

測試報告 Test Report

號碼(No.) : CR/2009/50048 日期(Date) : 2009/05/12 頁數(Page) : 1 of

尚志精密化學股份有限公司
TATUNG FINE CHEMICALS CO.
桃園縣觀音鄉草漯村247之1號
247-1, TSAOTA, KUANYIN, TAOYUAN HSIEN, TAIWAN, 328



以下測試樣品係由客戶送樣，且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as) :

樣品名稱(Sample Description) : 凡立水 (VANISH)
樣品型號(Style/Item No.) : RTCV-2319
收件日期(Sample Receiving Date) : 2009/05/05
測試期間(Testing Period) : 2009/05/05 TO 2009/05/12

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測試需求(Test Requested) : 15項高關注物質(SVHC)篩檢
高關注物質(SVHC)候選清單是根據歐洲化學總署(ECHA)於2008年10月28日，就關於REACH之Regulation (EC) No 1907/2006的公告。/ Fifteen (15) Substances of Very High Concern (SVHC) screening.

SVHC candidate list based on the publication by European Chemicals Agency (ECHA) on 2008 October 28, regarding Regulation (EC) No 1907/2006 concerning the REACH.

測試方法(Test Method) : 請見下一頁 (Please refer to next pages).

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

Chenyu Kung / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

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測試結果(Test Results)

測試部位(PART NAME) NO.1 : 棕色塗料 (BROWN PAINT)

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
蒽/ Anthracene (CAS No.: 000120-12-7)	mg/kg	參考ZLS standard ZEK 01.2-08方法, 以氣相層析質譜儀檢測. / With reference to ZEK 01.2-08. Analyzed by GC/MS.	0.2	n.d.
4,4' - 二氨基二苯甲烷 / 4,4' - Diaminodiphenylmethane (CAS No.: 000101-77-9)	mg/kg	參考EN 14362-1: 2003方法, 以氣相層析質譜儀檢測. / With reference to EN 14362-1: 2003. Analyzed by GC/MS.	3	n.d.
鄰苯二甲酸二丁酯 / Dibutyl phthalate (DBP) (CAS No.: 000084-74-2)	%	參考EN 14372:2004, 以氣相層析儀質譜儀檢測. / With reference to EN 14372: 2004. Analyzed by GC/MS.	0.003	n.d.
鄰苯二甲酸丁酯苯甲酯 / Benzyl butyl phthalate (BBP) (CAS No.: 000085-68-7)	%	參考EN 14372:2004, 以氣相層析儀質譜儀檢測. / With reference to EN 14372: 2004. Analyzed by GC/MS.	0.003	n.d.
鄰苯二甲酸二(2-乙基己基)酯 / Bis (2-ethylhexyl) phthalate (DEHP) (CAS No.: 000117-81-7)	%	參考EN 14372:2004, 以氣相層析儀質譜儀檢測. / With reference to EN 14372: 2004. Analyzed by GC/MS.	0.003	n.d.
二甲苯麝香 / 5-tert-butyl-2,4,6-trinitro- m-xylene (Musk Xylene) (CAS No.: 000081-15-2)	mg/kg	參考US EPA 3550C:1996方法, 以氣相層析質譜儀檢測. / With reference to US EPA 3550C:1996. Analyzed by GC/MS.	10	n.d.
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) (CAS No.: 025637-99-4 and 003194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考US EPA 3540C:1996方法, 以氣相層析質譜儀檢測. / With reference to US EPA 3540C:1996. Analyzed by GC/MS.	5	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
短鏈氯化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 085535-84-8)	mg/kg	參考US EPA 3540C:1996方法, 以氣相層析質譜儀檢測. / With reference to US EPA 3540C:1996. Analyzed by GC/MS.	100	n.d.
二氯化鈷 / Cobalt dichloride (CAS No.: 007646-79-9)	mg/kg	參考SGS內部方法RSTS-EE-SVHC-002, 用感應耦合電漿原子發射光譜儀檢測. / SGS In-House method-RSTS-EE-SVHC-002. Analyzed by ICP-AES.	5	n.d.
五氧化二砷 / Diarsenic pentaoxide*** (CAS No.: 001303-28-2)	mg/kg	參考US EPA 3052:1996方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA 3052:1996. Analyzed by ICP-AES.***	-	n.d.
三氧化二砷 / Diarsenic trioxide*** (CAS No.: 001327-53-3)	mg/kg	參考US EPA 3052:1996方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA 3052:1996. Analyzed by ICP-AES.***	-	n.d.
三乙基砷酸鹽 / Triethyl arsenate*** (CAS No.: 015606-95-8)	mg/kg	參考US EPA 3052:1996方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA 3052:1996. Analyzed by ICP-AES.***	-	n.d.
砷酸氫鉛 / Lead hydrogen arsenate*** (CAS No.: 007784-40-9)	mg/kg	參考US EPA 3052:1996方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA 3052:1996. Analyzed by ICP-AES.***	-	n.d.
三丁基錫氧化物 / Bis(tributyltin)oxide*** (CAS No.: 000056-35-9)	mg/kg	參考ISO 17353: 2004方法, 以氣相層析儀/火焰光度偵測器檢測./ With reference to BS ISO 17353: 2004. Analyzed by GC/FPD.***	-	n.d.
重鉻酸鈉 / Sodium dichromate*** (CAS No.: 010588-01-9(**))	mg/kg	參考US EPA 3060A:1996方法, 用UV-VIS做分析. / With reference to US EPA 3060A:1996. Analyzed by UV-Vis.***	-	n.d.

