

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 1 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, 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) : MULTI-LAYER CERAMIC CAPACITOR
樣品型號(Style/Item No.) : NPO/X5R/X7R/Y5V SERIES
收件日期(Sample Receiving Date) : 2013/01/08
測試期間(Testing Period) : 2013/01/08 TO 2013/01/21
送樣廠商(Sample Submitted By) : 國巨股份有限公司楠梓分公司 (YAGEO CORPORATION NANTZE BRANCH)

=====
測試需求(Test Requested) : 138項高關注物質篩檢。高關注物質候選清單是根據歐洲化學總署(ECHA)於2012年12月17日，就關於REACH之Regulation (EC) No 1907/2006的公告。/ 138 Substances of Very High Concern (SVHC) screening. SVHC candidate list based on the publication by European Chemicals Agency (ECHA) on 2012 December 17, 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) : 根據歐洲化學總署及絕大部分歐盟會員國對於成品定義詮釋以及依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 interpretation of ECHA and the majority of EU member states on the definition of an article as well as 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



測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 2 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

測試樣品(Test Sample): 棕色/銀色 MULTI-LAYER CERAMIC CAPACITOR (BROWN/SILVER MULTI-LAYER CERAMIC CAPACITOR)

測試方法(Test Method):

參照SGS內部方法,由感應耦合電漿原子發射光譜儀,紫外光可見光譜儀,氣相層析質譜儀,氣相層析質譜儀/電子捕捉偵測器,氣相層析火焰光度計分析,液相層析質譜儀,液相層析儀/二極體陣列偵測器分析。(SGS In-House method- Analyzed by ICP-AES, UV-VIS, GC/MS, GC/ECD, GC/FPD, LC/MS, LC/DAD.)

備註(Remark):

1. 138項SVHC化學分析,依歐洲化學總署(ECHA)於2012年12月17日所公佈的清單,藉由現有的分析技術進行篩檢。(The chemical analysis of 138 SVHC is performed by means of currently available analytical techniques against the list published by ECHA on 2012 December 17.)

請參照(refer to) <http://echa.europa.eu/web/guest/candidate-list-table>

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.

測試報告(SVHC)

Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 3 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
 YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
 高雄市楠梓加工出口區西三街16號
 16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

測試結果 (Test Results)

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
蒽 / Anthracene (CAS No.: 120-12-7)	n.d.	0.005	PBT
4,4' - 二氨基二苯甲烷 / 4,4' - Diaminodiphenylmethane (CAS No.: 101-77-9)	n.d.	0.005	CC2
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	n.d.	0.005	TRC2
鄰苯二甲酸甲苯基丁酯 / BBP (Benzyl butyl phthalate) (CAS No.: 85-68-7)	n.d.	0.005	TRC2
鄰苯二甲酸二(2-乙基己基)酯 / Bis(2-ethyl(hexyl) phthalate) (DEHP) (CAS No.: 117-81-7)	n.d.	0.005	TRC2
二甲苯麝香 / 5-tert-butyl-2,4,6-trinitro- m-xylene (Musk Xylene) (CAS No.: 81-15-2)	n.d.	0.005	vPvB
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.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	n.d.	0.005	PBT
短鏈氯化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	n.d.	0.01	PBT
三丁基錫氧化物 / Bis(tributyltin)oxide*** (CAS No.: 56-35-9)	n.d.	-	PBT
二氯化鈷 / Cobalt dichloride (CAS No.: 7646-79-9)	n.d.	0.005	CC2; TRC2
五氧化二砷 / Diarsenic pentaoxide*** (CAS No.: 1303-28-2)	n.d.	-	CC1
三氧化二砷 / Diarsenic trioxide*** (CAS No.: 1327-53-3)	n.d.	-	CC1
三乙基砷酸酯 / Triethyl arsenate*** (CAS No.: 15606-95-8)	n.d.	-	CC1
砷酸氫鉛 / Lead hydrogen arsenate*** (CAS No.: 7784-40-9) (※1)	n.d.	-	CC1; TRC1
鉻酸鈉 / Sodium chromate*** (CAS No.: 7775-11-3)	n.d.	-	CC2; MC2; TRC2
重鉻酸銨 / Ammonium dichromate*** (CAS No.: 7789-09-5)	n.d.	-	CC2; MC2; TRC2
重鉻酸鉀 / Potassium dichromate*** (CAS No.: 7778-50-9)	n.d.	-	CC2; MC2; TRC2
鉻酸鉀 / Potassium chromate*** (CAS No.: 7789-00-6)	n.d.	-	CC2; MC2
重鉻酸鈉 / Sodium dichromate*** (CAS No.: 10588-01-9, 7789-12-0(*))	n.d.	-	CC2; MC2; TRC2

