

Report No. 報告號碼: 48271148a 001

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Client 客戶: CHIA PANG PLASTICS CO., LTD./嘉澎塑膠有限公司  
No. 13, Lane 513, Shenlin South Road, Daya District, Taichung City.42859,  
Taiwan, R.O.C./ 台灣 42859 台中市大雅區神林南路 513 巷 13 號

Identification/Model No(s): Hershey/Double Union Ball Valve/環琪/雙邊由令球閥  
樣品描述/規格: VP-640 Series

Sample obtaining method: Sending by customer  
樣品獲取方式:

Condition at delivery: Test item complete and undamaged.  
樣品接收狀態:

Sample receiving date: 2025-01-13  
收樣日期:

Testing period: 2025-01-13 – 2025-01-24  
測試週期:

Place of testing: TÜV Rheinland Hong Kong Ltd.  
測試地點:

**Test specification 測試要求:**

According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment Directive (EU) 2015/863: Total Content of Lead, Cadmium, Mercury, Chromium VI, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers; and Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Diisobutyl phthalate (DIBP) / 依據電機電子設備限用有害物質指令(RoHS 2011/65/EU) 附錄 II 及其修正指令 (EU) 2015/863: 鉛、鎘、汞、六價鉻、多溴聯苯、多溴二苯醚、鄰苯二甲酸苯基丁酯、鄰苯二甲酸二丁酯、鄰苯二甲酸二(2-乙基己基)酯、鄰苯二甲酸二異丁酯 之總含量

**Test result 測試結果:**

Pass/合格

For and on behalf of  
TÜV Rheinland Taiwan Ltd.





2025-02-13  
Date 日期

Arthur Cheng/Project Manager  
Name/Position 姓名/職位

**Report Authenticity Verification, please email: [softlines@tw.tuv.com](mailto:softlines@tw.tuv.com).**

**報告真實性確認，如需驗證，請電郵至 [softlines@tw.tuv.com](mailto:softlines@tw.tuv.com)。**

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.

This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

樣品信息由客戶提供。測試結果根據所做測試的種類和範圍而得出。本測試報告僅對來樣負責。未經本測試中心許可，測試報告不得部分複製。不能根據此報告在上述產品或類似產品上使用任何安全標誌。本測試報告中，描述符合性聲明所應用的判定規則發佈在我司官網 <https://www.tuv.com/landingpage/en/qm-gcn/>。

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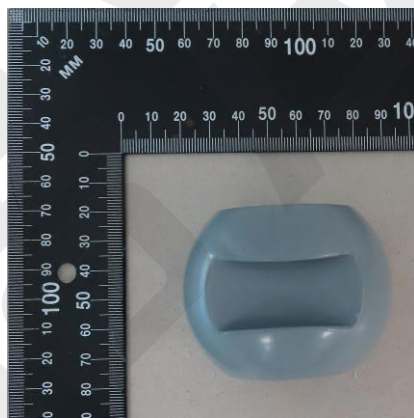
## Material list/材料清單

Material No./ 材料編號	Material/材質	Color/顏色	Location/位置	Remark
1	Plastic/塑膠	Gray/灰色	TCL250113-05A	BODY/本體灰色
2	Plastic/塑膠	Light gray/淺灰色	TCL250113-05B	BODY/本體淺灰色
3	Plastic/塑膠	Black/黑色	TCL250113-05C	STEM O—RING/中心 O 環/黑色
4	Plastic/塑膠	Red orange/橘紅色	TCL250113-05D	STEM O—RING/中心 O 環/橘紅色
5	Plastic/塑膠	White/白色	TCL250113-05E	SEAT/墊座/乳白色
6	Plastic/塑膠	Red/紅色	TCL250113-05F	HANDLE /把手/紅色
7	Metal/金屬	Coppery/銅色	TCL250113-05G	INSERTED NUT/本體埋銅/銅色
8	Plastic/塑膠	Blue/藍色	TCL250113-05H	HANDLE COVER/把手蓋/藍色

