	0.1	n.d.	-
磷酸三(2-氯乙基)酯 / Tris (2- chloroethyl) phosphate (TCEP) (CAS No.: 115-96-8)	mg/kg	參考US EPA 3550C方法, 以氣相層析/ 質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	5	n.d.	-
磷酸三(1-氯-2-丙基)酯 / Tris(1- chloro-2-propyl) phosphate (TCPP) (CAS No.: 13674-84-5)	mg/kg	參考US EPA 3550C方法, 以氣相層析/ 質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	5	n.d.	-
磷酸三(1,3-二氯異丙基)酯 / Tris(1,3- dichloro-2-propyl)phosphate (TDCPP) (CAS No.: 13674-87-8)	mg/kg	參考US EPA 3550C方法, 以氣相層析/ 質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	5	n.d.	-
磷酸三(二甲苯)酯 / Trixylyl phosphate (TXP) (CAS No.: 25155-23- 1)	mg/kg	參考US EPA 3550C方法, 以氣相層析/ 質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	25	n.d.	-
六溴環十二烷及所有主要被辨別出的異構 物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α - HBCDD, β - HBCDD, γ - HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321: 2008方法, 以氣相層 析/質譜儀檢測. / With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
對特辛基苯酚 / 辛基酚 / 4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-Octylphenol) (CAS No.: 140-66-9)	mg/kg	參考US EPA 3550C方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by LC/MS.	10	n.d.	-
双(2-甲氧基乙基)醚 / Bis(2-methoxyethyl) ether (CAS No.: 111-96-6)	mg/kg	參考US EPA 3550C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	10	n.d.	-
N,N-二甲基乙醯胺 / N,N-dimethylacetamide (DMAC) (CAS No.: 127-19-5)	mg/kg	參考US EPA 3550C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	10	n.d.	-
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg	參考IEC 62321-8 (111/321/CD), 以氣相層析儀/質譜儀檢測之. / With reference to IEC 62321-8 (111/321/CD). Analysis was performed by GC/MS.	50	n.d.	1000
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n.d.	1000
鄰苯二甲酸丁苄甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n.d.	1000
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg		50	n.d.	1000
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	mg/kg		50	n.d.	-
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	mg/kg		50	n.d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	mg/kg		50	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
鄰苯二甲酸二己酯 / DNHP (Di-n-hexyl phthalate) (CAS No.: 84-75-3)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二(C6-8支鏈與直鏈)烷基酯, 富C7 / DIHP (1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich) (CAS No.: 71888-89-6)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二(C7-11支鏈與直鏈)烷基酯 / DHNUP (1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters) (CAS No.: 68515-42-4)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二(2-甲氧基乙基)酯 / DMEP (Bis (2-methoxyethyl) phthalate) (CAS No.: 117-82-8)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二異戊酯 / DIPP (Diisopentylphthalate) (CAS No.: 605-50-5)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
支鏈和直鏈1,2-苯二羧二戊酯 / 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (CAS No.: 84777-06-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸正戊基異戊基酯 / N-pentyl-isopentylphthalate	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二戊酯 / DPP (Di-pentyl phthalate) (CAS No.: 131-18-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
鄰苯二甲酸二正戊酯 / DNPP (Di-n-pentyl phthalate) (CAS No.: 131-18-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
乙二醇二甲醚 / Ethylene glycol dimethyl ether (EGDME) (CAS No.: 110-71-4)	mg/kg	參考US EPA 3550C方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	10	n.d.	-
過氯酸鹽 / Perchlorate (CAS No.: 14797-73-0)	mg/kg	以離子層析儀檢測。 / Analysis was performed by IC.	0.006	n.d.	-
溴甲烷 / Bromomethane (CAS No.: 74-83-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測。 / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
鹵素 / Halogen					
鹵素(氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析。 / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	339	-
鹵素(溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)			50	46900	-
鹵素(氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)			50	906	-
鹵素(碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)			50	n.d.	-

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				No.1			
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	1000		
一溴聯苯 / Monobromobiphenyl			5	n.d.	-		
二溴聯苯 / Dibromobiphenyl			5	n.d.	-		
三溴聯苯 / Tribromobiphenyl			5	n.d.	-		
四溴聯苯 / Tetrabromobiphenyl			5	n.d.	-		
五溴聯苯 / Pentabromobiphenyl			5	n.d.	-		
六溴聯苯 / Hexabromobiphenyl			5	n.d.	-		
七溴聯苯 / Heptabromobiphenyl			5	n.d.	-		
八溴聯苯 / Octabromobiphenyl			5	n.d.	-		
九溴聯苯 / Nonabromobiphenyl			5	n.d.	-		
十溴聯苯 / Decabromobiphenyl			5	n.d.	-		
多溴聯苯醚總和 / Sum of PBDEs					-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether					5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether					5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether					5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether					5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether					5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether					5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether					5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether					5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.	-		
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.	-		

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
有機錫 / Organic-tin compounds					
三丁基錫 / Tributyl Tin (TBT)	mg/kg	參考ISO 17353方法, 以氣相層析儀/火焰光度偵測器檢測. / With reference to ISO 17353. Analysis was performed by GC/FPD.	0.03	n.d.	-
三苯基錫 / Triphenyl Tin (TphT)			0.03	n.d.	-
二丁基錫 / Dibutyl Tin (DBT)			0.03	n.d.	-
二辛基錫 / Dioctyl Tin (DOT)			0.03	n.d.	-
三丁基錫氧化物 / Tributyl Tin Oxide (TBTO)***(CAS No.: 56-35-9)			-	n.d.	-
偶氮 (AZO)					
1): 4-氨基二苯 / 4-AMINODIPHENYL (CAS No.: 92-67-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
2): 聯苯胺 / BENZIDINE (CAS No.: 92-87-5)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
3): 4-氯鄰甲苯胺 / 4-CHLORO-O-TOLUIDINE (CAS No.: 95-69-2)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
4): 2-萘胺 / 2-NAPHTHYLAMINE (CAS No.: 91-59-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
5): 鄰氨基二甲苯偶氮 / O-AMINOAZOTOLUENE (CAS No.: 97-56-3)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
6): 對硝基鄰甲苯胺 / 2-AMINO-4-NITROTOLUENE (CAS No.: 99-55-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
7): 對氯苯胺 / P-CHLOROANILINE (CAS No.: 106-47-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
8): 4-甲氧基-間苯二胺 / 2,4-DIAMINOANISOLE (CAS No.: 615-05-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
9): 4,4'-二氨基二苯甲烷 / 4,4'-DIAMINODIPHENYLMETHANE (CAS No.: 101-77-9)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
10): 3,3'-二氯聯苯胺 / 3,3'-DICHLOROBENZIDINE (CAS No.: 91-94-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
11): 3,3'-二甲氧基聯苯胺 / 3,3'-DIMETHOXYBENZIDINE (CAS No.: 119-90-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
12): 3,3'-二甲基聯苯胺 / 3,3'-DIMETHYLBENZIDINE (CAS No.: 119-93-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
13): 3,3'-二甲基-4,4'-二氨基二苯甲烷 / 3,3'-DIMETHYL-4,4'-DIAMINODIPHENYLMETHANE (CAS No.: 838-88-0)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
14): 2-甲氧基-5-甲基聯苯 / P-CRESIDINE (2-METHOXY-5-METHYLANILINE) (CAS No.: 120-71-8)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
15): 4,4'-亞甲基雙(氯苯胺) / 4,4'-METHYLENE-BIS-(2-CHLOROANILINE) (CAS No.: 101-14-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
16): 4,4'-氧化雙苯胺 / 4,4'-OXYDIANILINE (CAS No.: 101-80-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
17): 4,4'-硫代雙苯胺 / 4,4'-THIODIANILINE (CAS No.: 139-65-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
18): 鄰甲苯胺 / O-TOLUIDINE (CAS No.: 95-53-4)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
19): 2,4-二氨基甲苯 / 2,4-TOLUYLENEDIAMINE (CAS No.: 95-80-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
20): 2,4,5-三甲基苯胺 / 2,4,5-TRIMETHYLANILINE (CAS No.: 137-17-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
21): 鄰位甲氧基苯胺 / O-ANISIDINE (CAS No.: 90-04-0)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
22): 對氨基偶氮苯 / 4-AMINOAZOBENZENE (CAS No.: 60-09-3)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
23): 2,4-二甲基苯胺 / 2,4-XYLIDINE (CAS No.: 95-68-1)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
24): 2,6-二甲基苯胺 / 2,6-XYLIDINE (CAS No.: 87-62-7)	mg/kg	參考LFGB 82.02-2方法, 以氣相層析/質譜儀檢測. / With reference to LFGB 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
氫氟碳化物 / HFCs (Hydrofluorocarbon)					
氫氟碳化物 (HFC)-23 (CHF3) (CAS No.: 75-46-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
氫氟碳化物 (HFC)-32 (CH ₂ F ₂) (CAS No.: 75-10-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-41 (CH ₃ F) (CAS No.: 593-53-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-43-10mee (C ₅ H ₂ F ₁₀)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-125 (C ₂ H ₂ F ₅)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-134 (C ₂ H ₂ F ₄)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-134a (CH ₂ FCF ₃) (CAS No.: 811-97-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-143 (CH ₃ F ₃)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
氫氟碳化物 (HFC)-143a (CH3F3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-152a (C2H4F2) (CAS No.: 75-37-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-227ea (C3HF7) (CAS No.: 431-89-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-236fa (C3H2F6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-236ea (C3H2F6) (CAS No.: 431-63-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-245ca (C3H3F5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物 (HFC)-245fa (C3H3F5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
氫氟碳化物 (HFC)-365mfc (C4H5F5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟碳化物 / PFCs (Perfluorocarbon)					
四氟甲烷 / F14 (CAS No.: 75-73-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
六氟乙烷 / Fluorocarbon 116 (CAS No.: 76-16-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
八氟丙烷 / Freon 218 (CAS No.: 76-19-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
十氟丁烷 / Decafluorobutane (CAS No.: 355-25-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
八氟環丁烷 / Freon C318 (CAS No.: 115-25-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟-1-丁烯 / Perfluor-1-butene (CAS No.: 357-26-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
全氟異丁烯 / perfluorisobutene (CAS No.: 382-21-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,4-二氫八氟丁烷 / 1,4-dihydrooctafluorobutane (CAS No.: 377-36-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
2-全氟甲基丁烷 / nonafluor-2-(trifluoromethyl)butane (CAS No.: 594-91-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟戊烷 / perfluoro-n-pentane (CAS No.: 678-26-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
2-全氟甲基戊烷 / 2-perfluoromethylpentane (CAS No.: 355-04-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟己烷 / perfluorohexane (CAS No.: 355-42-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯碳化物 / CFCs (Chlorofluorocarbons)					
Group I					
氟氯碳化物 (Chlorofluorocarbon)-11 (CAS No.: 75-69-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-12 (CAS No.: 75-71-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-113 (CAS No.: 76-13-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-114 (CAS No.: 76-14-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-115 (CAS No.: 76-15-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
Group III					
氟氯碳化物 (Chlorofluorocarbon)-13 (CAS No.: 75-72-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯碳化物 (Chlorofluorocarbon)-111 (CAS No.: 354-56-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-112 (CAS No.: 76-12-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-211 (CAS No.: 422-78-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-212 (CAS No.: 3182-26-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-213 (CAS No.: 2354-06-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-214 (CAS No.: 29255-31-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-215 (CAS No.: 4259-43-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯碳化物 (Chlorofluorocarbon)-216 (CAS No.: 661-97-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯碳化物 (Chlorofluorocarbon)-217 (CAS No.: 422-86-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 / HCFCs (Hydrochlorofluorocarbons)					
氟氯氫碳化物 (HCFC)-21 (CAS No.: 75-43-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-22 (CAS No.: 75-45-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-31 (CAS No.: 593-70-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-121 (CAS No.: 354-14-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯氫碳化物 (HCFC)-122 (CAS No.: 354-21-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-123 (CAS No.: 306-83-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-124 (CAS No.: 2837-89-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-131 (CAS No.: 359-28-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-132b (CAS No.: 1649-08-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-133a (CAS No.: 75-88-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-141b (CAS No.: 1717-00-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
氟氯氫碳化物 (HCFC)-142b (CAS No.: 75-68-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-221 (CAS No.: 422-26-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-222 (CAS No.: 422-49-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-223 (CAS No.: 422-52-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-224 (CAS No.: 422-54-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-225ca (CAS No.: 422-56-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-225cb (CAS No.: 507-55-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯氫碳化物 (HCFC)-226 (CAS No.: 431-87-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-231 (CAS No.: 421-94-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-232 (CAS No.: 460-89-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-233 (CAS No.: 7125-84-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-234 (CAS No.: 425-94-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-235 (CAS No.: 460-92-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-241 (CAS No.: 666-27-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯氫碳化物 (HCFC)-242 (CAS No.: 460-63-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-243 (CAS No.: 460-69-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-244	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-251 (CAS No.: 421-41-0)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-252 (CAS No.: 819-00-1)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-253 (CAS No.: 460-35-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-261 (CAS No.: 420-97-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氟氯氫碳化物 (HCFC)-262 (CAS No.: 421-02-03)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氟氯氫碳化物 (HCFC)-271 (CAS No.: 430-55-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
海龍 (Halons)					
海龍 (Halon)-1211 (CAS No.: 353-59-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
海龍 (Halon)-1301 (CAS No.: 75-63-8)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
海龍 (Halon)-2402 (CAS No.: 124-73-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
不完全鹵化氟溴化物 / HBFCs (Hydrobromofluorocarbons)					
不完全鹵化氟溴化物 (HBFC)-21B2 (CH ₂ FBr ₂) (CAS No.: 1868-53-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-22B1 (CH ₂ F ₂ Br) (CAS No.: 1511-62-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-31B1 (CH ₂ FBr) (CAS No.: 373-52-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-121B4 (C ₂ H ₂ FBr ₄)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-122B3 (C ₂ H ₂ F ₂ Br ₃)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-123B2 (C ₂ H ₂ F ₃ Br ₂)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
不完全鹵化氟溴化物 (HBFC)-124B1 (C2HF4Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-131B3 (C2H2FBr3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-132B2 (C2H2F2Br2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-133B1 (C2H2F3Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-141B2 (C2H3FBr2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-142B1 (C2H3F2Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-151B1 (C2H4FBr)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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南亞塑膠工業股份有限公司(台灣) / NAN YA PLASTICS CORPORATION (TAIWAN)

(南亞電子材料(昆山)有限公司 / NAN YA ELECTRONIC MATERIALS (KUNSHAN) CORP., LTD)

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(廣東省惠州市博羅縣石灣鎮永石大道 / YONGSHI BOULEVARD SHIWAN TOWN BOLUO COUNTY HUIZHOU CITY GUANG DONG)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
不完全鹵化氟溴化物 (HBFC)-221B6 (C3HFBr6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-222B5 (C3HF2Br5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-223B4 (C3HF3Br4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-224B3 (C3HF4Br3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-225B2 (C3HF5Br2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-226B1 (C3HF6Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-231B5 (C3H2FBr5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
不完全鹵化氟溴化物 (HBFC)-232B4 (C3H2F2Br4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-233B3 (C3H2F3Br3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-234B2 (C3H2F4Br2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-235B1 (C3H2F5Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-241B4 (C3H3FBr4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-242B3 (C3H3F2Br3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-243B2 (C3H3F3Br2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
不完全鹵化氟溴化物 (HBFC)-244B1 (C3H3F4Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-251B3 (C3H4FBr3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-252B2 (C3H4F2Br2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-253B1 (C3H4F3Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-261B2 (C3H5FBr2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-262B1 (C3H5F2Br)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
不完全鹵化氟溴化物 (HBFC)-271B1 (C3H6FBr)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
氯化碳氫化合物 / CHCs (Chlorinate hydrocarbon)					
1,1,1,2-四氯乙烷 / 1,1,1,2-Tetrachloroethane (CAS No.: 630-20-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1,1-三氯乙烷 / 1,1,1-Trichloroethane (CAS No.: 71-55-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1,2,2-四氯乙烷 / 1,1,2,2-Tetrachloroethane (CAS No.: 79-34-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1,2-三氯乙烷 / 1,1,2-Trichloroethane (CAS No.: 79-00-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1-二氯乙烷 / 1,1-Dichloroethane (CAS No.: 75-34-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,1-二氯乙烯 / 1,1-Dichloroethene (CAS No.: 75-35-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
1,1-二氯丙烯 / 1,1-Dichloropropene (CAS No.: 563-58-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,2,3-三氯丙烷 / 1,2,3-Trichloropropane (CAS No.: 96-18-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,2-二氯乙烷 / 1,2-Dichloroethane (CAS No.: 107-06-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,2-二氯丙烷 / 1,2-Dichloropropane (CAS No.: 78-87-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,3-二氯丙烷 / 1,3-Dichloropropane (CAS No.: 142-28-9)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
2,2-二氯丙烷 / 2,2-Dichloropropane (CAS No.: 594-20-7)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
四氯甲烷 (四氯化碳) / Carbon tetrachloride (CAS No.: 56-23-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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				No.1	
氯乙烷 / Chloroethane (CAS No.: 75-00-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯仿 / Chloroform (CAS No.: 67-66-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氯甲烷 / Chloromethane (CAS No.: 74-87-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
順-1,2-二氯乙烯 / cis-1,2-Dichloroethene (CAS No.: 156-59-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
順-1,3-二氯丙烯 / cis-1,3-Dichloropropene (CAS No.: 10061-01-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
六氯丁二烯 / Hexachlorobutadiene (CAS No.: 87-68-3)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
二氯甲烷 / Dichloromethane (CAS No.: 75-09-2)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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(江蘇省昆山市長江南路201號 / 201 CHANG JIANG ROAD(S) KUNSHAN ECONOMIC & TECHNICAL DEVELOPMENT ZONE, JIANG SU)

(廣東省惠州市博羅縣石灣鎮永石大道 / YONGSHI BOULEVARD SHIWAN TOWN BOLUO COUNTY HUIZHOU CITY GUANG DONG)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
四氯乙烯 / Tetrachloroethene (CAS No.: 127-18-4)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
反-1,2-二氯乙烯 / trans-1,2-Dichloroethene (CAS No.: 156-60-5)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
反-1,3-二氯丙烯 / trans-1,3-Dichloropropene (CAS No.: 10061-02-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
三氯乙烯 / Trichloroethylene (CAS No.: 79-01-6)	mg/kg	參考US EPA 5021方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
石棉 / Asbestos					
陽起石綿 / Actinolite (CAS No.: 77536-66-4)	%	參考EPA 600/R-93/116 / 立體顯微鏡 (SM), 分散染色式偏光顯微鏡 (DS-PLM)及X光繞射光譜分析法 (XRD) / With reference to EPA 600/R-93/116 method. Analysis was performed by Stereo Microscope (SM), Dispersion Staining Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD).	-	Negative	-
鐵石綿(褐石綿) / Amosite (CAS No.: 12172-73-5)			-	Negative	-
斜方角閃石綿 / Anthophyllite (CAS No.: 77536-67-5)			-	Negative	-
溫石綿(白石綿) / Chrysotile (CAS No.: 12001-29-5)			-	Negative	-
青石綿 / Crocidolite (CAS No.: 12001-28-4)			-	Negative	-
透閃石綿 / Tremolite (CAS No.: 77536-68-6)			-	Negative	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No.1	
多環芳香煙 / Polynuclear Aromatic Hydrocarbons (PAHs)					
芘 / Acenaphthene (CAS No.: 83-32-9)	mg/kg	參考ZLS standard ZEK 01.4-08方法, 以氣相層析/質譜儀檢測. / With reference to ZLS standard ZEK 01.4-08 method. Analysis was performed by GC/MS.	0.2	n.d.	-
芴 / Acenaphthylene (CAS No.: 208-96-8)	mg/kg		0.2	n.d.	-
蔥 / Anthracene (CAS No.: 120-12-7)	mg/kg		0.2	n.d.	-
苯駢蔥 / Benzo[a]anthracene (CAS No.: 56-55-3)	mg/kg		0.2	n.d.	-
苯駢(a)芘 / Benzo[a]pyrene (CAS No.: 50-32-8)	mg/kg		0.2	n.d.	-
苯(b)苯駢芴 / Benzo[b]fluoranthene (CAS No.: 205-99-2)	mg/kg		0.2	n.d.	-
苯駢芘 / Benzo[g,h,i]perylene (CAS No.: 191-24-2)	mg/kg		0.2	n.d.	-
苯(k)苯駢芴 / Benzo[k]fluoranthene (CAS No.: 207-08-9)	mg/kg		0.2	n.d.	-
Chrysene (CAS No.: 218-01-9)	mg/kg		0.2	n.d.	-
二苯駢蔥 / Dibenzo[a,h]anthracene (CAS No.: 53-70-3)	mg/kg		0.2	n.d.	-
苯駢芴 / Fluoranthene (CAS No.: 206-44-0)	mg/kg		0.2	n.d.	-
芴 / Fluorene (CAS No.: 86-73-7)	mg/kg		0.2	n.d.	-
茚酮芘 / Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5)	mg/kg		0.2	n.d.	-
萘 / Naphthalene (CAS No.: 91-20-3)	mg/kg		0.2	n.d.	-
菲 / Phenanthrene (CAS No.: 85-01-8)	mg/kg		0.2	n.d.	-
芘 / Pyrene (CAS No.: 129-00-0)	mg/kg		0.2	n.d.	-
苯(j)苯駢芴 / Benzo[j]fluoranthene (CAS No.: 205-82-3)	mg/kg		0.2	n.d.	-
苯駢(e)芘 / Benzo[e]pyrene (CAS No.: 192-97-2)	mg/kg		0.2	n.d.	-
多環芳香煙18項總和 / Sum of 18 PAHs	mg/kg	-	n.d.	-	

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備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
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. ***: 該物質是由三丁基錫, 砷, 硼或鉍各別之測試結果計算得知。其MDL是針對三丁基錫, 砷, 硼或鉍之評估。(The substance was calculated by the test results of Tributyl Tin, Arsenic, Boron or Beryllium respectively. The MDL was evaluated for Tributyl Tin, Arsenic, Boron or Beryllium respectively.)
9. (*2): 水合硼酸鈉: 依照歐洲化學總署解釋以無水四硼酸二鈉數據作為代表(歐洲化學總署回信編號 Ref no.: INC 000000032519) / Tetraboron disodium heptaoxide, hydrate: Only anhydrous form of disodium tetraborate is relevant and considered according to ECHA explanation (Ref no.: INC 000000032519).
10. (※2): 被萃取出之溶出硼/砷是以感應耦合電漿原子發射光譜儀檢測得之。 / The extracted soluble Boron / Arsenic are detected by ICP-AES.
11. 參數換算表 / Parameter Conversion Table :
Please refer to http://twap.sgs.com/sgsrsts/chn/download-REACH_tw.asp
12. 鉍青銅是一種主要成份為鉍及銅的合金, 當偵測不到總鉍含量時, 亦表示不含鉍青銅。
(Since beryllium copper is a metal alloy of copper and beryllium and the test result is n.d. for beryllium, we can have conclusion that the beryllium copper is n.d..)

