

## 測試報告

號碼(No.) : KA/2016/10864 日期(Date) : 2016/01/19

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## Test Report

南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION CHIA-YI 4TH PLANT

嘉義縣太保市南新里北港路二段201號

201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

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):

樣品名稱(Sample Description) : 聚氯乙稀發泡板(聚氯乙稀硬殼發泡板) (PVC FOAMED SHEET(PVC INTEGRAL SKIN-FOAMED SHEET))  
 樣品型號(Style/Item No.) : 3RF#(3RK#)  
 收件日期(Sample Receiving Date) : 2016/01/13  
 測試期間(Testing Period) : 2016/01/13 TO 2016/01/19  
 送樣廠商(Sample Submitted By) : 南亞塑膠工業股份有限公司 (NAN YA PLASTICS CORPORATION CHIA-YI 4TH PLANT)

### 測試需求(Test Requested)


依據客戶指定, 參考RoHS2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP. (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample.)

### 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、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS指令暨(EU) 2015/863之限值要求. (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS and amending Directive (EU) 2015/863.)

  
 Ray Chang, Ph.D. / Manager-Taiwan  
 Signed for and on behalf of  
 SGS Taiwan Limited  
 Chemical Laboratory-Kaohsiung



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南亞塑膠工業股份有限公司

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201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

### 測試結果(Test Results)

測試部位(PART NAME)No.1 : 米黃色 聚氯乙稀發泡板(聚氯乙稀硬殼發泡板) (CREAM COLORED PVC FOAMED SHEET(PVC INTEGRAL SKIN-FOAMED 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	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

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嘉義縣太保市南新里北港路二段201號

201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

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	
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 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.	-
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 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.	-

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SGS Taiwan Ltd.  
台灣檢驗科技股份有限公司

No.61, Kai -Fa Road, Nanzih Export Processing Zone, Kaohsiung, Taiwan / 高雄市楠梓加工出口區開發路61號  
t (886-7) 301-2121 f (886-7) 301-0867

www.sgs.tw

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南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION CHIA-YI 4TH PLANT

嘉義縣太保市南新里北港路二段201號

201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

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	限值 (Limit)
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	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
鄰苯二甲酸丁苄酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n.d.	1000
鄰苯二甲酸二 (2-乙基己基) 酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.	1000

### 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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## Test Report

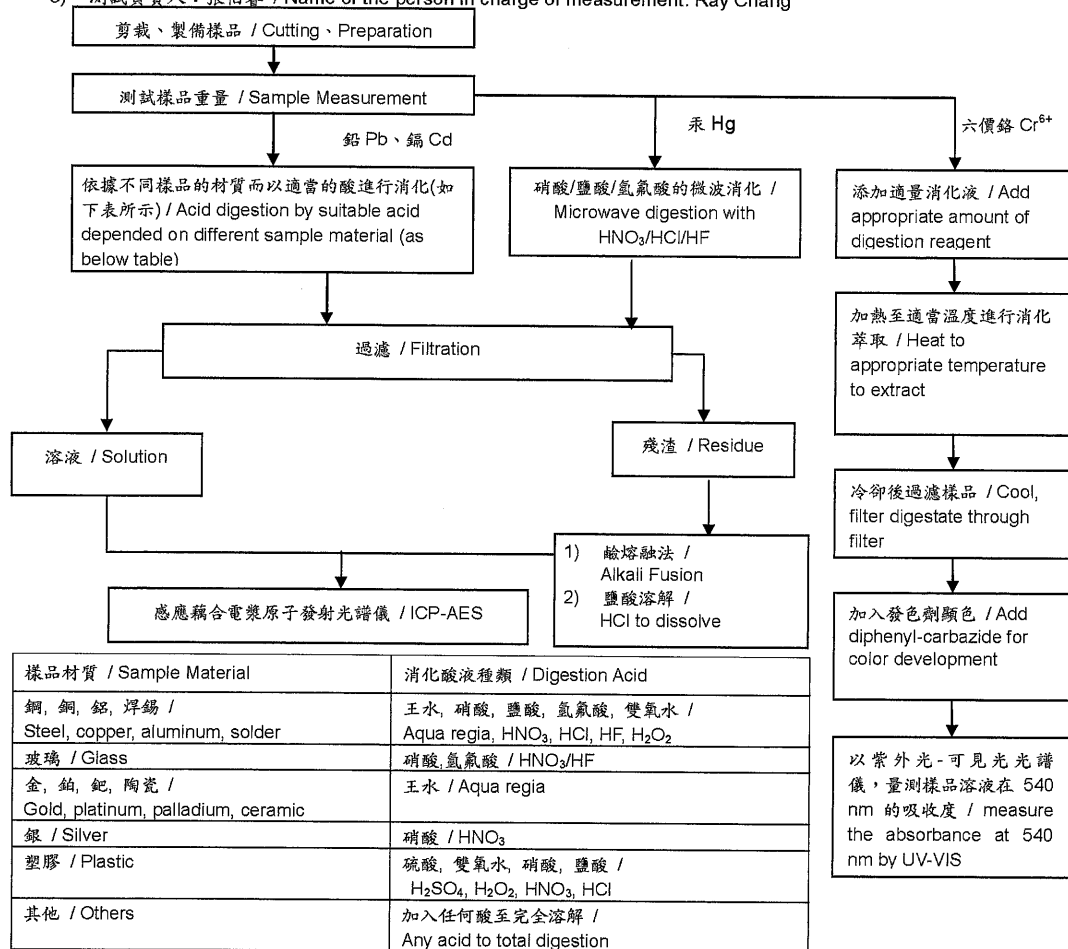
南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION CHIA-YI 4TH PLANT

嘉義縣太保市南新里北港路二段201號

201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

- 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. ( $\text{Cr}^{6+}$  test method excluded)
- 2) 測試人員：劉俊宏 / Name of the person who made measurement: Jony Liu
- 3) 測試負責人：張伯豪 / Name of the person in charge of measurement: Ray 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.

