# 承 認 書

| | | | |
|---|---|---|---|
| 客戶名稱 | 鈺 緯 科 技 | 品名規格 | |
| 客戶料號 | 3KH00280000 (K1190) | 稳德料号 | |
| 使用機型 | | 成品單重 | |
| 認可日期 | 2024年10月23日 | 材料種類 | |

| 客戶簽認 | | |
|---|---|---|
| | 設計驗證 工程課 2024-12-10 發行 鈺緯科技開發股份有限公司 | |
| 核　准 | 核對 | 經辦 |
| | | |

| 廠商簽認 | | |
|---|---|---|
| | | |
| 核　准 | 核 對 | 經 辦 |
| | 陳熙偉 | 曾貴梅 |

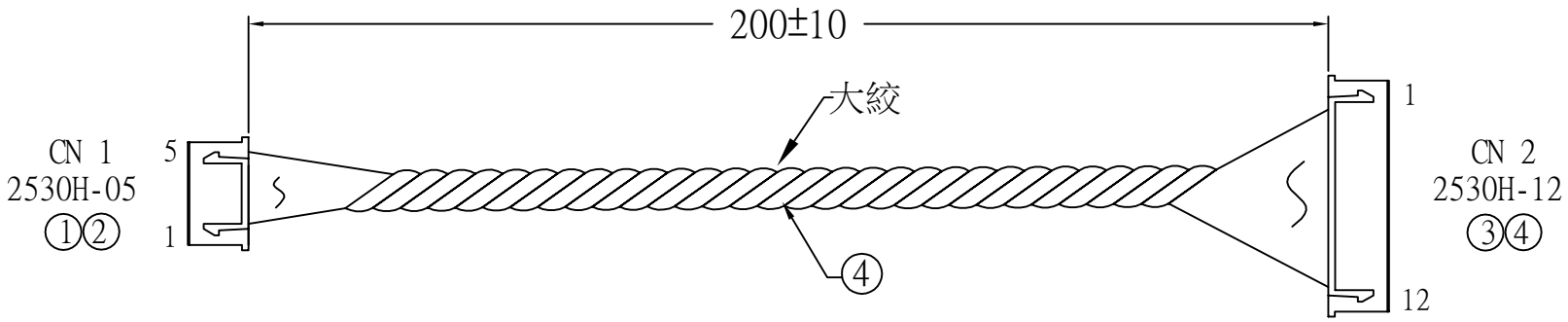

东莞穩德電子有限公司

地址：廣東省東莞市虎門鎮新聯高科技工業區

TEL:(0769)85509740　　FAX:(0769)85504618

http://www.wentek.com.tw　　E-mail:sales@dgwender.com.cn

DRAWING:
(成品圖)




備註;
1.裁線長度：2.5 x 220 x 2.5
2.測試條件:
>測試電壓:300 V.DC.
>導通阻抗:2Ω(MAX).
>絕緣阻抗:20MΩ(MIN).

| CN 1 | COLOR | CN 2 |
|---|---|---|
| 1 | x | |
| 2 | 黑 | 12 |
| 3 | 黑 | 11 |
| 4 | 紅 | 2 |
| 5 | 紅 | 1 |

設計驗證
工程課
2024-12-10
發行
鈺緯科技開發股份有限公司

| NO. 項次 | Description 規格說明 | Unit 單位 | Q"TY 單用量 | Remark 備注 |
|---|---|---|---|---|
| 4 | UL1007#24 黑,紅 L=220 | PCS | 各2 | 眾達 |
| 3 | HSG:2530H-12 | PCS | 1 | 旗欣 |
| 2 | TER:2531T | PCS | 8 | 旗欣 |
| 1 | HSG:2530H-05 | PCS | 1 | 旗欣 |

| No. 項次 | Date 日期 | Design Change Record 變更記錄 | Confirm 確認 |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Approval 檢查規范 | | | |
|---|---|---|---|
| Approve 核准 | Check 复核 | Confirm 確認 | Draw By 繪圖 |
| | | | |

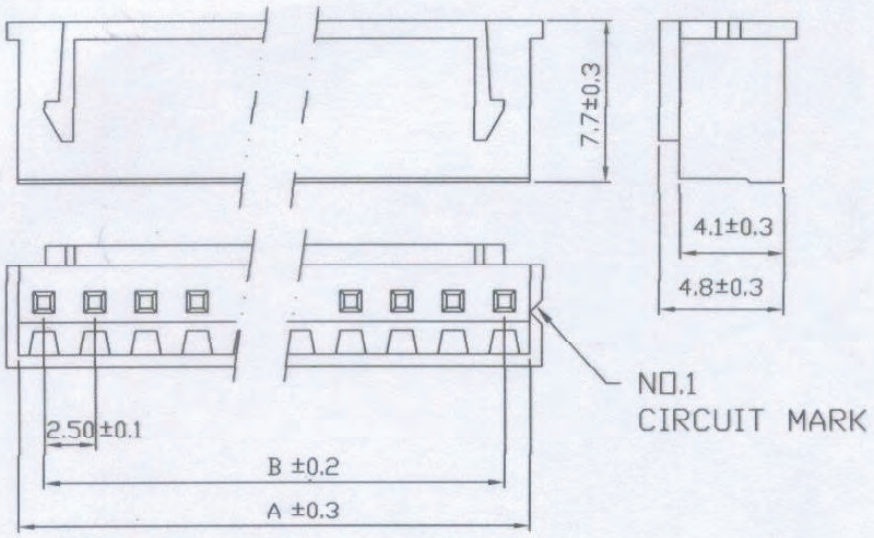
| ISSUE NO. 版次 | REV. A | Customer 客戶名稱 | 鈺緯科技 |
|---|---|---|---|
| | Unit : mm 單位 | Drawing No. 品名 | |
| A | Scale : 比例 | PART NO. 料號 | 3KH00280000 (K1190) |
| | 2022.09.27 | DRAW NO. 繪圖編號 | |

WEN DE ELECTRONICS CO.,LTD

Q-008B

EVER-CONN
E.C.I.

# 2530H SERIES




| PART NO. | A | B |
|---|---|---|
| 2530- 02 | 5.7 | 2.5 |
| 2530- 03 | 8.2 | 5.0 |
| 2530- 04 | 10.7 | 7.5 |
| 2530- 05 | 13.2 | 10.0 |
| 2530- 06 | 15.7 | 12.5 |
| 2530- 07 | 18.2 | 15.0 |
| 2530- 08 | 20.7 | 17.5 |
| 2530- 09 | 23.2 | 20.0 |
| 2530- 10 | 25.7 | 22.5 |
| 2530- 11 | 28.2 | 25.0 |
| 2530- 12 | 30.7 | 27.5 |
| 2530- 13 | 33.2 | 30.0 |
| 2530- 14 | 35.7 | 32.5 |
| 2530- 15 | 38.2 | 35.0 |
| 2530- 16 | 40.7 | 37.5 |
| 2530- 17 | 43.2 | 40.0 |
| 2530- 18 | 45.7 | 42.5 |
| 2530- 19 | 48.2 | 45.0 |
| 2530- 20 | 50.7 | 47.5 |

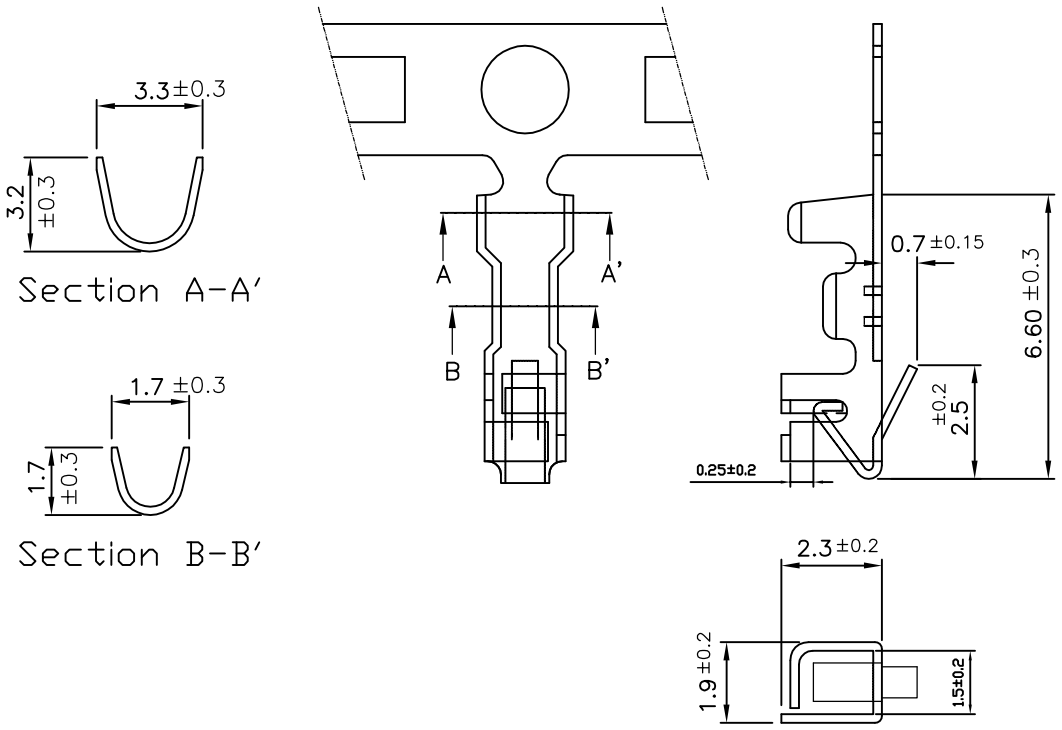
2-20 CIRCUITS
WITH LOCKING RAMP
MATES WITH: 2531 TERMINAL
ACCEPTS WITH: 2532 2533 SERIES WAFER
NYLON 66 UL94 V-0 NATURAL COLOR
ACCEPTS: 0.64(.0.25") ROUND OR SQ. PIN
CURRENT RATING: 3A AC,DC
VOLTAGE RATING:250V AC.CD
UL NO.:E115256
CSA FILE NO.:LR84767

2012 9 27 管制中心

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ウニオ REMARKS REV 0 | | | | | | | | | | |
| | | | | | | | TITLE | MATERIAL | FINISH | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | TYPE | ±0.4 | ±0.5 | MARK | REVISED | Y. M. D. | REVISER | ACALE | / | UNIT mm |
| | PARTITION | 20-40 | 40 UP | ISSUER | YANG | CHECK | | ANGLE | | 3TH ANGLE |
| | TYPE | ±0.2 | ±0.3 | 旗欣股份有限公司 EVER CONNECTOR INDUSTRIAL CO., LID. | | | | DATE 89.06.03 | | DWG NO. 2530H |
| | PARTITION | 1-10 | 10-20 | | | | | | | |

EVER-CONN
E.C.I.

# *2531 SERIES*




THICKNESS:0.2mm
* MAT'L: 2531 BRASS,2531P PHOSPPHOR BRONZE TIN PLANED
* MATES WITH: 2530 SERIES HOUSING
* ACCEPTS WITE: 2532 2533 AERIES WAFER
* CURRENT RATING:3A AC,DC
* VOLTAGE RATING: 250V AC,DC
* APPLICABLE WIRE RANGE: AWG#22-28
* ACCEPTS: 0.64(.025") ROUND OR SQUARE PIN
* UL FILE NO.:E115256
* CSA FILE NO.:LR84767

插入力：1.0Kg以下
脫拔力：0.15Kg以上

| REMARKS | REV 1 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |

| TOLERANCES LNLESS OTHERWISE SPECIFIED | | | | MARK | REVISED | Y.M.D. | REVISER | | SCALE | / | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PARTITION | | | ISSUER | LAY | CHECK | | | ANGLE | | 3TH ANGLE | |
| | TYPE | | | 旗欣股份有限公司 EVER CONNECTOR INDUSTRIAL CO.,LID | | | | | DATE | 12.10.08 | DWG NO. | 2531 |
| | PARTITION | | | | | | | | | | | |

# UL 1007 HOOK-UP WIRE
# 80℃ 300V PVC 電子線

UL Subject758

UL FILE NO：E309338

▲說明：

- 導體使用單條或絞線 32-16AWG 裸銅或鍍錫銅
- 非移 PVC 絕緣
- 額定溫度：80°C，額定電壓：300 Volts
- 可通過 UL VW-1 及 CSA F t1，垂直型耐燃測試

**Product Description:**

- Tinned, annealed, stranded or Solid copper conductor,32-16AWG
- Color-coded PVC insulation
- Rated temperature: 80°C,Rated voltage: 300 Volts
- Passed UL VW-1 & CSA FT1 vertical flame test

## ▲ 應用：

- 一般電子、電器設備內部配線。

## Applications:

- For general purpose internal wiring of electrical, and electrical equipment

**構造和電氣性能**

**Structure & electric properties**




| CUL 1007 | 額定 Range | | 導體 Conducor | | 絕緣體 Insulation | | 公差值 Tolerance mm | 最大導體阻抗 Maximum Conductor Resistance Ω/km | 容許電流 Permitable Current A | 最小絕緣阻抗 Minimum Insulation Resistance Ω/km | 絕緣耐電壓 (VAC/min) Insulation Potential Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 溫度 Temp °C | 電壓 Voltage V | 線號 AWG | 構成 No./mm | 厚度 Thickness mm | 外徑 O.D. mm | | | | | |
| 多芯線 Stranded | UL 80°C CSA 90°C | 300V | 32 | 7/0.080 | 0.38 | 1.00 | ±0.10 | 703.0 | 1.60 | 15 | 2000 |
| | | | 30 | 7/0.100 | 0.38 | 1.10 | ±0.10 | 397.0 | 2.0 | | |
| | | | 28 | 7/0.127 | 0.38 | 1.20 | ±0.10 | 248.0 | 2.5 | | |
| | | | 26 | 7/0.160 | 0.38 | 1.30 | ±0.10 | 152.0 | 3.5 | | |
| | | | 24 | 11/0.160 | 0.38 | 1.45 | ±0.10 | 88.6 | 5.0 | | |
| | | | 22 | 17/0.160 | 0.38 | 1.60 | ±0.10 | 62.5 | 7.0 | | |
| | | | 20 | 21/0.180 | 0.38 | 1.85 | ±0.10 | 39.5 | 9.0 | | |
| | | | 18 | 34/0.180 | 0.38 | 2.10 | ±0.10 | 24.4 | 13.0 | | |
| | | | 16 | 26/0.254 | 0.38 | 2.40 | ±0.10 | 15.6 | 17.0 | | |