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PAHs參考資料(Reference information) :

依據ZEK 01.4-08之要求: 產品中最大值為

(Requirement of ZEK 01.4-08 : Restraining maximum values for products)

項目 (Parameter)	第1類 (Category 1)	第2類 (Category 2)	第3類 (Category 3)
	意圖放入嘴內的材料或與36個月以下的幼兒皮膚有所接觸的玩具。 (Material indented to be put in the mouth or toys for children aged < 36 months with intended skin contact.)	可預見與皮膚接觸逾30秒(長期與皮膚接觸), 以及不屬於第1類的材料。 (Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin contact).)	可預見與皮膚接觸短於30秒(短期與皮膚接觸), 以及不屬於第1類或第2類的材料。(Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).)
苯駢(a)芘 Benzo[a]pyrene (mg/kg)	<MDL (<0.2)**	1	20
18項PAH總濃度 (Sum of 18 PAH) (mg/kg)*	<MDL (<0.2)**	10	200

注意(Remark):

* = PAH濃度大於0.2mg/kg時, 則須計算PAH總濃度值。

(Only PAH substances >0.2 mg/kg are taken into account while calculating the sum of PAHs.)

** = 最大濃度值超出等級一的限制, 但在等級二的濃度限制值內時, 可能需要確認測試材質是否適用於與食品或與口腔黏膜接觸, 並依照EN 1186 ff. and § 64 LFBG 80.30-1方法, 針對特定PAH的遷移測試進行測試。遷移測試的結論需依照食品規範評估。

(If the limits of category 1 are surpassed but the limits of category 2 still met, the confirmation of suitability of contact with foodstuff or the oral mucosa can be verified by an additional specific migration test of the PAH components according to EN 1186 ff. and § 64 LFBG 80.30-1. The results of the migration test shall be evaluated according to law criteria for foodstuff.)

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PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm), 在半成品、成品或零部件中不得超過0.1%(1000ppm), 在紡織品或塗層材料中不得超過 $1\mu\text{g}/\text{m}^2$ 。

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above $1\mu\text{g}/\text{m}^2$.)

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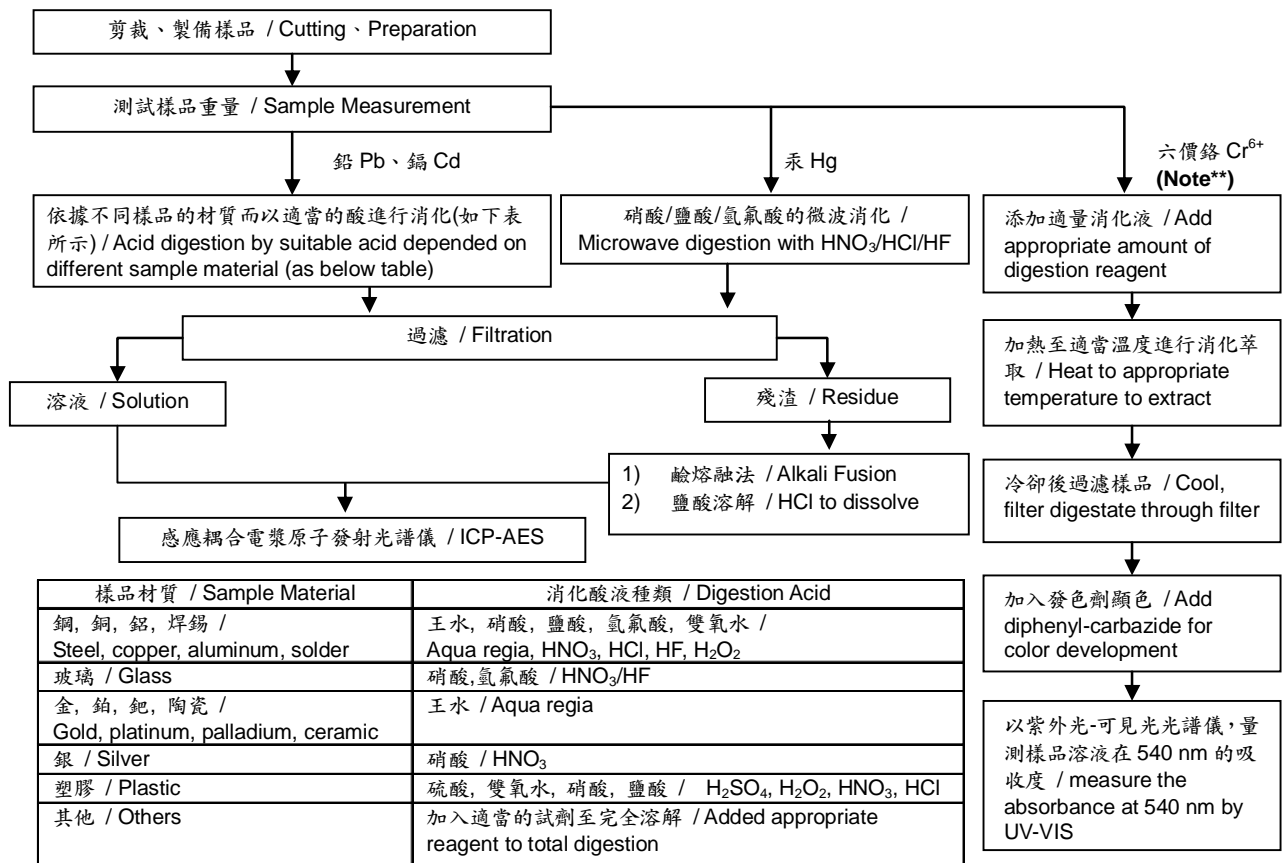
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- 1) 根據以下的流程圖之條件, 樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員: 楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人: 張啓興 / Name of the person in charge of measurement: Troy Chang



Note (For IEC 62321)**

- (1) 針對非金屬材料加入鹼性消化液, 加熱至 90~95°C 萃取. / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
- (2) 針對金屬材料加入純水, 加熱至沸騰萃取. / For metallic material, add pure water and heat to boiling.

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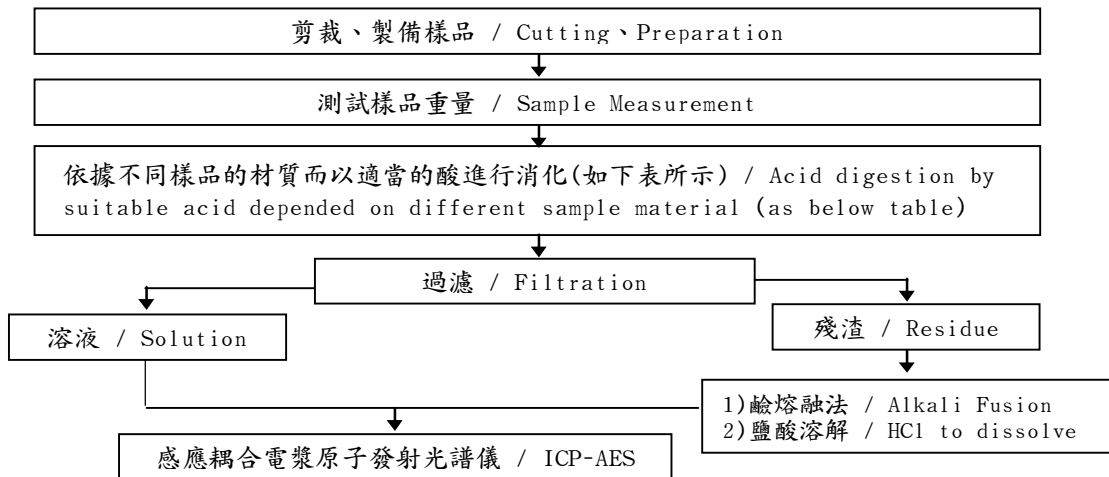
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

元素以 ICP-AES 分析的消化流程圖

(Flow Chart of digestion for the elements analysis performed by ICP-AES)



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
玻璃 / Glass	硝酸,氫氟酸 / HNO ₃ /HF
金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion

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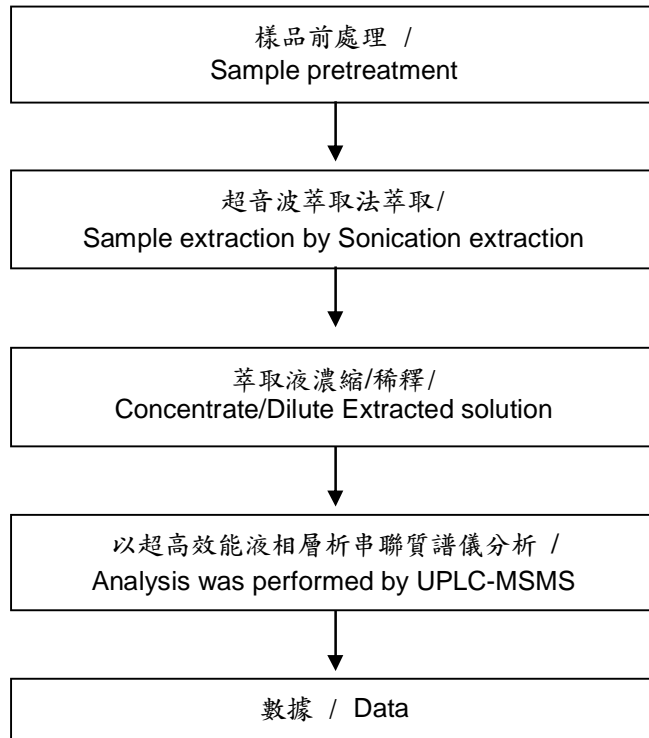
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雙酚A分析流程圖 / Bisphenol A analytical flow chart

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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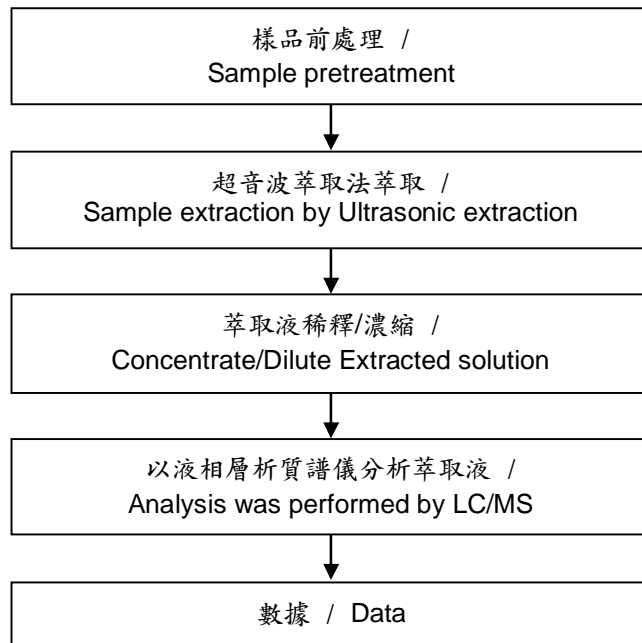
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四溴雙酚-A 分析流程圖 / TBBP-A analytical flow chart

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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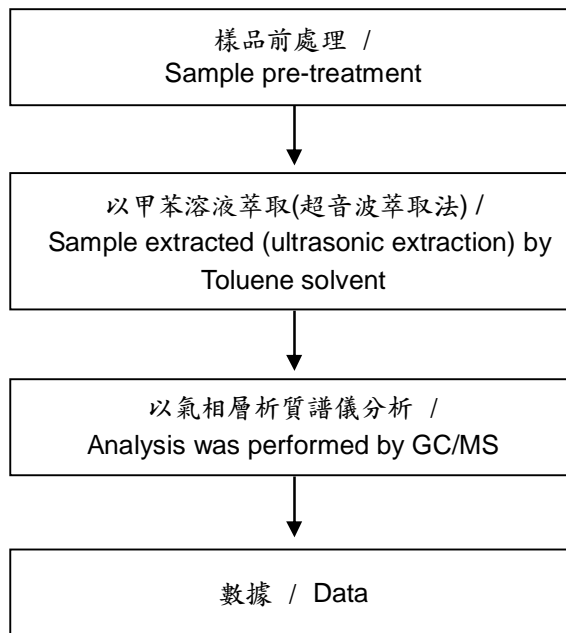
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多環芳香烴分析流程圖 / PAHs (Polynuclear Aromatic Hydrocarbons) analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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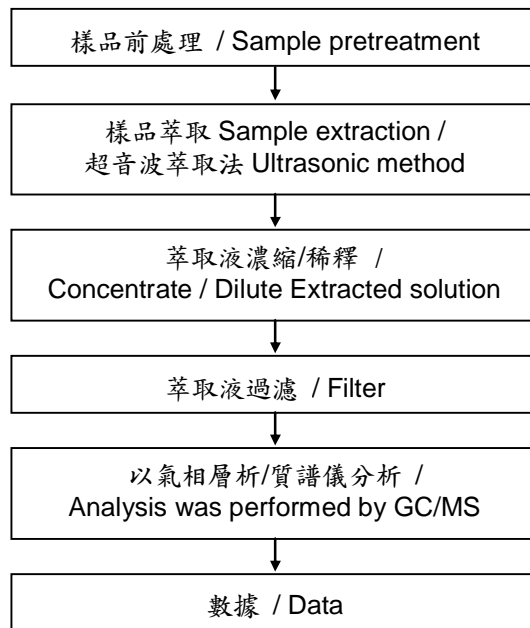
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乙二醇醚及其酯類分析流程圖 / Ethylene glycol ether analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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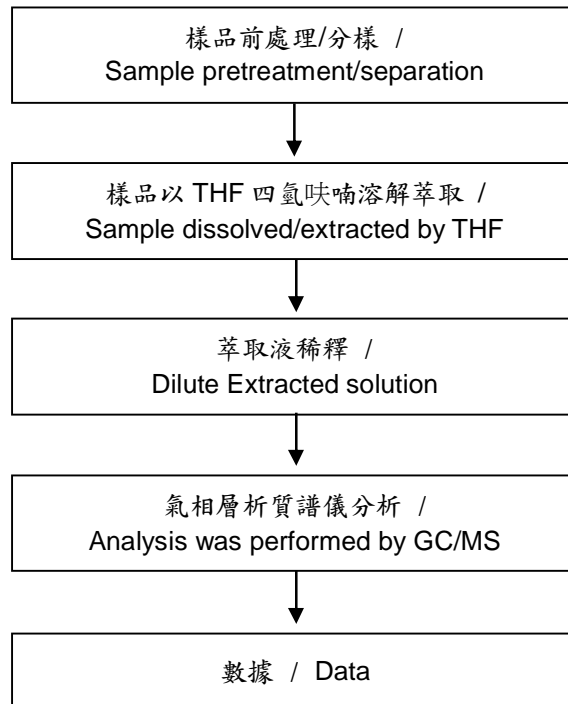
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可塑劑分析流程圖 / Analytical flow chart of phthalate content

- 測試人員：徐毓明 / Name of the person who made measurement: Andy Shu
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

【測試方法/Test method: IEC 62321-8】



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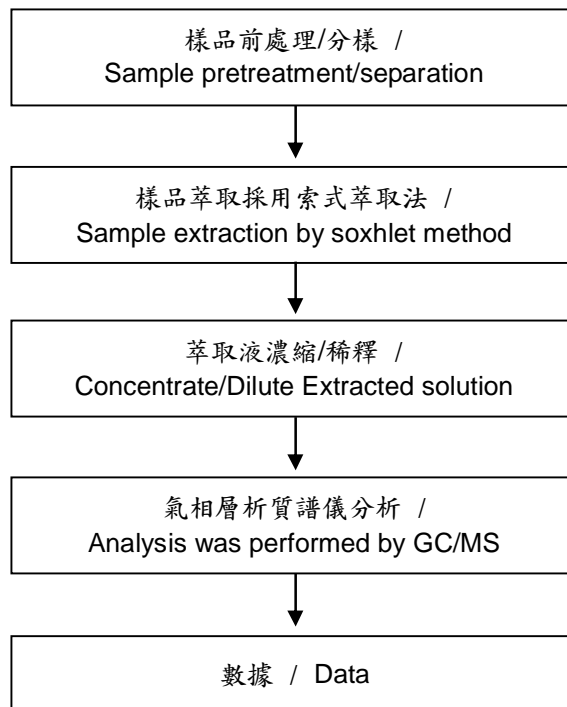
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可塑劑分析流程圖 / Analytical flow chart of phthalate content

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

【測試方法/Test method: EN 14372】



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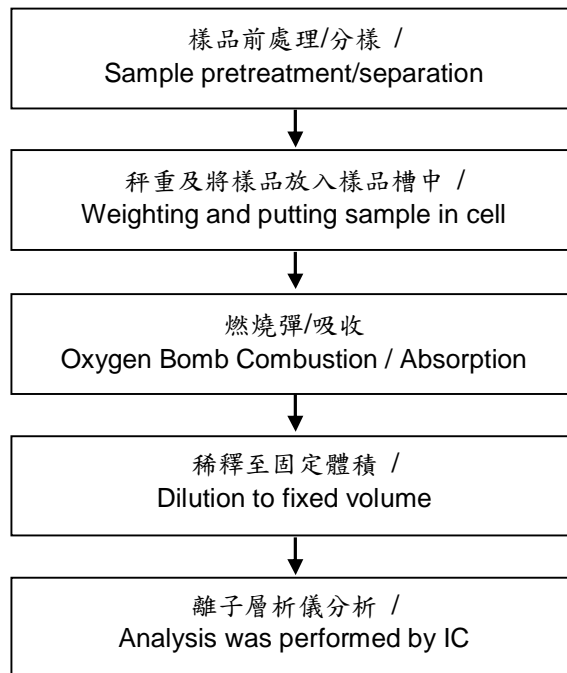
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鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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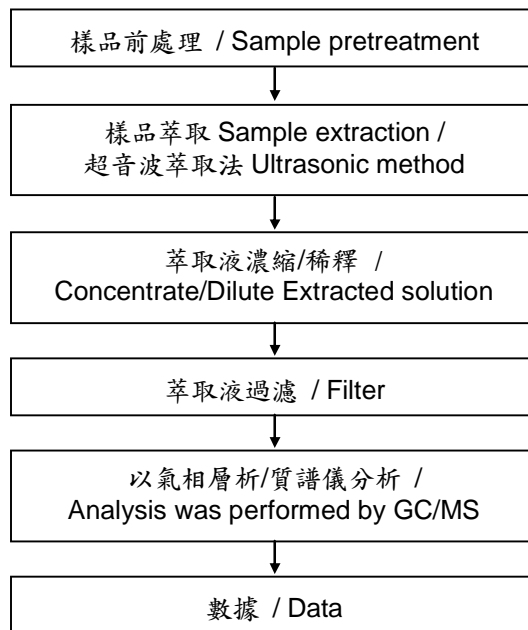
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六溴環十二烷分析流程圖 / HBCDD analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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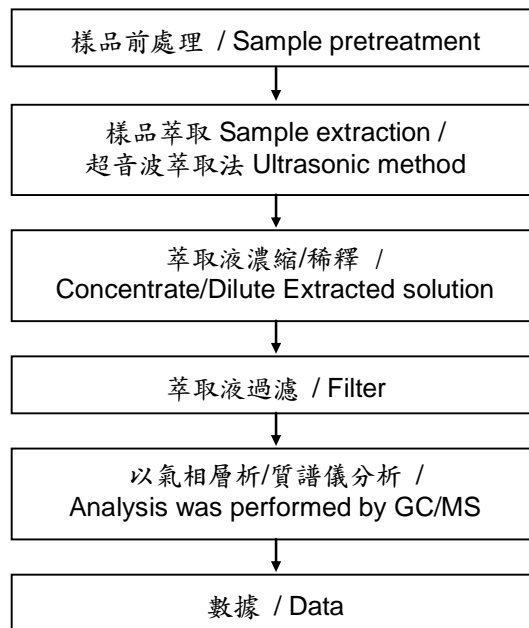
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富馬酸二甲酯分析流程圖 / Dimethyl Fumarate analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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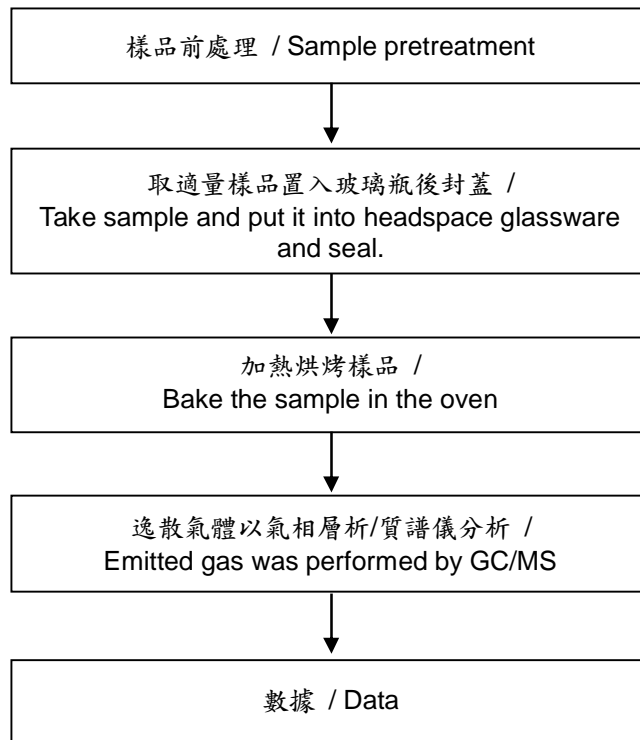
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揮發性有機化合物分析流程圖 / Analytical flow chart of volatile organic compounds (VOCs)

- 測試人員：吳椿景 / Name of the person who made measurement : Chun Wu
 - 測試負責人：陳新智 / Name of the person in charge of measurement : Shinjyh Chen
- 【參考方法(Reference method) : US EPA 5021】



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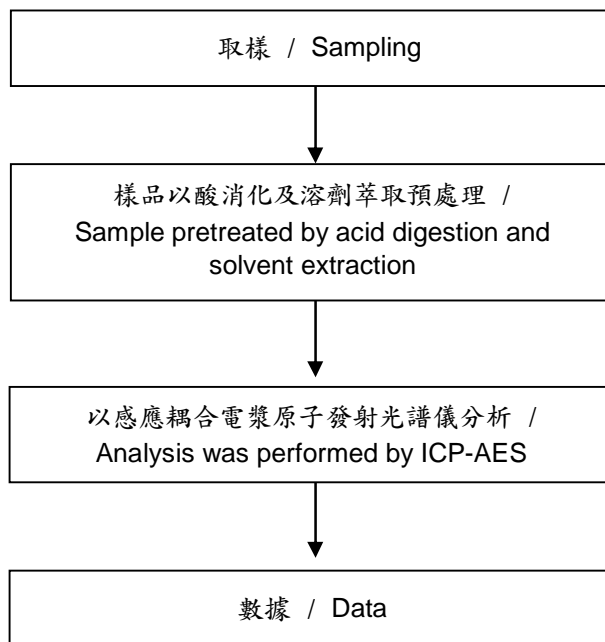
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二氯化鈷分析流程圖 / Analytical flow chart of Cobalt dichloride