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南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION CHIA-YI 4TH PLANT

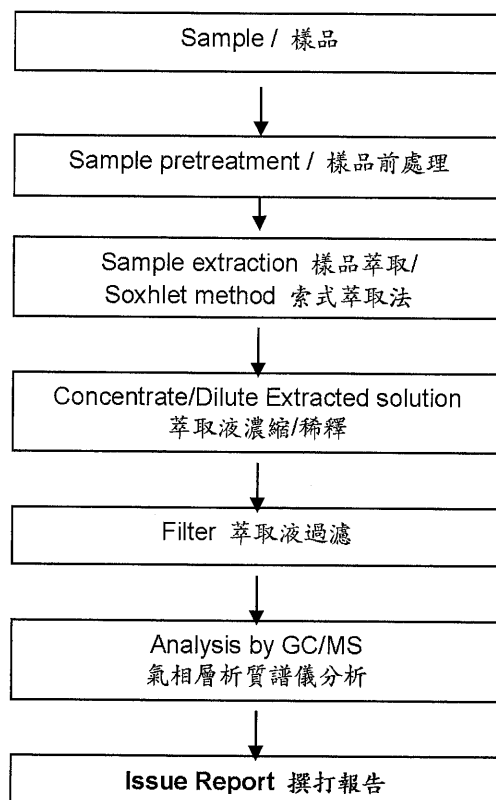
嘉義縣太保市南新里北港路二段201號

201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

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

1)測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen

2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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南亞塑膠工業股份有限公司

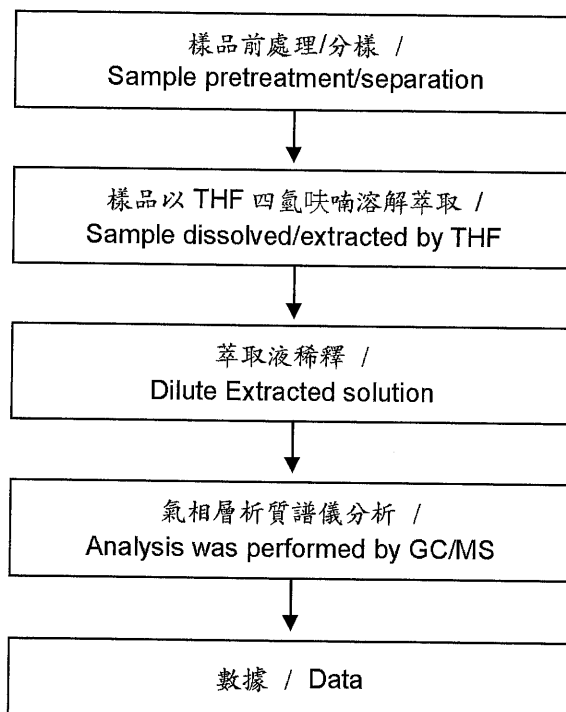
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嘉義縣太保市南新里北港路二段201號

201, SEC 2, BEI KANG, TAI-BAU CITY, CHIA-YI HSIEN, TAIWAN, ROC

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

- 測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen
- 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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NAN YA PLASTICS CORPORATION CHIA-YI 4TH PLANT

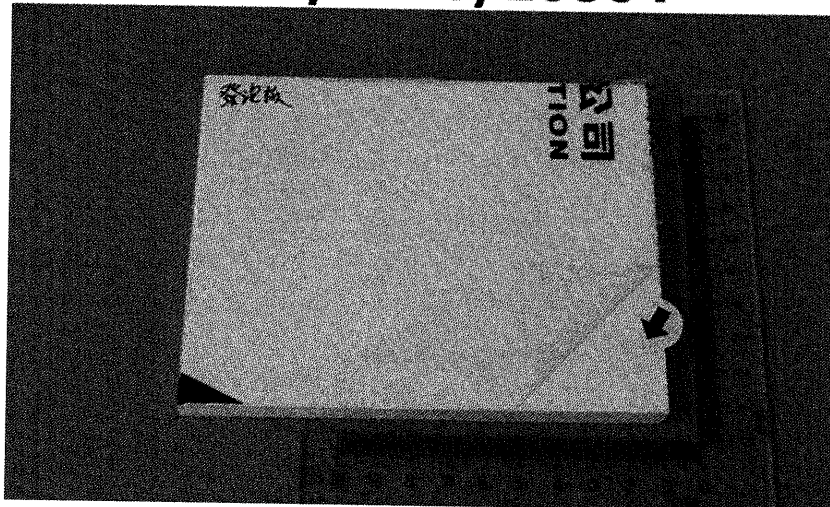
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\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。 \*

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

### KA/2016/10864



\*\* 報告結尾 (End of Report) \*\*

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