

測試報告

Test Report

號碼(No.): KA/2010/C1915 日期(Date): 2011/01/04 頁數(Page): 1 of 9

李長榮化學工業股份有限公司 LCY CHEMICAL CORP.

81567 高雄市大社區三奶里經建路2號

NO. 2, JINGJIAN ROAD, SANNAI VILLAGE, DASHE DISTRICT, KAOHSIUNG CITY 81567, TAIWAN.

以下測試樣品係由客户送樣,且由客户聲稱並經客户確認如下 (The following samples was/were submitted and identified by/on behalf of the client as):

樣品名稱(Sample Description) 樣品型號(Style/Item No.)

: POLYPROPYLENE RANDOM COPOLYMER

: ST611,ST611M,ST861,ST866,ST866M,ST868M,ST869M, ST757M, ST800M, ST860M, ST925, ST612, STM866, 8001,

8002,8182,8681,8491,8492,8191,8192,8493,8494,8461,8462

8661,8881,868H

收件日期(Sample Receiving Date) 測試期間(Testing Period)

: 2010/12/27

2010/12/27 TO 2011/01/04

測試結果(Test Results)

: 請見下一頁 (Please refer to next pages).

Ray Chang / Asst. Manage Signed for and on behalf of **SGS Taiwan Limited**

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測試結果(Test Results)

測試部位(PART NAME) NO.1 NATURAL POLYPROPYLENE RANDOM COPOLYMER

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1
鎬 / Cadmium (Cd)	mg/kg	參考IEC 62321: 2008方法, 用感應藕合 電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	参考IEC 62321: 2008方法, 用感應藕合 電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321: 2008方法, 用感應藕合 電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
六價络 / Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	参考IEC 62321: 2008方法,用UV-VIS檢測. / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
六溴環十二烷 / Hexabromocyclododecane (HBCDD) (CAS No.: 025637-99-4)	mg/kg	参考US EPA 3540C: 1996方法,以氣相層析質譜儀檢測. / With reference to US EPA 3540C: 1996 method. Analysis was performed by GC/MS.	5	n.d.
鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 000117-81-7)	%	本測試參考EN 14372, 以氣相層析儀/質 譜儀檢測之. / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.
鄰苯二甲酸甲苯基丁酯 / BBP (Benzyl butyl phthalate) (CAS No.: 000085-68-7)	%	本測試參考EN 14372, 以氣相層析儀/質 譜儀檢測之. / 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 極限値 (MDL)	結果 (Result) NO.1
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 000084-74-2)	%	本測試參考EN 14372, 以氣相層析儀/質 譜儀檢測之. / With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.
多溴聯苯總和 / Sum of PBBs		參考IEC 62321: 2008方法,以氣相層析儀/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	mg/kg		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	mg/kg	参考IEC 62321: 2008方法,以氣相層析儀/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			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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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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- NO. 2, JINGJIAN ROAD, SANNAI VILLAGE, DASHE DISTRICT, KAOHSIUNG CITY 81567, TAIWAN.
 - 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) 测試人員:張俊雄 / Name of the person who made measurement: Alex Chang
 - 測試負責人:張伯睿 / Name of the person in charge of measurement: Ray Chang 剪裁、製備樣品 / Cutting、Preparation 測試樣品重量 / Sample Measurement 六價鉻 Cr⁶⁺ 汞 Ha 鉛 Pb、鍋 Cd 依據不同樣品的材質而以適當的酸進行消化(如 硝酸/鹽酸/氫氟酸的微波消化 / 添加適量消化液 / Add 下表所示) / Acid digestion by suitable acid Microwave digestion with appropriate amount of depended on different sample material (as HNO₃/HCI/HF digestion reagent below table) 加熱至適當溫度進行消化 萃取 / Heat to 過濾 / Filtration appropriate temperature to extract 殘渣 / Residue 溶液 / Solution 冷卻後過濾樣品 / Cool, filter digestate through 鹼熔融法 / Alkali Fusion 2) 鹽酸溶解 / 加入發色劑顯色 /Add 感應藕合電漿原子發射光譜儀 / ICP-AES HCI to dissolve diphenyl-carbazide for color development 樣品材質 / Sample Material 消化酸液種類 / Digestion Acid 鋼, 銅, 鋁, 焊錫 / 王水, 硝酸, 鹽酸, 氫氟酸, 雙氧水 / Steel, copper, aluminum, solder Aqua regia, HNO3, HC1, HF, H2O2 以紫外光-可見光光譜 玻璃 / Glass 硝酸, 氫氟酸 / HNO₃/HF 儀,量測樣品溶液在 540 金, 鉑, 鈀, 陶瓷/ 王水 / Aqua regia nm 的吸收度 / measure Gold, platinum, palladium, ceramic the absorbance at 540 銀 / Silver 硝酸 / HNO3 nm by UV-VIS 塑膠 / Plastic 硫酸, 雙氧水, 硝酸, 鹽酸 / H₂SO₄, H₂O₂, HNO₃, HC1 其他 / Others 加入任何酸至完全溶解 / Any acid to total digestion

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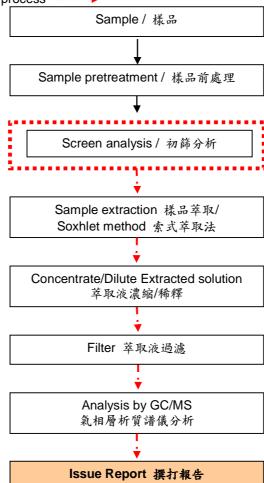
多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

1)測試人員: 曹嘉琪 / Name of the person who made measurement: Anson Tsao 2)測試負責人:張伯睿 / Name of the person in charge of measurement: Ray 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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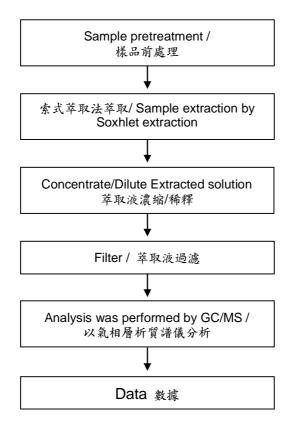
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六溴環十二烷分析流程圖 / HBCDD Analytical FLOW CHART

- 1) 測試人員: 曹嘉琪/ Name of the person who made measurement: Anson Tsao
- 2) 測試負責人:張伯睿/ Name of the person in charge of measurement: Ray Chang



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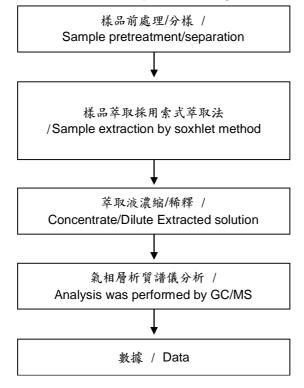
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可塑劑分析流程圖 / Analytical flow chart of phthalate content

1)测試人員: 曹嘉琪 / Name of the person who made measurement: Anson Tsao

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



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** 報告結尾(End of Report) **

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