# UL 1007 HOOK-UP WIRE
# 80℃ 300V PVC 電子線

UL Subject758 UL FILE NO：E309338

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STYLE | | | UL 1007 | | | | | | | | |
| RATING TEMP / VOLT | | | 80℃/300V | | | | | | | | SAME AS UL |
| CONDUCTOR | SIZE | | AWG | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 |
| | NUMBER | | NO. | 7 | 7 | 7 | 11 | 17 | 21 | 34 | 26 |
| | DIAMETER | | MM | 0.100 | 0.127 | 0.160 | 0.160 | 0.160 | 0.180 | 0.180 | 0.254 |
| | MIN.DIAMETER | | MM | 0.090 | 0.117 | 0.150 | 0.150 | 0.150 | 0.170 | 0.170 | 0.243 |
| | COROSS SEC AREA OF COND | AVG | CM | 100 | 159 | 253 | 404 | 640 | 1020 | 1620 | 2580 |
| | | MIN | | 98 | 156 | 248 | 392 | 621 | 989 | 1571 | 2503 |
| | LAY OF BUNCH | | INCH | 0.50 | 0.50 | 0.60 | 0.70 | 0.80 | 1.25 | 2.00 | 2.00 |
| | MAX.RESISTANCE | | Ω/KM | 397 | 248 | 152 | 88.6 | 62.5 | 39.5 | 24.4 | 15.6 |
| INSULATION | O.D.(±0.10) | | MM | 1.10 | 1.20 | 1.30 | 1.45 | 1.60 | 1.85 | 2.10 | 2.40 |
| | INSULATION THICKNESS | AVG | MIL | 15 | | | | | | | 15 |
| | | MIN | | 13 | | | | | | | 13 |
| | JACKET THICKNESS | AVG | MIL | | | | | | | | |
| | | MIN | | | | | | | | | |
| INSULATION RESISTANCE | | | MΩ/KM | 15 | | | | | | | |
| SPARK TEST | | | KV | 3 | | | | | | | |
| ELONGATION | | | % | 100 | | | | | | | |
| TENSIL STRENGTH | | | PSI | 1500 | | | | | | | 121℃/168HRS |
| ELO.(AFTER AGING) | | | % | OF UNAGED 65 | | | | | | | |
| TEN.ST.(AFTER AGING) | | | % | OF UNAGED 70 | | | | | | | |
| AGING TEMP TIME | | | | 113℃/168HRS | | | | | | | |
| OIL LMMERSION TEST | | | | 100℃/96HRS 50% | | | | | | | |
| FIAME TEST | | | | VW-1 | | | | | | | |
| HEAT SHOCK TEST | | | | 121℃/1HR 1.60MM MANDREL | | | | | | | |
| DEFORMATION TEST | | | | 100℃/96HR 250G 50% | | | | | | | 131℃/1HR 150G 50% |
| COLD BEND TEST | | | | -10℃/1HR 3.2MM MANDREL | | | | | | | -15℃/1HR |
| INSULATION POTENTIALST | | | | 2KVAC/min | | | | | | | |

印 字 內 容： AWM 1007 VW-1 80°C 300V E309338 （16-30）AWG KAI TAT CO

C AWM I A 90° C 300V （16-30）AWG FT1 -LF-

# TEST REPORT

**Lab No.** : **(6223)348-0072**
**Date** : **December 22, 2023**
**Page** : **1 of 9**

| | | |
|---|---|---|
| **APPLICANT**<br>**申請人** | : | EVER CONNECTOR INDUSTRIAL CO., LTD<br>NO. 1, Ln. 91, Benzhou Rd., Gangshan Dist., Kaohsiung City 820, Taiwan (R.O.C.)<br>旗欣股份有限公司<br>820 高雄市岡山區本洲路 91 巷 1 號 |
| **CONTACT PERSON**<br>**聯絡人** | : | — |
| **DATE OF SUBMISSION**<br>**送樣日期** | : | December 14, 2023<br>2023 年 12 月 14 日 |
| **PERFORMANCE PERIOD**<br>**測試日期** | : | December 14, 2023 to December 22, 2023<br>2023 年 12 月 14 日 至 2023 年 12 月 22 日 |
| **SAMPLE DESCRIPTION**<br>**樣品描述** | : | TERMINAL-BRASS |

**SUMMARY OF TEST RESULTS 測試結果摘要**

| TEST REQUESTED 測試要求 | CONCLUSION 結論 | REMARK 備註 |
|---|---|---|
| Heavy Metals and Flame Retardants Content – European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)<br>重金屬和阻燃劑含量 – 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令)，2011/65/EU | PASS<br>通過 | — |
| Phthalates Test – Directive (EU)2015/863 Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) (Note: The amendment will be effective on 22 July 2019. For medical devices, monitoring and control instruments, effective date will be 22 July 2021.)<br>鄰苯二甲酸鹽測試 – 指令2011/65/EU 歐洲議會和理事會關於電子電氣設備中限制使用某些有害物質 (RoHS)的修正案指令(EU)2015/863.<br>(注釋:修正案將於2019年7月22日起生效。對於醫療設備及監測和控制設備生效日期為2021年7月22日) | PASS<br>通過 | — |
| Perfluorooctanoic acid (PFOA) Content & Perfluorooctane sulphonate (PFOS) Content<br>全氟辛酸含量和全氟辛烷磺酸含量 | DATA<br>數據 | Test result in page 4<br>測試結果請見第 4 頁 |

C/N /TC/JK

**Bureau Veritas**
**Consumer Product Service (H.K.) Ltd.**
**Taiwan Branch**
37, Zhongyang S Rd., Sec. 2, Beitou,
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**REMARK 備註**

If there are questions or concerns on this report, please contact:
若有任何疑問或諮詢，請與我們聯絡:

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BUREAU VERITAS CONSUMER PRODUCTS SERVICES
(H.K.) LIMITED, TAIWAN BRANCH

PREPARED BY : Tiffany Chin

VICO LIN
MANAGER
ANALYTICAL DEPARTMENT

C/N /TC/JK

## TEST RESULT 測試結果

| Tested item 測試部件 | |
|---|---|
| 1. | Silvery metal / 銀色金屬 |

**Heavy Metals and Flame Retardants Content – European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)**
**重金屬和阻燃劑含量 - 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令)，2011/65/EU**

| Compounds 化合物 | Unit 單位 | Tested item 測試部件 | RoHS' Limits 限用有害物質指令限值 |
|---|---|---|---|
| | | 1 | |
| Lead [Pb] / 鉛 | mg/kg | 5.8 | 1000 |
| Cadmium [Cd] / 鎘 | mg/kg | N.D. | 100 |
| Mercury [Hg] / 汞 | mg/kg | N.D. | 1000 |
| Chromium (VI) [Cr(VI)] / 六價鉻 | — | Negative | Negative |
| Polybrominated Biphenyls[PBBs] / 多溴聯苯 | | | |
| Bromobiphenyls / 一溴聯苯 | mg/kg | N.D. | |
| Dibromobiphenyls / 二溴聯苯 | mg/kg | N.D. | |
| Tribromobiphenyls / 三溴聯苯 | mg/kg | N.D. | |
| Tetrabromobiphenyls / 四溴聯苯 | mg/kg | N.D. | |
| Pentabromobiphenyls / 五溴聯苯 | mg/kg | N.D. | |
| Hexabromobiphenyls / 六溴聯苯 | mg/kg | N.D. | |
| Heptabromobiphenyls / 七溴聯苯 | mg/kg | N.D. | |
| Octabromobiphenyls / 八溴聯苯 | mg/kg | N.D. | |
| Nonabromobiphenyls / 九溴聯苯 | mg/kg | N.D. | |
| Decabromobiphenyl / 十溴聯苯 | mg/kg | N.D. | |
| Sum of PBBs / 多溴聯苯總和 | mg/kg | N.D. | 1000 |
| Polybrominated Diphenyl Ethers[PBDEs] / 多溴聯苯醚 | | | |
| Bromodiphenyl ethers / 一溴聯苯醚 | mg/kg | N.D. | |
| Dibromodiphenyl ethers / 二溴聯苯醚 | mg/kg | N.D. | |
| Tribromodiphenyl ethers / 三溴聯苯醚 | mg/kg | N.D. | |
| Tetrabromodiphenyl ethers / 四溴聯苯醚 | mg/kg | N.D. | |
| Pentabromodiphenyl ethers / 五溴聯苯醚 | mg/kg | N.D. | |
| Hexabromodiphenyl ethers / 六溴聯苯醚 | mg/kg | N.D. | |
| Heptabromodiphenyl ethers / 七溴聯苯醚 | mg/kg | N.D. | |
| Octabromodiphenyl ethers / 八溴聯苯醚 | mg/kg | N.D. | |
| Nonabromodiphenyl ethers / 九溴聯苯醚 | mg/kg | N.D. | |
| Decabromodiphenyl ether / 十溴聯苯醚 | mg/kg | N.D. | |
| Sum of PBDEs / 多溴聯苯醚總和 | mg/kg | N.D. | 1000 |
| Conclusion 結論 | — | PASS 通過 | — |

C/N /TC/JK

## TEST RESULT 測試結果

**Phthalates Test – Directive (EU)2015/863 Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)**
**鄰苯二甲酸鹽測試- 指令 2011/65/EU 歐洲議會和理事會關於電子電氣設備中限制使用某些有害物質 (RoHS)的修正案指令(EU)2015/863.**

| Test Item 測試項目 | CAS No. CAS 编號 | Unit 單位 | Tested item 測試部件 | Maximum Allowable Limit 最大允许限值 |
|---|---|---|---|---|
| | | | 1 | |
| Dibutyl phthalate (DBP) 鄰苯二甲酸二丁酯 | 84-74-2 | % | N.D. | 0.1 |
| Butyl benzyl phthalate (BBP) 鄰苯二甲酸丁苄酯 | 85-68-7 | % | N.D. | 0.1 |
| Bis(2-ethylhexyl) phthalate (DEHP) 鄰苯二甲酸二異辛酯 | 117-81-7 | % | N.D. | 0.1 |
| Diisobutyl phthalate (DIBP) 鄰苯二甲酸二異丁酯 | 84-69-5 | % | N.D. | 0.1 |
| Sum of Phthalates 鄰苯二甲酸鹽總和 | — | % | N.D. | — |
| Conclusion 結論 | — | — | PASS 通過 | — |

**Perfluorooctanoic acid (PFOA) and Perfluorooctane sulphonate (PFOS) Content**
**全氟辛酸和全氟辛烷磺酸含量**

| Compounds 化合物 | Unit 單位 | Tested item 測試部件 |
|---|---|---|
| | | 1 |
| Perfluorooctanoic acid (PFOA) 全氟辛酸 | mg/kg | N.D. |
| Perfluorooctane sulphonate (PFOS) 全氟辛烷磺酸 | mg/kg | N.D. |

**Note 註解:**
N.D. = Not Detected (低於報告限值) — = Empty (空白)
Negative = (陰性) Positive = (陽性)
% = percent (百分率) 10 000 mg/kg = 1 %
mg/kg = milligram per kilogram = ppm (毫克/公斤, 百萬分之一)

C/N /TC/JK

Reporting Limit / 報告限值:
Pb, Cd, Hg: 2 mg/kg
Cr(VI) (金屬，Metal): 0.1 µg/cm$^2$
Metal 金屬
Cr(VI): 0.1 µg/cm$^2$
#The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13µg/cm$^2$. The coating is considered to contain Cr(VI).
當六價鉻結果大於 0.13µg/cm$^2$，表示樣品表層含有六價鉻。
#The sample is negative for Cr(VI) if the Cr(VI) concentration is less than 0.10µg/cm$^2$. The coating is considered a non-Cr(VI) based coating.
當六價鉻結果小於 0.10µg/cm$^2$，表示樣品表層不含六價鉻。
#The result between 0.10µg/cm$^2$ and 0.13µg/cm$^2$ is considered to be inconclusive – unavoidable coating variations may influence the determination.
當六價鉻結果介於 0.10µg/cm$^2$和 0.13µg/cm$^2$之間，表示樣品表層不確定含有六價鉻 –不可避免塗料的變化性可能影響結果判定。
PBBs & PBDEs: Each 5 mg/kg
DBP, BBP, DEHP, DIBP: Each 0.005% ; Sum: 0.02%
Perfluorooctanoic acid (PFOA) and Perfluorooctane sulphonate (PFOS): 0.01 mg/kg

| Test Parameter 測試項目 | Test Method 測試方法 |
|---|---|
| Lead [Pb] / 鉛 | With reference to IEC 62321-5: 2013.<br>參照 IEC 62321-5: 2013. |
| Cadmium [Cd] / 鎘 | |
| Mercury [Hg] / 汞 | With reference to IEC 62321-4: 2013+AMD 1:2017 CSV.<br>參照 IEC 62321-4: 2013+AMD 1:2017 合併版本. |
| Chromium (VI) [Cr(VI)] / 六價鉻 | Metal 金屬:<br>With reference to IEC 62321-7-1:2015.[a]<br>參照 IEC 62321-7-1:2015.[a] |
| Polybrominated Biphenyls[PBBs] and Polybrominated Diphenyl Ethers [PBDEs] /<br>多溴聯苯和多溴聯苯醚: | With reference to IEC 62321-6: 2015.<br>參照 IEC 62321-6: 2015. |
| Dibutyl phthalate (DBP),<br>Butyl benzyl phthalate (BBP),<br>Bis(2-ethylhexyl) phthalate (DEHP),<br>Diisobutyl phthalate (DIBP) /<br>鄰苯二甲酸二丁酯, 鄰苯二甲酸丁苄酯, 鄰苯二甲酸二異辛酯, 鄰苯二甲酸二異丁酯 | With reference to IEC 62321-8: 2017.<br>參照 IEC 62321-8: 2017. |

| Test Parameter 測試項目 | Test Method 測試方法 |
|---|---|
| Perfluorooctanoic acid (PFOA) and Perfluorooctane sulphonate (PFOS) Content / 全氟辛酸和全氟辛烷磺酸含量 | With reference to DIN CEN/TS 15968:2010. 參照 DIN CEN/TS 15968:2010. |
| [a] | The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples. 該方法的原理是在由 IEC TC111 WG3 組織的兩次研究中得到充分評估並獲得了認可。這些研究著重於對金屬樣品上的防腐塗層中六價鉻的存在檢測(定性測試) |