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 4 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
三氧化鉻 / Chromium trioxide *** (CAS No.: 1333-82-0)	n.d.	-	CC2; MC2
從三氧化鉻與其它寡聚體生成的酸類: 鉻酸 / Acids generated from chromium trioxide and their oligomers: Chromic acid*** (CAS No.: 7738-94-5)	n.d.	-	CC2
從三氧化鉻與其它寡聚體生成的酸類: 重鉻酸 / Acids generated from chromium trioxide and their oligomers: Dichromic acid*** (CAS No.: 13530-68-2)	n.d.	-	CC2
從三氧化鉻與其它寡聚體生成的酸類: 鉻酸與重鉻酸的寡聚體 / Acids generated from chromium trioxide and their oligomers: Oligomers of chromic acid and dichromic acid (*1)	n.d.	-	CC2
鉻酸鋇 / Strontium chromate*** (CAS No.: 7789-06-2)	n.d.	-	CC2
蔥油 / Anthracene oil (CAS No.: 90640-80-5) (**)	n.d.	0.05	PBT; vPvB; CC2
蔥油, 蔥糊, 輕油 / Anthracene oil, anthracene paste, distn. Lights (CAS No.: 91995-17-4) (**)	n.d.	0.05	PBT
蔥油, 蔥糊, 蔥餾分 / Anthracene oil, anthracene paste, anthracene fraction (CAS No.: 91995-15-2) (**)	n.d.	0.05	PBT; vPvB; CC2; MC2
蔥油, 含蔥量少 / Anthracene oil, anthracene-low (CAS No.: 90640-82-7) (**)	n.d.	0.05	PBT; vPvB; CC2; MC2
蔥油, 蔥糊 / Anthracene oil, anthracene paste (CAS No.: 90640-81-6) (**)	n.d.	0.05	PBT; vPvB; CC2; MC2
煤瀝青, 高溫 / Pitch, coal tar, high-temp. (CAS No.: 65996-93-2) (**)	n.d.	0.05	PBT; vPvB; CC2
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	n.d.	0.005	TRC2
2,4-二硝基甲苯 / 2,4-Dinitrotoluene (CAS No.: 121-14-2)	n.d.	0.005	CC2
磷酸三(2-氯乙基)酯 / Tris(2-chloroethyl) phosphate (TCEP) (CAS No.: 115-96-8)	n.d.	0.005	TRC2
鉻酸鉛 / Lead chromate (CAS No.: 7758-97-6)	n.d.	0.01	CC2; TRC1
鉬鉻紅; 顏色索引: 顏料紅104 / Lead chromate molybdate sulphate red (C.I. Pigment Red 104) (CAS No.: 12656-85-8)	n.d.	0.01	CC2; TRC1
鉻酸鉛; 顏色索引: 顏料黃34 / Lead sulfochromate yellow (C.I. Pigment Yellow 34) (CAS No.: 1344-37-2)	n.d.	0.01	CC2; TRC1

