

檢測報告 Test Report

報告編號 RHS01F023444022E
Report No. RHS01F023444022E

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申請單位 義芳化學工業股份有限公司
Applicant YEE FONG CHEMICAL & INDUSTRIAL CO.,LTD.
地址 桃園縣蘆竹鄉海湖村海湖東路377號
Address NO. 377, HAIHU EAST ROAD, HAIHU VILLAGE, LUCHU HSIANG, TAOYUAN
HSIEN, TAIWAN

以下測試之樣品及樣品信息由申請者提供並確認

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the client

| | |
|----------------------------|--|
| 樣品名稱 Sample Name | 45%NaOH |
| 樣品接收日期 | 2013.12.13 |
| Sample Received Date | Dec. 13, 2013 |
| 樣品檢測日期 | 2013.12.13-2013.12.20 |
| Testing Period | Dec. 13, 2013 to Dec. 20, 2013 |
| 檢測要求 | 請參見下頁。 |
| Test Requested | Please refer to the following page(s). |
| 檢測依據/檢測結果 | 請參見下頁。 |
| Test Method/Test Result(s) | Please refer to the following page(s). |

主 檢 Rick Lin
Tested by

審 核 Vangar He
Reviewed by

批 准 Danny Liu
Approved by

日 期 2013.12.20
Date



Danny Liu
Technical Manager

深圳市華測檢測技術股份有限公司
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結論 Conclusion

| 測試樣品 Tested Sample | 依據指令 According to directive | 結果 Result |
|-------------------------------------|--|----------------------------|
| 提交樣品 Submitted Sample | 2011/65/EU* | 合格 Pass |

*2011/65/EU 為歐盟 RoHS 指令 (2002/95/EC) 的重訂指令。該指令對電子電器產品中的特定有毒有害物質 (鉛 (Pb), 鎘 (Cd), 汞 (Hg), 六價鉻 (Cr(VI)), 多溴聯苯 (PBBs), 多溴二苯醚 (PBDEs)) 限制使用。

合格表示檢測結果不超過歐盟 RoHS 指令 2011/65/EU 要求的限值。

*2011/65/EU is a new version of RoHS Directive (2002/95/EC), which focuses on restriction of the use of certain hazardous substances (Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs)) in electrical and electronic equipment.

Pass means that the results shown on the report do not exceed the limits set by RoHS Directive 2011/65/EU.

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檢測要求

根據客戶要求，對所提交樣品中的鉛(Pb)，鎘(Cd)，汞(Hg)，六價鉻(Cr(VI))，多溴聯苯(PBBs)，多溴二苯醚(PBDEs)，六溴環十二烷(HBCDD)，鄰苯二甲酸鹽進行測試。

Test Requested

As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Hexabromocyclododecane (HBCDD), Phthalates in the submitted sample(s).

檢測依據 Test Method

| 測試項目 Tested Item(s) | 測試方法 Test Method | 測試儀器 Measured Equipment(s) |
|---|--|-------------------------------|
| 鉛 Lead (Pb) | IEC 62321:2008 Ed.1 Sec.10 | ICP-OES |
| 鎘 Cadmium (Cd) | IEC 62321:2008 Ed.1 Sec.10 | ICP-OES |
| 汞 Mercury (Hg) | IEC 62321:2008 Ed.1 Sec.7 | ICP-OES |
| 六價鉻 Hexavalent Chromium (Cr(VI)) | IEC 62321:2008 Ed.1 Annex C | UV-Vis |
| 多溴聯苯 Polybrominated Biphenyls (PBBs) | IEC 62321:2008 Ed.1 Annex A | GC-MS |
| 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) | IEC 62321:2008 Ed.1 Annex A | GC-MS |
| 六溴環十二烷 Hexabromocyclododecane (HBCDD) | 參考 US EPA 3540C:1996 Refer to US EPA 3540C:1996 | GC-MS |
| 鄰苯二甲酸鹽 Phthalates | 參考 EN 14372:2004(E) Refer to EN 14372:2004(E) | GC-MS |