**Remark 備註:**

1. The result only relates to the tested item. The report shall not be reproduced except full without the written approval of the testing laboratory. Parameters which are not covered by the lab's testing scope are subcontracted to laboratories with government approval. The accreditation relates to competences given in the accreditation certificate.
   測試結果僅代表經測試部件。本報告未經測試實驗室認可不得複製。未在本實驗室測試範疇之測試均委外至經官方核可之實驗室。委外實驗室之能力經認證許可。
2. Samples test were conducted as per applicant's request.
   樣品測試進行為依照申請人的要求。

- End 結束 -

C/N /TC/JK

# Photo of the Submitted Sample
# 委送樣品照片

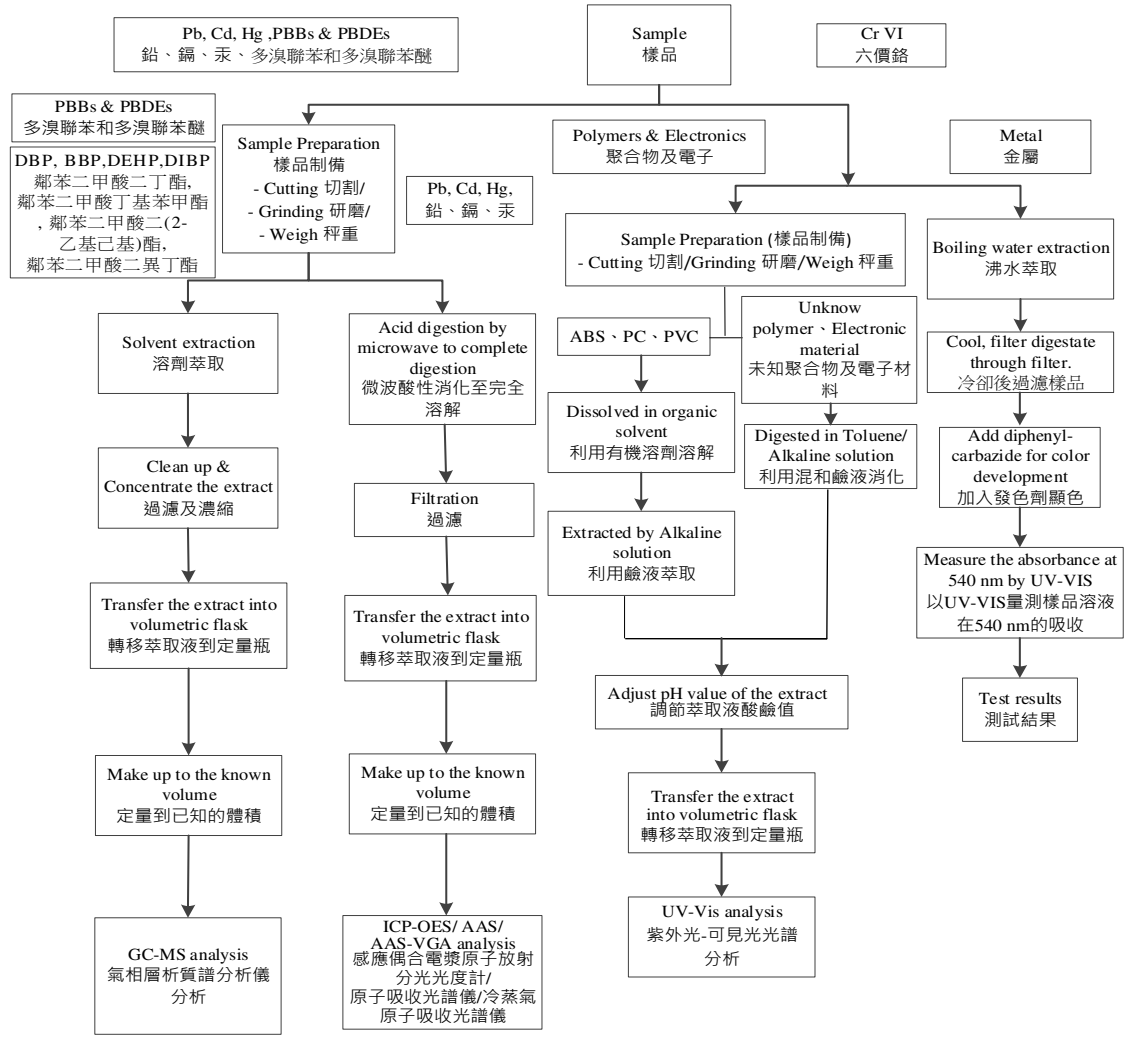



Sample

C/N /TC/JK

# APPENDIX(附錄)

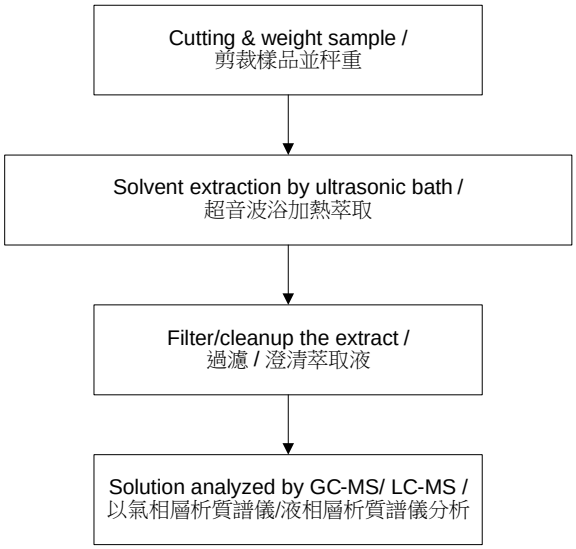
**Test Flowchart of Heavy Metals, Flame Retardants and Phthalates Content [ European Council Directive 2011/65/EU ]:**
**重金屬, 阻燃劑及鄰苯二甲酸鹽含量的測試流程圖 [ 歐盟委員會指令 2011/65/EU ]:**
These samples were dissolved totally by pre-conditioning method according to below flow chart.
($Cr^{6+}$ test method excluded)
根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)




C/N /TC/JK

# APPENDIX(附錄)

**Determinations of Perfluorooctanoic acid (PFOA), Perfluorooctane sulphonate (PFOS) Content:**
**全氟辛酸與全氟辛烷磺酸含量的測試流程圖:**



# TEST REPORT

**Lab No.** : **(6223)348-0081**
**Date** : **December 22, 2023**
**Page** : **1 of 11**

| | | |
|---|---|---|
| **APPLICANT**<br>**申請人** | : | EVER CONNECTOR INDUSTRIAL CO., LTD<br>NO. 1, Ln. 91, Benzhou Rd., Gangshan Dist., Kaohsiung City 820, Taiwan (R.O.C.)<br>旗欣股份有限公司<br>820 高雄市岡山區本洲路 91 巷 1 號 |
| **CONTACT PERSON**<br>**聯絡人** | : | — |
| **DATE OF SUBMISSION**<br>**送樣日期** | : | December 14, 2023<br>2023 年 12 月 14 日 |
| **PERFORMANCE PERIOD**<br>**測試日期** | : | December 14, 2023 to December 22, 2023<br>2023 年 12 月 14 日 至 2023 年 12 月 22 日 |
| **SAMPLE DESCRIPTION**<br>**樣品描述** | : | NYLON UL94-V0 |

**SUMMARY OF TEST RESULTS 測試結果摘要**

| TEST REQUESTED 測試要求 | CONCLUSION 結論 | REMARK 備註 |
|---|---|---|
| Heavy Metals and Flame Retardants Content – European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)<br>重金屬和阻燃劑含量 – 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令)，2011/65/EU | PASS<br>通過 | — |
| Phthalates Test – Directive (EU)2015/863 Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) (Note: The amendment will be effective on 22 July 2019. For medical devices, monitoring and control instruments, effective date will be 22 July 2021.)<br>鄰苯二甲酸鹽測試 – 指令2011/65/EU 歐洲議會和理事會關於電子電氣設備中限制使用某些有害物質 (RoHS)的修正案指令(EU)2015/863.<br>(注釋:修正案將於2019年7月22日起生效。對於醫療設備及監測和控制設備生效日期為2021年7月22日) | PASS<br>通過 | — |
| Phthalates Test<br>鄰苯二甲酸鹽測試 | DATA<br>數據 | Test result in page 4<br>測試結果請見第 4 頁 |

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**Bureau Veritas**
**Consumer Product Service (H.K.) Ltd.**
**Taiwan Branch**
37, Zhongyang S Rd., Sec. 2, Beitou,
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This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute you unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

| TEST REQUESTED 測試要求 | CONCLUSION 結論 | REMARK 備註 |
|---|---|---|
| Halogenated compounds – F, Cl, Br & I<br>含鹵素物質檢測 – 氟, 氯, 溴 和 碘 | DATA<br>數據 | Test result in page 5<br>測試結果請見第 5 頁 |
| Perfluorooctanoic acid (PFOA) Content & Perfluorooctane sulphonate (PFOS) Content<br>全氟辛酸含量和全氟辛烷磺酸含量 | DATA<br>數據 | Test result in page 5<br>測試結果請見第 5 頁 |

**REMARK 備註**

If there are questions or concerns on this report, please contact:
若有任何疑問或諮詢，請與我們聯絡:

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BUREAU VERITAS CONSUMER PRODUCTS SERVICES
(H.K.) LIMITED, TAIWAN BRANCH

PREPARED BY : Tiffany Chin

VICO LIN
MANAGER
ANALYTICAL DEPARTMENT

C/N /TC/JK

## TEST RESULT 測試結果

| **Tested item** 測試部件 | |
|---|---|
| 1. | White solid / 白色固體 |

**Heavy Metals and Flame Retardants Content – European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)**
**重金屬和阻燃劑含量 - 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令)，2011/65/EU**

| **Compounds** 化合物 | **Unit** 單位 | **Tested item** 測試部件 | **RoHS' Limits** 限用有害物質指令限值 |
|---|---|---|---|
| | | 1 | |
| Lead [Pb] / 鉛 | mg/kg | N.D. | 1000 |
| Cadmium [Cd] / 鎘 | mg/kg | N.D. | 100 |
| Mercury [Hg] / 汞 | mg/kg | N.D. | 1000 |
| Chromium (VI) [Cr(VI)] / 六價鉻 | mg/kg | N.D. | 1000 |
| Polybrominated Biphenyls[PBBs] / 多溴聯苯 | | | |
| Bromobiphenyls / 一溴聯苯 | mg/kg | N.D. | |
| Dibromobiphenyls / 二溴聯苯 | mg/kg | N.D. | |
| Tribromobiphenyls / 三溴聯苯 | mg/kg | N.D. | |
| Tetrabromobiphenyls / 四溴聯苯 | mg/kg | N.D. | |
| Pentabromobiphenyls / 五溴聯苯 | mg/kg | N.D. | |
| Hexabromobiphenyls / 六溴聯苯 | mg/kg | N.D. | |
| Heptabromobiphenyls / 七溴聯苯 | mg/kg | N.D. | |
| Octabromobiphenyls / 八溴聯苯 | mg/kg | N.D. | |
| Nonabromobiphenyls / 九溴聯苯 | mg/kg | N.D. | |
| Decabromobiphenyl / 十溴聯苯 | mg/kg | N.D. | |
| Sum of PBBs / 多溴聯苯總和 | mg/kg | N.D. | 1000 |
| Polybrominated Diphenyl Ethers[PBDEs] / 多溴聯苯醚 | | | |
| Bromodiphenyl ethers / 一溴聯苯醚 | mg/kg | N.D. | |
| Dibromodiphenyl ethers / 二溴聯苯醚 | mg/kg | N.D. | |
| Tribromodiphenyl ethers / 三溴聯苯醚 | mg/kg | N.D. | |
| Tetrabromodiphenyl ethers / 四溴聯苯醚 | mg/kg | N.D. | |
| Pentabromodiphenyl ethers / 五溴聯苯醚 | mg/kg | N.D. | |
| Hexabromodiphenyl ethers / 六溴聯苯醚 | mg/kg | N.D. | |
| Heptabromodiphenyl ethers / 七溴聯苯醚 | mg/kg | N.D. | |
| Octabromodiphenyl ethers / 八溴聯苯醚 | mg/kg | N.D. | |
| Nonabromodiphenyl ethers / 九溴聯苯醚 | mg/kg | N.D. | |
| Decabromodiphenyl ether / 十溴聯苯醚 | mg/kg | N.D. | |
| Sum of PBDEs / 多溴聯苯醚總和 | mg/kg | N.D. | 1000 |
| Conclusion 結論 | — | PASS 通過 | — |

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## TEST RESULT 測試結果

**Phthalates Test – Directive (EU)2015/863 Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)**
**鄰苯二甲酸鹽測試- 指令 2011/65/EU 歐洲議會和理事會關於電子電氣設備中限制使用某些有害物質 (RoHS)的修正案指令(EU)2015/863.**

| Test Item 測試項目 | CAS No. CAS 编號 | Unit 單位 | Tested item 測試部件 | Maximum Allowable Limit 最大允许限值 |
|---|---|---|---|---|
| | | | 1 | |
| Dibutyl phthalate (DBP) 鄰苯二甲酸二丁酯 | 84-74-2 | % | N.D. | 0.1 |
| Butyl benzyl phthalate (BBP) 鄰苯二甲酸丁苄酯 | 85-68-7 | % | N.D. | 0.1 |
| Bis(2-ethylhexyl) phthalate (DEHP) 鄰苯二甲酸二異辛酯 | 117-81-7 | % | N.D. | 0.1 |
| Diisobutyl phthalate (DIBP) 鄰苯二甲酸二異丁酯 | 84-69-5 | % | N.D. | 0.1 |
| Sum of Phthalates 鄰苯二甲酸鹽總和 | — | % | N.D. | — |
| Conclusion 結論 | — | — | PASS 通過 | — |

**Phthalates Test**
**鄰苯二甲酸鹽測試**

| Test Item 測試項目 | CAS No. CAS 编號 | Unit 單位 | Tested item 測試部件 |
|---|---|---|---|
| | | | 1 |
| Di-n-octyl phthalate (DNOP) 鄰苯二甲酸二正辛酯 (DNOP) | 117-84-0 | % | N.D. |
| Di-isodecyl phthalate (DIDP) 鄰苯二甲酸二異癸酯 (DIDP) | 26761-40-0 | % | N.D. |
| Di-isononyl phthalate (DINP) 鄰苯二甲酸二異壬酯 (DINP) | 28553-12-0 | % | N.D. |
| Sum of Phthalates / 鄰苯二甲酸鹽總和 | — | % | N.D. |