## Test Sample/測試樣品



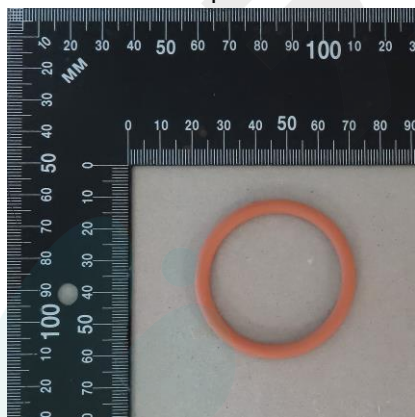
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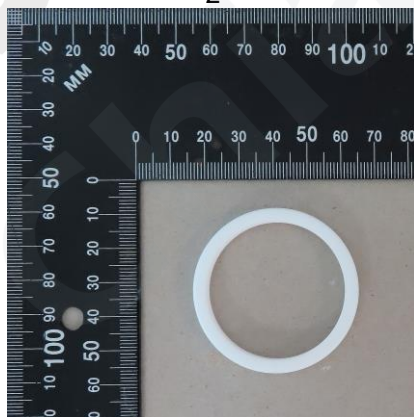
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3



4



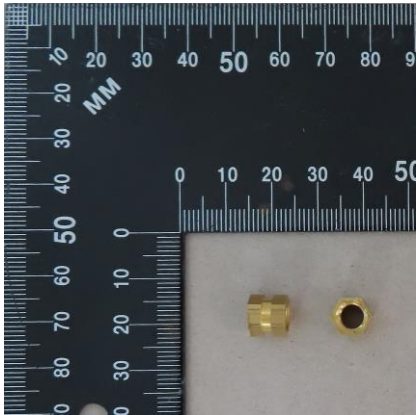
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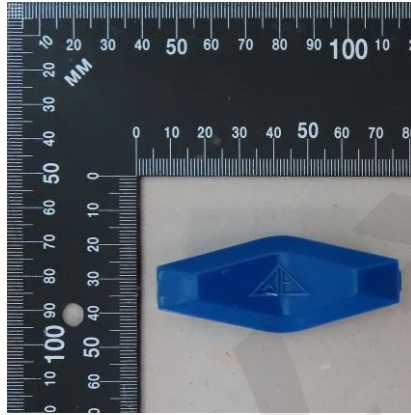
6

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Product photo provided by client/客戶提供之產品照片



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Test Method/測試方法 : Total Cadmium/鎘, Lead/鉛, Chromium/鉻 - Ref. to/參考 IEC 62321-5:2013  
 Total Mercury/汞 - Ref. to/參考 IEC 62321-4:2013  
 Chromium (VI)/六價鉻  
 - For Metal material/金屬 - Ref. to IEC 62321-7-1:2015  
 - For Polymer, Electronic material or others materials/聚合物, 電子材料或者其他材料 - Ref. to IEC 62321-7-2:2017  
 PBBs/多溴聯苯, PBDEs/多溴二苯醚 - Ref. to/參考 IEC 62321-6:2015  
 BBP/DBP/DEHP/DIBP - Ref. to IEC 62321-8:2017 / 參考 IEC 62321-8:2017

Material No./材料編號			1	2	3	4
Parameter / 測試項目	Unit / 單位	RL	Result / 結果	Result / 結果	Result / 結果	Result / 結果
Cadmium (Cd) / 鎘	mg/kg	2	< RL	< RL	< RL	< RL
Lead (Pb) / 鉛	mg/kg	2	< RL	< RL	< RL	< RL
Mercury (Hg) / 汞	mg/kg	2	< RL	< RL	< RL	< RL
Chromium VI (Cr VI) / 六價鉻*	mg/kg	8	< RL	< RL	< RL	< RL
<b>Sum of Polybrominated biphenyls (PBBs) / 多溴聯苯</b>	mg/kg	-	< RL	< RL	< RL	< RL
Monobromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Dibromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Tribromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Tetrabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Pentabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Hexabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Heptabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Octabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Nonabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
Decabromobiphenyl	mg/kg	5	< RL	< RL	< RL	< RL
<b>Sum of Polybrominated diphenyl ethers (PBDEs) / 多溴二苯醚</b>	mg/kg	-	< RL	< RL	< RL	< RL
Monobromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Dibromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Tribromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Tetrabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Pentabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Hexabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Heptabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Octabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Nonabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Decabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL	< RL
Benzyl butyl phthalate (BBP) / 鄰苯二甲酸苯基丁酯	mg/kg	50	< RL	< RL	< RL	< RL
Dibutyl phthalate (DBP) / 鄰苯二甲酸二丁酯	mg/kg	50	< RL	< RL	< RL	< RL
Diethylhexyl phthalate (DEHP) / 鄰苯二甲酸二(2-乙基己基)酯	mg/kg	50	< RL	< RL	< RL	< RL
Diisobutyl phthalate (DIBP) / 鄰苯二甲酸二異丁酯	mg/kg	50	< RL	< RL	< RL	< RL