- 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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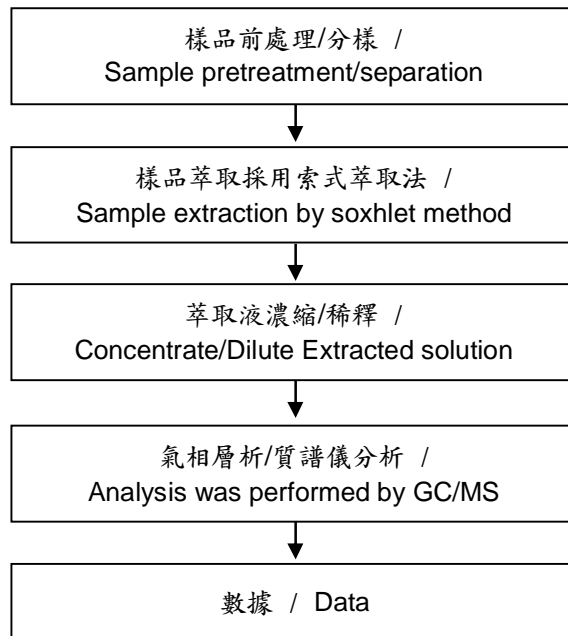
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苯並三唑類化合物分析流程圖 / Benzotriazole analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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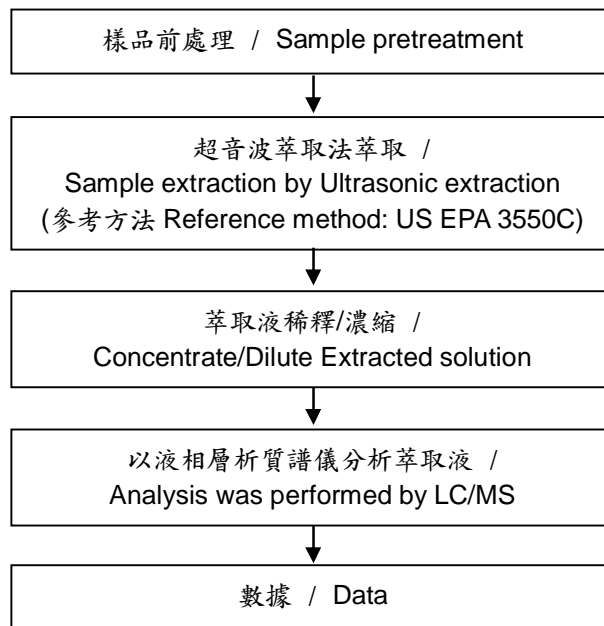
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全氟辛酸/全氟辛烷磺酸分析流程圖 / PFOA/PFOS analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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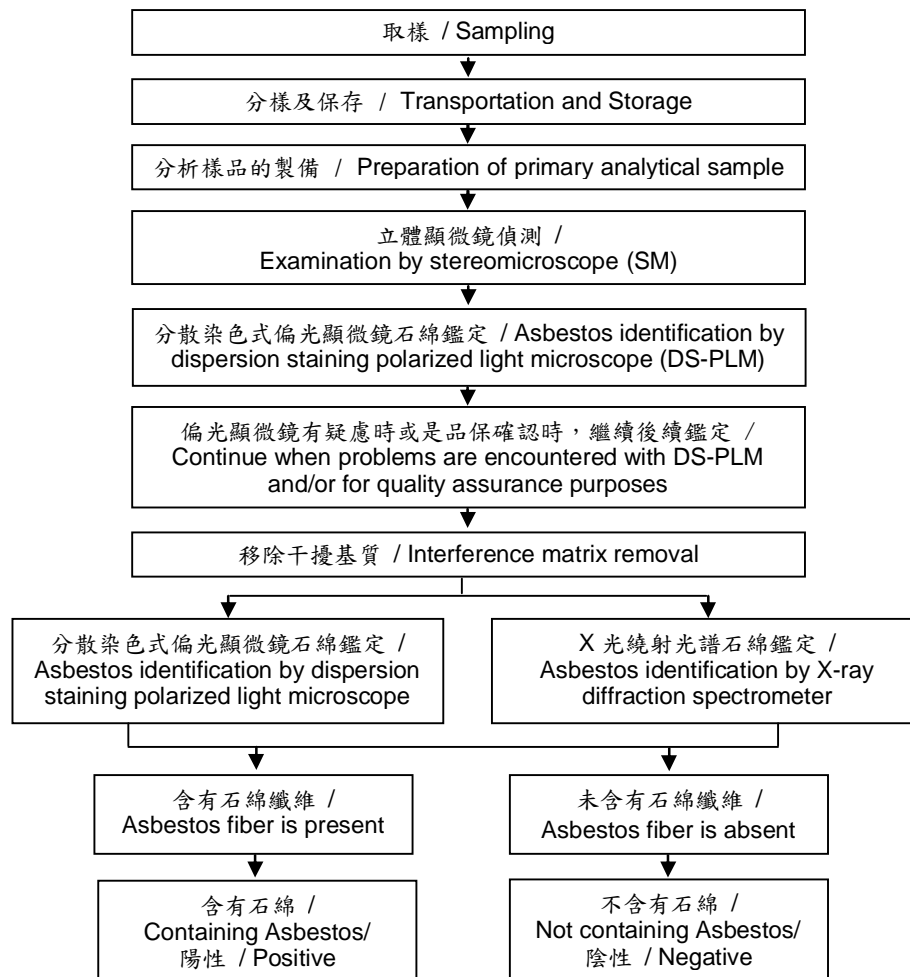
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石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos

- 測試人員：高鍵忠 / Name of the person who made measurement: Victor Kao
- 測試負責人：魏明芬 / Name of the person in charge of measurement: Wendy Wei

【參考方法(Reference method): EPA 600/R-93/116】



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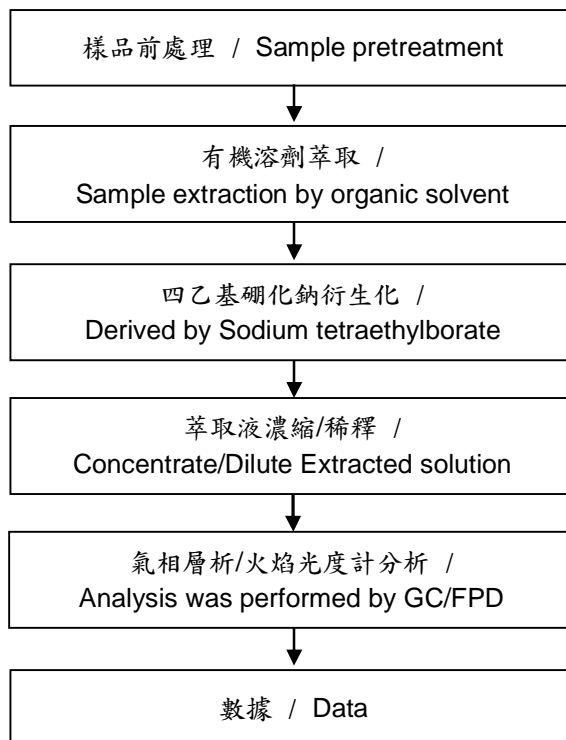
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有機錫分析流程圖 / Analytical flow chart of Organic-Tin content

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



測試報告

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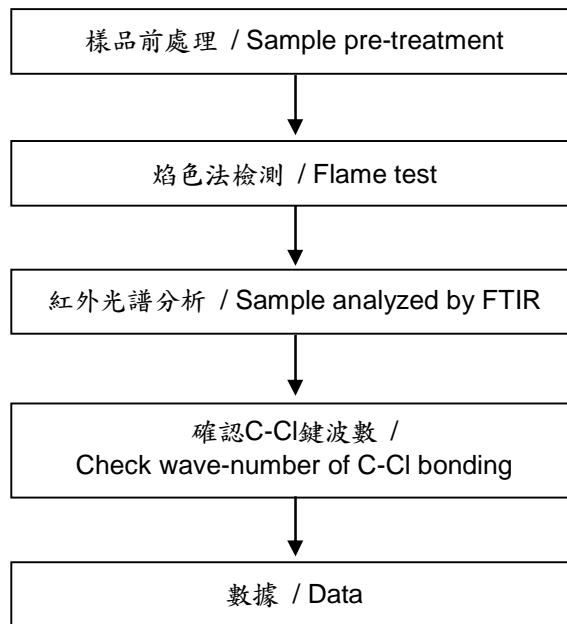
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聚氯乙稀物質判定分析流程圖 /

Analysis flow chart for determination of PVC in material

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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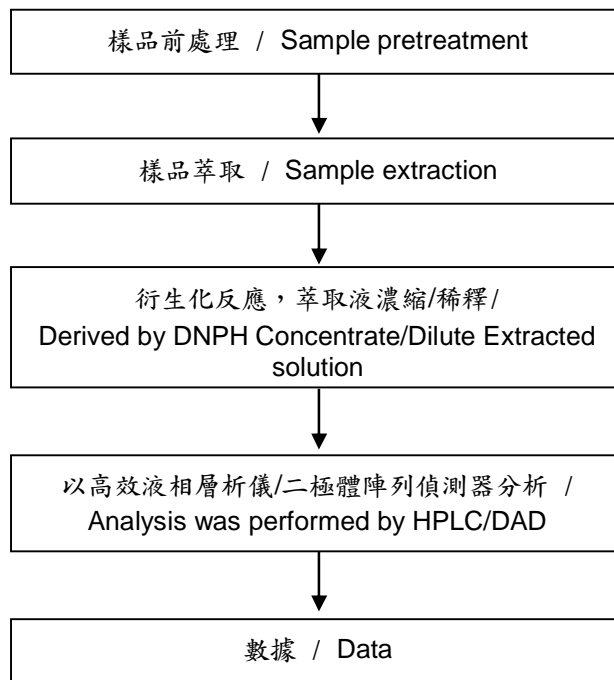
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甲醛分析流程圖 / Formaldehyde analytical flow chart

- 測試人員：涂雅苓 / Name of the person who made measurement: Yaling Tu
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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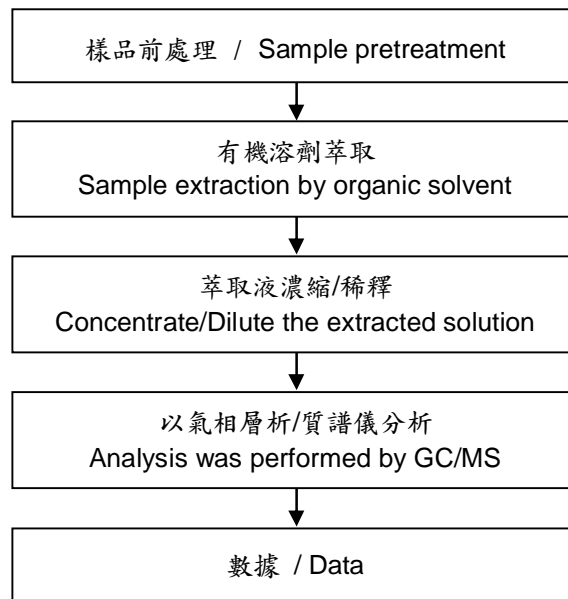
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氯化石蠟分析流程圖 / Chlorinated Paraffins analytical flow chart

- 測試人員：曾勃鈞 / Name of the person who made measurement: Barry Tseng
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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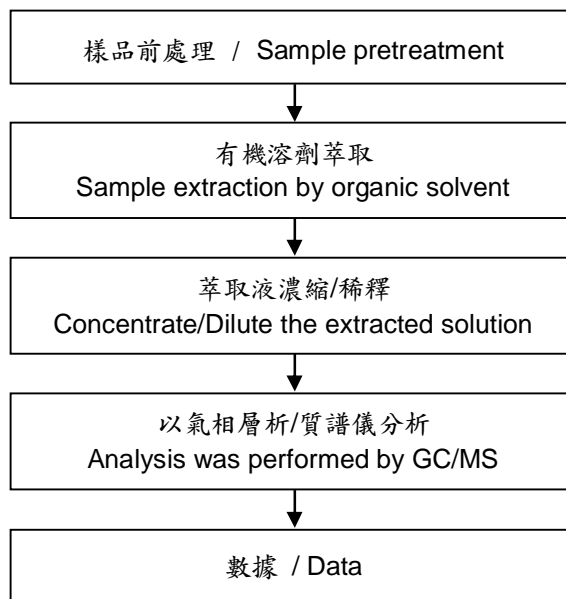
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多氯三聯苯分析流程圖 / PCTs analytical flow chart

- 測試人員：曾勃鈞 / Name of the person who made measurement: Barry Tseng
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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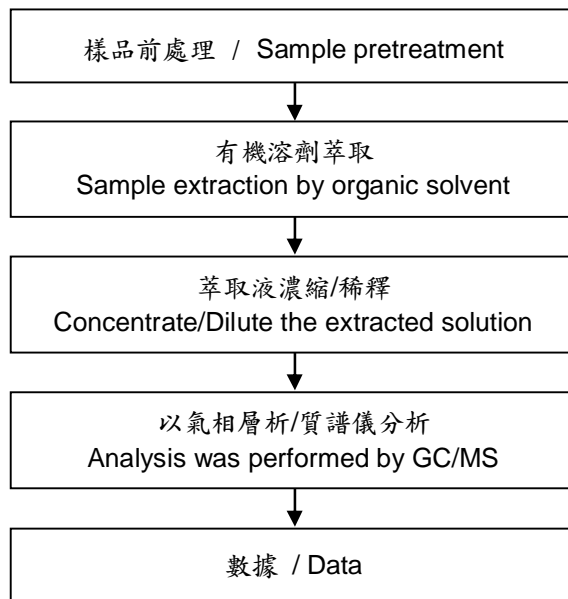
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多氯奈分析流程圖 / PCNs analytical flow chart

- 測試人員：曾勃鈞 / Name of the person who made measurement: Barry Tseng
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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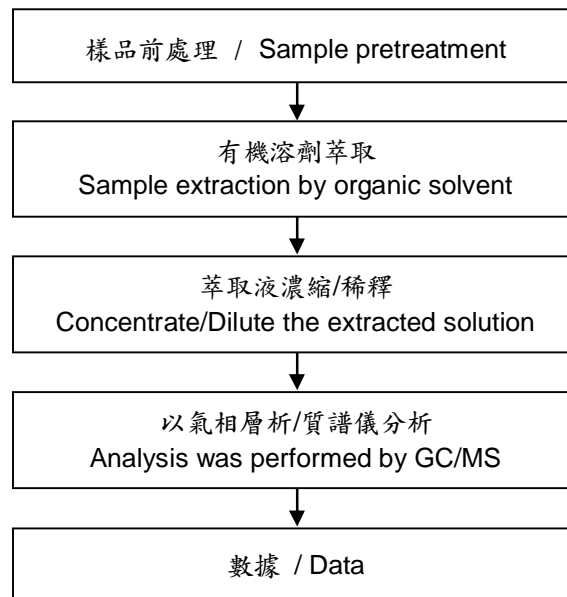
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多氣聯苯分析流程圖 / PCBs analytical flow chart

- 測試人員：曾勃鈞 / Name of the person who made measurement: Barry Tseng
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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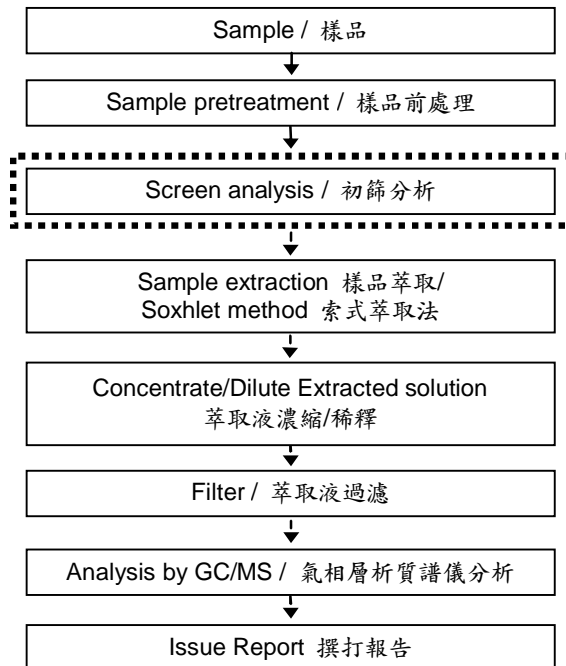
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多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
 - 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 初次測試程序 / First testing process —————>
- 選擇性篩檢程序 / Optional screen process>
- 確認程序 / Confirmation process - - ->



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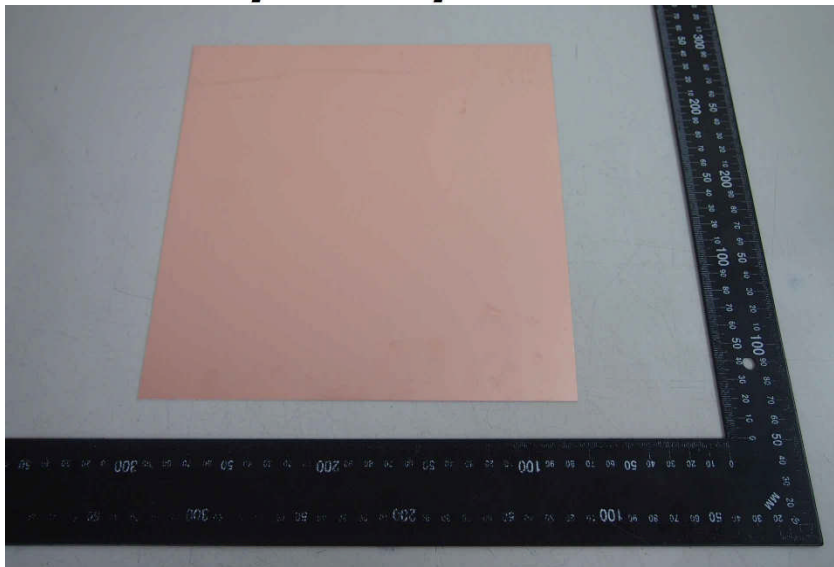
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* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2015/20344



** 報告結尾 (End of Report) **

測試報告

Test Report

號碼(No.) : CE/2014/A5471D

日期(Date) : 2014/11/18

頁數(Page): 1 of 18

永勝泰科技股份有限公司
ONSTATIC TECHNOLOGY CO., LTD.
新北市鶯歌區仁愛路1號7樓
7F, NO. 1, REN-AI RD., YINGGE DIST., NEW TAIPEI CITY 239, TAIWAN (R.O.C.)



以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

送樣廠商(Sample Submitted By) : 永勝泰科技股份有限公司 (ONSTATIC TECHNOLOGY CO., LTD.)
樣品名稱(Sample Description) : SOLDER RESIST INK (防焊油墨)
樣品型號(Style/Item No.) : R-500 FPK
收件日期(Sample Receiving Date) : 2014/10/31
測試期間(Testing Period) : 2014/10/31 TO 2014/11/07

=====
測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結論(Conclusion) : 根據客戶所提供的樣品, 其鎘、鉛、汞、六價鉻、多溴聯苯及多溴聯苯醚的測試結果符合 RoHS指令2002/95/EC的更新指令2011/65/EU之要求 (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Hexavalent Chromium Cr(VI), PBBs and PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.)


Troy Chang, Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

測試報告

Test Report

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ONSTATIC TECHNOLOGY CO., LTD.
新北市鶯歌區仁愛路1號7樓
7F, NO. 1, REN-AI RD., YINGGE DIST., NEW TAIPEI CITY 239, TAIWAN (R.O.C.)



測試結果(Test Results)

測試部位(PART NAME)No.1 : 黑色膏狀 (BLACK PASTE)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS檢測. / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.	1000
銻 / Antimony (Sb)	mg/kg	參考US EPA 3052方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n.d.	-
三氧化二銻 / Antimony trioxide (Sb ₂ O ₃)* (CAS No.: 1309-64-4)	mg/kg	參考US EPA 3052方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.***	-	n.d.	-
砷 / Arsenic (As)	mg/kg	參考US EPA 3052方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
鈹 / Beryllium (Be)	mg/kg	參考US EPA 3052方法, 以感應耦合電漿 原子發射光譜儀檢測. / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n.d.	-
二氯化鈷 / Cobalt dichloride (CAS No.: 7646-79-9)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-007, 以 感應耦合電漿原子發射光譜儀檢測. / SGS In-House method-RSTS-EE-SVHC- 007. Analyzed by ICP-AES.	50	n.d.	-
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分 析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	230	-
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分 析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C: 2007方法, 以液相層 析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3550C: 2007方法, 以液相層 析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
四溴雙酚-A / Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)	mg/kg	參考Global SOP RSTS-E&E-121方法, 以 液相層析/質譜儀分析. / With reference to Global SOP RSTS-E&E- 121. Analysis was performed by LC/MS.	10	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
富馬酸二甲酯 / Dimethyl Fumarate (CAS No.: 624-49-7)	mg/kg	參考US EPA 3550C方法, 以氣相層析/質譜儀檢測. / With reference to US EPA 3550C method. Analysis was performed by GC/MS.	0.1	n.d.	-
聚氯乙烯 / PVC	**	以紅外光譜分析及焰色法檢測. / Analysis was performed by FTIR and FLAME Test.	-	Negative	-
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n.d.	-
鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	%	參考EN 14372, 以氣相層析/質譜儀檢測. / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	%	參考EN 14372, 以氣相層析/質譜儀檢測. / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	%	參考EN 14372, 以氣相層析/質譜儀檢測. / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測. / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測. / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二正戊酯 / DNPP (Di-n-pentyl phthalate) (CAS No.: 131-18-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	-
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測。 / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	1000
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	mg/kg		5	n.d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.	-
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.	-
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg	5	n.d.	-	

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/ 質譜儀檢測。 / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	1000
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	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	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.	-	

備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
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. ***: 該物質是由銻之測試結果計算得知。其MDL是針對銻之評估。(The substance was calculated by the test result of Antimony. The MDL was evaluated for Antimony.)
8. 參數換算表 / Parameter Conversion Table :
Please refer to http://twap.sgs.com/sgsrsts/chn/download-REACH_tw.asp

PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm), 在半成品、成品或零部件中不得超過0.1%(1000ppm), 在紡織品或塗層材料中不得超過1µg/m²。
(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above 1µg/m².)