C/N /TC/JK

## TEST RESULT 測試結果

**Halogen Content - Fluorine, Chlorine, Bromine and Iodine**
**鹵素含量 – 氟、氯、溴和碘**

| Compounds 化合物 | Unit 單位 | Tested item 測試部件 |
|---|---|---|
| | | 1 |
| Halogenated Compounds / 鹵素: | | |
| Fluorine [F] / 氟 | mg/kg | N.D. |
| Chlorine [Cl] / 氯 | mg/kg | N.D. |
| Bromine [Br] / 溴 | mg/kg | N.D. |
| Iodine [I] / 碘 | mg/kg | N.D. |
| Sum of Halogenated Compounds / 鹵素總和 | mg/kg | N.D. |

**Perfluorooctanoic acid (PFOA) and Perfluorooctane sulphonate (PFOS) Content**
**全氟辛酸和全氟辛烷磺酸含量**

| Compounds 化合物 | Unit 單位 | Tested item 測試部件 |
|---|---|---|
| | | 1 |
| Perfluorooctanoic acid (PFOA)<br>全氟辛酸 | mg/kg | N.D. |
| Perfluorooctane sulphonate (PFOS)<br>全氟辛烷磺酸 | mg/kg | N.D. |

**Note 註解:**
N.D. = Not Detected (低於報告限值) — = Empty (空白)
Negative = (陰性) Positive = (陽性)
% = percent (百分率) 10 000 mg/kg = 1 %
mg/kg = milligram per kilogram = ppm (毫克/公斤, 百萬分之一)

C/N /TC/JK

Reporting Limit / 報告限值:
Pb, Cd, Hg: 2 mg/kg
Cr(VI): 8 mg/kg
PBBs & PBDEs: Each 5 mg/kg
Phthalates Content: Each 0.005%
F, I , Cl, Br: 50 mg/kg
Perfluorooctanoic acid (PFOA) and Perfluorooctane sulphonate (PFOS): 0.01 mg/kg

| Test Parameter 測試項目 | Test Method 測試方法 |
|---|---|
| Lead [Pb] / 鉛 | With reference to IEC 62321-5: 2013.<br>參照 IEC 62321-5: 2013. |
| Cadmium [Cd] / 鎘 | |
| Mercury [Hg] / 汞 | With reference to IEC 62321-4: 2013+AMD 1:2017 CSV.<br>參照 IEC 62321-4: 2013+AMD 1:2017 合併版本. |
| Chromium (VI) [Cr(VI)] / 六價鉻 | Polymers & Electronics 聚合物及電子:<br>With reference to IEC 62321-7-2:2017.<br>參照 IEC 62321-7-2:2017. |
| Polybrominated Biphenyls[PBBs] and Polybrominated Diphenyl Ethers [PBDEs] /<br>多溴聯苯和多溴聯苯醚: | With reference to IEC 62321-6: 2015.<br>參照 IEC 62321-6: 2015. |
| Phthalates Test /<br>鄰苯二甲酸鹽測試 | With reference to IEC 62321-8: 2017.<br>參照 IEC 62321-8: 2017. |
| Halogenated Compounds: F, Cl, Br, I /<br>鹵素: 氟, 氯, 溴, 碘 | With reference to EN14582:2016(E).<br>參照 EN14582:2016(E). |
| Perfluorooctanoic acid (PFOA) and Perfluorooctane sulphonate (PFOS) Content /<br>全氟辛酸和全氟辛烷磺酸含量 | With reference to DIN CEN/TS 15968:2010.<br>參照 DIN CEN/TS 15968:2010. |

**Remark 備註:**

1. The result only relates to the tested item. The report shall not be reproduced except full without the written approval of the testing laboratory. Parameters which are not covered by the lab's testing scope are subcontracted to laboratories with government approval. The accreditation relates to competences given in the accreditation certificate.
   測試結果僅代表經測試部件。本報告未經測試實驗室認可不得複製。未在本實驗室測試範疇之測試均委外至經官方核可之實驗室。委外實驗室之能力經認證許可。
2. Samples test were conducted as per applicant's request.
   樣品測試進行為依照申請人的要求。

- End 結束 -

C/N /TC/JK

# Photo of the Submitted Sample
# 委送樣品照片

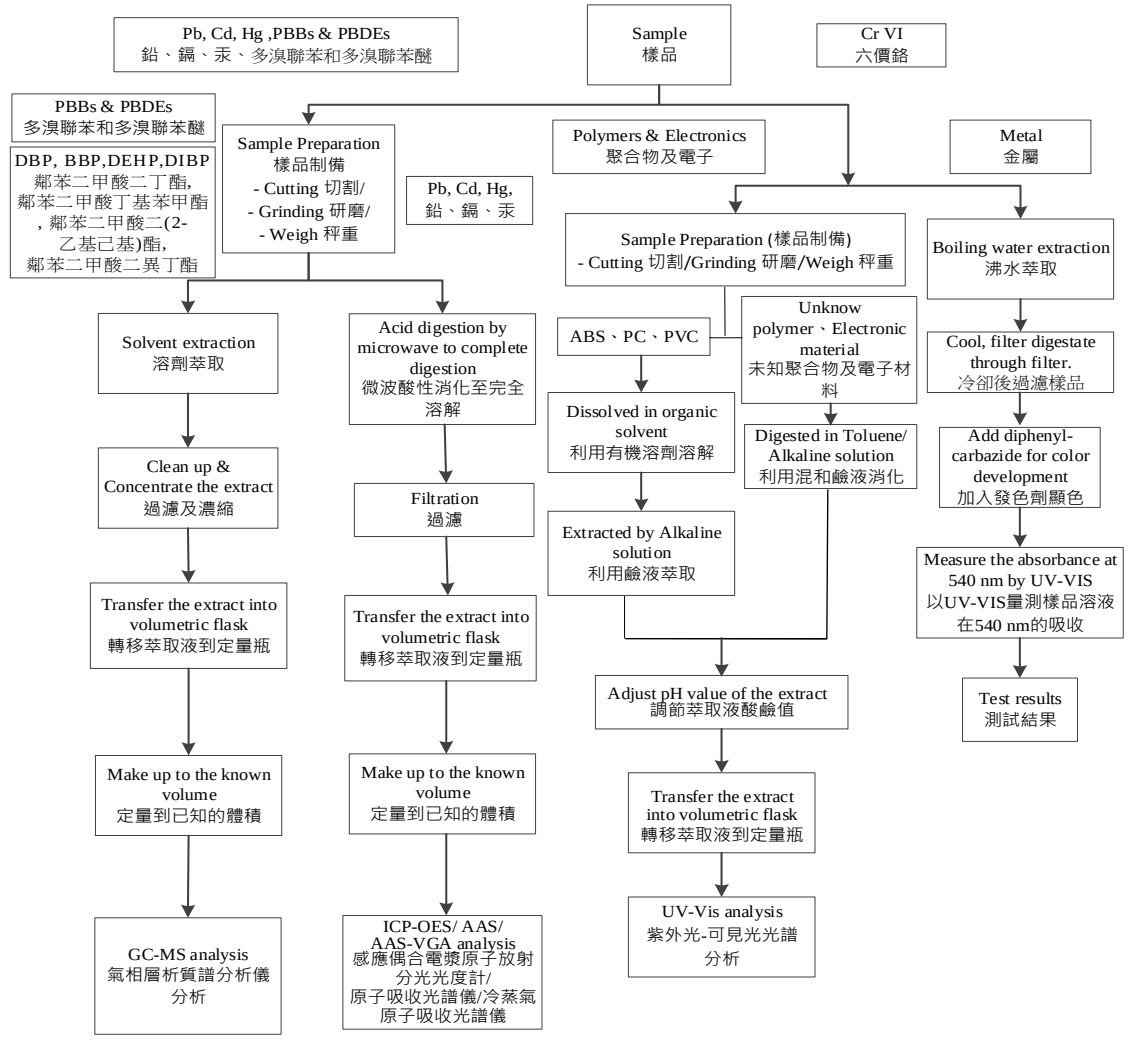



Sample

C/N /TC/JK

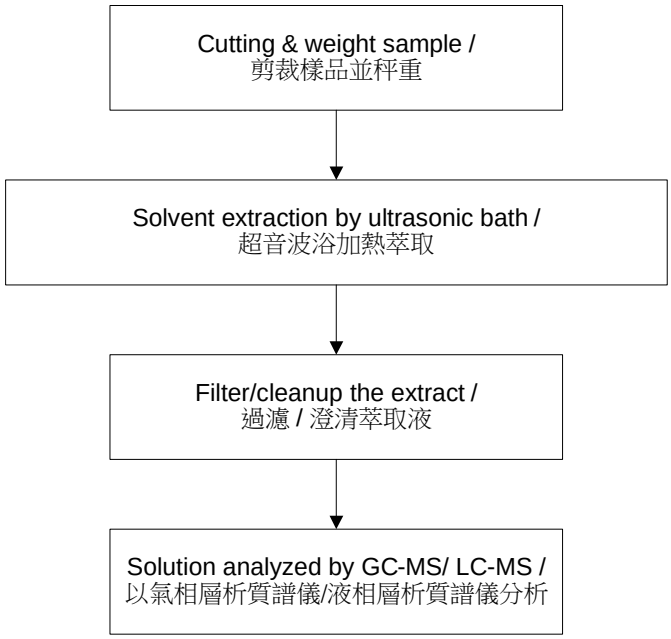
# APPENDIX(附錄)

**Test Flowchart of Heavy Metals, Flame Retardants and Phthalates Content [ European Council Directive 2011/65/EU ]:**
**重金屬, 阻燃劑及鄰苯二甲酸鹽含量的測試流程圖 [ 歐盟委員會指令 2011/65/EU ]:**
These samples were dissolved totally by pre-conditioning method according to below flow chart.
($Cr^{6+}$ test method excluded)
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)



# APPENDIX(附錄)

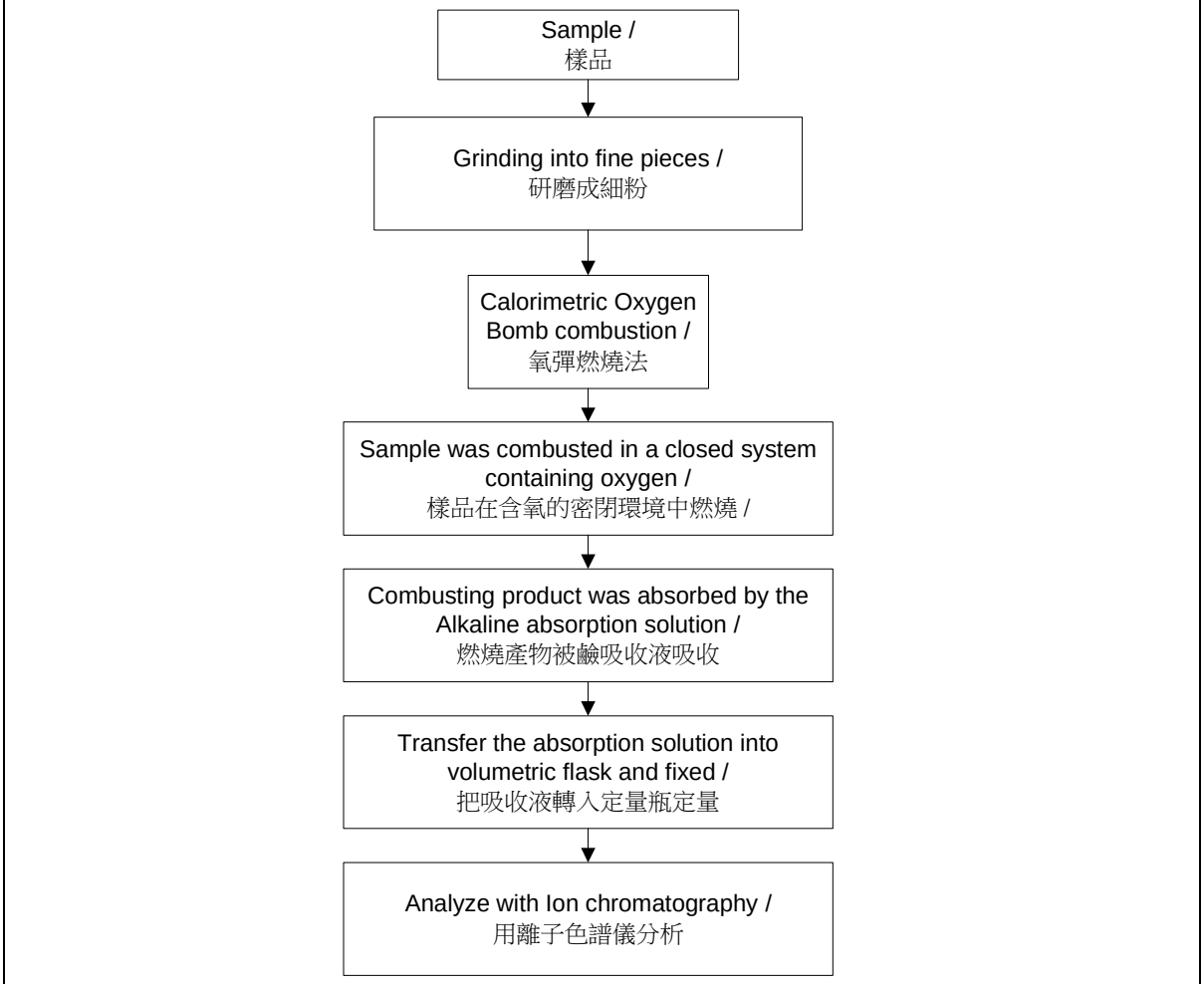
**Test Flowchart of of Phthalates test:**
**鄰苯二甲酸鹽的測試流程圖:**




C/N /TC/JK

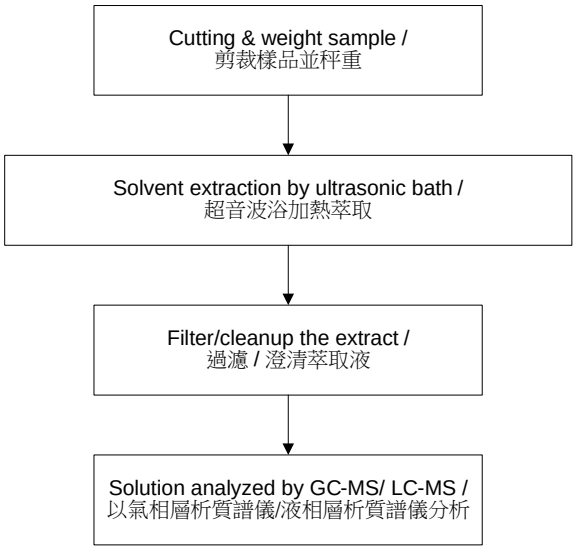
# APPENDIX(附錄)

**Test Flowchart of Halogenated Compounds-F, Cl, Br, I:**
**鹵素: 氟, 氯, 溴, 碘的測試流程圖:**



# APPENDIX(附錄)

**Determinations of Perfluorooctanoic acid (PFOA), Perfluorooctane sulphonate (PFOS) Content:**
**全氟辛酸與全氟辛烷磺酸含量的測試流程圖:**




C/N /TC/JK

# Test Report

**No.:** CANEC24002065602 **Date:** Feb 04, 2024 

Client Name: DONGGUAN LUCKY FLY CONDUCTORCO.LTD

Client Address: QIAO ZI REGION CHANGPING TOWN DONGGUAN CITY GUANGDONG PROVINCE

Sample Name: TINNED COPPER WIRE

The above sample(s) and information were provided by the client.