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 5 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
丙烯醯胺 / Acrylamide (CAS No.: 79-06-1)	n. d.	0.005	CC2; MC2
硼酸 / Boric acid*** (CAS No.: 10043-35-3; 11113-50-1)	n. d.	-	TRC2
無水四硼酸二鈉 / Disodium tetraborate, anhydrous*** (CAS No.: 1303-96-4, 1330-43-4, 12179-04-3)	n. d.	-	TRC2
水合硼酸鈉 / Tetraboron disodium heptaoxide, hydrate (CAS No.: 12267-73-1) (*2)	n. d.	-	TRC2
三氯乙烯 / Trichloroethylene (CAS No.: 79-01-6)	n. d.	0.005	CC2
硫酸鈷(二價) / Cobalt(II) sulphate*** (CAS No.: 10124-43-3)	n. d.	-	CC2; TRC2
硝酸鈷(二價) / Cobalt(II) dinitrate*** (CAS No.: 10141-05-6)	n. d.	-	CC2; TRC2
碳酸鈷(二價) / Cobalt(II) carbonate*** (CAS No.: 513-79-1)	n. d.	-	CC2; TRC2
醋酸鈷(二價) / Cobalt(II) diacetate*** (CAS No.: 71-48-7)	n. d.	-	CC2; TRC2
乙二醇甲醚 / 2-Methoxyethanol (CAS No.: 109-86-4)	n. d.	0.005	TRC2
乙二醇乙醚 / 2-Ethoxyethanol (CAS No.: 110-80-5)	n. d.	0.005	TRC2
乙二醇乙醚乙酸酯 / 2-ethoxyethyl acetate (CAS No.: 111-15-9)	n. d.	0.05	TRC2
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	TRC2
聯氨 / Hydrazine (CAS No.: 7803-57-8; 302-01-2)	n. d.	0.05	CC2
N-甲基吡咯烷酮 / 1-methyl-2-pyrrolidone (CAS No.: 872-50-4)	n. d.	0.05	TRC2
1,2,3-三氯丙烷 / 1,2,3-trichloropropane (CAS No.: 96-18-4)	n. d.	0.05	CC2; TRC2
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	TRC2
砷酸 / Arsenic acid*** (CAS No.: 7778-39-4)	n. d.	-	CC1
砷酸鈣 / Calcium arsenate*** (CAS No.: 7778-44-1)	n. d.	-	CC1
砷酸鉛 / Trilead diarsenate*** (CAS No.: 3687-31-8) (※1)	n. d.	-	CC1; TRC1
疊氮化鉛 / Lead diazide, Lead azide*** (CAS No.: 13424-46-9)	n. d.	-	TRC1
中性斯蒂吩酸鉛 / Lead styphnate*** (CAS No.: 15245-44-0)	n. d.	-	TRC1
苦味酸鉛 / Lead dipicrate*** (CAS No.: 6477-64-1)	n. d.	-	TRC1
鉻酸鉻 / Dichromium tris (chromate)*** (CAS No.: 24613-89-6)	n. d.	-	CC2

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 6 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
氫氧化鉻酸鉍 / Potassium hydroxyoctaoxodizincatedi- chromate*** (CAS No.: 11103-86-9)	n. d.	-	CC1
八氫氧化五鉻酸鉍 / Pentazinc chromate octahydroxide*** (CAS No.: 49663-84-5)	n. d.	-	CC1
甲醛與苯胺的寡聚體 / Formaldehyde, oligomeric reaction products with aniline (technical MDA) (CAS No.: 25214-70-4)	n. d.	0.05	CC2
鄰苯二甲酸二甲氧基乙酯 / Bis(2-methoxyethyl) phthalate (CAS No.: 117-82-8)	n. d.	0.05	TRC2
鄰甲氧基苯胺 / 2-Methoxyaniline; o-Anisidine (CAS No.: 90-04-0)	n. d.	0.05	CC2
對特辛基苯酚 / 辛基酚 / 4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-Octylphenol) (CAS No.: 140-66-9)	n. d.	0.05	相同危害等級 (Equivalent concern)
1,2-二氯乙烷 / 1,2-Dichloroethane (CAS No.: 107-06-2)	n. d.	0.05	CC2
雙(2-甲氧基乙基)醚 / Bis(2-methoxyethyl) ether (CAS No.: 111- 96-6)	n. d.	0.05	TRC2
N,N-二甲基乙醯胺 / N,N-dimethylacetamide (DMAC) (CAS No.: 127- 19-5)	n. d.	0.05	TRC2
4,4'-亞甲雙(2-氯苯胺) / 2,2'-dichloro- 4,4'-methylenedianiline (MOCA) (CAS No.: 101-14-4)	n. d.	0.05	CC2
酚酞 / Phenolphthalein (CAS No.: 77-09-8)	n. d.	0.05	CC2
矽酸鋁, 耐火陶瓷纖維 (主要成分濃度於可變範圍內) / Aluminosilicate, Refractory Ceramic Fibres oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges	n. d.	0.05	CC2
鋯矽酸鋁, 耐火陶瓷纖維 (主要成分濃度於可變範圍內) / Zirconia Aluminosilicate, Refractory Ceramic Fibres oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges	n. d.	0.05	CC2
三甘醇二甲醚 / 1,2-bis (2-methoxyethoxy) ethane (TEGDME; triglyme) (CAS No.: 112-49-2)	n. d.	0.05	TRC2
乙二醇二甲醚 / 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (CAS No.: 110-71-4)	n. d.	0.05	TRC2
甲醯胺 / Formamide (CAS No.: 75-12-7)	n. d.	0.05	TRC2

