

試驗報告

Test Report

號碼(No.) : KA/2017/30128A-01 日期(Date) : 2017/04/10

頁數 (Page) : 1 of 8

信宇科技股份有限公司

SIN YU TECHNOLOGY INC.

744臺南市新市區潭頂里115號

NO.115,TANDING, XINSHI DIST.,TAINAN CITY, 744 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) :

樣品名稱(Sample Description) : 聚氧乙烯絕緣及被覆多芯纜線(PVC INSULATED AND JACKED MULTI-CONDUCTOR WIRE)
樣品型號(Style/Item No.) : CNS3199 聚氧乙烯絕緣及被覆圓形花線(VCTF), CNS3199 耐熱聚氧乙烯絕緣及被覆圓形花線(HVCTF), CNS3199 聚氧乙烯絕緣及被覆扁形花線(VCTFK)
收件日期(Sample Receiving Date) : 2017/03/02
測試期間(Testing Period) : 2017/03/02 TO 2017/03/08
送樣廠商(Sample Submitted By) : 信宇科技股份有限公司 (SIN YU TECHNOLOGY INC.)

測試需求(Test Requested)

依據客戶指定, 參考RoHS指令2011/65/EU Annex II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.)

測試結果(Test Results)

: 請見下一頁 (Please refer to next pages).



報告簽署人/Ray Chang, Ph.D./Manager-Tech
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	黑色 外被 (BLACK JACKET)
測試部位(PART NAME)No.2	白色 絕緣體 (WHITE COLORED INSULATIONS)
測試部位(PART NAME)No.3	黑色 絕緣體 (BLACK COLORED INSULATIONS)
測試部位(PART NAME)No.4	銅色 銅線 (COPPER RED CONDUCTOR)

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	No.2	No.3	No.4
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.	n.d.	n.d.	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.	n.d.	n.d.	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.	n.d.	n.d.	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.	n.d.	n.d.	---
六價鉻 / Hexavalent Chromium Cr(VI)(#2)	µg/cm ²	參考IEC 62321-7-1:2015, 以UV-VIS檢測. / With reference to IEC 62321-7-1:2015 and performed by by UV-VIS.	0.10	---	---	---	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	No.2	No.3	No.4
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.	n.d.	n.d.	n.d.
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	n.d.
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	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.	n.d.	n.d.	n.d.
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	n.d.
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.	

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NO.115,TANDING, XINSHI DIST.,TAINAN CITY, 744 TAIWAN,R.O.C.

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. "---" = Not Conducted (未測項目)
6. (#2) =
 - a. 當六價鉻結果大於 $0.13 \mu\text{g}/\text{cm}^2$ ，表示樣品表層含有六價鉻。 / The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than $0.13 \mu\text{g}/\text{cm}^2$. The sample coating is considered to contain Cr(VI).
 - b. 當六價鉻結果為n.d. (濃度小於 $0.10 \mu\text{g}/\text{cm}^2$)，表示表層不含六價鉻。 / The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than $0.10 \mu\text{g}/\text{cm}^2$). The coating is considered a non-Cr(VI) based coating
 - c. 當六價鉻結果介於 0.10 及 $0.13 \mu\text{g}/\text{cm}^2$ 時，無法確定塗層是否含有六價鉻。 / The result between $0.10 \mu\text{g}/\text{cm}^2$ and $0.13 \mu\text{g}/\text{cm}^2$ is considered to be inconclusive - unavoidable coating variations may influence the determination.
7. 此為2017/03/08所發行KA/2017/30128之加發報告，原始資料請參考KA/2017/30128. This is the additional test report of KA/2017/30128 which was issued on 2017/03/08. Please refer to KA/2017/30128 for original information.