---

SGS Job No.: GZP24-002885

Sample Receiving Date: Jan 26, 2024

Testing Period: Jan 26, 2024 ~ Feb 03, 2024

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

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

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

| Test Requirement | Conclusion |
|---|---|
| EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) | Pass |
| AfPS GS 2019:01 PAK-Polycyclic Aromatic Hydrocarbons (PAHs) | See Results |
| Perfluorooctane Sulfonates (PFOS) and its derivatives | See Results |
| Element(s) | See Results |

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

Arsene Ye

Arsene Ye
Approved Signatory

scan to see the report

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**Test Result(s):**

Test Part Description：

| SN ID | Sample No. | SGS Sample ID | Description |
|---|---|---|---|
| SN1 | A2 | CAN24-0020656-0001.C002 | Silvery plated metal wire |

Remarks:

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

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015, IEC 62321-6:2015 and IEC62321-8:2017, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

| Test Item(s) | Limit | Unit(s) | MDL | A2 |
|---|---|---|---|---|
| Lead (Pb) | 1000 | mg/kg | 2 | ND |
| Mercury (Hg) | 1000 | mg/kg | 2 | ND |
| Cadmium (Cd) | 100 | mg/kg | 2 | ND |
| Hexavalent Chromium (Cr(VI))▼ | - | μg/cm² | 0.10 | ND |
| Polybrominated biphenyls (PBB) | 1000 | mg/kg | - | ND |
| Monobrominated biphenyl (MonoBB) | - | mg/kg | 5 | ND |
| Dibrominated biphenyl (DiBB) | - | mg/kg | 5 | ND |
| Tribrominated biphenyl (TriBB) | - | mg/kg | 5 | ND |
| Tetrabrominated biphenyl (TetraBB) | - | mg/kg | 5 | ND |
| Pentabrominated biphenyl (PentaBB) | - | mg/kg | 5 | ND |
| Hexabrominated biphenyl (HexaBB) | - | mg/kg | 5 | ND |
| Heptabrominated biphenyl (HeptaBB) | - | mg/kg | 5 | ND |
| Octabrominated biphenyl (OctaBB) | - | mg/kg | 5 | ND |
| Nonabrominated biphenyl (NonaBB) | - | mg/kg | 5 | ND |
| Decabrominated biphenyl (DecaBB) | - | mg/kg | 5 | ND |
| Polybrominated diphenyl ethers (PBDE) | 1000 | mg/kg | - | ND |
| Monobrominated diphenyl ether (MonoBDE) | - | mg/kg | 5 | ND |
| Dibrominated diphenyl ether (DiBDE) | - | mg/kg | 5 | ND |
| Tribrominated diphenyl ether (TriBDE) | - | mg/kg | 5 | ND |
| Tetrabrominated diphenyl ether (TetraBDE) | - | mg/kg | 5 | ND |
| Pentabrominated diphenyl ether (PentaBDE) | - | mg/kg | 5 | ND |
| Hexabrominated diphenyl ether (HexaBDE) | - | mg/kg | 5 | ND |
| Heptabrominated diphenyl ether (HeptaBDE) | - | mg/kg | 5 | ND |

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| Test Item(s) | Limit | Unit(s) | MDL | A2 |
|---|---|---|---|---|
| Octabrominated diphenyl ether (OctaBDE) | - | mg/kg | 5 | ND |
| Nonabrominated diphenyl ether (NonaBDE) | - | mg/kg | 5 | ND |
| Decabrominated diphenyl ether (DecaBDE) | - | mg/kg | 5 | ND |
| Bis(2-ethylhexyl) phthalate (DEHP) | 1000 | mg/kg | 50 | ND |
| Butyl benzyl phthalate (BBP) | 1000 | mg/kg | 50 | ND |
| Dibutyl phthalate (DBP) | 1000 | mg/kg | 50 | ND |
| Diisobutyl phthalate (DIBP) | 1000 | mg/kg | 50 | ND |

**Notes:**
(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
(2) IEC 62321 series is equivalent to EN 62321 series.
(3) ▼ =
a. The sample is positive for Cr(VI) if the Cr(VI)concentration is greater than 0.13 μg/cm$^2$. The sample coating is considered to contain Cr(VI).
b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 μg/cm$^2$). The coating is considered a non-Cr(VI) based coating.
c. The result between 0.10 μg/cm$^2$ and 0.13 μg/cm$^2$ is considered to be inconclusive-unavoidable coating variations may influence the determination.

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

**AfPS GS 2019:01 PAK-Polycyclic Aromatic Hydrocarbons (PAHs)**

Test Method: With reference to AfPS GS 2019:01 PAK, analysis was performed by GC-MS.

| Test Item(s) | CAS No. | Unit(s) | MDL | A2 |
|---|---|---|---|---|
| Benzo(a)pyrene(BaP) | 50-32-8 | mg/kg | 0.1 | ND |
| Benzo(e)pyrene(BeP) | 192-97-2 | mg/kg | 0.1 | ND |
| Benzo(a)anthracene(BaA) | 56-55-3 | mg/kg | 0.1 | ND |
| Benzo(b)Fluoranthene(BbF) | 205-99-2 | mg/kg | 0.1 | ND |
| Benzo(j)fluoranthene(BjF) | 205-82-3 | mg/kg | 0.1 | ND |
| Benzo(k)Fluoranthene(BkF) | 207-08-9 | mg/kg | 0.1 | ND |
| Chrysene(CHR) | 218-01-9 | mg/kg | 0.1 | ND |
| Dibenzo(a,h)Anthracene(DBA) | 53-70-3 | mg/kg | 0.1 | ND |
| Benzo(g,h,i)perylene(BPE) | 191-24-2 | mg/kg | 0.1 | ND |
| Indeno(1,2,3-c,d)pyrene(IPY) | 193-39-5 | mg/kg | 0.1 | ND |
| Phenanthrene(PHE) | 85-01-8 | mg/kg | 0.1 | ND |
| Pyrene(PYR) | 129-00-0 | mg/kg | 0.1 | ND |
| Anthracene(ANT) | 120-12-7 | mg/kg | 0.1 | ND |
| Fluoranthene(FLT) | 206-44-0 | mg/kg | 0.1 | ND |
| Sum of Phenanthrene(PHE), Pyrene(PYR), Anthracene(ANT), Fluoranthene(FLT) | - | mg/kg | - | ND |
| Naphthalene(NAP) | 91-20-3 | mg/kg | 0.1 | ND |
| Sum of 15 PAHs | - | mg/kg | - | ND |

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| Test Item(s) | CAS No. | Unit(s) | MDL | A2 |
|---|---|---|---|---|
| Material Category | - | - | - | - |

**Notes:**

**AfPS（German commission for Product Safety）: PAHs requirements**

| Parameter | Category 1 | Category 2 | | Category 3 | |
|---|---|---|---|---|---|
| | Materials intended to be placed in the mouth, or materials coming into long-term contact with skin (more than 30s) during the intended use -in toys according to Directive 2009/48/EC or -for the use by children[a,b] up to 3 years of age. | Materials not covered by category 1, coming into long-term contact (more than 30s) or short-term repetitive contact[c] with skin during the intended or foreseeable use[d]. | | Materials covered neither by category 1 nor by category 2, coming into short-term contact (up to 30s) with skin during the intended or foreseeable use. | |
| | | a. use by children | b. other consumer products | a. use by children | b. other consumer products |
| Benzo(a)pyrene (BaP) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo(e)pyrene (BeP) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo(a)anthracene (BaA) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo(b)fluoranthene (BbF) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo(j)fluoranthene (BjF) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo(k)fluoranthene (BkF)mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Chrysene (CHR) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Dibenzo(a,h)anthracene (DBA) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo(g,h,i)perylene (BPE) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Indeno(1,2,3-cd)pyrene (IPY) mg/kg | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |

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| | | | | | |
|---|---|---|---|---|---|
| Phenanthrene (PHE), pyrene (PYR), anthracene (ANT), fluoranthene (FLT), mg/kg | < 1 Sum | < 5 Sum | < 10 Sum | < 20 Sum | < 50 Sum |
| Naphthalene (NAP) mg/kg | < 1 | < 2 | | < 10 | |
| **Sum of 15 PAHs** | <1 | < 5 | < 10 | < 20 | < 50 |

Notes:
[a] A "Child" is legally defined as a person before reaching the age of 14 years.
[b] Use by children includes both active and passive contact by children.
[c] Definition "short-term repetitive contact" taken from REACH Annex XVII entry 50 amendment (Regulation (EC) No.1272/2013)
[d] According to the definition of the German Product Safety Act (ProdSG) (chapter 1 Article 2 No. 28) "foreseeable use" shall mean the use of a product in a manner that the person placing it on the market, has not intended, but which could be reasonably foreseeable.

Remark:
The German committee on Product Safety (AfPS) published a new PAHs document (AfPS GS 2019:01 PAK) on April 10, 2020, which will be binding for the issue of GS mark certificate from July 1, 2020.

**Perfluorooctane Sulfonates (PFOS) and its derivatives**

Test Method: Modified CEN/TS 15968:2010, analysis was performed by LC-MS or LC-MS/MS.

| Test Item(s) | CAS No. | Unit(s) | MDL | A2 |
|---|---|---|---|---|
| PFOS and its derivatives | - | mg/kg | - | ND |
| Perfluorooctane Sulfonates (PFOS) and its salts* | 1763-23-1 | mg/kg | 0.010 | ND |
| N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA) | 4151-50-2 | mg/kg | 0.010 | ND |
| N-methylperfluoro-1-octanesulfonamide (N-MeFOSA) | 31506-32-8 | mg/kg | 0.010 | ND |
| 2-(N-ethylperfluoro-1-octanesulfonamido) -ethanol (N-EtFOSE) | 1691-99-2 | mg/kg | 0.010 | ND |
| 2-(N-methylperfluoro-1-octanesulfonamido) -ethanol (N-MeFOSE) | 24448-09-7 | mg/kg | 0.010 | ND |
| Perfluorooctane Sulfonamide (PFOSA) | 754-91-6 | mg/kg | 0.010 | ND |

**Notes:**
(1) Perfluorooctane sulfonates (PFOS) and its salts* including PFOS (CAS No. 1763-23-1), POSF(CAS No. 307-35-7), PFOS-K (CAS No. 2795-39-3), PFOS-$NH_4$ (CAS No. 29081-56-9), PFOS-$N(C_{10}H_{21})_2(CH_3)_2$ (CAS No. 251099-16-8), PFOS-$NH_2(C_2H_4OH)_2$ ( CAS No. 70225-14-8), PFOS-Li (CAS No. 29457-72-5), PFOS-$N(C_2H_5)_4$ (CAS No. 56773-42-3) and PFOS-Na (CAS No. 4021-47-0). The result of PFOS is used to represent PFOS and its salts.

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**Element(s)**

Test Method: With reference to US EPA 3050B:1996, analysis was performed by ICP-OES/AAS.

| Test Item(s) | Unit(s) | MDL | A2 |
|---|---|---|---|
| Beryllium(Be) | mg/kg | 5 | ND |

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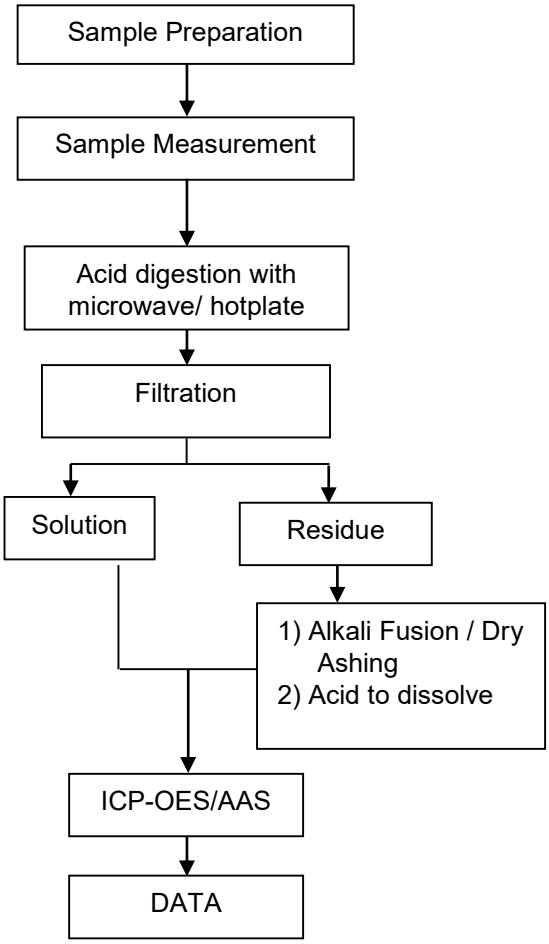
**Elements Testing Flow Chart**

These samples were dissolved totally by pre-conditioning method according to below flow chart.