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Material No./材料編號			5	6	8
Parameter / 測試項目	Unit / 單位	RL	Result / 結果	Result / 結果	Result / 結果
Cadmium (Cd) / 鎘	mg/kg	2	< RL	< RL	< RL
Lead (Pb) / 鉛	mg/kg	2	< RL	< RL	< RL
Mercury (Hg) / 汞	mg/kg	2	< RL	< RL	< RL
Chromium VI (Cr VI) / 六價鉻*	mg/kg	8	< RL	< RL	< RL
<b>Sum of Polybrominated biphenyls (PBBs) / 多溴聯苯</b>	mg/kg	-	< RL	< RL	< RL
Monobromobiphenyl	mg/kg	5	< RL	< RL	< RL
Dibromobiphenyl	mg/kg	5	< RL	< RL	< RL
Tribromobiphenyl	mg/kg	5	< RL	< RL	< RL
Tetrabromobiphenyl	mg/kg	5	< RL	< RL	< RL
Pentabromobiphenyl	mg/kg	5	< RL	< RL	< RL
Hexabromobiphenyl	mg/kg	5	< RL	< RL	< RL
Heptabromobiphenyl	mg/kg	5	< RL	< RL	< RL
Octabromobiphenyl	mg/kg	5	< RL	< RL	< RL
Nonabromobiphenyl	mg/kg	5	< RL	< RL	< RL
Decabromobiphenyl	mg/kg	5	< RL	< RL	< RL
<b>Sum of Polybrominated diphenyl ethers (PBDEs) / 多溴二苯醚</b>	mg/kg	-	< RL	< RL	< RL
Monobromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Dibromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Tribromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Tetrabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Pentabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Hexabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Heptabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Octabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Nonabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Decabromodiphenyl ether	mg/kg	5	< RL	< RL	< RL
Benzyl butyl phthalate (BBP) / 鄰苯二甲酸苯基丁酯	mg/kg	50	< RL	< RL	< RL
Dibutyl phthalate (DBP) / 鄰苯二甲酸二丁酯	mg/kg	50	< RL	< RL	< RL
Diethylhexyl phthalate (DEHP) / 鄰苯二甲酸二(2-乙基己基)酯	mg/kg	50	< RL	< RL	< RL
Diisobutyl phthalate (DIBP) / 鄰苯二甲酸二異丁酯	mg/kg	50	< RL	< RL	< RL

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Material No./材料編號	7		
Parameter / 測試項目	Unit / 單位	RL	Result / 結果
Cadmium (Cd) / 鎘	mg/kg	2	< RL
Lead (Pb) / 鉛	mg/kg	2	29200 <sup>1)</sup>
Mercury (Hg) / 汞	mg/kg	2	< RL
Chromium VI (Cr VI) / 六價鉻*	µg/cm <sup>2</sup>	0.1	< RL
<b>Sum of Polybrominated biphenyls (PBBs) / 多溴聯苯</b>	mg/kg	-	< RL
Monobromobiphenyl	mg/kg	5	< RL
Dibromobiphenyl	mg/kg	5	< RL
Tribromobiphenyl	mg/kg	5	< RL
Tetrabromobiphenyl	mg/kg	5	< RL
Pentabromobiphenyl	mg/kg	5	< RL
Hexabromobiphenyl	mg/kg	5	< RL
Heptabromobiphenyl	mg/kg	5	< RL
Octabromobiphenyl	mg/kg	5	< RL
Nonabromobiphenyl	mg/kg	5	< RL
Decabromobiphenyl	mg/kg	5	< RL
<b>Sum of Polybrominated diphenyl ethers (PBDEs) / 多溴二苯醚</b>	mg/kg	-	< RL
Monobromodiphenyl ether	mg/kg	5	< RL
Dibromodiphenyl ether	mg/kg	5	< RL
Tribromodiphenyl ether	mg/kg	5	< RL
Tetrabromodiphenyl ether	mg/kg	5	< RL
Pentabromodiphenyl ether	mg/kg	5	< RL
Hexabromodiphenyl ether	mg/kg	5	< RL
Heptabromodiphenyl ether	mg/kg	5	< RL
Octabromodiphenyl ether	mg/kg	5	< RL
Nonabromodiphenyl ether	mg/kg	5	< RL
Decabromodiphenyl ether	mg/kg	5	< RL
Benzyl butyl phthalate (BBP) / 鄰苯二甲酸苯基丁酯	mg/kg	50	< RL
Dibutyl phthalate (DBP) / 鄰苯二甲酸二丁酯	mg/kg	50	< RL
Diethylhexyl phthalate (DEHP) / 鄰苯二甲酸二(2-乙基己基)酯	mg/kg	50	< RL
Diisobutyl phthalate (DIBP) / 鄰苯二甲酸二異丁酯	mg/kg	50	< RL