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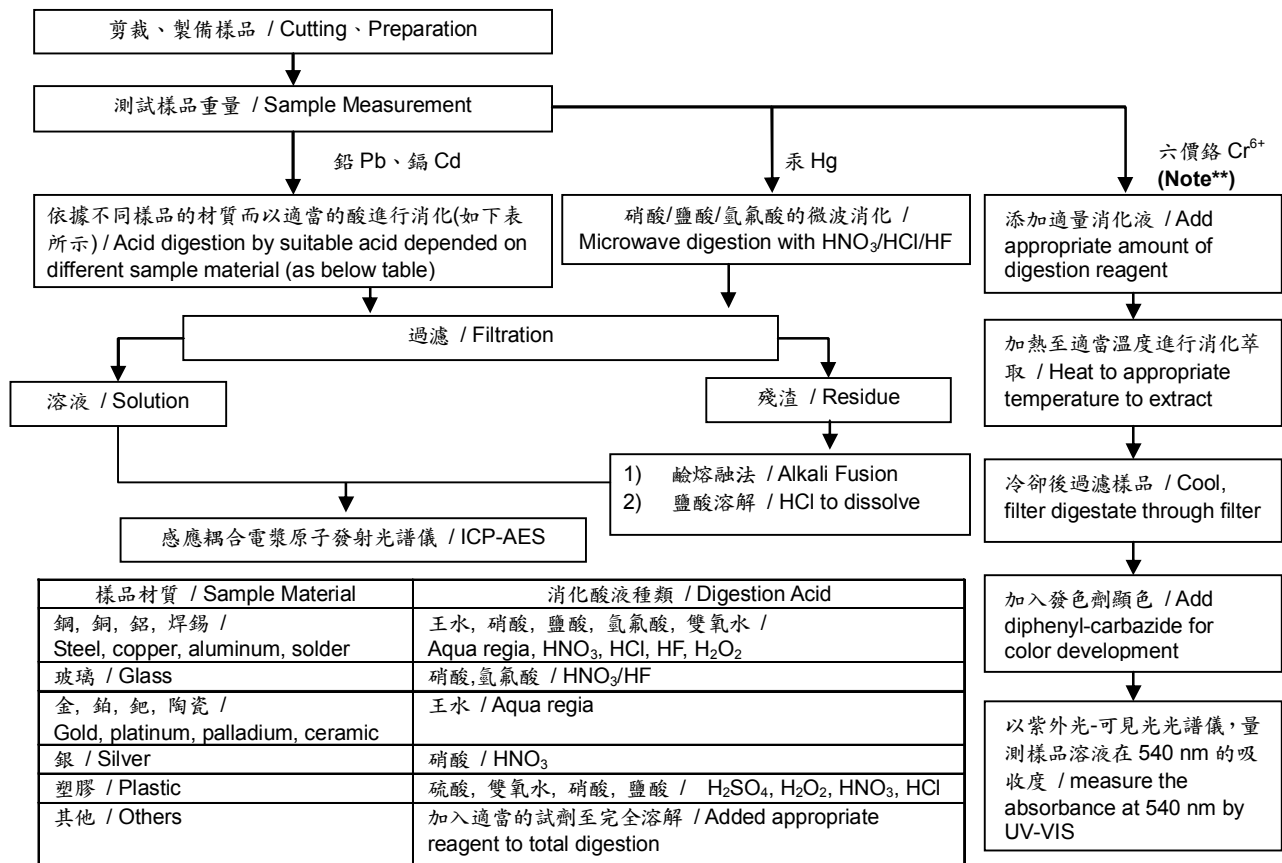
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Note** (For IEC 62321)

- (1) 針對非金屬材料加入鹼性消化液，加熱至 90~95°C 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
- (2) 針對金屬材料加入純水，加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

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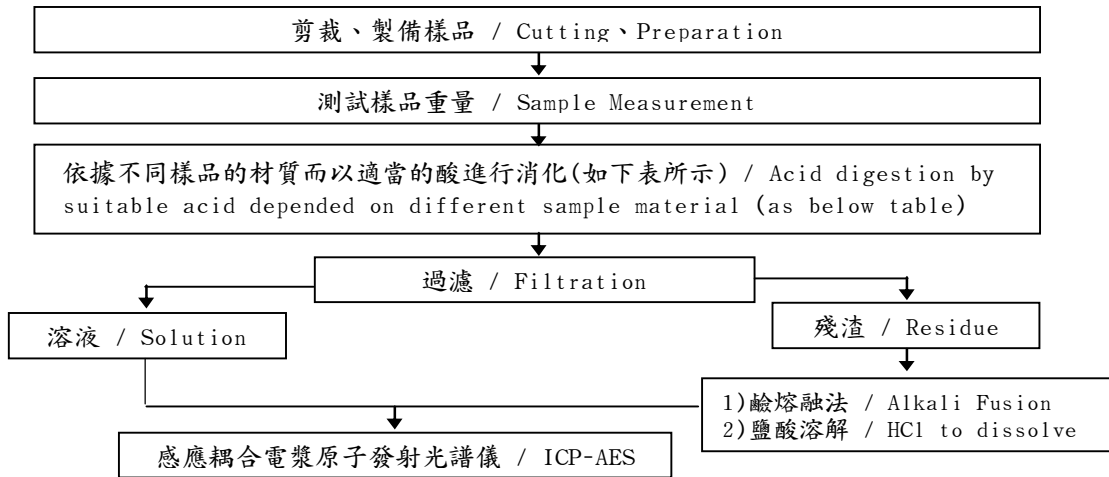
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

元素以 ICP-AES 分析的消化流程圖

(Flow Chart of digestion for the elements analysis performed by ICP-AES)



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
玻璃 / Glass	硝酸,氫氟酸 / HNO ₃ /HF
金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion

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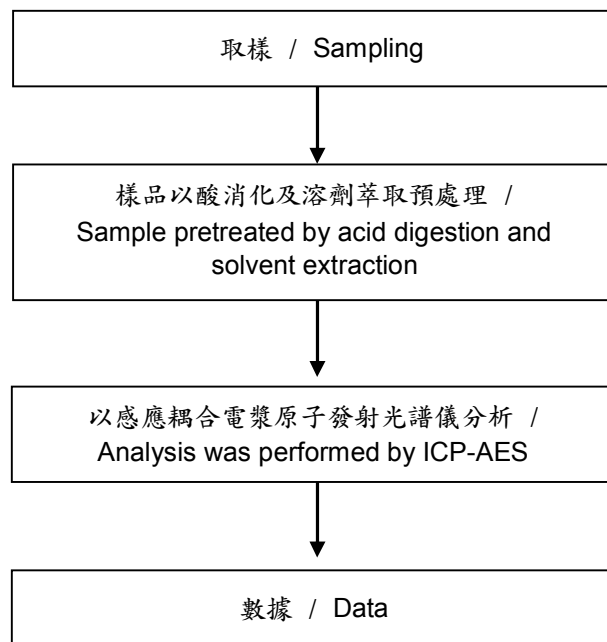
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二氯化鈷分析流程圖 / Analytical flow chart of Cobalt dichloride

- 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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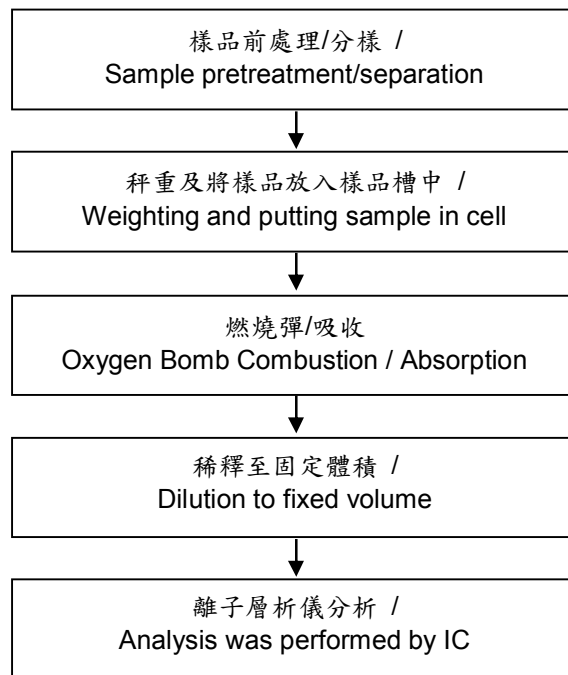
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鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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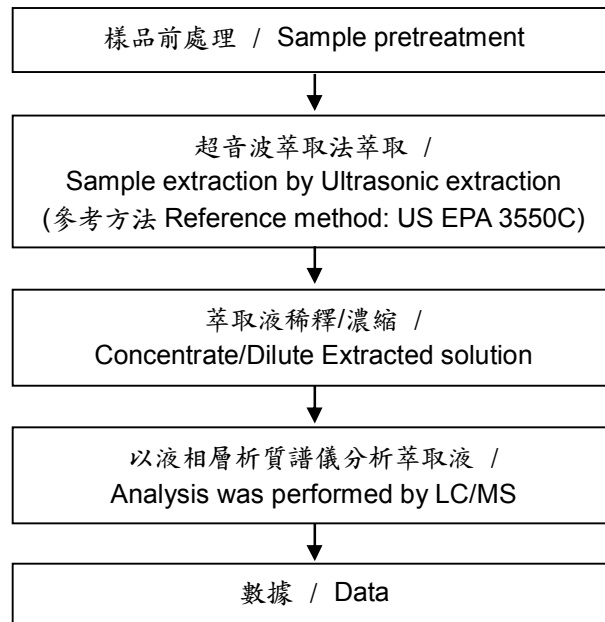
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全氟辛酸/全氟辛烷磺酸分析流程圖 / PFOA/PFOS analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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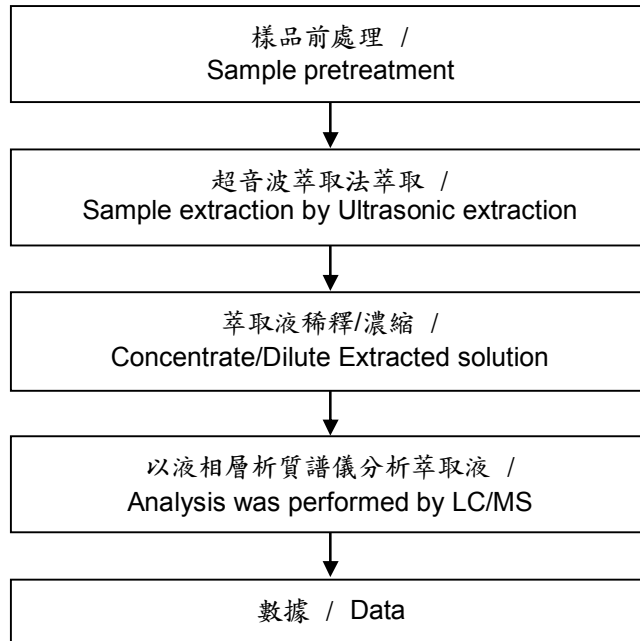
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四溴雙酚-A 分析流程圖 / TBBP-A analytical flow chart

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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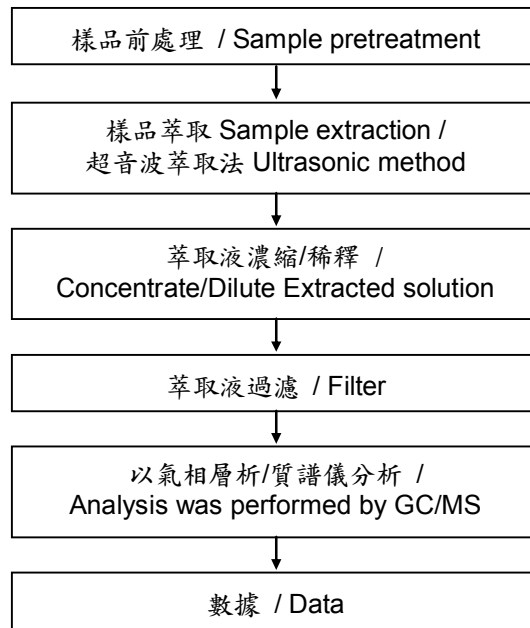
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富馬酸二甲酯分析流程圖 / Dimethyl Fumarate analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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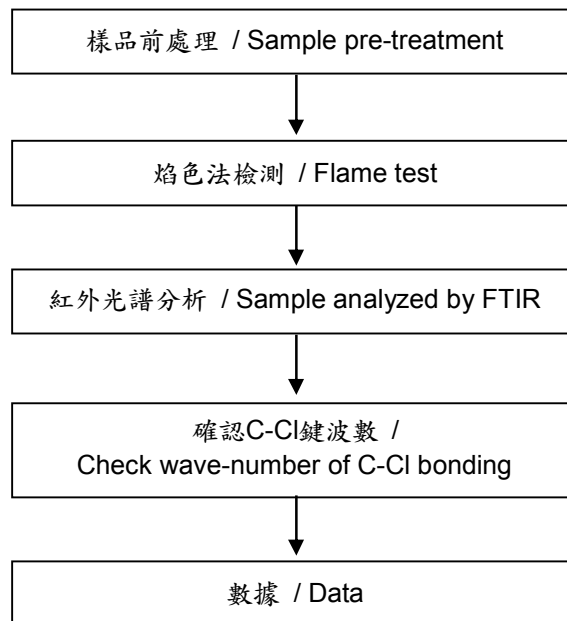
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聚氯乙稀物質判定分析流程圖 /

Analysis flow chart for determination of PVC in material

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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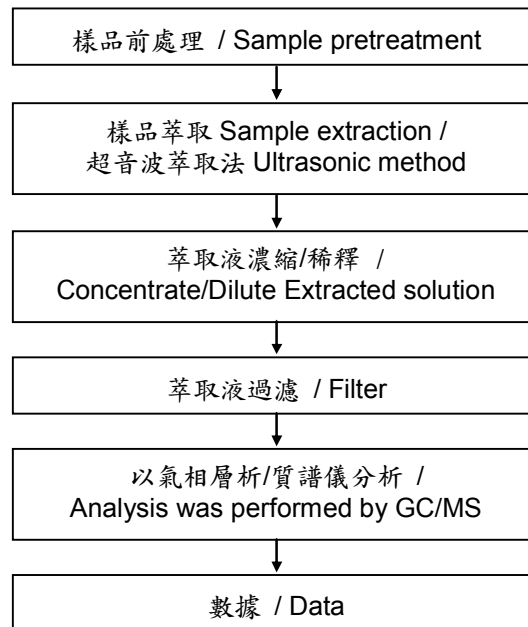
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六溴環十二烷分析流程圖 / HBCDD analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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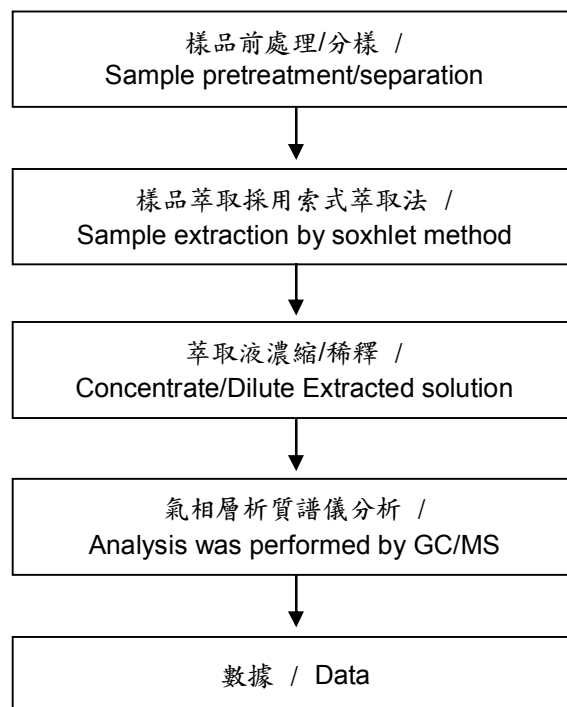
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可塑劑分析流程圖 / Analytical flow chart of phthalate content

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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測試報告

Test Report

號碼(No.) : CE/2014/A5471D

日期(Date) : 2014/11/18

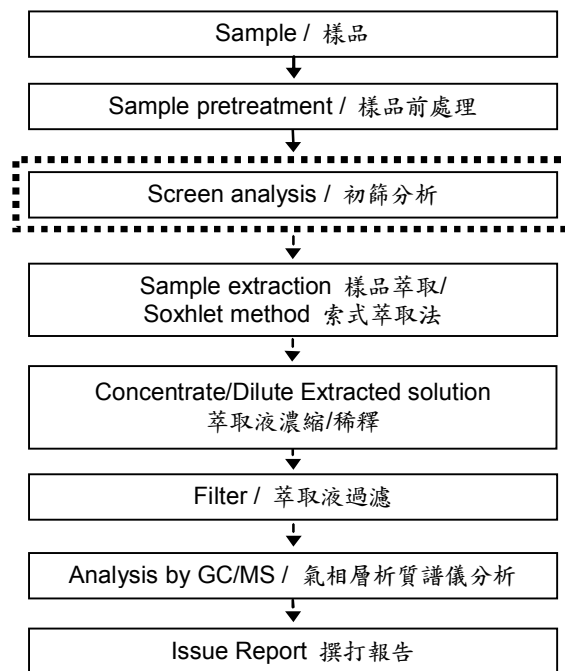
頁數(Page): 17 of 18

永勝泰科技股份有限公司
ONSTATIC TECHNOLOGY CO., LTD.
新北市鶯歌區仁愛路1號7樓
7F, NO. 1, REN-AI RD., YINGGE DIST., NEW TAIPEI CITY 239, TAIWAN (R.O.C.)



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

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
 - 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 初次測試程序 / First testing process —————>
- 選擇性篩檢程序 / Optional screen process>
- 確認程序 / Confirmation process - - ->



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測試報告

Test Report

號碼(No.) : CE/2014/A5471D

日期(Date) : 2014/11/18

頁數(Page): 18 of 18

永勝泰科技股份有限公司

ONSTATIC TECHNOLOGY CO., LTD.

新北市鶯歌區仁愛路1號7樓

7F, NO. 1, REN-AI RD., YINGGE DIST., NEW TAIPEI CITY 239, TAIWAN (R.O.C.)



* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2014/A5471



** 報告結尾 (End of Report) **

Test Report

No. CTSSA/25607/14
CTS Ref. CTSSA/14/3617/Nihon

Date : 07/01/2015

Page: 1 of 5

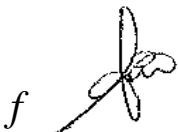
NIHON SUPERIOR (M) SDN BHD
LOT 17, JALAN INDUSTRI 1, FREE INDUSTRIAL ZONE JELAPANG 2
30020 IPOH, PERAK DARUL RIDZUAN, MALAYSIA

The following merchandise was (were) submitted and identified by the client as:

Sample Description : SN100CL
Marking : 449040000
Sample Receiving Date : 30/12/2014
Testing Period : 30/12/2014 to 07/01/2015

Test Requested : Selected test(s) as requested by client
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).
Analysts : Loh Mei Theng & Tay Siam Pine

SGS (MALAYSIA) SDN. BHD.



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B.Sc.(HONS) AMIC
SENIOR LAB MANAGER

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Test Report

No. CTSSA/25607/14

Date : 07/01/2015

Page: 2 of 5

CTS Ref. CTSSA/14/3617/Nihon

Test results:

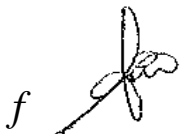
Test Part Description :

Sample Description : SN100CL
 Marking : 449040000

RoHS Directive 2011/65/EU Annex II

Test Item(s):	Unit	Test Method	Results	MDL	Limit
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5:2013 (Determination of Cd by ICP-OES)	N.D.	2	100
Lead (Pb)	mg/kg	With reference to IEC 62321-5:2013 (Determination of Pb by ICP-OES)	144	2	1000
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013 (Determination of Hg by ICP-OES)	N.D.	2	1000
Hexavalent Chromium (CrVI)	mg/kg	With reference to IEC 62321:2008 (Determination of CrVI by UV-Vis)	N.D.	2	1000
Sum of PBBs	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	-	1000
Monobromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Dibromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Tribromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Pentabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Hexabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Heptabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Octabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Nonabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-
Decabromobiphenyl	mg/kg	With reference to IEC 62321:2008 (Determination of PBB by GC-MS)	N.D.	5	-

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SGS (Malaysia) Sdn. Bhd.
 (Company No. 10871-T)

No.26, Jalan Anggerik Vanilla 31/93, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia
 t +6(03) 5121 2320 f +6 (03) 5121 9082 www.sgs.com

Test Report

No. CTSSA/25607/14

Date : 07/01/2015

Page: 3 of 5

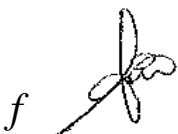
CTS Ref. CTSSA/14/3617/Nihon

Sum of PBDEs	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	-	1000
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008 (Determination of PBDE by GC-MS)	N.D.	5	-

Note :

- (a) mg/kg = ppm ; 0.1wt% = 1000ppm
- (b) N.D. = Not Detected
- (c) MDL = Method Detection Limit
- (d) - = not regulated
- (e) As per requested by client, the above testing for Hexavalent Chromium is carried out with reference to IEC 62321 : 2008 Annex C.

