

測試報告(SVHC) Test Report

號碼(No.): KE/2011/41937

日期(Date): 2011/04/21

頁數 : 1 of 9

瑞晉興業股份有限公司

ROCKY-TAFU PLASTICS CO., LTD.

高雄市岡山區岡山路20號

NO.20, GANGSHAN N. RD., GANGSHAN DIST., KAOHSIUNG CITY 820, TAIWAN (R.O.C.)



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):

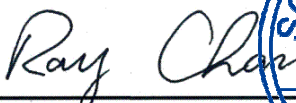
樣品名稱(Sample Description) : PEVA
樣品顏色(Color) : 黑色 (BLACK)
收件日期(Sample Receiving Date) : 2011/4/11
測試期間(Testing Period) : 2011/04/18 TO 2011/04/21

=====
測試需求(Test Requested) : 7項高關注物質(SVHC)篩檢。高關注物質(SVHC)建議清單是根據歐洲化學總署(ECHA)於2011年02月21日，就關於REACH之Regulation (EC) No 1907/2006的公告。 / Seven (7) Substances of Very High Concern (SVHC) screening. SVHC proposed list based on the publication by European Chemicals Agency (ECHA) on 2011 February 21, 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).

總結(Summary) : 根據指定規範和分析技術，送測樣品的高關注物質(SVHC)濃度均小於0.1% (According to the specified scope and analytical technique, concentrations of all SVHC are <0.1% in the submitted sample(s)).


Ray Chang / Asst. Manager
Signed for and on behalf of
SGS Taiwan Limited



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測試樣品(Test Sample): 黑色PEVA (BLACK PEVA)

測試方法:

參照SGS內部方法RSTS-EE-SVHC-006. 由紫外光可見光譜儀, 液相層析儀/二極體陣列偵測器, 氣相層析儀質譜儀進行分析。(SGS In-House method-RSTS-EE-SVHC-006. Analyzed by UV-VIS, LC/DAD, GC/MS.)

備註:

1. 7項SVHC化學分析, 依歐洲化學總署(ECHA)於2011年02月21日所公佈的清單, 藉由現有的分析技術進行篩檢。這清單是由ECHA所評估且未來可受更改。(The chemical analysis of 7 SVHC is performed by means of currently available analytical techniques against the list published by ECHA on 2011 February 21. This list is under evaluation by ECHA and may subject to change in the future.)

http://echa.europa.eu/consultations/authorisation/svhc/svhc_cons_en.asp

2. 根據Regulation (EC) No 1907/2006 中第7條款第2項之規定, 如果物質合乎第57條款之標準以及可依據第59(1)條之規定鑑別, 且同時符合下列兩項狀況, 任何成品之製造人和進口人應向歐洲化學總署(ECHA)通報:

- (a) 成品中所含物質每年超過1公噸。
- (b) 依重量百分比計算, 物質濃度超過0.1%。

In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation,

if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w).

3. Regulation (EC) No 1907/2006中第 33 條要求成品供應商, 其成品所含物質符合第57條款的標準並依照第59(1)條款確定其濃度大於0.1wt%, 應提供成品接受者充份可取得資訊, 以確保成品的安全使用(至少包括物質的名稱)。

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.

4. 倘若SVHC超過限值, 建議客戶確認含有該SVHC的零件, 並要求實驗室進一步的定量分析而取得SVHC的確切濃度。

If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

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測試結果 (Test Results)

物質名稱 (Substance Name)	單位 (Unit)	成品濃度 (Concentration)	報告 極限值 (RL)	分類 (Classification)
乙二醇乙醚乙酸酯 (2-ethoxyethyl acetate) (CAS No.: 111-15-9)	%	n.d.	0.05	對生殖系統有害 類別2 (Toxic to Reproduction Category 2)
聯氨 (Hydrazine) (CAS No.: 7803-57-8; 302-01-2)	%	n.d.	0.05	致癌物質 類別 2 (Carcinogen Category 2)
鄰苯二甲酸二 (C6-8支鏈與直鏈) 烷基酯, 富C7 (1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich) (CAS No.: 71888-89-6)	%	n.d.	0.05	對生殖系統有害 類別2 (Toxic to Reproduction Category 2)
鄰苯二甲酸二 (C7-11支鏈與直鏈) 烷基酯 (1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters) (CAS No.: 68515-42-4)	%	n.d.	0.05	對生殖系統有害 類別2 (Toxic to Reproduction Category 2)
N-甲基吡咯烷酮 (1-methyl-2-pyrrolidone) (CAS No.: 872-50-4)	%	n.d.	0.05	對生殖系統有害 類別2 (Toxic to Reproduction Category 2)
1,2,3-三氯丙烷 (1,2,3-trichloropropane) (CAS No.: 96-18-4)	%	n.d.	0.05	致癌物質 類別 2; 對生殖系統有害 類別2 (Carcinogen Category 2; Toxic to Reproduction Category 2)
鉻酸鋇 (Strontium chromate)*** (CAS No.: 7789-06-2)	%	n.d.	-	致癌物質 類別 2 (Carcinogen Category 2)