**Notes/ 註釋:**

- < = less than/小於
- RL = Reporting Limit/報告極限值
- mg/kg = milligram per kilogram/毫克每公斤
- <sup>1)</sup> Part is made of copper alloy; according to (EU) 2018/741 and Annex III 6(c) of directive 2011/65/EU, Lead as an alloying element in copper containing up to 4 % lead by weight is exempted from requirement. This exemption is declared by the report owner and shall be responsible for the future disputes if any.
- \* Once the total Cr content in metal/ plastic or electronic sample is found to be exceeded the limit, the Cr (VI) content will be confirmed with reference to IEC 62321-7-1:2015/ IEC 62321-7-2:2017/ 一旦金屬/塑膠/電子樣品內總鉻含量超過最大允許限值，六價鉻含量將依照 IEC 62321-7-1:2015/ IEC 62321-7-2:2017 進行確認。

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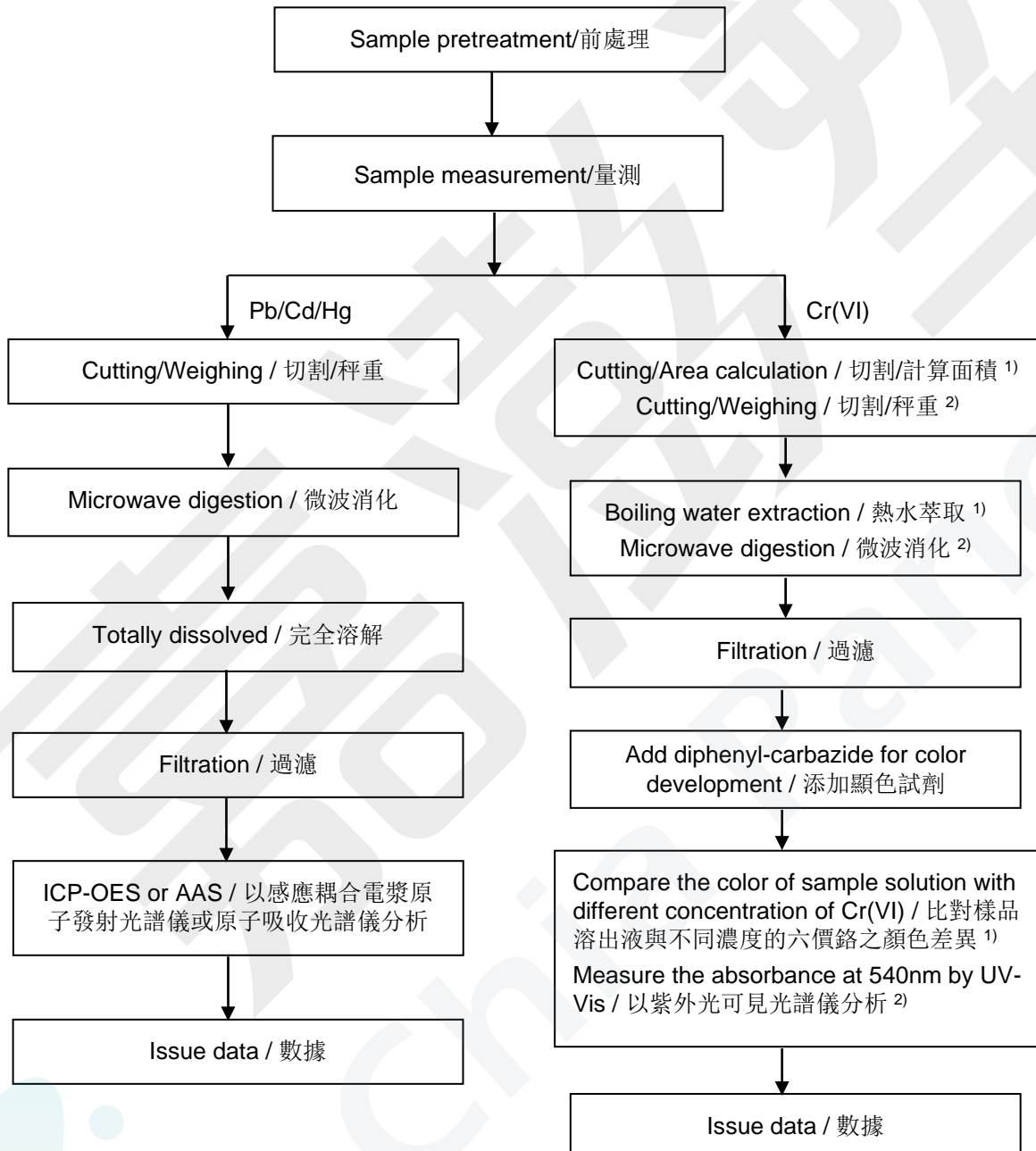
Chromium (VI) concentration 六價鉻含量	Qualitative result 定性結果
<0.1µg/cm <sup>2</sup>	The sample is negative (-ve) for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating. 樣品六價鉻測定結果為陰性。 六價鉻濃度低於定量限，塗層視為非六價鉻塗層。
≥0.1µg/cm <sup>2</sup> and ≤0.13 µg/cm <sup>2</sup>	The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination. 六價鉻測定結果為無法判定。 塗層的差異不可避免的可能影響測定。 推薦：如果有額外的樣品，測試加大樣品表面積的三平行樣。以三平行測試的平均值作為最終測定結果。
>0.13 µg/cm <sup>2</sup>	The sample is positive (+ve) for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI). 六價鉻測試結果為陽性。六價鉻濃度高於定量限及統計誤差幅度。樣品塗層視為含有六價鉻。