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檢測結果 Test Result(s)

| 測試項目 Tested Item(s) | 結果 Result | 方法檢測限 MDL |
|----------------------------------|-----------|-----------|
| 鉛 Lead (Pb) | N.D. | 2 mg/kg |
| 鎘 Cadmium (Cd) | N.D. | 2 mg/kg |
| 汞 Mercury (Hg) | N.D. | 2 mg/kg |
| 六價鉻 Hexavalent Chromium (Cr(VI)) | N.D. | 2 mg/kg |

| 測試項目 Tested Item(s) | 結果 Result | 方法檢測限 MDL |
|--|-----------|-----------|
| 多溴聯苯 Polybrominated Biphenyls(PBBs) | | |
| 一溴聯苯 Monobromobiphenyl | N.D. | 5 mg/kg |
| 二溴聯苯 Dibromobiphenyl | N.D. | 5 mg/kg |
| 三溴聯苯 Tribromobiphenyl | N.D. | 5 mg/kg |
| 四溴聯苯 Tetrabromobiphenyl | N.D. | 5 mg/kg |
| 五溴聯苯 Pentabromobiphenyl | N.D. | 5 mg/kg |
| 六溴聯苯 Hexabromobiphenyl | N.D. | 5 mg/kg |
| 七溴聯苯 Heptabromobiphenyl | N.D. | 5 mg/kg |
| 八溴聯苯 Octabromobiphenyl | N.D. | 5 mg/kg |
| 九溴聯苯 Nonabromobiphenyl | N.D. | 5 mg/kg |
| 十溴聯苯 Decabromobiphenyl | N.D. | 5 mg/kg |
| 多溴二苯醚 Polybrominated Diphenyl Ethers(PBDEs) | | |
| 一溴二苯醚 Monobromodiphenyl ether | N.D. | 5 mg/kg |
| 二溴二苯醚 Dibromodiphenyl ether | N.D. | 5 mg/kg |
| 三溴二苯醚 Tribromodiphenyl ether | N.D. | 5 mg/kg |
| 四溴二苯醚 Tetrabromodiphenyl ether | N.D. | 5 mg/kg |
| 五溴二苯醚 Pentabromodiphenyl ether | N.D. | 5 mg/kg |
| 六溴二苯醚 Hexabromodiphenyl ether | N.D. | 5 mg/kg |
| 七溴二苯醚 Heptabromodiphenyl ether | N.D. | 5 mg/kg |
| 八溴二苯醚 Octabromodiphenyl ether | N.D. | 5 mg/kg |
| 九溴二苯醚 Nonabromodiphenyl ether | N.D. | 5 mg/kg |
| 十溴二苯醚 Decabromodiphenyl ether | N.D. | 5 mg/kg |

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檢測結果 Test Result(s)

| 測試項目 Tested Item(s) | 結果 Result | 方法檢測限 MDL |
|---------------------------------------|-----------|-----------|
| 六溴環十二烷 Hexabromocyclododecane (HBCDD) | N.D. | 5 mg/kg |

| 測試項目 Tested Item(s) | 結果 Result | 方法檢測限 MDL |
|---|-----------|-----------|
| 鄰苯二甲酸鹽 Phthalates | | |
| 鄰苯二甲酸二正丁酯 Dibutyl phthalate(DBP) CAS#:84-74-2 | N.D. | 50 mg/kg |
| 鄰苯二甲酸丁基苄酯 Butylbenzyl phthalate(BBP) CAS#:85-68-7 | N.D. | 50 mg/kg |
| 鄰苯二甲酸(2-乙基己基)酯 Di-2-ethylhexyl phthalate(DEHP) CAS#:117-81-7 | N.D. | 50 mg/kg |

測試樣品/部位描述 透明液體
Tested Sample/Part Description Transparent liquid

注釋: 對於檢測鉛, 鎘, 汞之樣品已完全溶解。

-N.D. = 未檢出 (小於方法檢測限)

-mg/kg = ppm = 百萬分之幾

Note: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL)

-mg/kg = ppm = parts per million

備註: 報告編號中“E”表示此報告為中英文對照版本。

Remark: The end sign of report number E represents the bilingual version.