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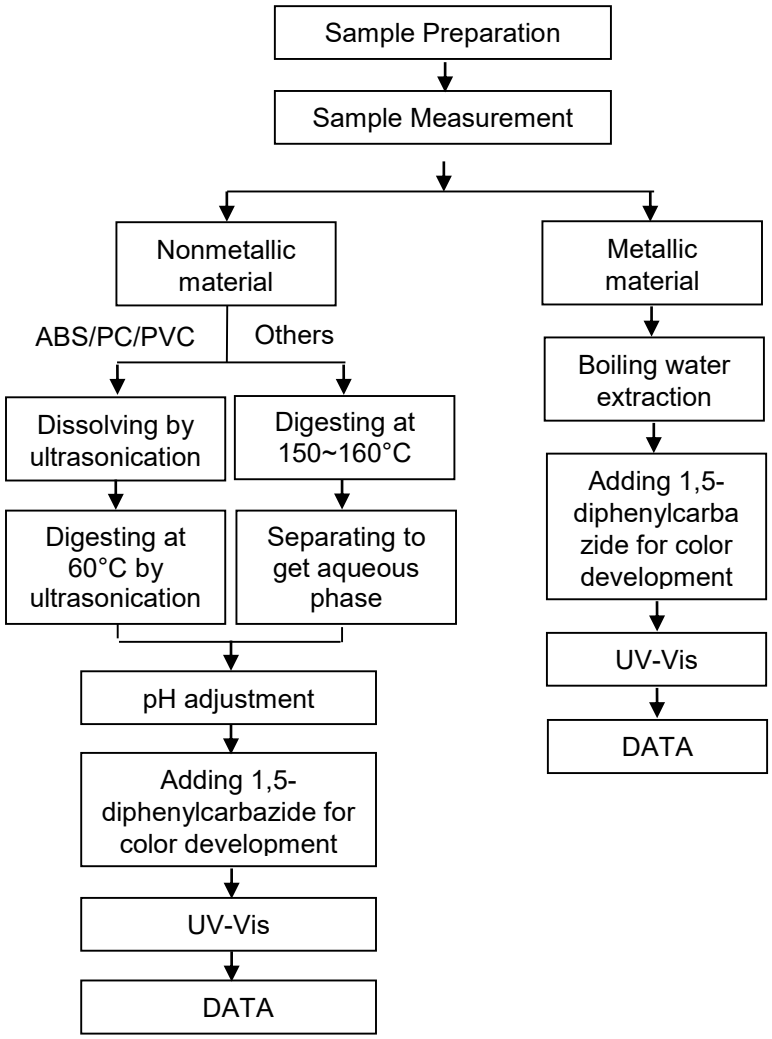
**Hexavalent Chromium (Cr(VI)) Testing Flow Chart**

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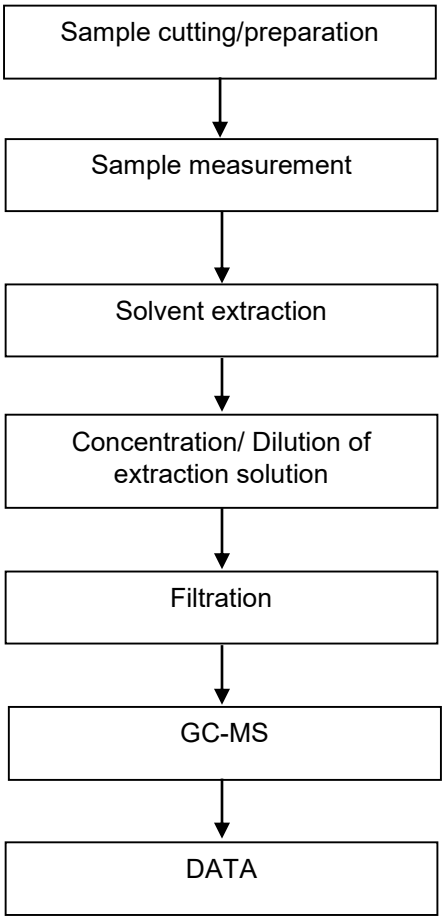
**PBB/PBDE Testing Flow Chart**

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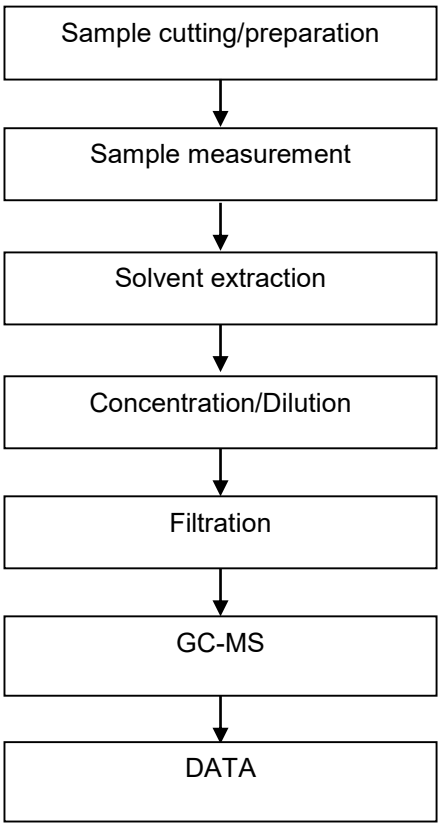
**Phthalates Testing Flow Chart**

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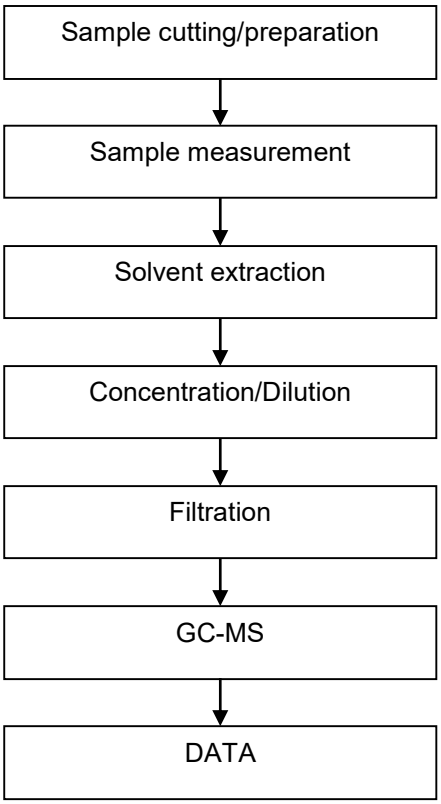
## ATTACHMENTS

### PAHs Testing Flow Chart

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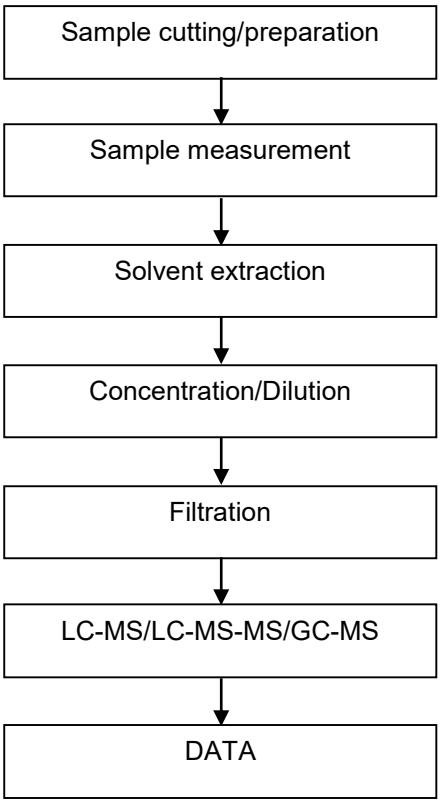
**ATTACHMENTS**

## PFASs/ PFOS/PFOA Testing Flow Chart

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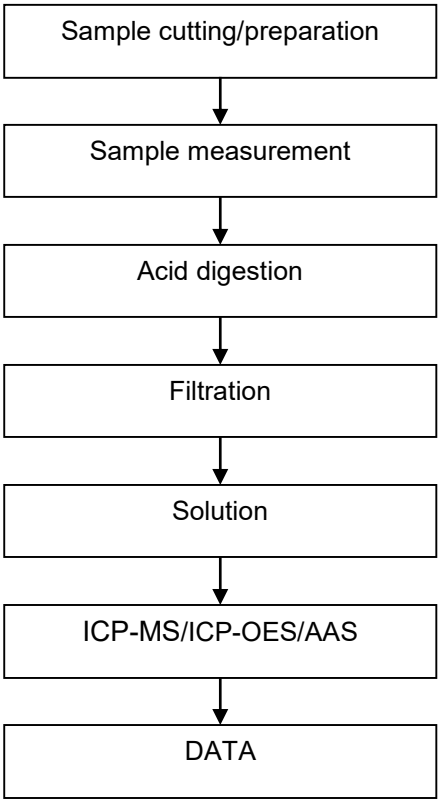
**ATTACHMENTS**

## Elements Testing Flow Chart

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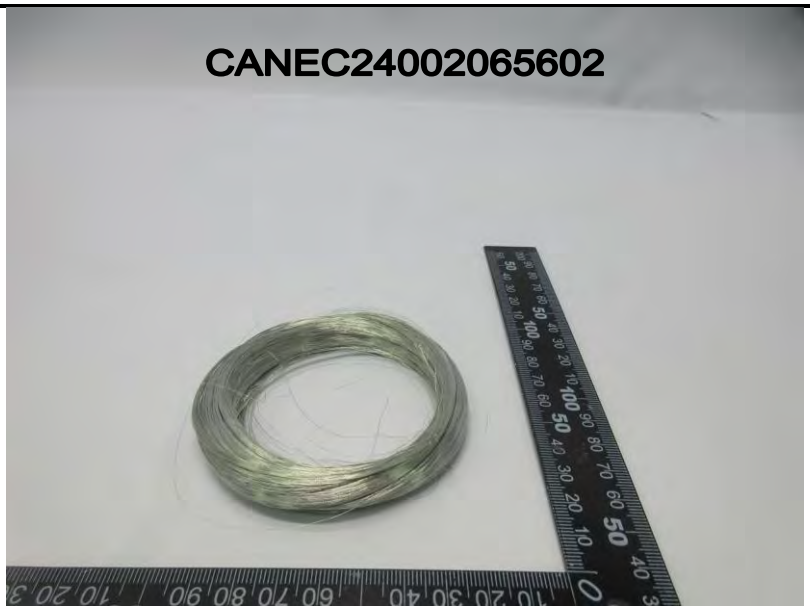
**Sample Photo:**




CAN24-0020656-0001.C002

SGS authenticate the photo on original report only

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# Test Report

**Report No.** A2240282836101018



**Test Method**

| Test Item(s) | Test Method | Measured Equipment(s) |
|---|---|---|
| Lead (Pb) | IEC 62321-5:2013 | ICP-OES |
| Cadmium (Cd) | IEC 62321-5:2013 | ICP-OES |
| Mercury (Hg) | IEC 62321-4:2013+AMD1:2017 CSV | ICP-OES |
| Hexavalent Chromium (Cr(VI)) | IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013 | UV-Vis/ICP-OES |
| Polybrominated Biphenyls (PBBs) | IEC 62321-6:2015 | GC-MS |
| Polybrominated Diphenyl Ethers (PBDEs) | IEC 62321-6:2015 | GC-MS |
| Phthalates (DBP, BBP, DEHP, DIBP) | IEC 62321-8:2017 | GC-MS |
| Hexabromocyclododecane (HBCDD) | IEC 62321-9:2021 | GC-MS |
| Phthalates* | Refer to EN 14372:2004(E) | GC-MS |

CTI 华测检测

# Test Report

**Report No.** A2240282836101018 

**Test Result(s)**

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 018 | | |
| Lead (Pb) | N.D. | 2 mg/kg | 1000 mg/kg |
| Cadmium (Cd) | N.D. | 2 mg/kg | 100 mg/kg |
| Mercury (Hg) | N.D. | 2 mg/kg | 1000 mg/kg |
| Hexavalent Chromium (Cr(VI)) | N.D. | 8 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 018 | | |
| **Polybrominated Biphenyls (PBBs)** | | | |
| Monobromobiphenyl | N.D. | 5 mg/kg | 1000 mg/kg |
| Dibromobiphenyl | N.D. | 5 mg/kg | |
| Tribromobiphenyl | N.D. | 5 mg/kg | |
| Tetrabromobiphenyl | N.D. | 5 mg/kg | |
| Pentabromobiphenyl | N.D. | 5 mg/kg | |
| Hexabromobiphenyl | N.D. | 5 mg/kg | |
| Heptabromobiphenyl | N.D. | 5 mg/kg | |
| Octabromobiphenyl | N.D. | 5 mg/kg | |
| Nonabromobiphenyl | N.D. | 5 mg/kg | |
| Decabromobiphenyl | N.D. | 5 mg/kg | |

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 018 | | |
| **Polybrominated Diphenyl Ethers (PBDEs)** | | | |
| Monobromodiphenyl ether | N.D. | 5 mg/kg | 1000 mg/kg |
| Dibromodiphenyl ether | N.D. | 5 mg/kg | |
| Tribromodiphenyl ether | N.D. | 5 mg/kg | |
| Tetrabromodiphenyl ether | N.D. | 5 mg/kg | |
| Pentabromodiphenyl ether | N.D. | 5 mg/kg | |
| Hexabromodiphenyl ether | N.D. | 5 mg/kg | |
| Heptabromodiphenyl ether | N.D. | 5 mg/kg | |
| Octabromodiphenyl ether | N.D. | 5 mg/kg | |
| Nonabromodiphenyl ether | N.D. | 5 mg/kg | |
| Decabromodiphenyl ether | N.D. | 5 mg/kg | |

# Test Report



**Test Result(s)**

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 018 | | |
| **Phthalates (DBP, BBP, DEHP, DIBP)** | | | |
| Dibutyl phthalate (DBP)<br>CAS#:84-74-2 | N.D. | 50 mg/kg | 1000 mg/kg |
| Butyl benzyl phthalate (BBP)<br>CAS#:85-68-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Di-(2-ethylhexyl) phthalate (DEHP)<br>CAS#:117-81-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Diisobutyl phthalate (DIBP)<br>CAS#:84-69-5 | N.D. | 50 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 018 | |
| Hexabromocyclododecane (HBCDD) | N.D. | 20 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 018 | |
| **Phthalates*** | | |
| Di-2-propylheptyl phthalate (DPHpP)<br>CAS#:53306-54-0 | N.D. | 30 mg/kg |