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 7 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
甲基磺酸鉛 / Lead(II) bis(methanesulfonate)*** (CAS No.: 17570-76-2)	n. d.	-	TRC2
異氰尿酸三縮水甘油酯 / TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6 (1H,3H,5H)-trione) (CAS No.: 2451-62-9)	n. d.	0.05	MC2
異氰尿酸β-三縮水甘油酯 / β-TGIC (1,3,5-tris [(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6- (1H,3H,5H)-trione) (CAS No.: 59653-74-6) (※3)	n. d.	0.05	MC2
4,4'-二(N,N-二甲氨基)二苯甲酮 (米氏酮) / 4,4'-bis(dimethylamino) benzophenone (Michler's ketone) (CAS No.: 90-94-8)	n. d.	0.05	CC2
4,4'-(對二甲氨基)二苯基甲烷 (米氏鹼) / N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) (CAS No.: 101-61-1)	n. d.	0.05	CC2
鹼性紫 3 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / [4-[4,4'-bis(dimethylamino)benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3) (CAS No.: 548-62-9) [with ≥ 0.1% of Michler's ketone or Michler's base]	n. d.	0.05	CC2
鹼性藍 26 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / [4-[[4-anilino-1-naphthyl][4-(dimethylamino) phenyl] methylene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) (CAS No.: 2580-56-5) [with ≥ 0.1% of Michler's ketone or Michler's base]	n. d.	0.05	CC2
溶劑藍 4 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4) (CAS No.: 6786-83-0) [with ≥ 0.1% of Michler's ketone or Michler's base]	n. d.	0.05	CC2
三氧化二硼 / Diboron trioxide*** (CAS No.: 1303-86-2)	n. d.	-	TRC2
α, α-二((二甲氨基)苯基)-4-甲氨基苯甲醇 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / 4,4'-bis (dimethylamino)-4''-(methylamino) trityl alcohol (CAS No.: 561-41-1) [with ≥ 0.1% of Michler's ketone or Michler's base]	n. d.	0.05	CC2

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 8 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
十溴聯苯醚 / Bis(pentabromophenyl) ether (DecaBDE) (CAS No.: 1163-19-5)	n. d.	0.05	PBT
全氟十三酸 / Pentacosaflluorotridecanoic acid (CAS No.: 72629-94-8)	n. d.	0.05	PBT
全氟十二酸 / Tricosaflluorododecanoic acid (CAS No.: 307-55-1)	n. d.	0.05	PBT
全氟十一酸 / Henicosaflluoroundecanoic acid (CAS No.: 2058-94-8)	n. d.	0.05	PBT
全氟十四酸 / Heptacosaflluorotetradecanoic acid (CAS No.: 376-06-7)	n. d.	0.05	PBT
4-(1,1,3,3-四甲基丁基)苯酚, 乙氧基- 以及所有的被定義的物質, 未知成分或可變成分的物質, 聚合物和同系物 / 4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated- covering well-defined substances and UVCB substances, polymers and homologues	n. d.	0.05	相同危害等級 (Equivalent concern)
分支或線性的壬基酚, 包括含有9個碳烷基鏈的所有獨立的同分異構體和所有含有線性或分支9個碳烷基鏈的UVCB物質 / 4-Nonylphenol, branched and linear - substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	n. d.	0.05	相同危害等級 (Equivalent concern)
偶氮(二)甲醞胺 / Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (CAS No.: 123-77-3)	n. d.	0.05	相同危害等級 (Equivalent concern)
六氫苯二甲酸酐 / Cyclohexane-1,2-dicarboxylic anhydride (HHPA), cis-cyclohexane-1,2- dicarboxylic anhydride, trans-cyclohexane-1,2- dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA) (CAS No.: 85-42-7, 13149-00-3, 14166-21-3)	n. d.	0.05	相同危害等級 (Equivalent concern)
甲基六氫苯酐 / Hexahydromethylphthalic anhydride (CAS No.: 25550-51-0) 4-甲基六氫苯酐 / Hexahydro-4-methylphthalic anhydride (CAS No.: 19438-60-9) 1-甲基六氫苯酐 / Hexahydro-1-methylphthalic anhydride (CAS No.: 48122-14-1) 3-甲基六氫苯酐 / Hexahydro-3-methylphthalic anhydride (CAS No.: 57110-29-9)	n. d.	0.05	相同危害等級 (Equivalent concern)
甲氧基乙酸 / Methoxy acetic acid (CAS No.: 625-45-6)	n. d.	0.05	TRC2
支鏈和直鏈1,2-苯二羧二戊酯 / 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (CAS No.: 84777-06-0)	n. d.	0.05	TRC2