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備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d.= not detected = below Method detection Limit / 未檢出
3. MDL = Method Detection Limit (方法偵測極限值)
4. ***: 該物質是由"三丁基錫"或各別元素(例如: 砷、鉛或六價鉻)之測試結果計算得知。
其MDL是針對"三丁基錫"或元素(例如: 砷、鉛或六價鉻)之評估。 /

The substance was calculated by the test results of Tributyl Tin or element (Ex. Arsenic, Lead or Cr (VI) respectively).

The MDL was evaluated for Tributyl Tin or element (Ex. Arsenic, Lead or Cr(VI) respectively).

$$AX = A \times F$$

AX	A	F
五氧化二砷 / Diarsenic pentaoxide	砷 / Arsenic	1.5339
三氧化二砷 / Diarsenic trioxide		1.3203
三乙基砷酸鹽 / Triethyl arsenate		3.0179
砷酸氫鉛 / Lead hydrogen arsenate	鉛 / Lead	4.6332
重鉻酸鈉 / Sodium dichromate	六價鉻 / Hexavalent Chromium Cr(VI)	1.6753
三丁基錫氧化物 / Bis(tributyltin)oxide	三丁基錫 / Tributyl Tin (TBT)	2.5192
		1.0276

"砷酸氫鉛"之濃度是取砷及鉛兩者各別換算出砷酸氫鉛濃度，並取其之最小值最為最後出報告之依據。

(Regarding lead hydrogen arsenate lead and arsenic are tested and used for the calculation of the separated concentration of lead hydrogen arsenate. The final concentration of lead hydrogen arsenate for the report uses the minimum value of above-mentioned two concentration of lead hydrogen arsenate.)

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測試結果如下(The test result is given as):

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
砷 / Arsenic (As)	mg/kg	參考US EPA 3052:1996方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA 3052:1996. Analyzed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考US EPA 3052:1996方法, 用感應耦合電漿原子發射光譜儀檢測. / With reference to US EPA 3052:1996. Analyzed by ICP-AES.	2	n.d.
三丁基錫 / Tributyl Tin (TBT) (CAS No.: 000688-73-3)	mg/kg	參考ISO 17353: 2004方法, 以氣相層析儀 / 火焰光度偵測器檢測. / With reference to BS ISO 17353: 2004. Analyzed by GC/FPD.	0.03	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考US EPA 3060A:1996方法, 用UV-VIS做分析. / With reference to US EPA 3060A:1996. Analyzed by UV-Vis.	2	n.d.