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SGS (Malaysia) Sdn. Bhd.
(Company No. 10871-T)

No.26, Jalan Anggerik Vanilla 31/93, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia
t +6(03) 5121 2320 f +6 (03) 5121 9082 www.sgs.com

Test Report

No. CTSSA/25607/14

Date : 07/01/2015

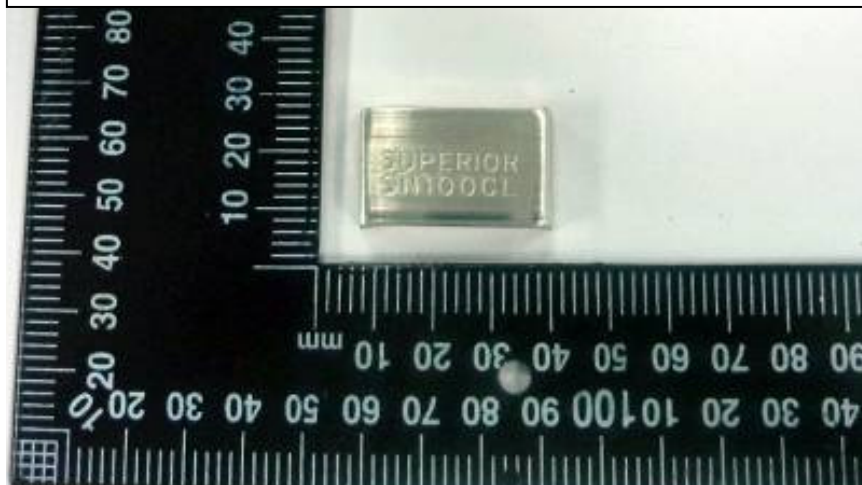
Page: 4 of 5

CTS Ref. CTSSA/14/3617/Nihon

Test Part Description :

Sample Description : SN100CL
Marking : 449040000

**NIHON SUPERIOR (M) SDN BHD
CTSSA/25607/14**



SGS authenticate the photo on original report only

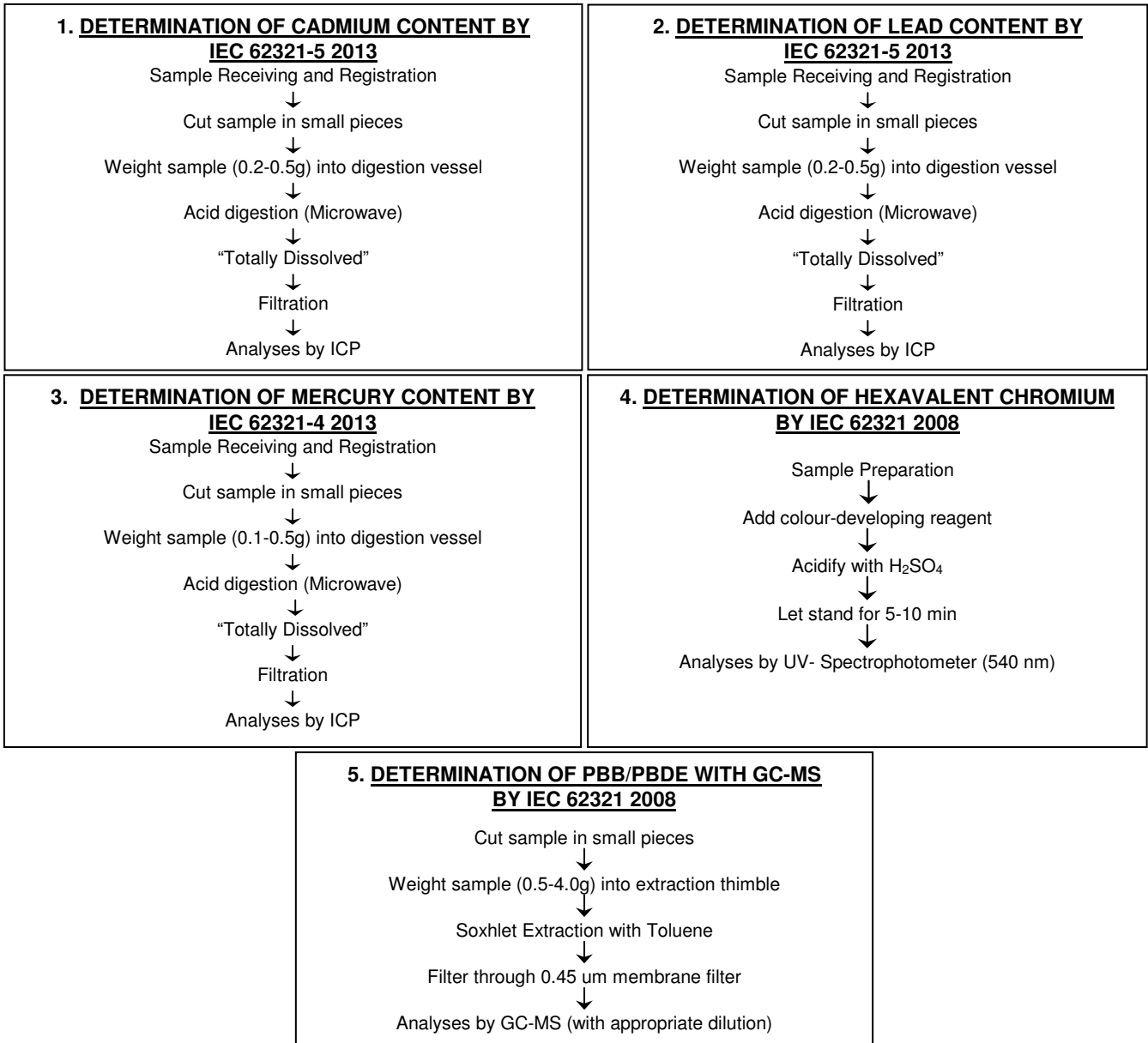
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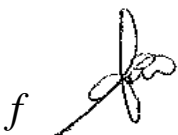
SGS (Malaysia) Sdn. Bhd.
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No.26, Jalan Anggerik Vanilla 31/93, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia
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**** End of Report ****

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检测报告

报告编号 SCL01H015919003C

第 1 页 共 4 页

申请单位 深圳市海联通科技有限公司

地 址 深圳市光明新区公明办事处将石社区石围大田洋区H栋三楼

以下测试之样品及样品信息由申请者提供并确认

样品名称 同轴线缆

样品型号 RF0.81/RF1.13/RF1.32/RF1.37/RF1.50

样品接收日期 2015.03.11

样品检测日期 2015.03.11—2015.03.17

检测要求 根据客户要求，对所提交样品中的铅(Pb)，镉(Cd)，汞(Hg)，六价铬(Cr(VI))，多溴联苯(PBBs)，多溴二苯醚(PBDEs)进行测试。

检测依据

测试项目	测试方法	测试仪器
铅(Pb)	IEC 62321-5:2013 Ed. 1.0	ICP-OES
镉(Cd)	IEC 62321-5:2013 Ed. 1.0	ICP-OES
汞(Hg)	IEC 62321-4:2013 Ed. 1.0	ICP-OES
六价铬(Cr(VI))	IEC 62321:2008 Ed. 1 Annex C	UV-Vis
多溴联苯(PBBs)	IEC 62321:2008 Ed. 1 Annex A	GC-MS
多溴二苯醚(PBDEs)	IEC 62321:2008 Ed. 1 Annex A	GC-MS

检测结果 请参见下页。

主 检

郑伟

审 核

黄艳

准

刘少蔚

日 期

2015.03.17



刘少蔚
技术经理

No.R107841326

深圳市华测检测技术股份有限公司

广东省深圳市宝安区 70 区鸿威工业园

检测报告

报告编号 SCL01H015919003C

第 2 页 共 4 页

检测结果

测试项目	结果	方法检出限
铅(Pb)	N. D.	2 mg/kg
镉(Cd)	N. D.	2 mg/kg
汞(Hg)	N. D.	2 mg/kg
六价铬(Cr(VI))	N. D.	2 mg/kg

测试项目	结果	方法检出限
多溴联苯(PBBs)		
一溴联苯	N. D.	5 mg/kg
二溴联苯	N. D.	5 mg/kg
三溴联苯	N. D.	5 mg/kg
四溴联苯	N. D.	5 mg/kg
五溴联苯	N. D.	5 mg/kg
六溴联苯	N. D.	5 mg/kg
七溴联苯	N. D.	5 mg/kg
八溴联苯	N. D.	5 mg/kg
九溴联苯	N. D.	5 mg/kg
十溴联苯	N. D.	5 mg/kg

测试项目	结果	方法检出限
多溴二苯醚(PBDEs)		
一溴二苯醚	N. D.	5 mg/kg
二溴二苯醚	N. D.	5 mg/kg
三溴二苯醚	N. D.	5 mg/kg
四溴二苯醚	N. D.	5 mg/kg
五溴二苯醚	N. D.	5 mg/kg
六溴二苯醚	N. D.	5 mg/kg
七溴二苯醚	N. D.	5 mg/kg
八溴二苯醚	N. D.	5 mg/kg
九溴二苯醚	N. D.	5 mg/kg
十溴二苯醚	N. D.	5 mg/kg

测试样品/部位描述 混测, 黑色、灰色和白色线皮

备注:

- 对于检测铅, 镉, 汞之样品已完全溶解。
- 根据客户要求, 对样品进行混合测试, 测试结果不代表混合测试样品中任何一种单一材质的含量。
- N.D. = 未检出 (小于方法检出限)
- mg/kg = ppm = 百万分之一

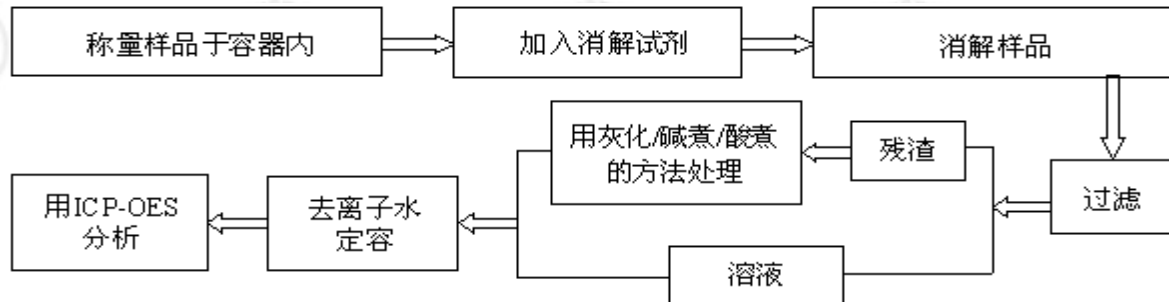
检测报告

报告编号 SCL01H015919003C

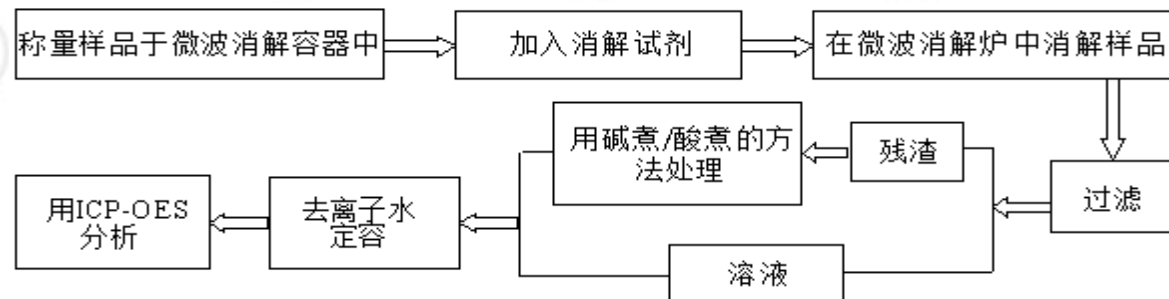
第 3 页 共 4 页

检测流程

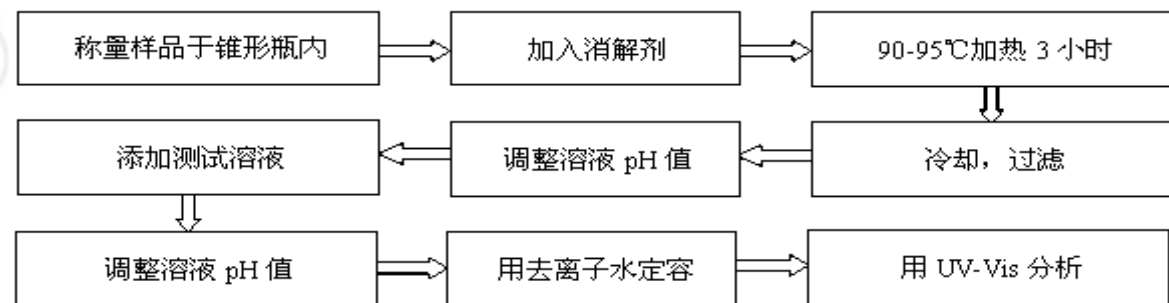
1. 铅(Pb), 镉(Cd)



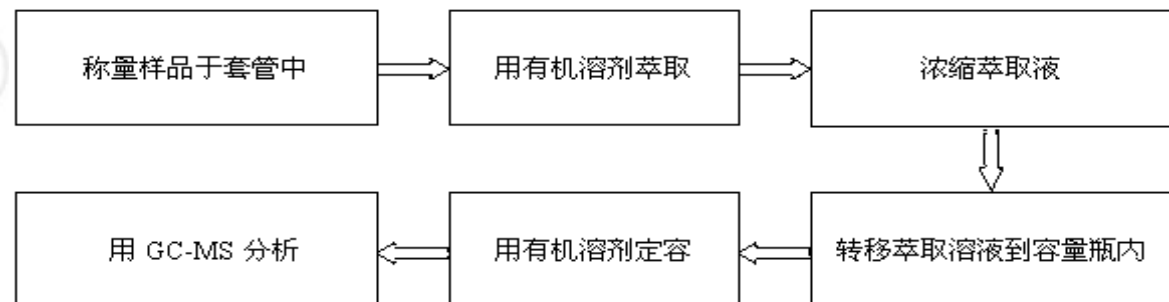
2. 汞(Hg)



3. 六价铬(Cr(VI))



4. 多溴联苯(PBBs), 多溴二苯醚(PBDEs)



检测报告

报告编号 SCL01H015919003C

第 4 页 共 4 页

样品图片



报告结束

检测报告无批准人签字及“报告专用章”无效，本报告检测结果仅对受测样品负责。未经CTI书面同意，不得部分复制本报告。

Test Report

No. CANML1503841303

Date: 26 Mar 2015

Page 1 of 5

SHENZHEN CHUANGDA HARDWARE JEWELRY CO., LTD(A2-2)
WORKSHOP 2, FLOOR 2, CHUANGDA BUILDING A, THE 3 RD INDUSTRIAL ZONE, LANGXIA VILLAGE
SONGGANG TOWN, SHENZHEN CITY, GUANGDONG PROVINCE
CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as :
Cu+Ni+Au plating products

SGS Job No. : GZIN1503009770PC - GZ

Date of Sample Received : 19 Mar 2015

Testing Period : 19 Mar 2015 - 26 Mar 2015

Test Requested : Selected test(s) as requested by client.

Test Method : Please refer to next page(s).

Test Results : Please refer to next page(s).

Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Echo

Echo Yeung
Approved Signatory



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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN15-038413.001	Lt-Brassy plated metal

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

RoHS Directive 2011/65/EU

- Test Method :
- (1)With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
 - (2)With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
 - (3)With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
 - (4)With reference to IEC 62321:2008, determination of Hexavalent Chromium by spot test / Colorimetric Method using UV-Vis.
 - (5)With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	ND
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◇	Negative
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND



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Test Report

No. CANML1503841303

Date: 26 Mar 2015

Page 3 of 5

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

Notes :

(1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II.

(2)◇Spot-test:

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

(The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or cannot be confirmed.)

◇Boiling-water-extraction:

Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.



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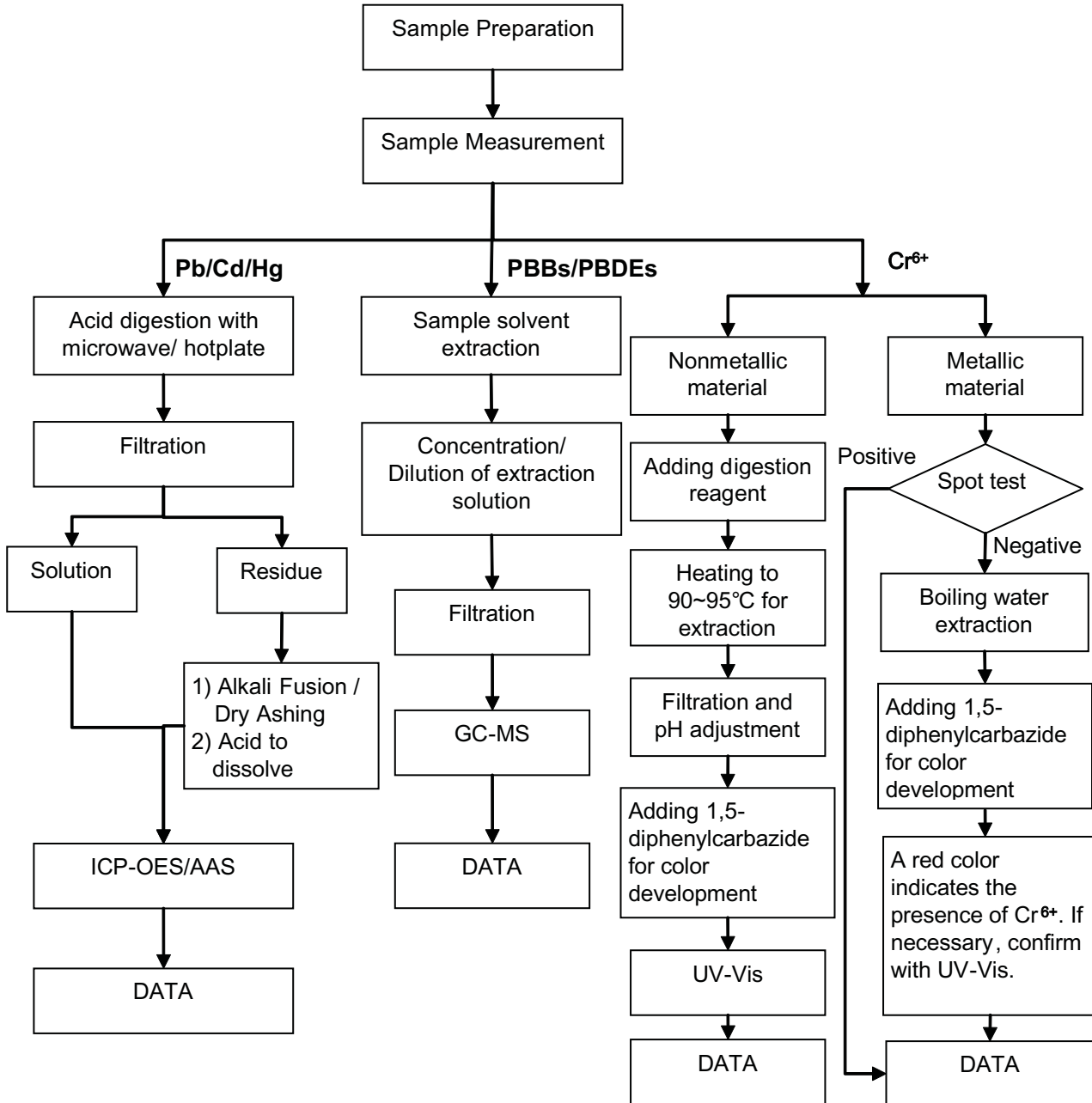
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ATTACHMENTS

RoHS Testing Flow Chart

- 1) Name of the person who made testing: Bruce Xiao / Sunny Hu
- 2) Name of the person in charge of testing: Bella Wang / Cutey Yu
- 3) These samples were dissolved totally by pre -conditioning method according to below flow chart (Cr⁶⁺ and PBBs/PBDEs test method excluded).

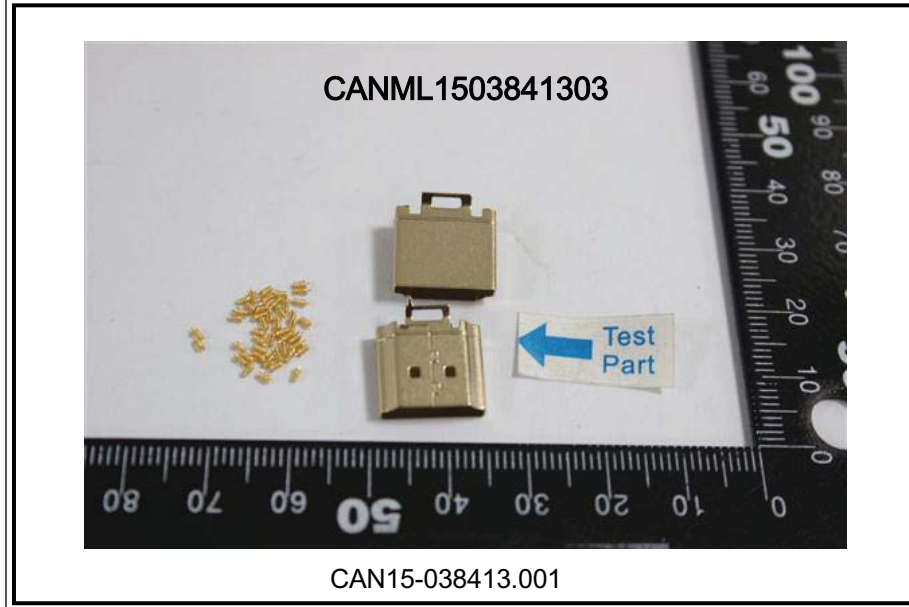


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Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***

Test Report

No. : CE/2014/94382

Date : 2014/09/25

Page: 1 of 5

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(NO.1, AVENUE 6, ECONOMY & TECHNOLOGY DEVELOPMENT ZONE, HANGZHOU, CHINA)



The following sample(s) was/were submitted and identified by/on behalf of the applicant as :

Sample Submitted By : SHINKONG SYNTHETIC FIBERS CORPORATION
Sample Description : THERMOPLASTIC POLYESTER RESIN
Style/Item No. : SHINITE® PBT F202G15NA
Manufacturer/Vendor : SHINKONG SYNTHETIC FIBERS CORPORATION
Country of Origin : TAIWAN
Sample Receiving Date : 2014/09/19
Testing Period : 2014/09/19 TO 2014/09/25

=====
Test Requested : As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.
Test Method : Please refer to next page(s).
Test Result(s) : Please refer to next page(s).



Troy Chang, Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

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Test Report

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Test Result(s)

PART NAME No.1 : WHITE PLASTIC PELLETS

Test Item(s)	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	3
Mercury (Hg)	mg/kg	With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
Sum of PBBs	mg/kg	With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
Monobromobiphenyl	mg/kg		5	n.d.
Dibromobiphenyl	mg/kg		5	n.d.
Tribromobiphenyl	mg/kg		5	n.d.
Tetrabromobiphenyl	mg/kg		5	n.d.
Pentabromobiphenyl	mg/kg		5	n.d.
Hexabromobiphenyl	mg/kg		5	n.d.
Heptabromobiphenyl	mg/kg		5	n.d.
Octabromobiphenyl	mg/kg		5	n.d.
Nonabromobiphenyl	mg/kg		5	n.d.
Decabromobiphenyl	mg/kg		5	n.d.
Sum of PBDEs	mg/kg		-	n.d.
Monobromodiphenyl ether	mg/kg		5	n.d.
Dibromodiphenyl ether	mg/kg		5	n.d.
Tribromodiphenyl ether	mg/kg		5	n.d.
Tetrabromodiphenyl ether	mg/kg		5	n.d.
Pentabromodiphenyl ether	mg/kg		5	n.d.
Hexabromodiphenyl ether	mg/kg		5	n.d.
Heptabromodiphenyl ether	mg/kg		5	n.d.
Octabromodiphenyl ether	mg/kg		5	n.d.
Nonabromodiphenyl ether	mg/kg	5	n.d.	
Decabromodiphenyl ether	mg/kg	5	n.d.	

Note :

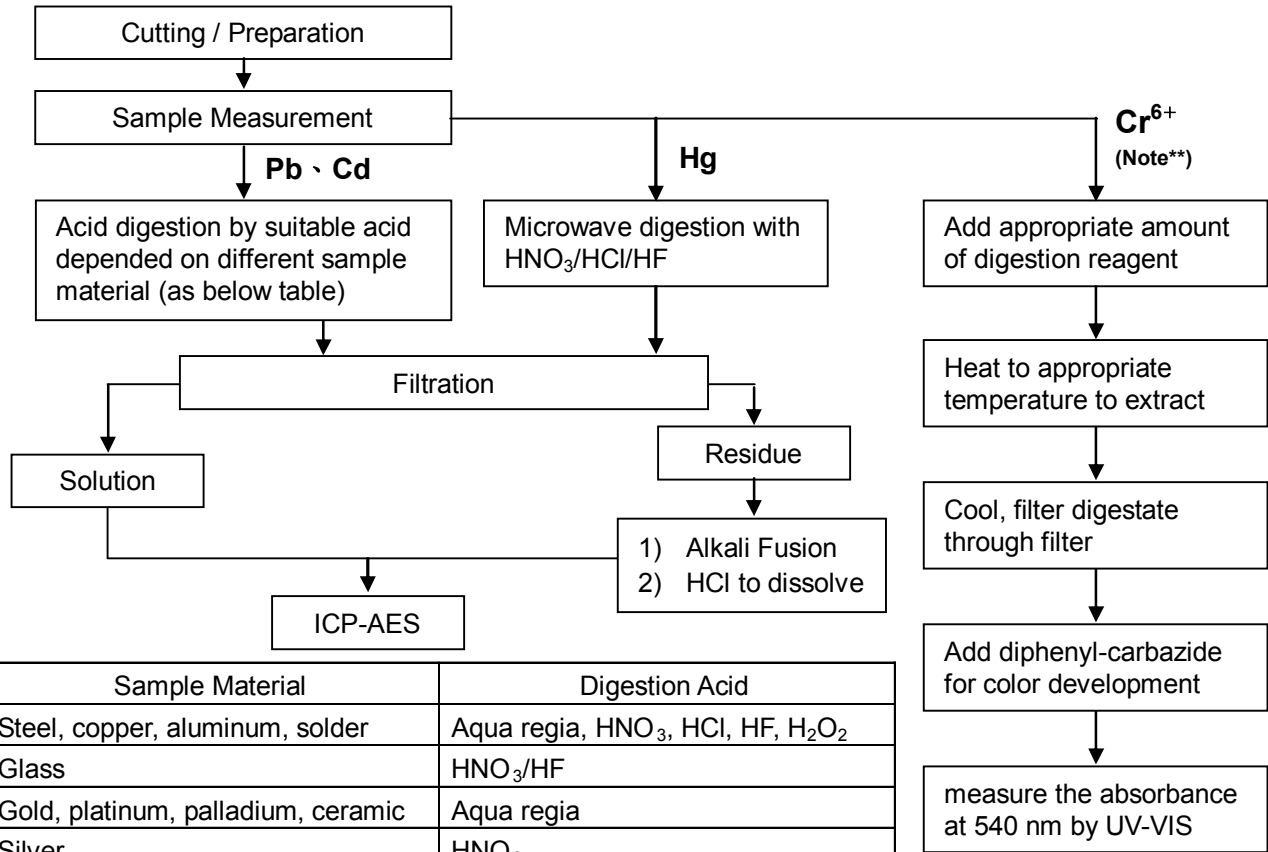
1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated

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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
 (Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Climbgreat Yang
- 3) Name of the person in charge of measurement: Troy Chang



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
Glass	HNO ₃ /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO ₃
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Added appropriate reagent to total digestion

Note :** (1) For non-metallic material, add alkaline digestion reagent and heat to 90~95 °C.
 (2) For metallic material, add pure water and heat to boiling.