備註(Note):

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d.= not detected = below Reporting Limit / 未檢出
3. RL = Reporting Limit / 報告極限值
4. 列於附錄A中之分類定義是根據67/548/EE以及Regulation (EC) No 1907/2006 (Definition of classification is listed in Appendix A of this report in accordance with 67/548/EEC and Regulation (EC) No 1907/2006)。
5. 各測試單元的濃度及重量請參閱附錄C。 / Please refer to Appendix C to find the concentration and the weight of each tested unit.

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NO.20, GANGSHAN N. RD., GANGSHAN DIST., KAOHSIUNG CITY 820, TAIWAN (R.O.C.)



6. "-" = Not Regulated (無規格值)

7. ***: 該物質是由"六價鉻"之測試結果計算得知。 / The substance was calculated by the test result of Cr(VI).

$$AX = A \times F$$

AX	A	F
鉻酸鋇 (Strontium chromate)	六價鉻 / Hexavalent Chromium Cr(VI)	3.9159

測試結果如下(The test result is given as):

物質名稱 (Substance Name)	單位 (Unit)	成品濃度 (Concentration)	報告 極限值 (RL)
六價鉻 / Hexavalent Chromium Cr(VI)	%	n.d.	0.005

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瑞晉興業股份有限公司

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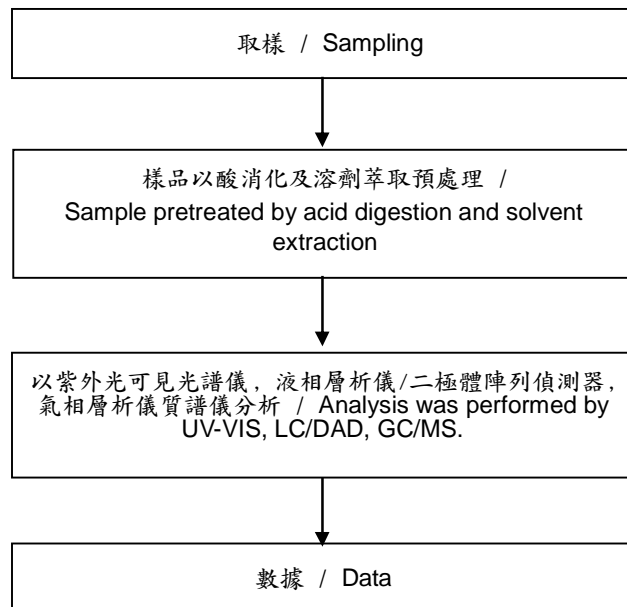
高雄市岡山區岡山路20號

NO.20, GANGSHAN N. RD., GANGSHAN DIST., KAOHSIUNG CITY 820, TAIWAN (R.O.C.)



SVHC 分析流程圖 / Analytical flow chart of SVHC

- 1) 測試人員：張俊雄/曹嘉琪 / Name of the person who made measurement:
Alex Chang / Anson Tsao
- 2) 測試負責人：張伯睿 / Name of the person in charge of measurement:
Ray Chang



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ROCKY-TAFU PLASTICS CO., LTD.

高雄市岡山區岡山北路20號

NO.20, GANGSHAN N. RD., GANGSHAN DIST., KAOHSIUNG CITY 820, TAIWAN (R.O.C.)



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ROCKY-TAFU PLASTICS CO., LTD.
高雄市岡山區岡山北路20號
NO.20, GANGSHAN N. RD., GANGSHAN DIST., KAOHSIUNG CITY 820, TAIWAN (R.O.C.)