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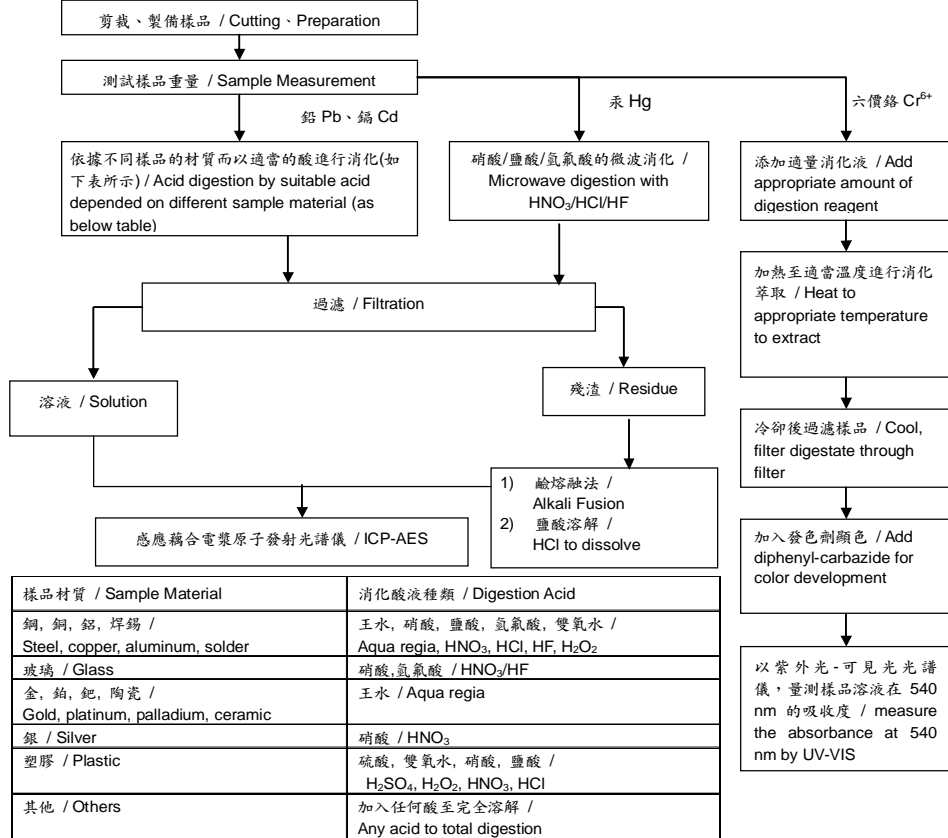
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：劉俊宏 / Name of the person who made measurement: Jony Liu
- 3) 測試負責人：張伯睿 / Name 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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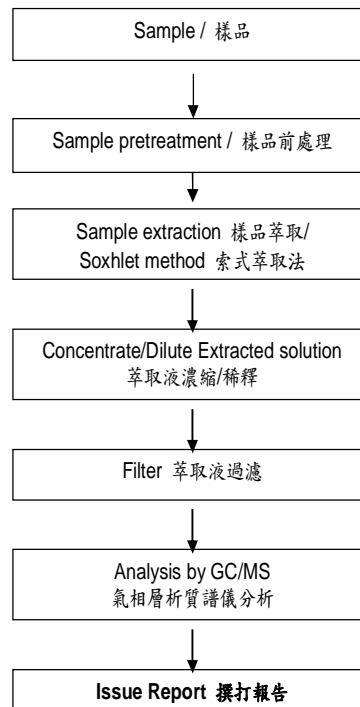
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多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

- 1)測試人員：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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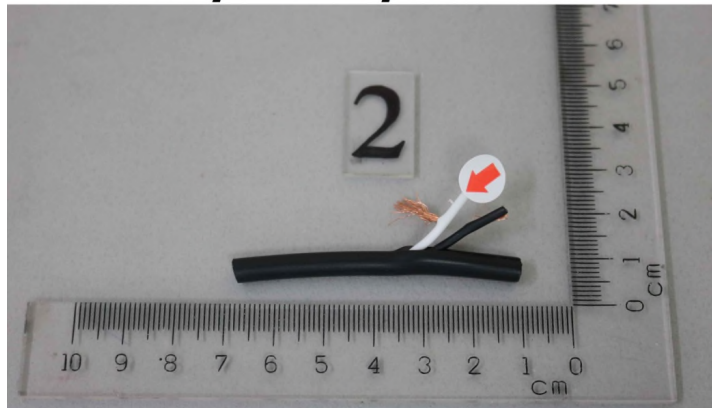
* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

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

KA/2017/30128



KA/2017/30128



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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/2017/30128



KA/2017/30128



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