	Cd/鎘	Cr(VI)/ 六價鉻	Pb/鉛	Hg/汞	PBBs/ 多溴聯苯	PBDEs/ 多溴二苯醚
<b>Maximum permissible Limit acc. to 2011/65/EU (mg/kg) / 最大允許限值</b>	100	1000	1000	1000	1000	1000

	BBP 鄰苯二甲酸 苯基丁酯	DBP 鄰苯二甲酸 二丁酯	DEHP 鄰苯二甲酸二(2-乙 基己基)酯	DIBP 鄰苯二甲酸 二異丁酯
<b>Maximum permissible Limit acc. to (EU) 2015/863 (mg/kg) / 最大允許限值</b>	1000	1000	1000	1000

Testing procedure / 測試流程圖 :

RoHS (Pb/鉛, Cd/鎘, Hg/汞, Cr(VI)/六價鉻)



Notes/ 註釋: <sup>1)</sup> For metallic material / 用於金屬物質  
<sup>2)</sup> For non-metallic material / 用於非金屬物質

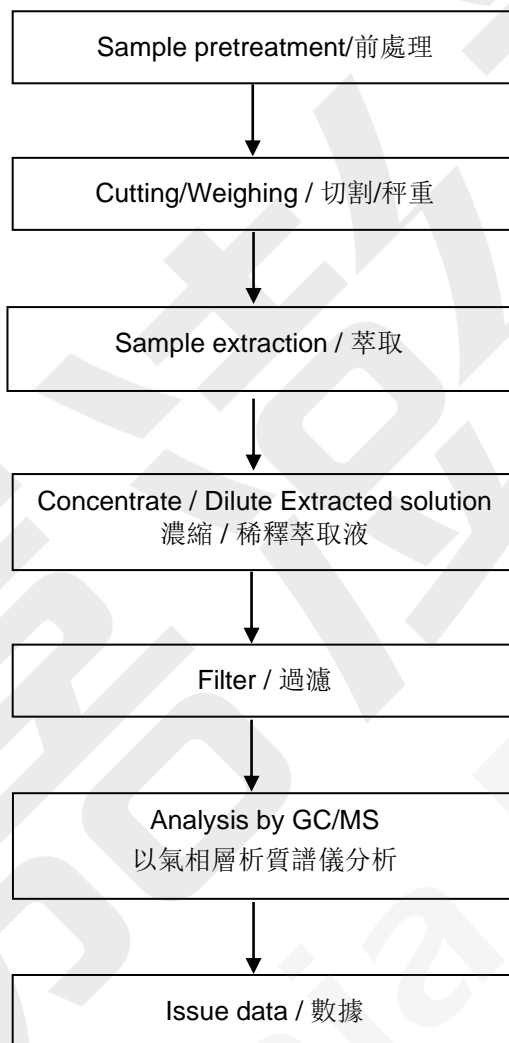


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## Testing procedure / 測試流程圖 :

RoHS (PBBs/多溴聯苯, PBDEs/多溴二苯醚, BBP/鄰苯二甲酸苯基丁酯、DBP/鄰苯二甲酸二丁酯、DEHP/鄰苯二甲酸二(2-乙基己基)酯、DIBP/鄰苯二甲酸二異丁酯)



--- End of Test-Report / 此報告結束---