【附錄 (Appendix) A】

分類 (Classification)	67/548/EEC以及Regulation (EC) No 1907/2006下的定義 (Definition under 67/548/EEC and Regulation (EC) No 1907/2006)
致癌物質 類別 2 (Carcinogen Category 2):	應被視為可能對人體會導致致癌的物质。有足夠的證據強力推論人體暴露於該物質可能導致癌症發展，上述基於下列研究所得之結果 (Substances which should be regarded as if they are carcinogenic to man. There is sufficient evidence to provide a strong presumption that human exposure to a substance may result in the development of cancer. Generally on the basis of): <ul style="list-style-type: none"> - 適當的長期動物實驗 (appropriate long-term animal studies)。 - 其他相關資訊 (other relevant information)。
對生殖系統有害 類別2 (Toxic to Reproduction Category 2) :	應被視為可能會損害人體生殖能力的物質。有足夠的證據證明人體暴露於該物質可能導致損害人體生殖能力的有力推論，上述基於下列研究所得之結果 (Substances which should be regarded as if they impair fertility in humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in impaired fertility on the basis of): <ul style="list-style-type: none"> - 缺少毒性作用的生殖能力削弱動物實驗中的明顯證據，或在同使用量下其他毒性作用但不是其他毒性作用的輔助非特定結果的生殖能力削弱證據 (clear evidence in animal studies of impaired fertility in the absence of toxic effects, or, evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary nonspecific consequence of the other toxic effects) - 其他相關資訊 (other relevant information) 應被視為可能在人體引起毒性發展的物質有足夠的證據提供人體暴露於該物質可能引起毒性發展的有力推論，整體而言是基於 (Substances which should be regarded as if they cause developmental toxicity to humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in developmental toxicity, generally on the basis of): <ul style="list-style-type: none"> - 在適當動物實驗研究所進行缺乏顯著母體毒性徵象或在同使用量下其他毒性作用但不是其他毒性作用的輔助非特定結果的生殖能力削弱證據觀察，所得到之明顯結果 (clear results in appropriate animal studies where effects have been observed in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of the other toxic effects)。 - 其他相關資訊 (other relevant information)

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【附錄 (Appendix) B】

SVHC 調查表(SURVEY FORM)

公司名稱(Company Name): 瑞晉興業股份有限公司 (ROCKY-TAFU PLASTICS CO., LTD.)

樣品名稱(Product Name): PEVA

產品/取樣重量(Product/Sampling weight): 5 g

報告號碼(Report No.): KE/2011/41937

物質鑑定(Substance identification)

物質名稱 (Substance name)	成品濃度 (Concentration) (%)	重量 (weight) (mg)	安全資訊的提供, 根據Article 33 (providing information about safe use according to Article 33 is necessary)
乙二醇乙醚乙酸酯 (2-ethoxyethyl acetate)	n.d.	N/A	No
聯氨 (Hydrazine)	n.d.	N/A	No
鄰苯二甲酸二 (C6-8支鏈與直鏈) 烷基酯, 富C7 (1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich)	n.d.	N/A	No
鄰苯二甲酸二 (C7-11支鏈與直鏈) 烷基酯 (1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters)	n.d.	N/A	No
N-甲基吡咯烷酮 (1-methyl-2-pyrrolidone)	n.d.	N/A	No
1,2,3-三氯丙烷 (1,2,3-trichloropropane)	n.d.	N/A	No
鉻酸鋇 (Strontium chromate)	n.d.	N/A	No

備註(Note): N/A = 不適用 (Non-Available)

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【附錄 (Appendix) C】

測試單元(Tested Unit)No.1: 黑色PEVA (BLACK PEVA) (重量Weight: 5g)

物質名稱 (Substance Name)	濃度 (Concentration) (%)	報告 極限值 (RL)	樣品圖 (Sample Picture)
乙二醇乙醚乙酸酯 (2-ethoxyethyl acetate)	n.d.	0.05	
聯氨 (Hydrazine)	n.d.	0.05	
鄰苯二甲酸二 (C6-8支鏈與直鏈) 烷基酯, 富C7 (1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich)	n.d.	0.05	
鄰苯二甲酸二 (C7-11支鏈與直鏈) 烷基酯 (1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters)	n.d.	0.05	
N-甲基吡咯烷酮 (1-methyl-2-pyrrolidone)	n.d.	0.05	
1,2,3-三氯丙烷 (1,2,3-trichloropropane)	n.d.	0.05	
六價鉻 / Hexavalent Chromium Cr(VI)	n.d.	0.005	
鉻酸鋇 (Strontium chromate)	n.d.	-	

備註(Note):

A. 整個成品的平均濃度可以依據下列公式被計算得之。(The average concentration of a whole article can be calculated per the following formula.)

$$C_{\text{Average of Article}} = \frac{\sum_{i=1}^n (C_i * W_i)}{\sum_{i=1}^n (W_i)}$$

C_i : 單一SVHC測項在各測試單元中的濃度(Concentration of a SVHC item in each tested unit)

W_i : 各測試單元的重量 (Weight of each tested unit)

$C_{\text{Average of Article}}$: 整個成品的平均濃度 (Average concentration of a whole article)

** 報告結尾(End of Report) **

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