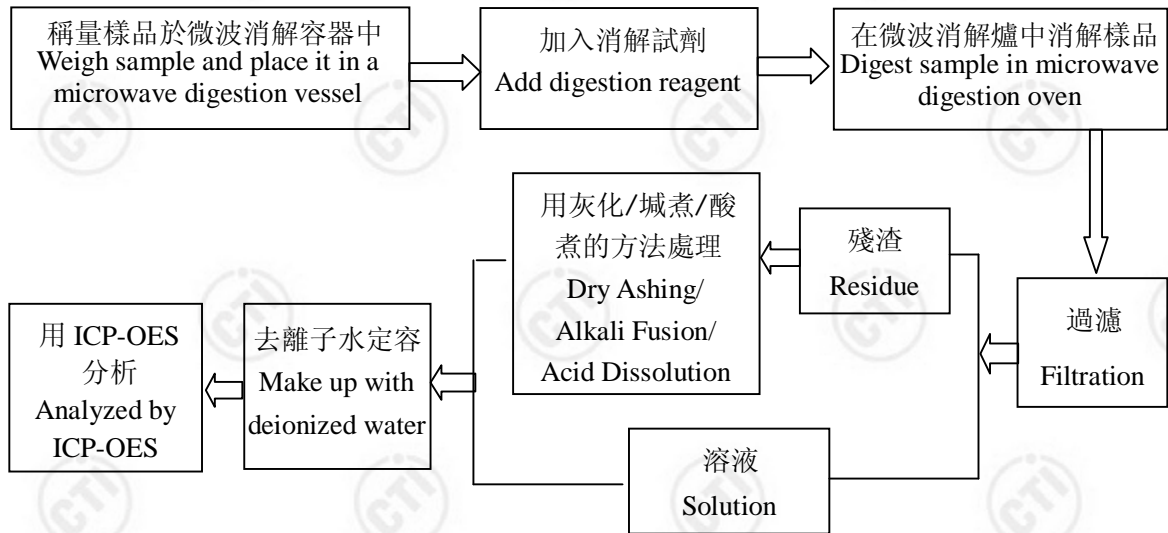
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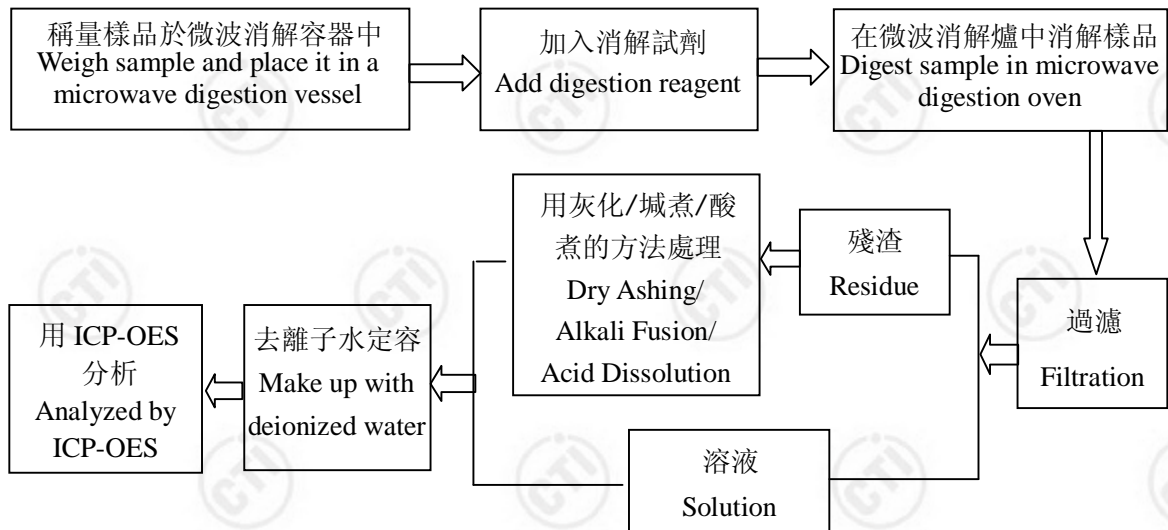
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檢測流程 Test Process