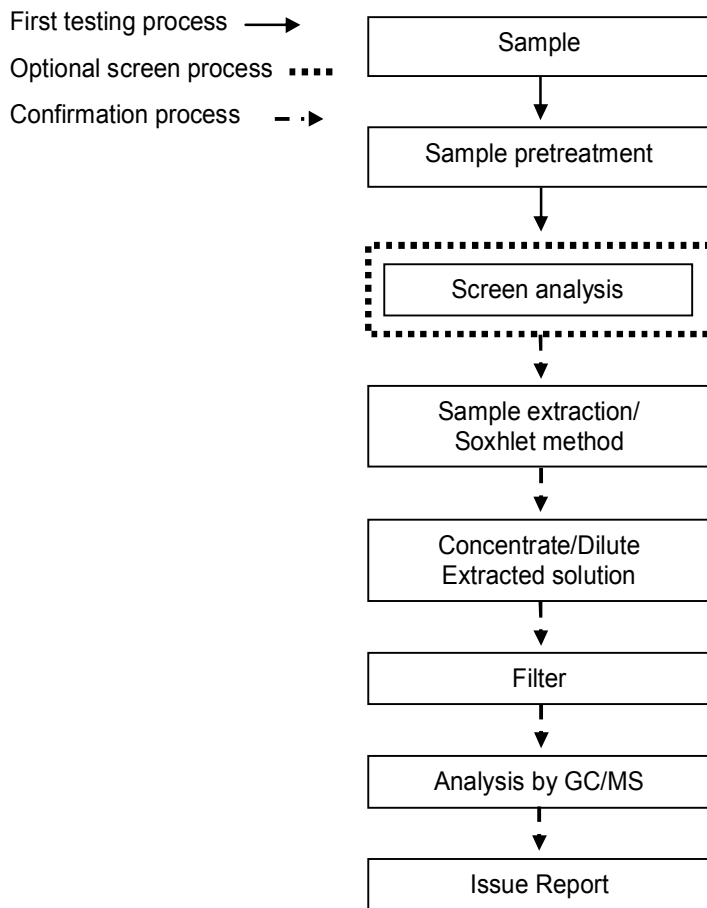
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PBB/PBDE analytical FLOW CHART

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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Test Report

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* The tested sample / part is marked by an arrow if it's shown on the photo. *

CE/2014/94382



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测试报告

No. NGBML1402756202

日期: 2014年09月01日 第1页,共6页

嘉兴鸿磊金属制品有限公司
嘉兴市南湖区大桥镇十八里东街215号2幢2002号-5

以下测试之样品是由申请者所提供及确认: 镀金

SGS工作编号: NBMLC140800244 - NB
样品接收日期: 2014年08月25日
测试周期: 2014年08月25日 - 2014年09月01日
测试要求: 根据客户要求测试
测试方法: 请参见下一页
测试结果: 请参见下一页
结论: 基于所送样品进行的测试, 镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)的测试结果符合欧盟RoHS指令2002/95/EC的重订指令2011/65/EU附录II的限值要求。

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Iris Xiao肖玲艳
批准签署人

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中国·宁波·国家高新区凌云路1177号凌云产业园4号楼西1-2,5层 邮编: 315040 tHL (86-574)89070209 fHL (86-574)87768122 e sgs.china@sgs.com

测试报告

No. NGBML1402756202

日期: 2014年09月01日 第2页,共6页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	NGB14-027562.001	金色金属

备注:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = 检测极限值
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未按规定

RoHS指令2011/65/EU

- 测试方法:
- (1) 参考IEC 62321-5:2013, 用ICP-OES测定镉的含量
 - (2) 参考IEC 62321-5:2013, 用ICP-OES测定铅的含量
 - (3) 参考IEC 62321-4:2013, 用ICP-OES测定汞的含量
 - (4) 参考IEC 62321:2008, 用点测试法/紫外-可见分光光度计比色法测定六价铬的含量
 - (5) 参考IEC 62321:2008, 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚)的含量

测试项目	限值	单位	MDL	001
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	47
汞 (Hg)	1000	mg/kg	2	ND
六价铬(CrVI)	-	-	◇	阴性
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND



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测试报告

No. NGBML1402756202

日期: 2014年09月01日 第3页,共6页

测试项目	限值	单位	MDL	001
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND

备注:

(1) 最大允许限值引用自指令2011/65/EU 附录II.

(2) ◇点测试法:

阴性= 未检测到六价铬,阳性 = 检测到六价铬;

(当点测试结果为阴性或无法确定时,将采用沸水萃取法作进一步的结果验证.)

◇沸水萃取法:

阴性= 未检测到六价铬

阳性= 检测到六价铬; 表明50 cm²表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于0.02 mg/kg

由于未获知样品的存储条件和生产日期, 样品的六价铬测试结果仅能代表测试时样品含六价铬的状态.

卤素

测试方法: 参照EN 14582:2007方法测定, 采用IC进行分析.

测试项目	单位	MDL	001
氟(F)	mg/kg	50	ND
氯(Cl)	mg/kg	50	ND
溴(Br)	mg/kg	50	ND
碘(I)	mg/kg	50	ND

备注:

(1) 这些测试由SGS上海化学实验室检测(样品测试日期: 2014/08/25-09/01).



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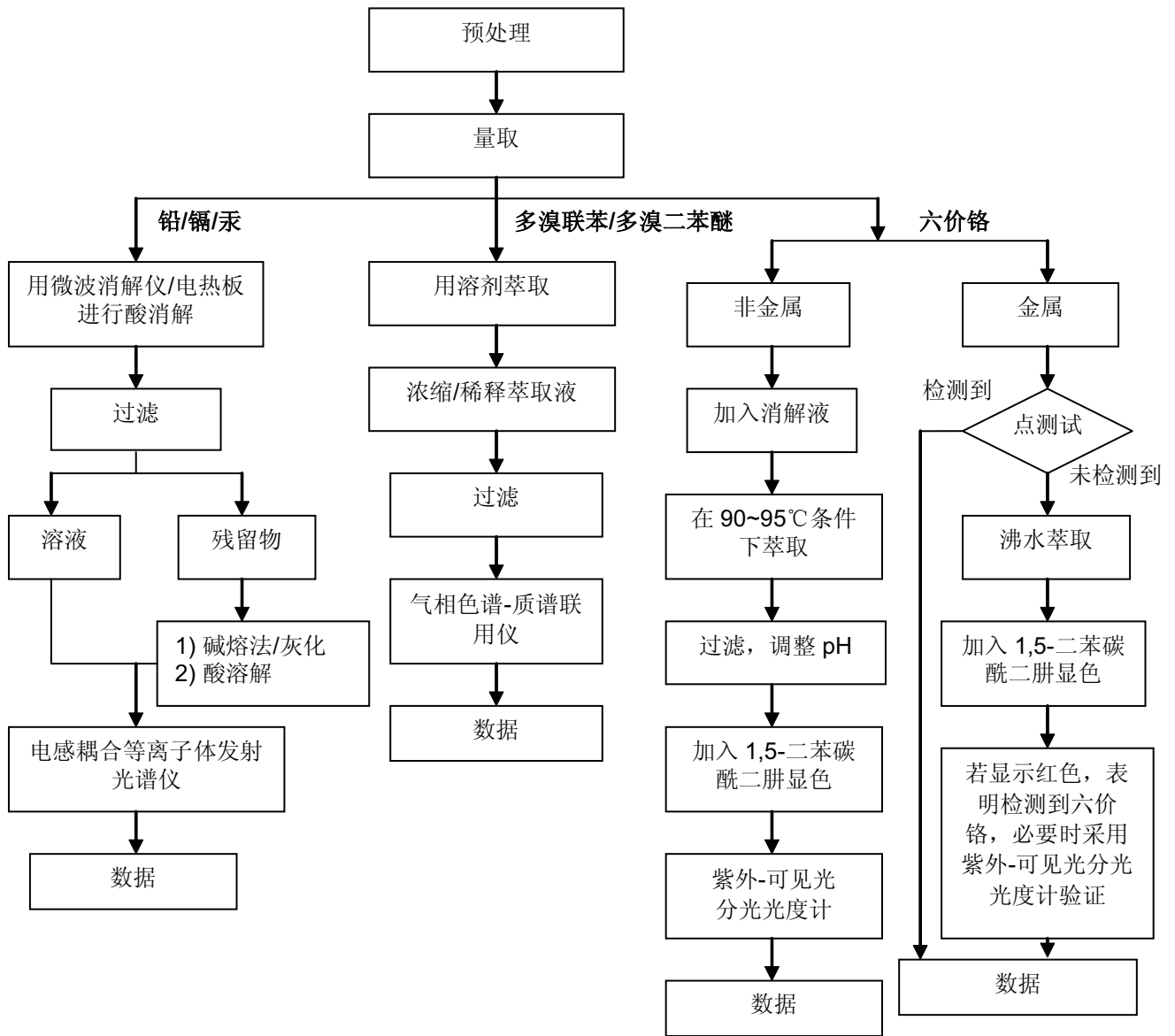
SGS-CTI Standards Technical Services Co., Ltd.
Ningbo Branch Laboratory

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中国·宁波·国家高新区凌云路1177号凌云产业园4号楼西1-2.5层 邮编: 315040 tHL (86-574)89070209 fHL (86-574)87768122 e sgs.china@sgs.com

附件

RoHS 测试流程图

- 1) 分析人员: 丁伟/张娜/周平勇
- 2) 项目负责人: 肖玲艳
- 3) 样品按照下述流程被完全消解(六价铬和多溴联苯/多溴二苯醚测试除外)。



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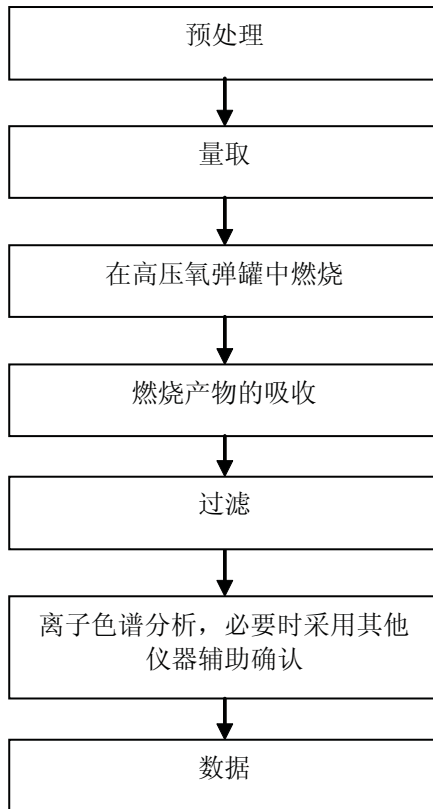
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附件

卤素测试流程图

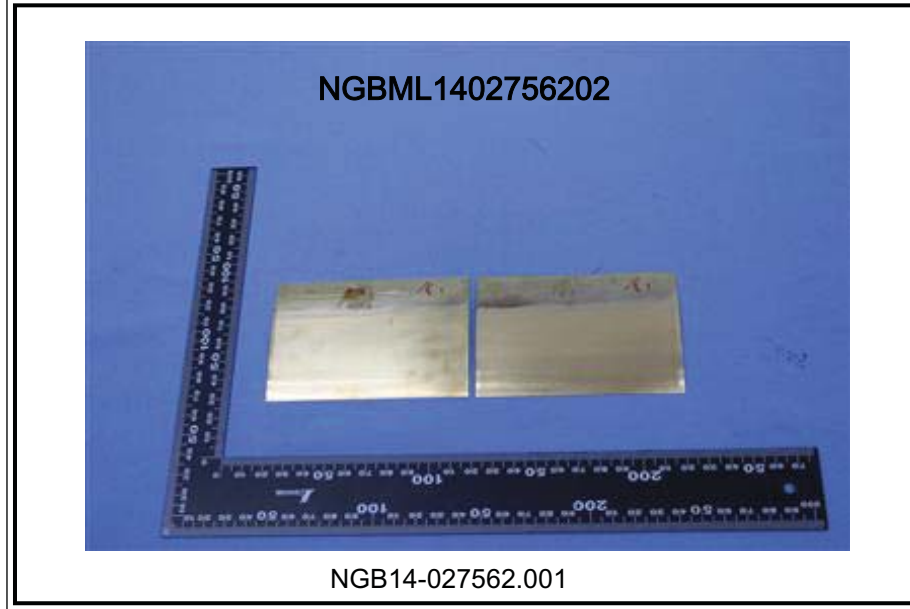
- 1) 分析人员: 印宇
- 2) 项目负责人: 李丹



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測試報告

Test Report

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ROGERS INOAC CORPORATION

9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309



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) : ROGERS INOAC CORPORATION
樣品名稱(Sample Description) : PORON HH TYPE
樣品型號(Style/Item No.) : HH-48, HH-48C
收件日期(Sample Receiving Date) : 2014/07/09
測試期間(Testing Period) : 2014/07/09 TO 2014/07/15

=====
測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結論(Conclusion) : 根據客戶所提供的樣品, 其多環芳香烴的測試結果符合德國ZLS的ZEK 01.4-08及其相關修訂文件中的第1類PAHs要求 (Base upon the performed tests by submitted samples, the test results of PAHs comply with the PAHs requirement according to (Category 1) of ZEK 01.4-08 of German ZLS and its amendments.)



Troy Chang/Manager- Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

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9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

測試結果(Test Results)

測試部位(PART NAME)No.1 : 黑色片狀 (BLACK SHEET (HH-48))

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS檢測. / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
銻 / Antimony (Sb)	mg/kg	參考US EPA 3050B方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA Method 3050B. Analysis was performed by ICP-AES.	2	n.d.
鎳 / Nickel (Ni)	mg/kg	參考US EPA 3050B方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA Method 3050B. Analysis was performed by ICP-AES.	2	68

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ROGERS INOAC CORPORATION



9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
錫 / Tin (Sn)	mg/kg	參考US EPA 3050B方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA Method 3050B. Analysis was performed by ICP-AES.	2	n.d.
硫 / Sulfur (S)	%	元素分析儀 / Element Analyzer	0.1	n.d.
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n.d.
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
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	mg/kg		5	n.d.
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.
十溴聯苯 / Decabromobiphenyl	mg/kg	5	n.d.	

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ROGERS INOAC CORPORATION



9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
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	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	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.	
鹵素 / Halogen				
鹵素 (總氟) / Halogen-Fluorine (Total F) (CAS No.: 14762-94-8)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.
鹵素 (總氯) / Halogen-Chlorine (Total Cl) (CAS No.: 22537-15-1)	mg/kg		50	n.d.
鹵素 (總溴) / Halogen-Bromine (Total Br) (CAS No.: 10097-32-2)	mg/kg		50	n.d.
鹵素 (總碘) / Halogen-Iodine (Total I) (CAS No.: 14362-44-8)	mg/kg		50	n.d.

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9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
多環芳香烴 / Polynuclear Aromatic Hydrocarbons (PAHs)				
芴 / Acenaphthene (CAS No.: 83-32-9)	mg/kg	參考ZLS standard ZEK 01.4-08方法, 以氣相層析/質譜儀檢測. / With reference to ZLS standard ZEK 01.4-08 method. Analysis was performed by GC/MS.	0.2	n.d.
芴烯 / Acenaphthylene (CAS No.: 208-96-8)	mg/kg		0.2	n.d.
蒽 / Anthracene (CAS No.: 120-12-7)	mg/kg		0.2	n.d.
苯駢蒽 / Benzo[a]anthracene (CAS No.: 56-55-3)	mg/kg		0.2	n.d.
苯駢(a)芘 / Benzo[a]pyrene (CAS No.: 50-32-8)	mg/kg		0.2	n.d.
苯(b)苯駢芴 / Benzo[b]fluoranthene (CAS No.: 205-99-2)	mg/kg		0.2	n.d.
苯駢芘 / Benzo[g,h,i]perylene (CAS No.: 191-24-2)	mg/kg		0.2	n.d.
苯(k)苯駢芴 / Benzo[k]fluoranthene (CAS No.: 207-08-9)	mg/kg		0.2	n.d.
Chrysene (CAS No.: 218-01-9)	mg/kg		0.2	n.d.
二苯駢蒽 / Dibenzo[a,h]anthracene (CAS No.: 53-70-3)	mg/kg		0.2	n.d.
苯駢芴 / Fluoranthene (CAS No.: 206-44-0)	mg/kg		0.2	n.d.
芴 / Fluorene (CAS No.: 86-73-7)	mg/kg		0.2	n.d.
茚酮芘 / Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5)	mg/kg		0.2	n.d.
萘 / Naphthalene (CAS No.: 91-20-3)	mg/kg		0.2	n.d.
菲 / Phenanthrene (CAS No.: 85-01-8)	mg/kg		0.2	n.d.
芘 / Pyrene (CAS No.: 129-00-0)	mg/kg		0.2	n.d.
苯(j)苯駢芴 / Benzo[j]fluoranthene (CAS No.: 205-82-3)	mg/kg		0.2	n.d.
苯駢(e)芘 / Benzo[e]pyrene (CAS No.: 192-97-2)	mg/kg		0.2	n.d.
多環芳香烴18項總和 / Sum of 18 PAHs	mg/kg	-	n.d.	

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ROGERS INOAC CORPORATION



9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
鄰苯二甲酸甲苯基丁酯 / BBP (Benzyl butyl phthalate) (CAS No.: 85-68-7)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.
鄰苯二甲酸二異癸酯 / DIDP (Di- isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.
鄰苯二甲酸二異壬酯 / DINP (Di- isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.
鄰苯二甲酸二正辛酯 / DNOP (Di-n- octyl phthalate) (CAS No.: 117- 84-0)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	%	參考EN 14372, 以氣相層析/質譜儀檢測。 / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.

備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)

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測試報告

Test Report

號碼(No.) : CE/2014/72012 日期(Date) : 2014/07/15 頁數(Page) : 7 of 16

ROGERS INOAC CORPORATION



9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

PAHs參考資料(Reference information) :

依據ZEK 01.4-08之要求：產品中最大值為

(Requirement of ZEK 01.4-08 : Restraining maximum values for products)

項目 (Parameter)	第1類 (Category 1)	第2類 (Category 2)	第3類 (Category 3)
	意圖放入嘴內的材料或與36個月以下的幼兒皮膚有所接觸的玩具。 (Material indented to be put in the mouth or toys for children aged < 36 months with intended skin contact.)	可預見與皮膚接觸逾30秒(長期與皮膚接觸), 以及不屬於第1類的材料。 (Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin contact).)	可預見與皮膚接觸短於30秒(短期與皮膚接觸), 以及不屬於第1類或第2類的材料。(Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).)
苯駢(a)芘 Benzo[a]pyrene (mg/kg)	<MDL (<0.2)**	1	20
18項PAH總濃度 (Sum of 18 PAH) (mg/kg)*	<MDL (<0.2)**	10	200

注意(Remark):

* = PAH濃度大於0.2mg/kg時, 則須計算PAH總濃度值.

(Only PAH substances >0.2 mg/kg are taken into account while calculating the sum of PAHs.)

** = 最大濃度值超出等級一的限制, 但在等級二的濃度限制值內時, 可能需要確認測試材質是否適用於與食品或與口腔黏膜接觸, 並依照EN 1186 ff. and § 64 LFBG 80.30-1方法, 針對特定PAH的遷移測試進行測試。遷移測試的結論需依照食品規範評估。

(If the limits of category 1 are surpassed but the limits of category 2 still met, the confirmation of suitability of contact with foodstuff or the oral mucosa can be verified by an additional specific migration test of the PAH components according to EN 1186 ff. and § 64 LFBG 80.30-1. The results of the migration test shall be evaluated according to law criteria for foodstuff.)