**Sample/Part Description**

| No. | CTI Sample ID | Description |
|---|---|---|
| 1 | 018 | Black wire jacket |

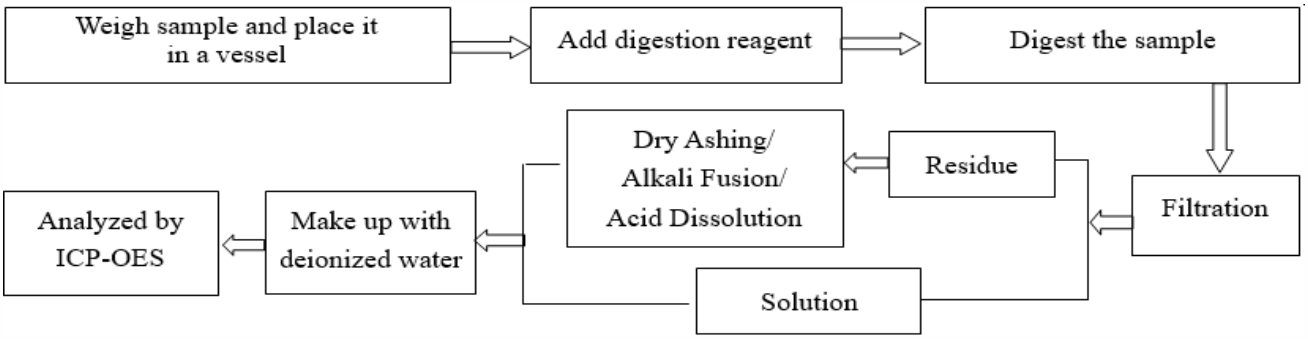
**Remark:** **-The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
**-Information Statement: Different Model No. with different buyer, Products are sold to different countries or regions, with different model rules.**

-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL )
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%

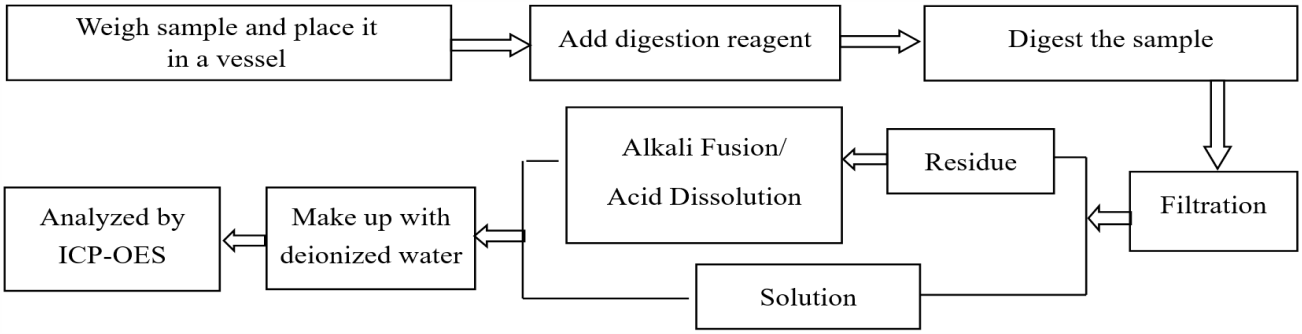
**Note:** ***indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.**

**Test Process**

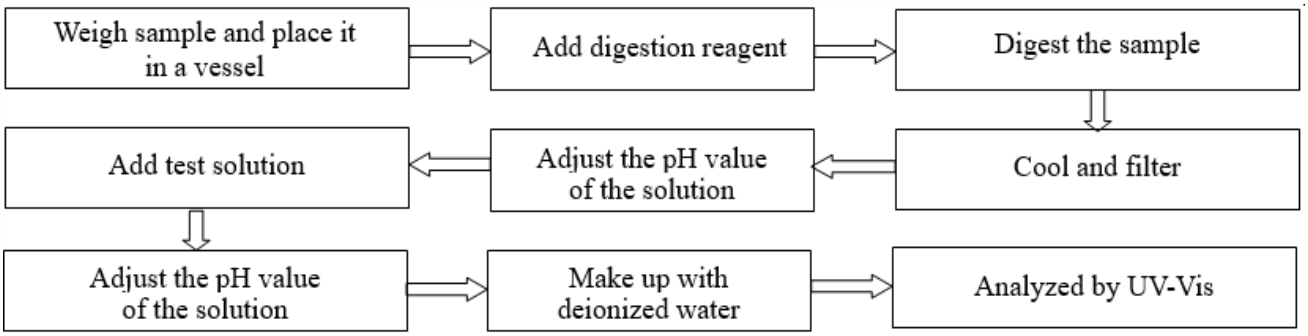
**1. Lead (Pb), Cadmium (Cd), Chromium (Cr)**



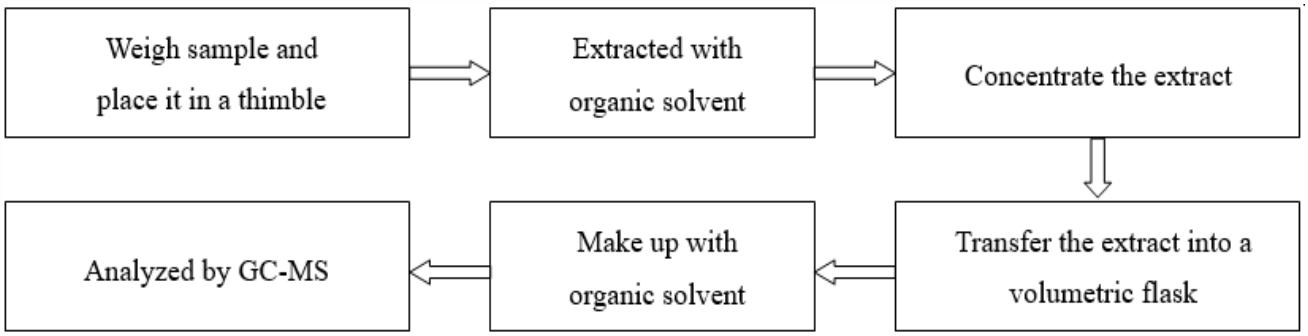

**2. Mercury (Hg)**



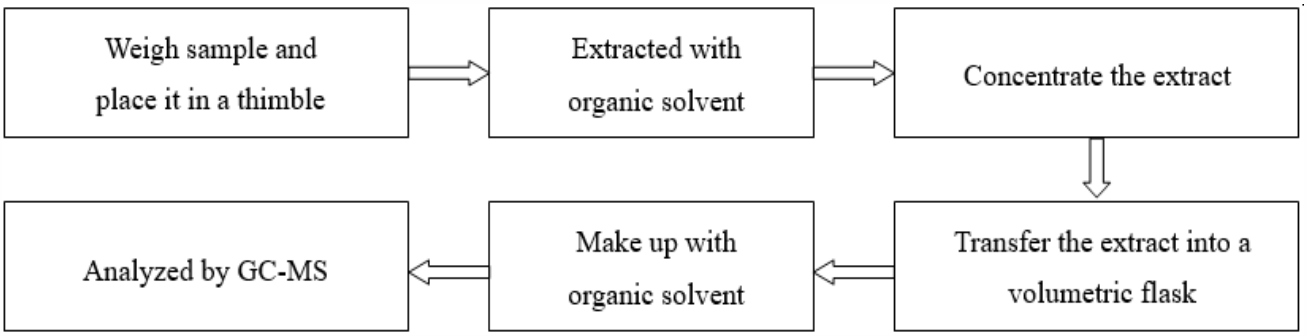

**3. Hexavalent Chromium (Cr(VI))**



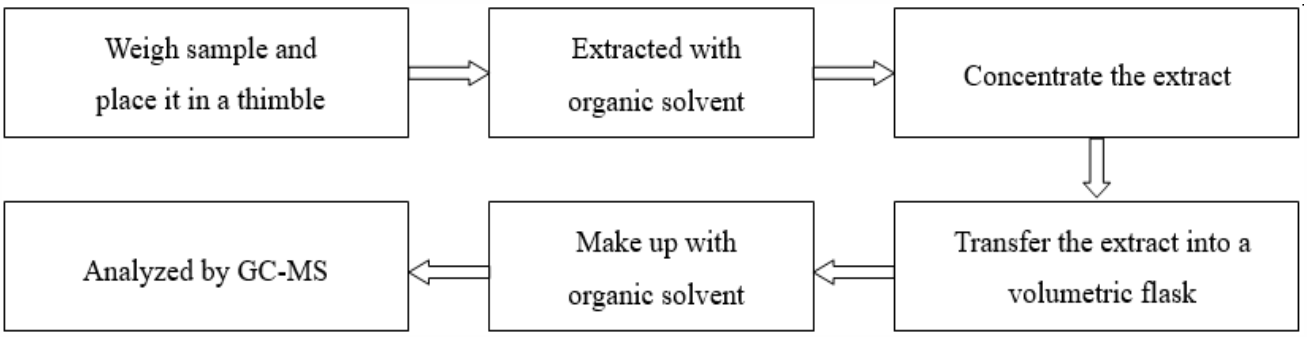

**4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)**



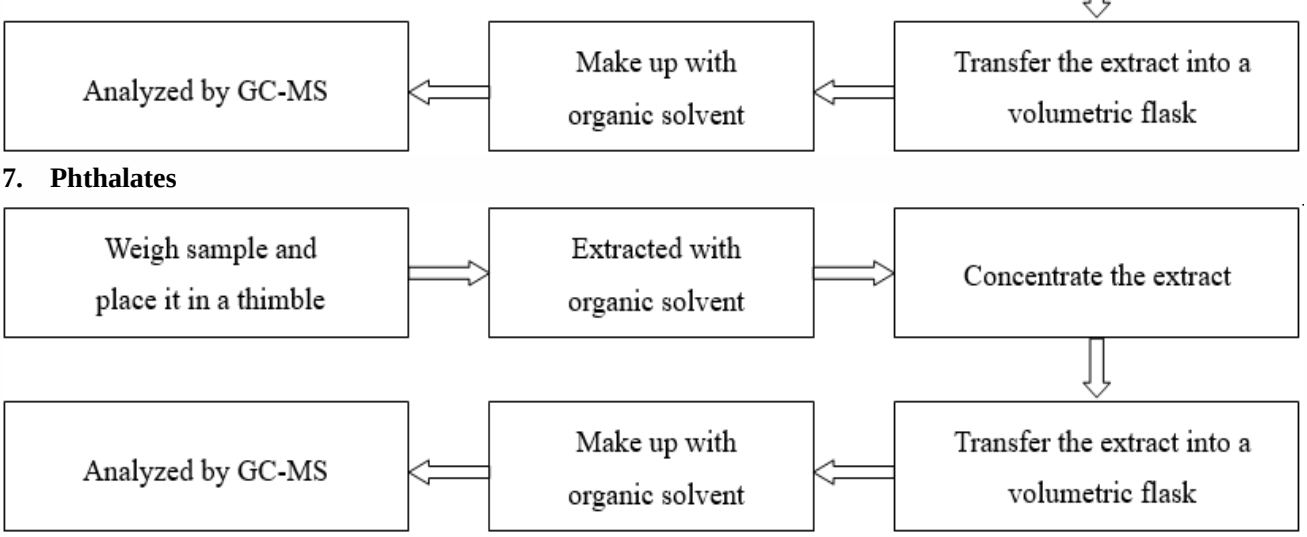
**5. Phthalates (DBP, BBP, DEHP, DIBP)**




**6. Hexabromocyclododecane (HBCDD)**




**7. Phthalates**



# Test Report

**Report No.** A2240282836101018



## Photo(s) of the sample(s)

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# Test Report

**Report No.** A2240282836101017



**Test Method**

| Test Item(s) | Test Method | Measured Equipment(s) |
|---|---|---|
| Lead (Pb) | IEC 62321-5:2013 | ICP-OES |
| Cadmium (Cd) | IEC 62321-5:2013 | ICP-OES |
| Mercury (Hg) | IEC 62321-4:2013+AMD1:2017 CSV | ICP-OES |
| Hexavalent Chromium (Cr(VI)) | IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013 | UV-Vis/ICP-OES |
| Polybrominated Biphenyls (PBBs) | IEC 62321-6:2015 | GC-MS |
| Polybrominated Diphenyl Ethers (PBDEs) | IEC 62321-6:2015 | GC-MS |
| Phthalates (DBP, BBP, DEHP, DIBP) | IEC 62321-8:2017 | GC-MS |
| Hexabromocyclododecane (HBCDD) | IEC 62321-9:2021 | GC-MS |
| Phthalates* | Refer to EN 14372:2004(E) | GC-MS |

CTI 华测检测

# Test Report



**Test Result(s)**

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 017 | | |
| Lead (Pb) | N.D. | 2 mg/kg | 1000 mg/kg |
| Cadmium (Cd) | N.D. | 2 mg/kg | 100 mg/kg |
| Mercury (Hg) | N.D. | 2 mg/kg | 1000 mg/kg |
| Hexavalent Chromium (Cr(VI)) | N.D. | 8 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 017 | | |
| **Polybrominated Biphenyls (PBBs)** | | | |
| Monobromobiphenyl | N.D. | 5 mg/kg | 1000 mg/kg |
| Dibromobiphenyl | N.D. | 5 mg/kg | |
| Tribromobiphenyl | N.D. | 5 mg/kg | |
| Tetrabromobiphenyl | N.D. | 5 mg/kg | |
| Pentabromobiphenyl | N.D. | 5 mg/kg | |
| Hexabromobiphenyl | N.D. | 5 mg/kg | |
| Heptabromobiphenyl | N.D. | 5 mg/kg | |
| Octabromobiphenyl | N.D. | 5 mg/kg | |
| Nonabromobiphenyl | N.D. | 5 mg/kg | |
| Decabromobiphenyl | N.D. | 5 mg/kg | |