1. 鉛 Lead(Pb), 鎘 Cadmium(Cd)



2. 汞 Mercury(Hg)

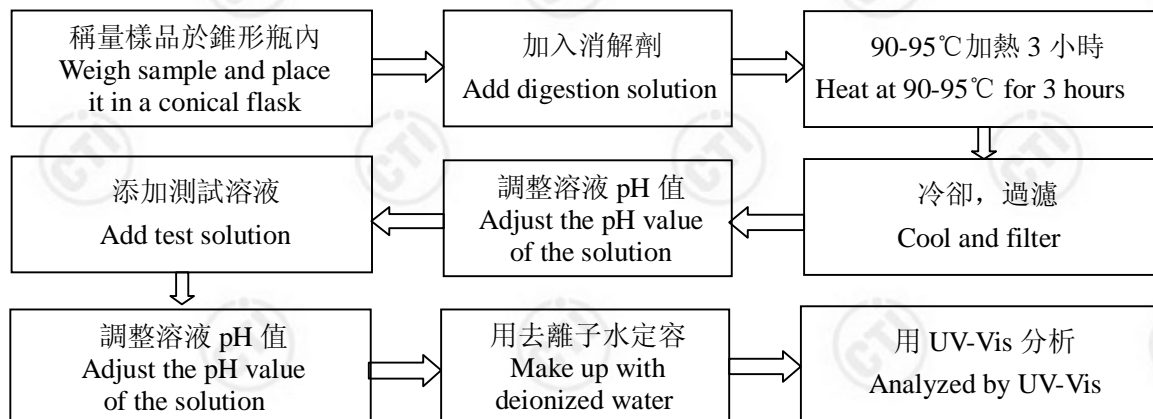


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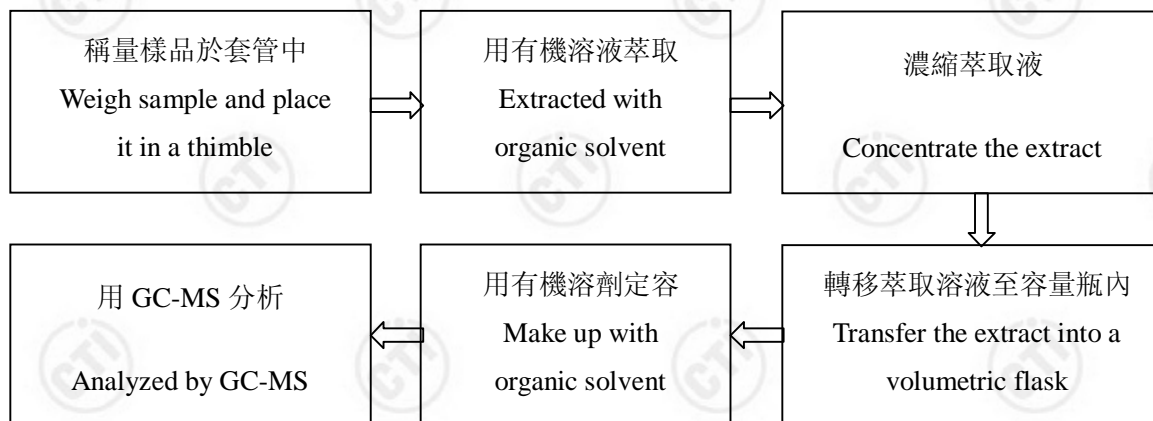
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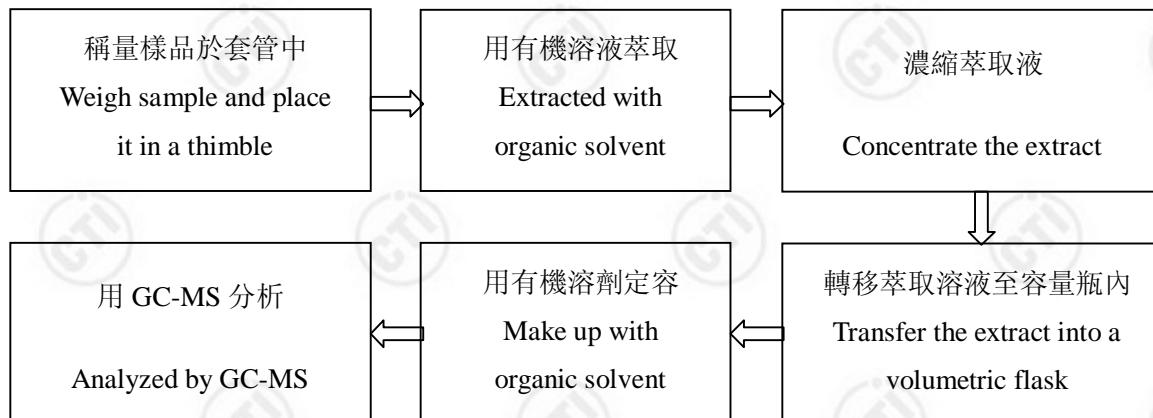
3. 六價鉻 Hexavalent Chromium (Cr(VI))



4. 多溴聯苯 Polybrominated Biphenyls(PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers(PBDEs)



