

**Test Report** 

號碼(No.): ETR21902274 日期(Date): 15-Sep-2021 頁數(Page): 1 of 7

有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.)

台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, 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) : 有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.)

樣品名稱(Sample Name) : CLOSED END CONNECTOR / WIRE NUT (閉端子 / 旋轉端子) 樣品型號(Style/Item No.) : CE-X (A/B/L/S) SERIES (HW-CX,HWCX,HW-CXS,HWCX V0,

HCXXXXSDB1,HC8SDB1,HW-CXL,HW-C3SL) E-X SERIES (E-X)

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

收件日(Sample Receiving Date) : 09-Sep-2021

測試期間(Testing Period) : 09-Sep-2021 to 15-Sep-2021

測試需求(Test Requested) : 依據客戶指定,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, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted

sample(s).)

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages.)





IN CODE: 045B4E75



# **Test Report**

號碼(No.): ETR21902274 日期(Date): 15-Sep-2021

頁數(Page): 2 of 7

有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.)

台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, TAIWAN (R. O. C.))

#### 測試部位敘述 (Test Part Description)

No.1 : 整體混測 (MIXED ALL PARTS)

#### 測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
鎘 (Cd) (Cadmium (Cd)) (CAS No.: 7440-	參考IEC 62321-5: 2013,以感應耦合電漿發射光	mg/kg	2	n.d.
43-9)	譜儀分析。(With reference to IEC 62321-5:			
	2013, analysis was performed by ICP-OES.)			
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)	參考IEC 62321-5: 2013·以感應耦合電漿發射光	mg/kg	2	n.d.
	譜儀分析。(With reference to IEC 62321-5:			
	2013, analysis was performed by ICP-OES.)			
汞 (Hg) (Mercury (Hg)) (CAS No.: 7439-	參考IEC 62321-4: 2013+ AMD1: 2017,以感應耦	mg/kg	2	n.d.
97-6)	合電漿發射光譜儀分析。(With reference to IEC			
	62321-4: 2013+ AMD1: 2017, analysis was			
	performed by ICP-OES.)			
六價鉻 Cr(VI) (Hexavalent Chromium	參考IEC 62321-7-2: 2017·以紫外光-可見光分光	mg/kg	8	n.d.
Cr(VI)) (CAS No.: 18540-29-9)	光度計分析。(With reference to IEC 62321-7-2:			
	2017, analysis was performed by UV-VIS.)			
一溴聯苯 (Monobromobiphenyl)		mg/kg	5	n.d.
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.
五溴聯苯 (Pentabromobiphenyl)	參考IEC 62321-6: 2015·以氣相層析儀/質譜儀分	mg/kg	5	n.d.
六溴聯苯 (Hexabromobiphenyl)	析。(With reference to IEC 62321-6: 2015,	mg/kg	5	n.d.
七溴聯苯 (Heptabromobiphenyl)	analysis was performed by GC/MS.)	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.
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.



# **Test Report**

號碼(No.): ETR21902274 日期(Date): 15-Sep-2021 頁數(Page): 3 of 7

有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.) 台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, TAIWAN (R. O. C.))

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
一溴聯苯醚 (Monobromodiphenyl ether)		mg/kg	5	n.d.
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.
四溴聯苯醚 (Tetrabromodiphenyl ether)	參考IEC 62321-6: 2015·以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	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.
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl		mg/kg	50	n.d.
phthalate (BBP)) (CAS No.: 85-68-7)				
鄰苯二甲酸二丁酯 (DBP) (Dibutyl		mg/kg	50	n.d.
phthalate (DBP)) (CAS No.: 84-74-2)	参考IEC 62321-8: 2017·以氣相層析儀/質譜儀分			
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-	析。(With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.
(2-ethylhexyl) phthalate (DEHP)) (CAS	analysis was performed by GC/MS.)			
No.: 117-81-7)				
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl		mg/kg	50	n.d.
phthalate (DIBP)) (CAS No.: 84-69-5)				

#### 備註(Note):

- 1. mg/kg = ppm; 0.1wt% = 1000ppm
- 2. MDL = Method Detection Limit (方法偵測極限值)
- 3. n.d. = Not Detected (未檢出); 小於MDL / Less than MDL
- 4. "-" = Not Regulated (無規格值)
- 5. 樣品的測試是基於申請人要求混合測試‧報告中的混合測試結果不代表其中個別單一材質的含量。
  The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.



### **Test Report**

號碼(No.): ETR21902274 日期(Date): 15-Sep-2021

頁數(Page): 4 of 7

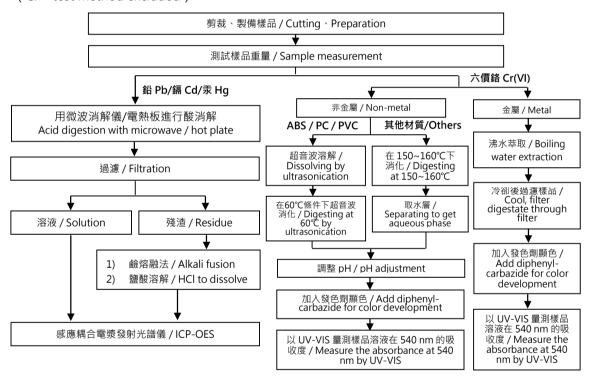
有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.)

台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, TAIWAN (R. O. C.))

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

根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

These samples were dissolved totally by pre-conditioning method according to below flow chart. ( $Cr^{6+}$  test method excluded)





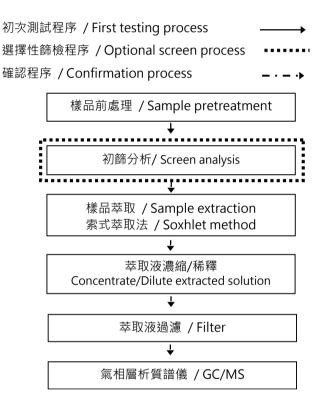
# **Test Report**

號碼(No.): ETR21902274 日期(Date): 15-Sep-2021

頁數(Page): 5 of 7

有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.) 台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, TAIWAN (R. O. C.))

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





# **Test Report**

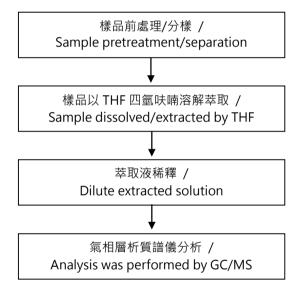
號碼(No.): ETR21902274 日期(Date): 15-Sep-2021

頁數(Page): 6 of 7

有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.) 台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, TAIWAN (R. O. C.))

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

【測試方法/Test method: IEC 62321-8】





## **Test Report**

號碼(No.): ETR21902274 日期(Date): 15-Sep-2021

頁數(Page): 7 of 7

有達工業股份有限公司 (UTA AUTO INDUSTRIAL CO., LTD.) 台中市大里區工業十二路1號 (大里工業區) (NO. 1, GONGYE 12TH RD., DALI DIST., TAICHUNG CITY 412, 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.)

### ETR21902274



\*\* 報告結尾 (End of Report) \*\*