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 017 | | |
| **Polybrominated Diphenyl Ethers (PBDEs)** | | | |
| Monobromodiphenyl ether | N.D. | 5 mg/kg | 1000 mg/kg |
| Dibromodiphenyl ether | N.D. | 5 mg/kg | |
| Tribromodiphenyl ether | N.D. | 5 mg/kg | |
| Tetrabromodiphenyl ether | N.D. | 5 mg/kg | |
| Pentabromodiphenyl ether | N.D. | 5 mg/kg | |
| Hexabromodiphenyl ether | N.D. | 5 mg/kg | |
| Heptabromodiphenyl ether | N.D. | 5 mg/kg | |
| Octabromodiphenyl ether | N.D. | 5 mg/kg | |
| Nonabromodiphenyl ether | N.D. | 5 mg/kg | |
| Decabromodiphenyl ether | N.D. | 5 mg/kg | |

# Test Report



**Test Result(s)**

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 017 | | |
| **Phthalates (DBP, BBP, DEHP, DIBP)** | | | |
| Dibutyl phthalate (DBP)<br>CAS#:84-74-2 | N.D. | 50 mg/kg | 1000 mg/kg |
| Butyl benzyl phthalate (BBP)<br>CAS#:85-68-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Di-(2-ethylhexyl) phthalate (DEHP)<br>CAS#:117-81-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Diisobutyl phthalate (DIBP)<br>CAS#:84-69-5 | N.D. | 50 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 017 | |
| Hexabromocyclododecane (HBCDD) | N.D. | 20 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 017 | |
| **Phthalates*** | | |
| Di-2-propylheptyl phthalate (DPHpP)<br>CAS#:53306-54-0 | N.D. | 30 mg/kg |

**Sample/Part Description**

| No. | CTI Sample ID | Description |
|---|---|---|
| 1 | 017 | Red wire jacket |

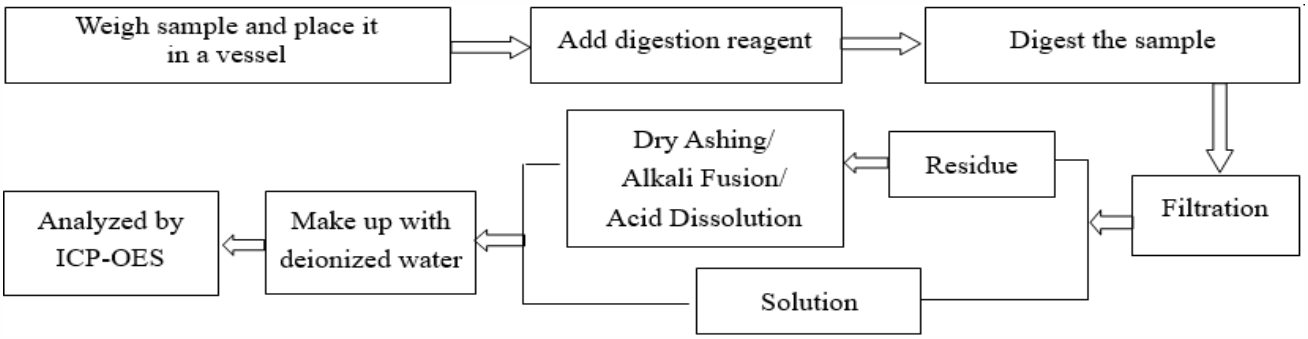
**Remark:** **-The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
**-Information Statement: Different Model No. with different buyer, Products are sold to different countries or regions, with different model rules.**

-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL )
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%

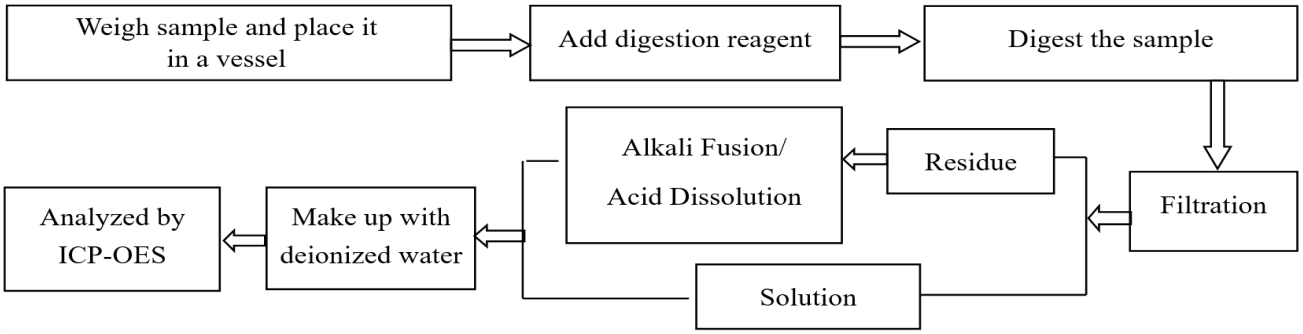
**Note:** ***indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.**

**Test Process**

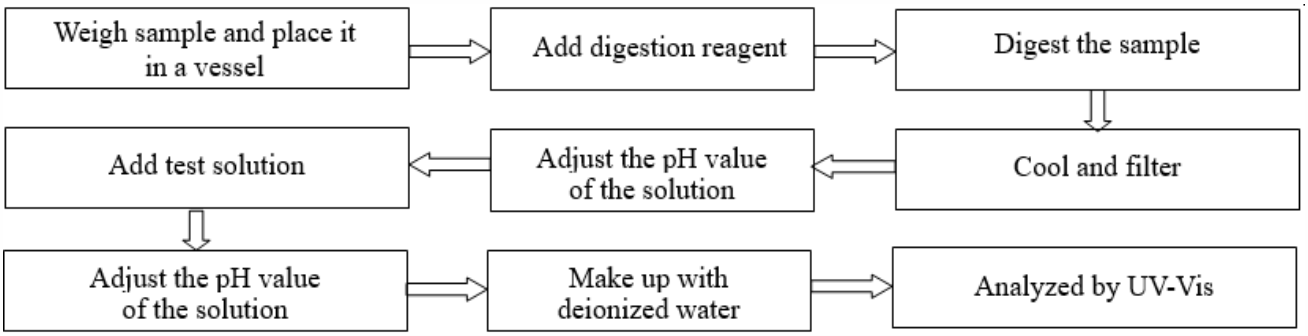
**1. Lead (Pb), Cadmium (Cd), Chromium (Cr)**



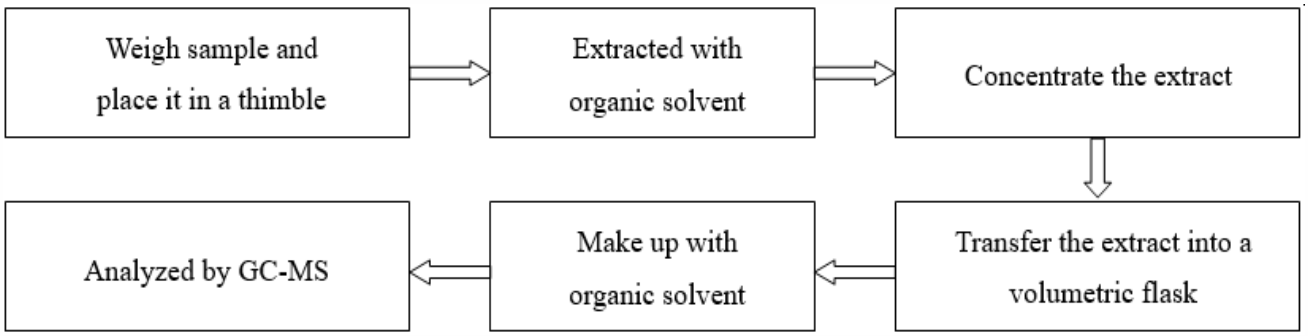

**2. Mercury (Hg)**



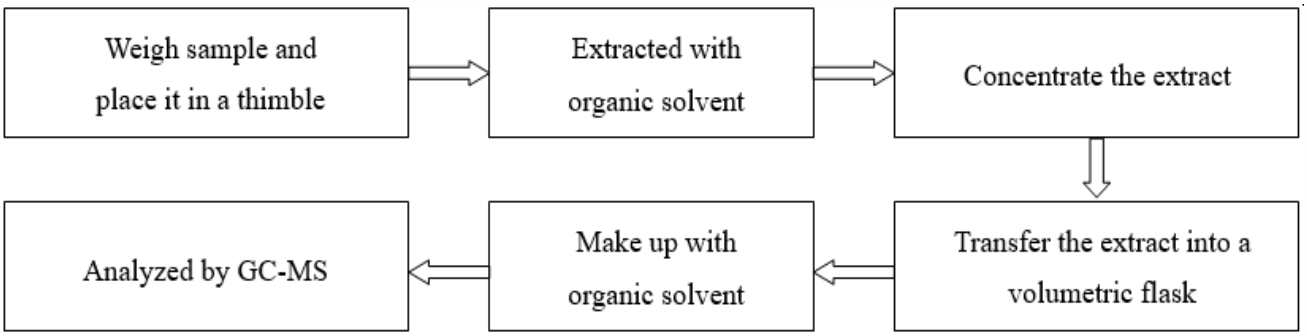

**3. Hexavalent Chromium (Cr(VI))**



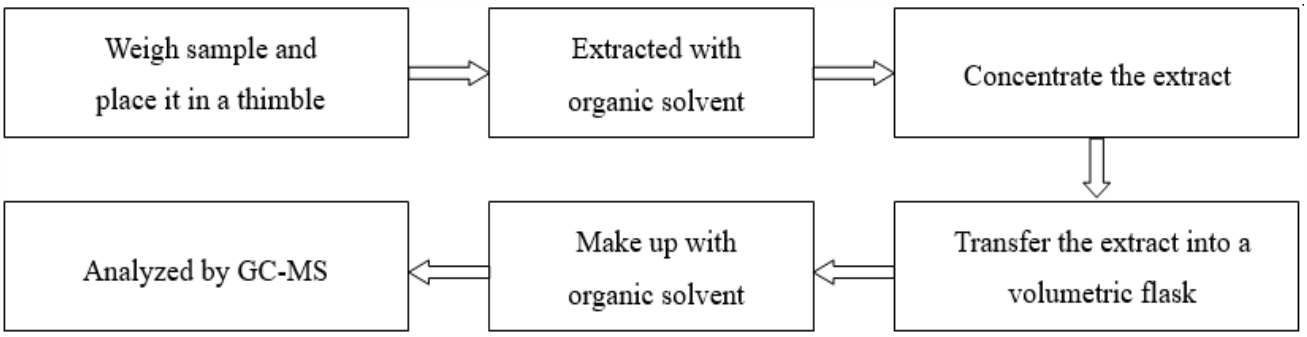

**4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)**



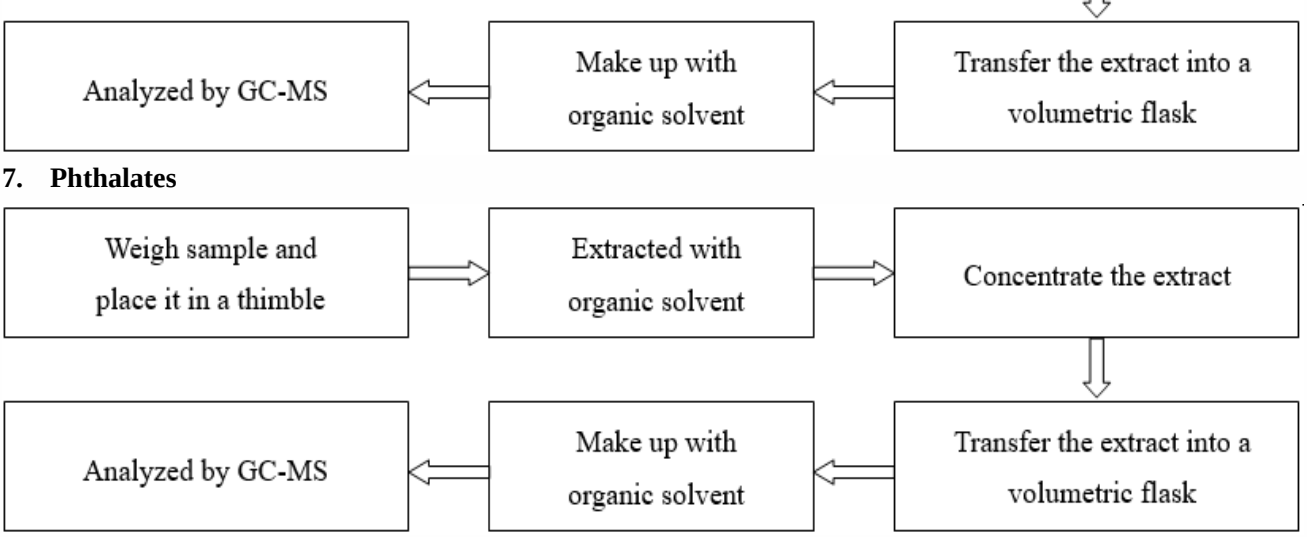
**5. Phthalates (DBP, BBP, DEHP, DIBP)**




**6. Hexabromocyclododecane (HBCDD)**




**7. Phthalates**

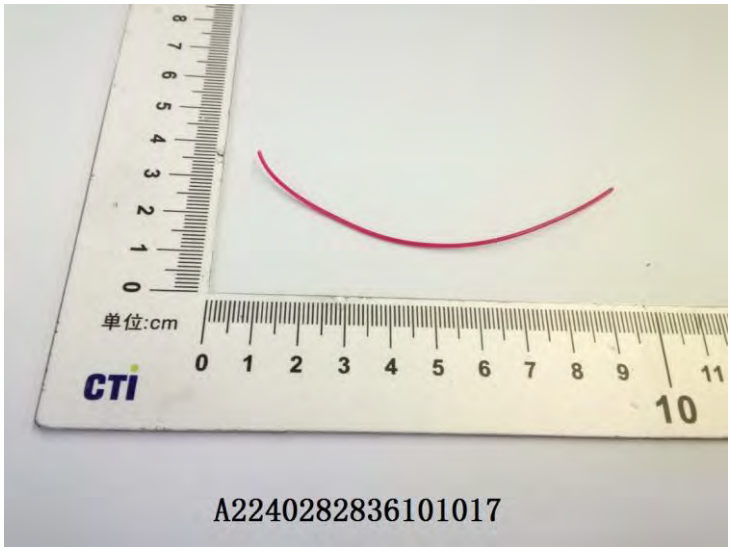


# Test Report

**Report No.** A2240282836101017



## Photo(s) of the sample(s)




Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
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3. The result(s) shown in this report refer(s) only to the sample(s) tested;
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*** End of report ***