5. (*): 重鉻酸鈉二水合物(CAS No.: 007789-12-0)含量 = 重鉻酸鈉含量 × 1.1374
(conc. of Sodium dichromate dihydrate = conc. of sodium dichromate × 1.1374)
6. "-" = Not Regulated (無規格值)

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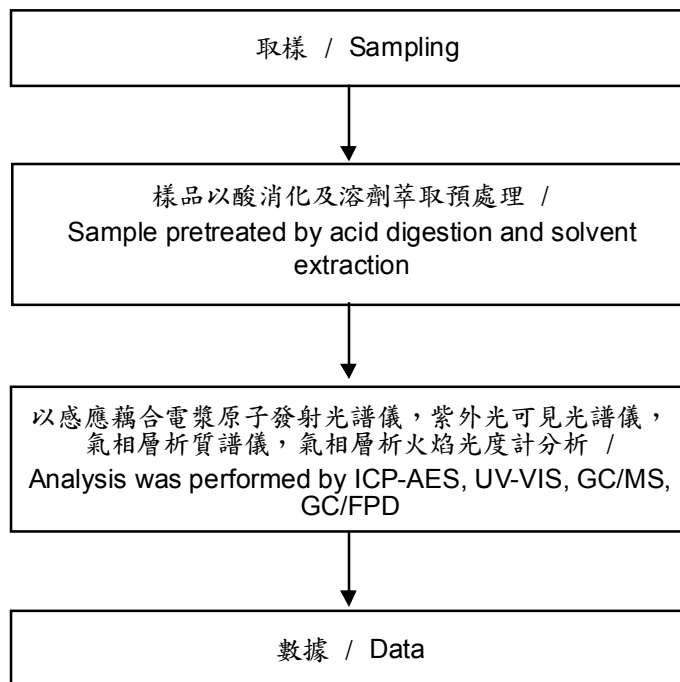
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SVHC 分析流程圖 / Analytical flow chart of SVHC



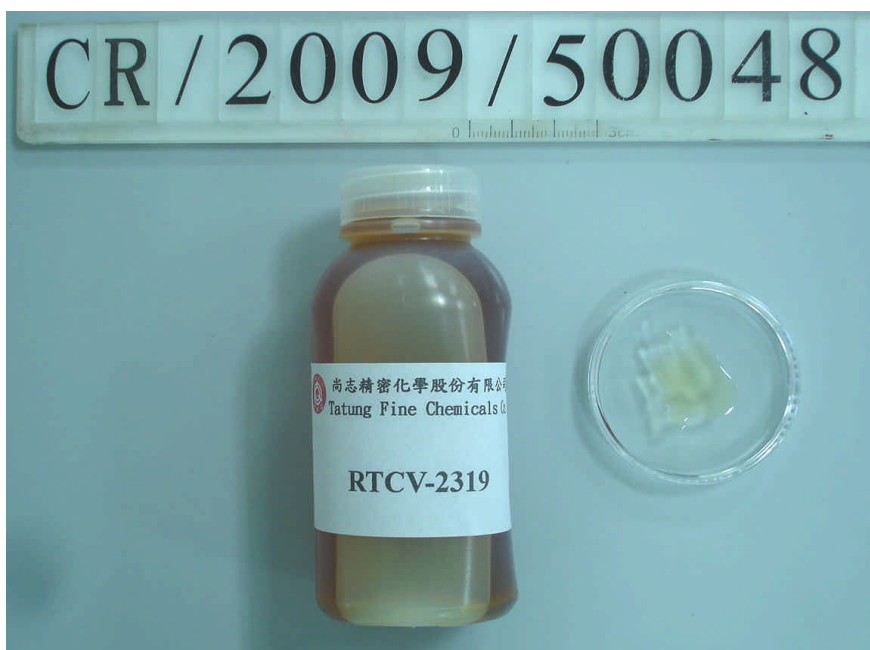
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** 報告結尾(End of Report) **

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