測試報告

Test Report

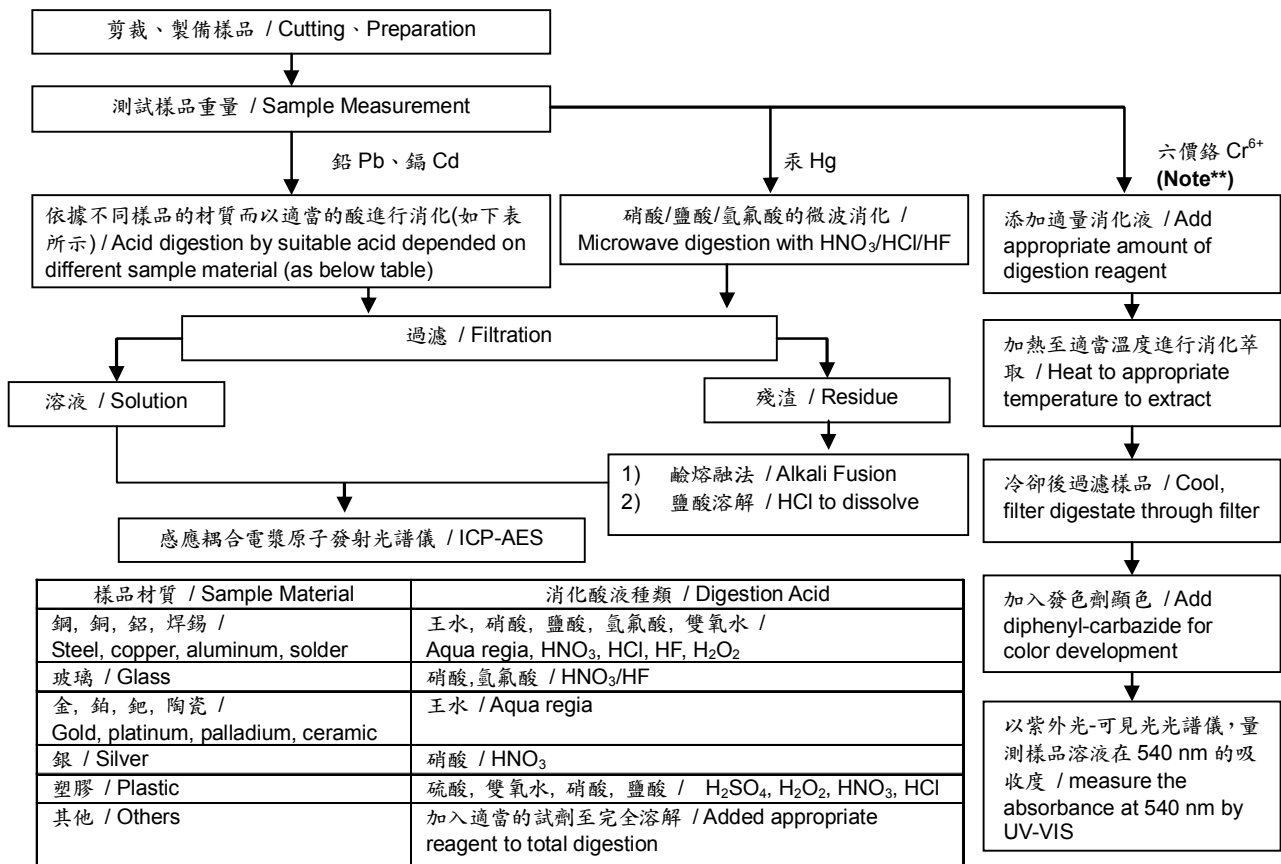
號碼(No.) : CE/2014/72012 日期(Date) : 2014/07/15 頁數(Page) : 8 of 16

ROGERS INOAC CORPORATION



9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Note (For IEC 62321)**

- (1) 針對非金屬材料加入鹼性消化液，加熱至 90~95°C 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
- (2) 針對金屬材料加入純水，加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

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Test Report

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ROGERS INOAC CORPORATION

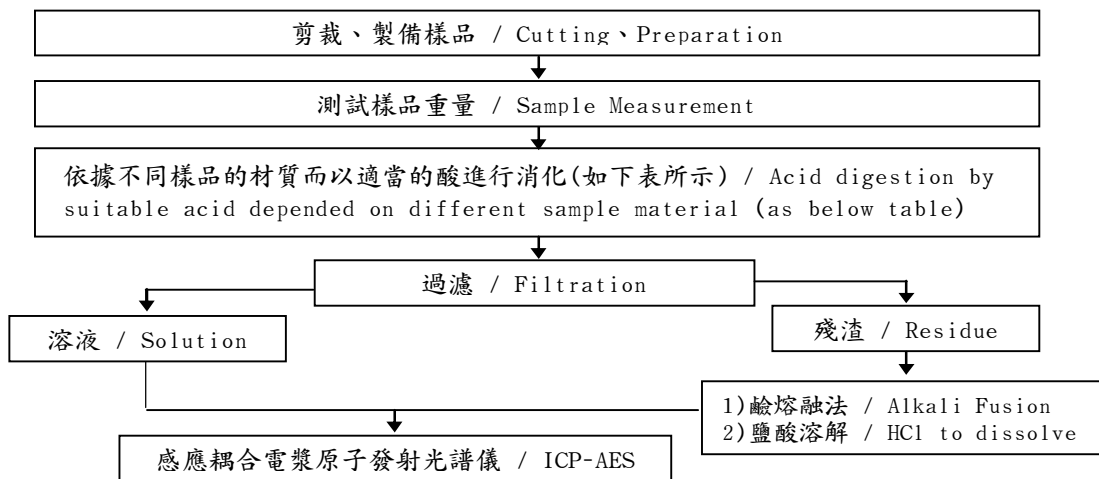


9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

- 1) 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.
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

元素以 ICP-AES 分析的消化流程圖

(Flow Chart of digestion for the elements analysis performed by ICP-AES)



鋼, 銅, 鋁, 焊錫 / Steel, copper, aluminum, solder	王水, 硝酸, 鹽酸, 氫氟酸, 雙氧水 / Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
玻璃 / Glass	硝酸, 氫氟酸 / HNO ₃ /HF
金, 鉑, 鈀, 陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸, 雙氧水, 硝酸, 鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion

測試報告

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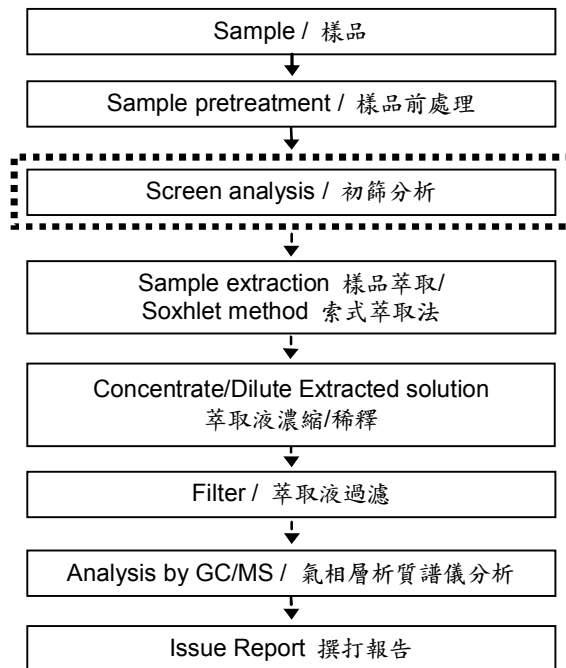
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9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309



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

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
 - 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 初次測試程序 / First testing process —————>
- 選擇性篩檢程序 / Optional screen process>
- 確認程序 / Confirmation process - - ->



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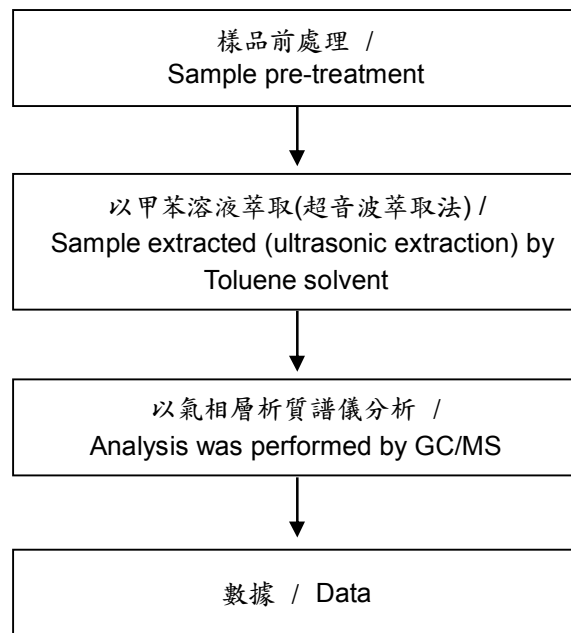
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多環芳香煙分析流程圖 / PAHs (Polynuclear Aromatic Hydrocarbons) analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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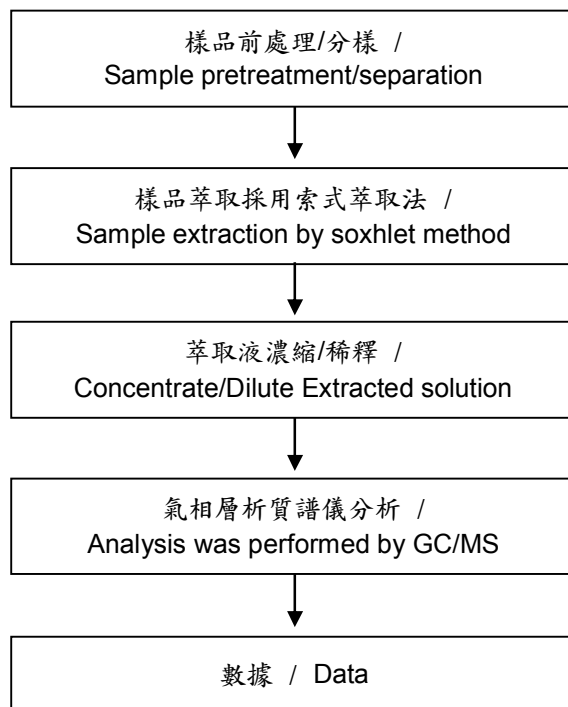
ROGERS INOAC CORPORATION

9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309



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

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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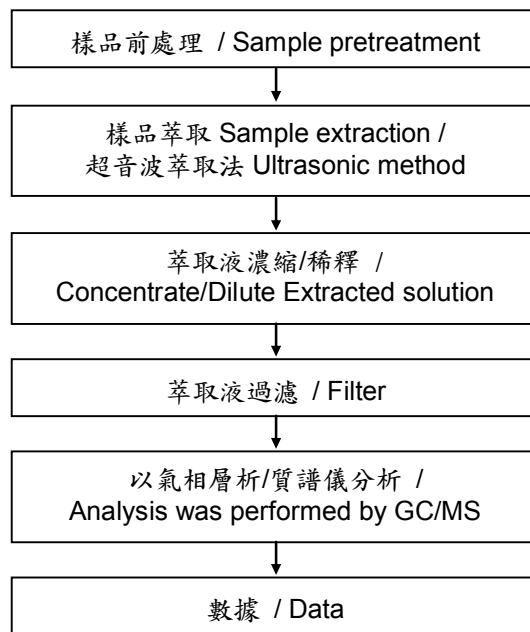
ROGERS INOAC CORPORATION



9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309

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

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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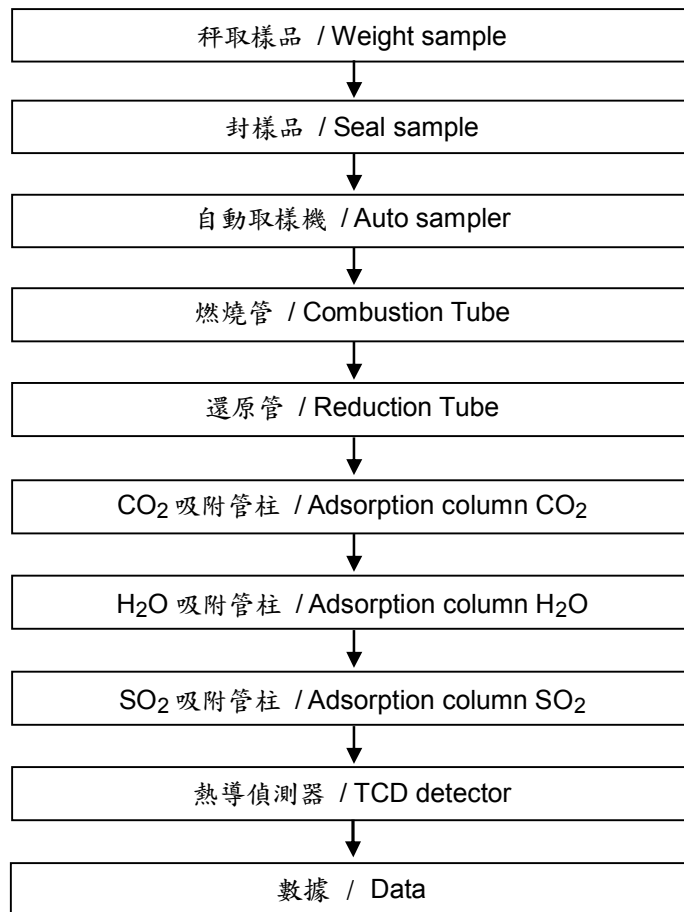
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9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309



元素分析儀流程圖 / Analytical flow chart of elements analyzer content

- 測試人員：魏明芬 / Name of the person who made measurement: Wendy Wei
- 測試負責人：馮智聰 / Name of the person in charge of measurement: George Fong



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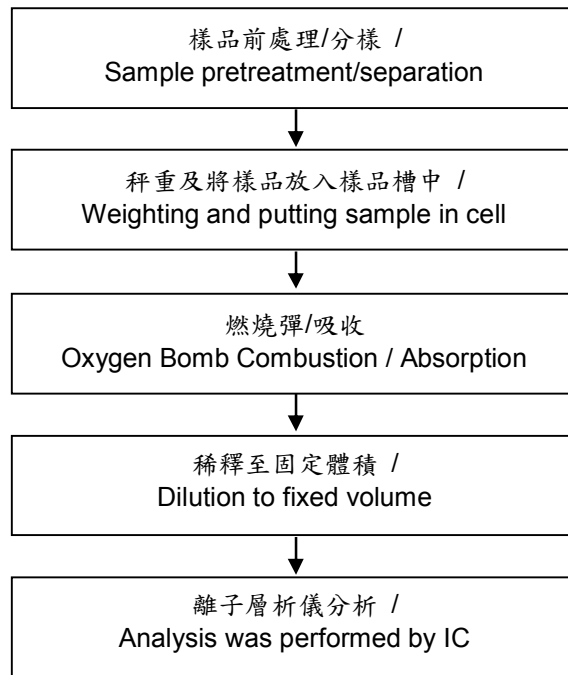
ROGERS INOAC CORPORATION

9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309



鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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測試報告

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號碼(No.) : CE/2014/72012 日期(Date) : 2014/07/15 頁數(Page) : 16 of 16

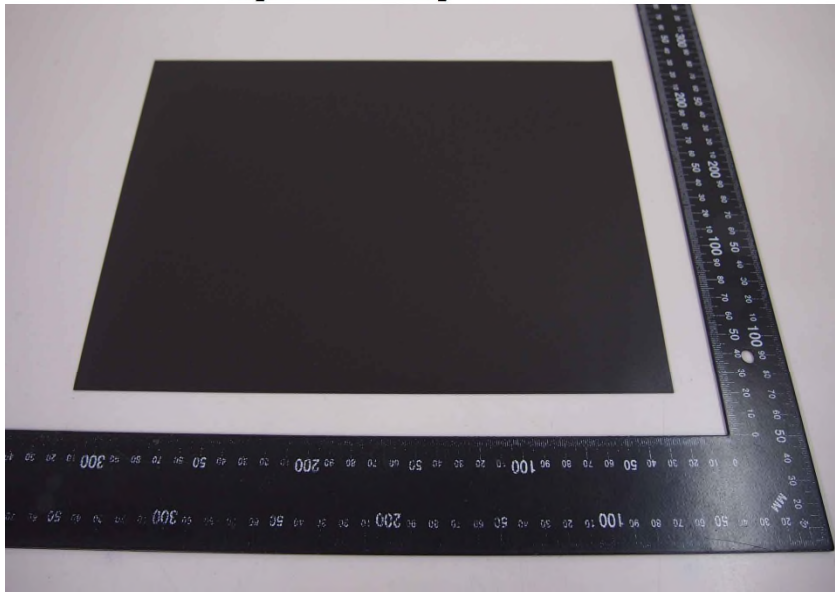
ROGERS INOAC CORPORATION

9-117, NASHINOKI, TAKETOYO-CHO, CHITA-GUN AICHI, JAPAN 470-2309



* 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.)

CE/2014/72012



** 報告結尾 (End of Report) **

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Test Report

No. SHAEC1421011301

Date: 08 Nov 2014

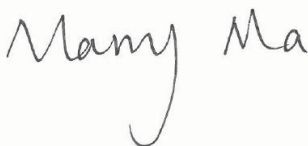
Page 1 of 8

3M CHINA LIMITED
222# TIAN LIN ROAD, SHANGHAI (200233)

The following sample(s) was/were submitted and identified on behalf of the clients as : 3M 9448A

SGS Job No. : SP14-033554 - SH
Date of Sample Received : 05 Nov 2014
Testing Period : 05 Nov 2014 - 08 Nov 2014
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).
Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of
SGS-CSTC Ltd.



Marry Ma
Approved Signatory



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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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HL: (86-21) 61402594 HL: (86-21) 54500353 e sgs.china@sgs.com

Test Report

No. SHAEC1421011301

Date: 08 Nov 2014

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	SHA14-210113.001	Translucent adhesive tape

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

RoHS Directive 2011/65/EU

- Test Method :
- (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
 - (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
 - (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
 - (4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
 - (5) With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	2	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND



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Test Report

No. SHAEC1421011301

Date: 08 Nov 2014

Page 3 of 8

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

Notes :

- (1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II

Phthalates

Test Method : Determination of phthalates by GC-MS based on EN 14372:2004.

<u>Test Item(s)</u>	<u>CAS NO.</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Dibutyl Phthalate (DBP)	84-74-2	%	0.003	ND
Benzylbutyl Phthalate (BBP)	85-68-7	%	0.003	ND
Bis-(2-ethylhexyl) Phthalate (DEHP)	117-81-7	%	0.003	ND

Notes :

- (1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.

Hexabromocyclododecane (HBCDD)

Test Method : Determination of HBCDD by GC-MS based on IEC 62321:2008.

<u>Test Item(s)</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Hexabromocyclododecane (HBCDD)	mg/kg	10	ND

Notes :

- (1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance



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Testing Center (Shanghai) Co., Ltd.

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restriction.



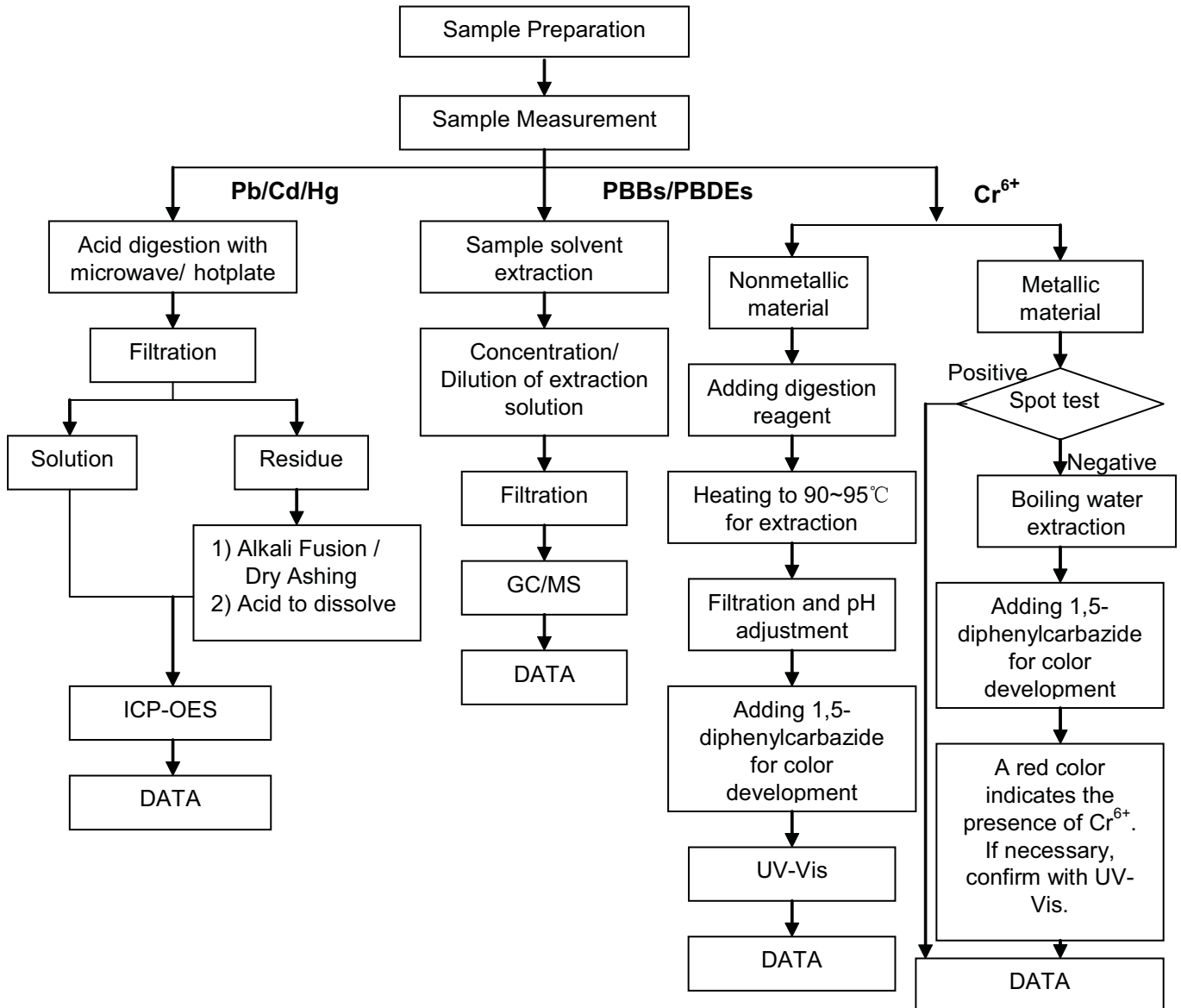
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RoHS Testing Flow Chart

- 1) Name of the person who made testing: Bob Zhang/Gary Xu/Stone Chen/Sunny Qin
- 2) Name of the person in charge of testing: Jan Shi/Summer Jin/Jessy Huang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs test method excluded)



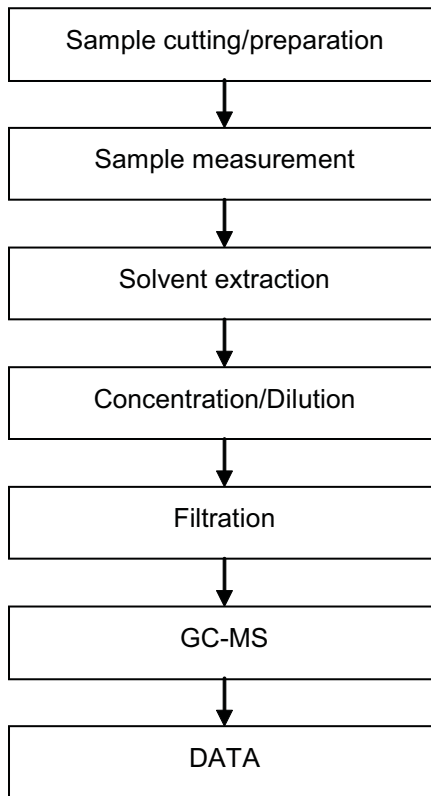
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Phthalates Testing Flow Chart

- 1) Name of the person who made testing: Elyn Yao
- 2) Name of the person in charge of testing: Myra Ma



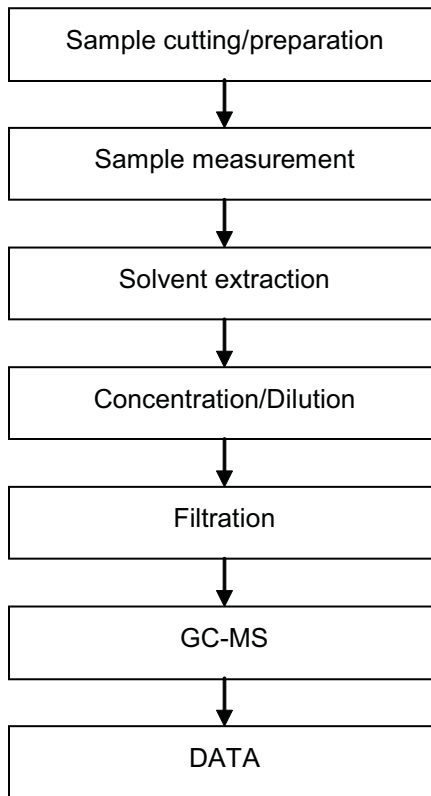
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HBCDD Testing Flow Chart

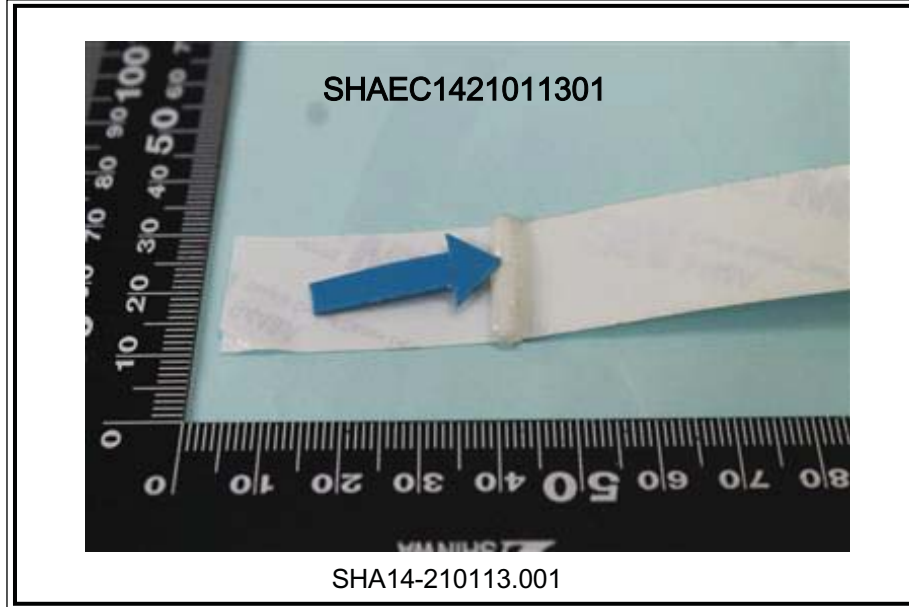
- 1) Name of the person who made testing: Gary Xu
- 2) Name of the person in charge of testing: Jessy Huang



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Sample photo:



SGS authenticate the photo on original report only

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測試報告 Test Report

號碼(No.) : CE/2014/81245 日期(Date) : 2014/08/15 頁數(Page) : 1 of 9

瑩光企業有限公司

EN-KUANG ENTERPRISE CO., LTD.