5. 六溴環十二烷 Hexabromocyclododecane (HBCDD)

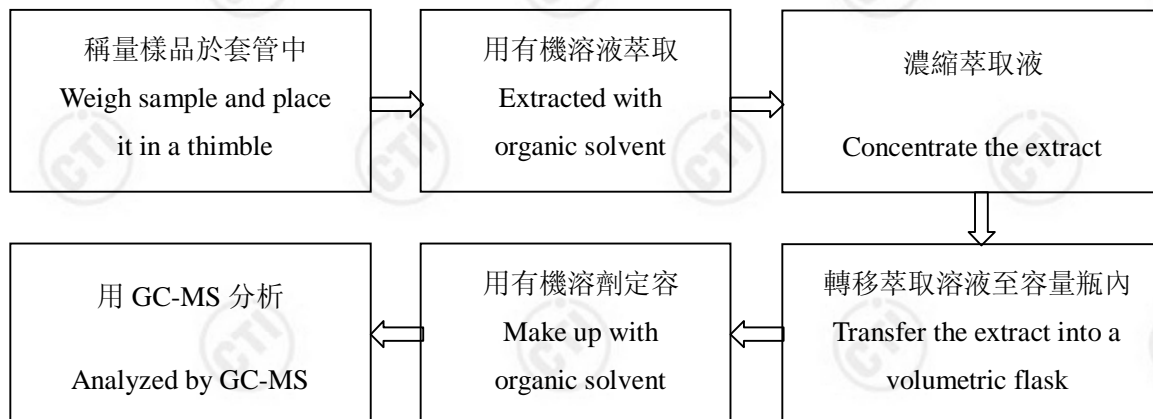


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6. 鄰苯二甲酸鹽 Phthalates



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樣品圖片

Photo(s) of the sample(s)



*** 報告結束 ***

*** End of Report ***

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