新北市板橋區江寧路三段79巷8號

NO. 8 LANE 79, CHIANG-LIN RD., SEC. 3 BANQIAO DISTRICT, NEW TAIPEI CITY, TAIWAN



以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

送樣廠商(Sample Submitted By) : 瑩光企業有限公司 (EN-KUANG ENTERPRISE CO., LTD.)
樣品名稱(Sample Description) : LEAD-FREE-SOLDER WIRE (無鉛焊錫絲)
應用於(Used For) : SAC 305, SAC 300, SAC 0300, SAC 0307, TIN 100, SNC 0306, Sn96.5/Ag3/Cu0.5, Sn96.5/Ag3.5, Sn99.3/Cu0.7, Sn98/Cu2, Sn99.3/Cu0.6/Ni0.03, Sn99/Ag0.3/Cu0.7, Sn100
無鉛焊錫絲包括 : 錫銀銅, 錫銅鎳, 錫銀, 錫銅, 純錫
收件日期(Sample Receiving Date) : 2014/08/08
測試期間(Testing Period) : 2014/08/08 TO 2014/08/15

=====
測試需求(Test Requested) : (1) 依據客戶指定, 進行鎘, 鉛, 汞, 六價鉻, 多溴聯苯, 多溴聯苯醚測試. (As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)
(2) 依據客戶指定, 進行全氟辛酸、全氟辛烷磺酸、鹵素-氟、氯、溴、碘測試. (As specified by client, to test PFOA, PFOS, Halogen-Fluorine, Chlorine, Bromine, Iodine contents in the submitted sample.)

測試方法(Test Method) : 請見下一頁 (Please refer to next pages).

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).



Edison Chang / Sr. Supervisor
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

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測試報告

Test Report

號碼(No.) : CE/2014/81245 日期(Date) : 2014/08/15 頁數(Page) : 2 of 9

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測試結果(Test Results)

測試部位(PART NAME) No.1 : 銀色金屬線 (SILVER COLORED METAL WIRE)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	193
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS 檢測. / With reference to IEC 62321: 2008 and performed by UV- VIS.	2	n.d.
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C: 2007方法, 以液 相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3550C: 2007方法, 以液 相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)		
				No.1		
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.		
一溴聯苯 / Monobromobiphenyl			5	n.d.		
二溴聯苯 / Dibromobiphenyl			5	n.d.		
三溴聯苯 / Tribromobiphenyl			5	n.d.		
四溴聯苯 / Tetrabromobiphenyl			5	n.d.		
五溴聯苯 / Pentabromobiphenyl			5	n.d.		
六溴聯苯 / Hexabromobiphenyl			5	n.d.		
七溴聯苯 / Heptabromobiphenyl			5	n.d.		
八溴聯苯 / Octabromobiphenyl			5	n.d.		
九溴聯苯 / Nonabromobiphenyl			5	n.d.		
十溴聯苯 / Decabromobiphenyl			5	n.d.		
多溴聯苯醚總和 / Sum of PBDEs					-	n.d.
一溴聯苯醚 / Monobromodiphenyl ether					5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether					5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether					5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether					5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether					5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether					5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether					5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether					5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.		
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.		
鹵素 / Halogen						
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.		
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg		50	n.d.		
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg		50	132		
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n.d.		

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備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)

PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm)，在半成品、成品或零部件中不得超過0.1%(1000ppm)，在紡織品或塗層材料中不得超過 $1\mu\text{g}/\text{m}^2$ 。(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above $1\mu\text{g}/\text{m}^2$.)

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號碼(No.) : CE/2014/81245 日期(Date) : 2014/08/15 頁數(Page) : 5 of 9

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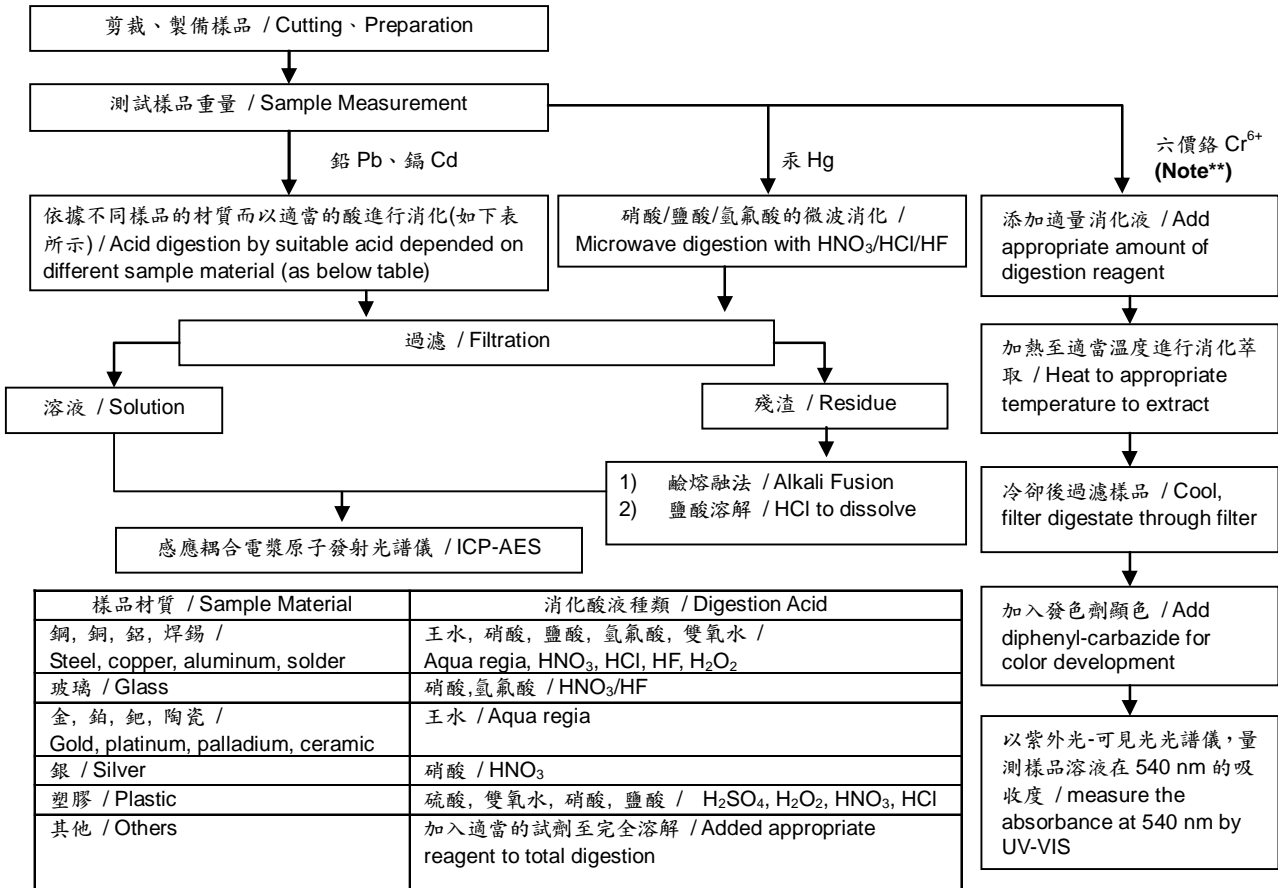
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Note:** (1) 針對非金屬材料加入鹼性消化液, 加熱至 90~95°C 萃取. / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
 (2) 針對金屬材料加入純水, 加熱至沸騰萃取. / For metallic material, add pure water and heat to boiling.

測試報告 Test Report

號碼(No.) : CE/2014/81245 日期(Date) : 2014/08/15 頁數(Page) : 6 of 9

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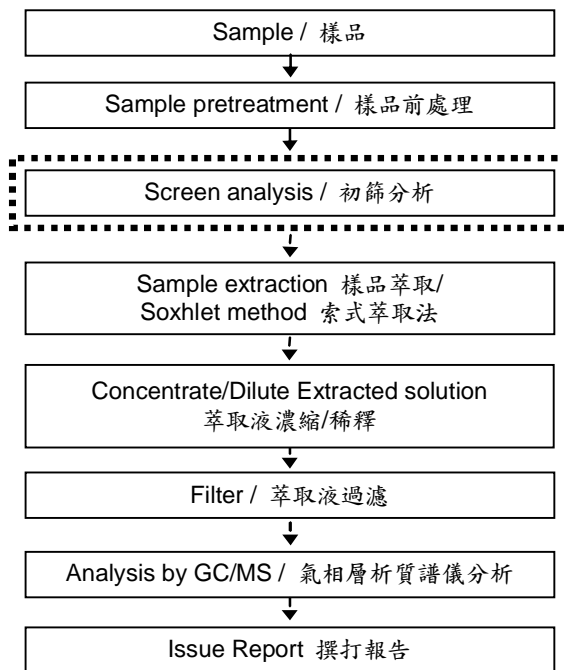
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多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

初次測試程序 / First testing process —————>
 選擇性篩檢程序 / Optional screen process
 確認程序 / Confirmation process - - - ->



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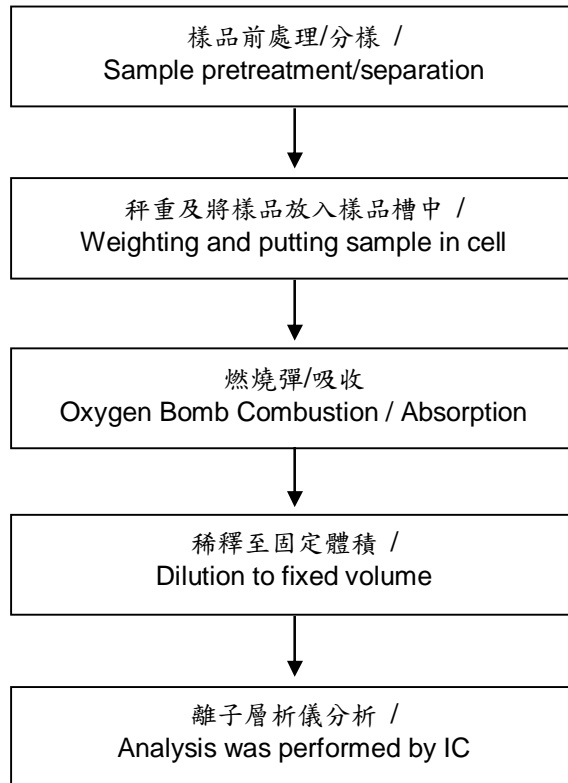
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鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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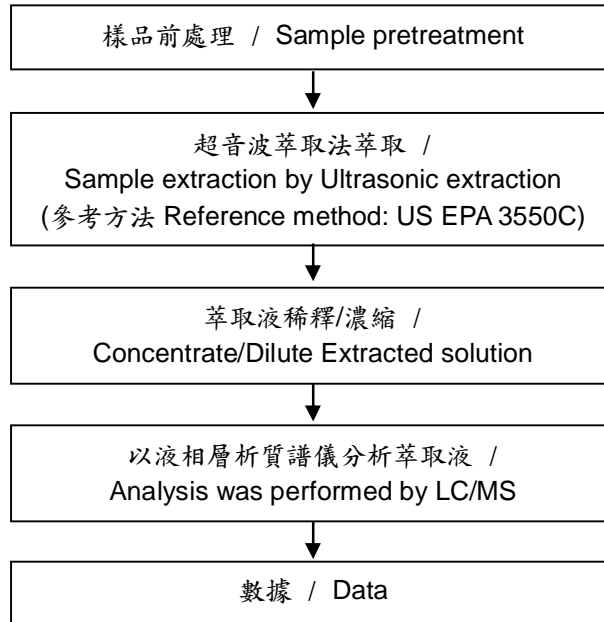
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全氟辛酸/全氟辛烷磺酸分析流程圖 / PFOA/PFOS analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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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) : 瑩光企業有限公司 (EN-KUANG ENTERPRISE CO., LTD.)
樣品名稱(Sample Description) : LEAD-FREE-THINNER FLUX (無鉛稀釋劑助焊劑)
樣品型號(Style/Item No.) : 客戶自行調配之樣品 / SAMPLE IS BLENDED BY CLIENT: EN-101、EN-425、EN-805(1~10)系列、EN-806、EN-0105、EN-206、EN-882、EN-1000、EN1800(1~10)系列、EN-1900(1~10)系列、EN-9866、EN-616T、EN-616TD、EF-9301、EN-6806-HF、SM32D、EN-609、茂-(EN-805-25)
收件日期(Sample Receiving Date) : 2014/08/08
測試期間(Testing Period) : 2014/08/08 TO 2014/08/15

=====
測試需求(Test Requested) : (1) 依據客戶指定, 進行鎘, 鉛, 汞, 六價鉻, 多溴聯苯, 多溴聯苯醚測試. (As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)
(2) 依據客戶指定, 進行全氟辛酸, 全氟辛烷磺酸測試. (As specified by client, to test PFOA, PFOS contents in the submitted sample.)

測試方法(Test Method) : 請見下一頁 (Please refer to next pages).

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).


Edison Chang / Sr. Supervisor
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

測試報告

Test Report

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測試結果(Test Results)

測試部位(PART NAME) No.1 : 透明淡黃色液體 (客戶自行調配之樣品) (TRANSPARENT-LT. YELLOW LIQUID (SAMPLE IS BLENDED BY CLIENT))

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS 檢測。 / With reference to IEC 62321: 2008 and performed by UV- VIS.	2	n.d.
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C: 2007方法, 以液 相層析/質譜儀檢測。 / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3550C: 2007方法, 以液 相層析/質譜儀檢測。 / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)		
				No.1		
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.		
一溴聯苯 / Monobromobiphenyl			5	n.d.		
二溴聯苯 / Dibromobiphenyl			5	n.d.		
三溴聯苯 / Tribromobiphenyl			5	n.d.		
四溴聯苯 / Tetrabromobiphenyl			5	n.d.		
五溴聯苯 / Pentabromobiphenyl			5	n.d.		
六溴聯苯 / Hexabromobiphenyl			5	n.d.		
七溴聯苯 / Heptabromobiphenyl			5	n.d.		
八溴聯苯 / Octabromobiphenyl			5	n.d.		
九溴聯苯 / Nonabromobiphenyl			5	n.d.		
十溴聯苯 / Decabromobiphenyl			5	n.d.		
多溴聯苯醚總和 / Sum of PBDEs					-	n.d.
一溴聯苯醚 / Monobromodiphenyl ether					5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether					5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether					5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether					5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether					5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether					5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether					5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether					5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.		
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.		

備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)

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PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm)，在半成品、成品或零部件中不得超過0.1%(1000ppm)，在紡織品或塗層材料中不得超過 $1\mu\text{g}/\text{m}^2$ 。(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above $1\mu\text{g}/\text{m}^2$.)

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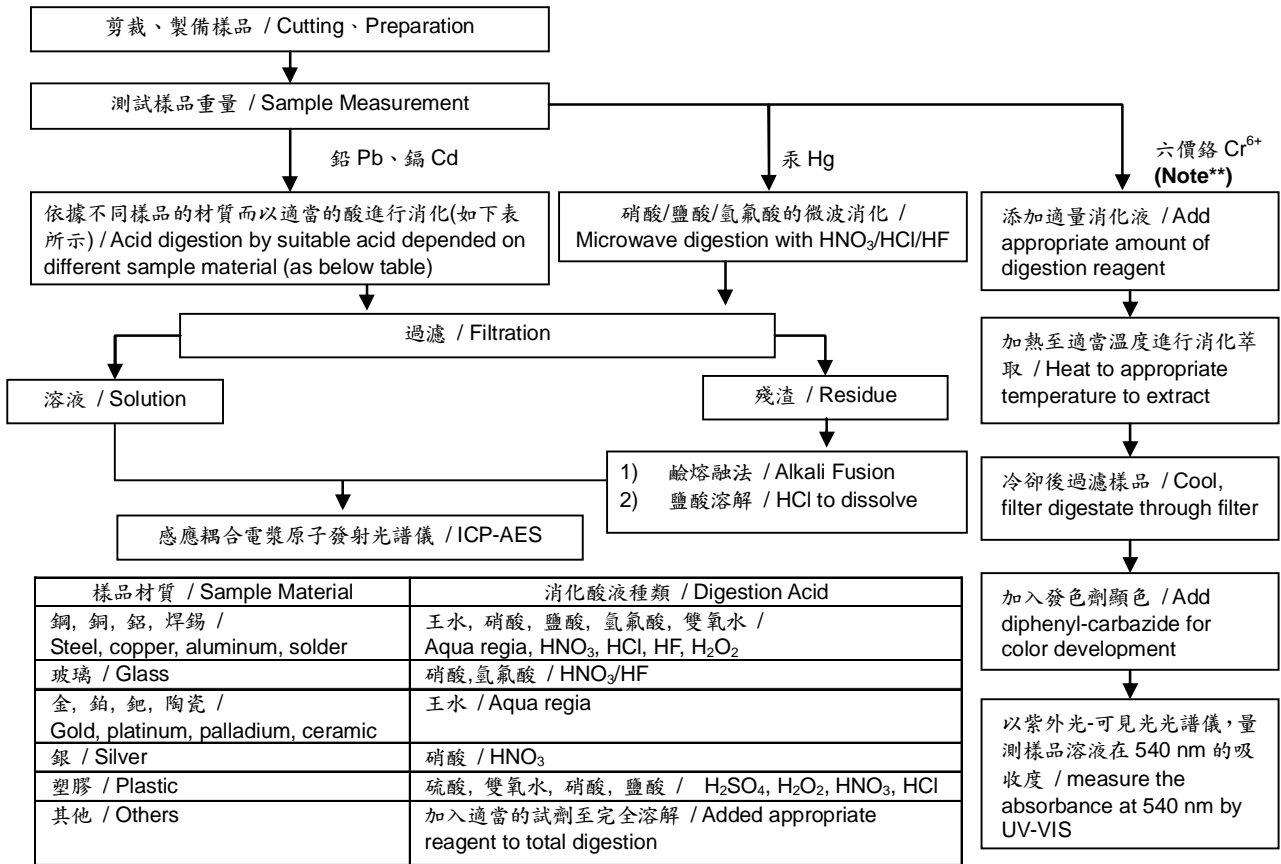
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



Note (For IEC 62321)**

- (1) 針對非金屬材料加入鹼性消化液，加熱至 90~95°C 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
- (2) 針對金屬材料加入純水，加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

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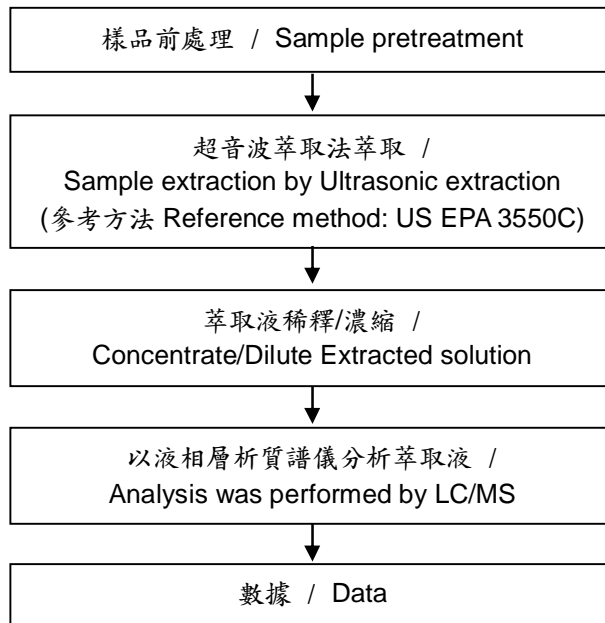
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全氟辛酸/全氟辛烷磺酸分析流程圖 / PFOA/PFOS analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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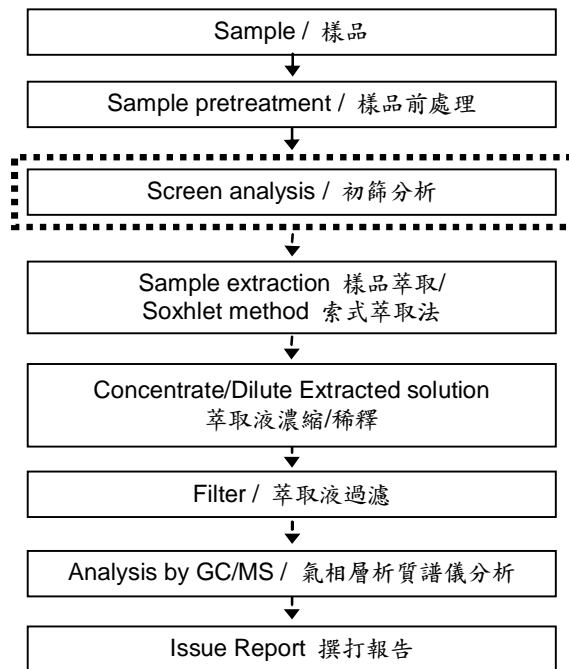
多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

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選擇性篩檢程序 / Optional screen process▶

確認程序 / Confirmation process - - -▶



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