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 9 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
鄰苯二甲酸二異戊酯 / Diisopentylphthalate (CAS No.: 605-50-5)	n. d.	0.05	TRC2
鄰苯二甲酸正戊基異戊基酯 / N-pentyl-isopentylphthalate (CAS No.: 776297-69-9)	n. d.	0.05	TRC2
乙二醇二乙醚 / 1,2-Diethoxyethane (CAS No.: 629-14-1)	n. d.	0.05	TRC2
N,N-二甲基甲醯胺 / N,N-dimethylformamide; dimethyl formamide (CAS No.: 68-12-2)	n. d.	0.05	TRC2
二氯二丁基錫 / Dibutyltin dichloride (DBTC) (CAS No.: 683-18-1)	n. d.	0.05	TRC2
城式醋酸鉛 / Acetic acid, lead salt, basic*** (CAS No.: 51404-69-4)	n. d.	-	TRC1
城式碳酸鉛 / Trilead bis(carbonate) dihydroxide (basic lead carbonate)*** (CAS No.: 1319-46-6)	n. d.	-	TRC1
城式硫酸鉛 / Lead oxide sulfate*** (CAS No.: 12036-76-9)	n. d.	-	TRC1
[1,2-苯二羧酸根合]二氧化三鉛 / [Phthalato(2-)] dioxotrilead*** (CAS No.: 69011-06-9)	n. d.	-	TRC1
雙(十八酸基)二氧化三鉛 / Dioxobis(stearato) trilead*** (CAS No.: 12578-12-0)	n. d.	-	TRC1
C16-18-脂肪酸鉛鹽 / Fatty acids, C16-18, lead salts*** (CAS No.: 91031-62-8)	n. d.	-	TRC1
氨基氰鉛鹽 / Lead cyanamidate*** (CAS No.: 20837-86-9)	n. d.	-	TRC1
硝酸鉛 / Lead dinitrate*** (CAS No.: 10099-74-8)	n. d.	-	TRC1
氧化鉛 / Lead oxide (lead monoxide)*** (CAS No.: 1317-36-8)	n. d.	-	TRC1
四氧化鉛 / Lead tetroxide (orange lead)*** (CAS No.: 1314-41-6)	n. d.	-	TRC1
氧化鉛與硫酸鉛的複合物 / Pentalead tetraoxide sulphate*** (CAS No.: 12065-90-6)	n. d.	-	TRC1
矽酸鉛 / Silicic acid, lead salt*** (CAS No.: 11120-22-2)	n. d.	-	TRC1
亞硫酸鉛(II) / Sulfurous acid, lead salt, dibasic*** (CAS No.: 62229-08-7)	n. d.	-	TRC1
四乙基鉛 / Tetraethyllead*** (CAS No.: 78-00-2)	n. d.	-	TRC1
三鹼式硫酸鉛 / C.I. 顏料白 / Tetralead trioxide sulphate*** (CAS No.: 12202-17-4)	n. d.	-	TRC1

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 10 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
四氟硼酸鉛 (II) / Lead bis(tetrafluoroborate)*** (CAS No.: 13814-96-5)	n. d.	-	TRC1
鈦酸鉛 / Lead titanium trioxide*** (CAS No.: 12060-00-3)	n. d.	-	TRC1
鈦酸鉛鋅 / Lead Titanium Zirconium Oxide*** (CAS No.: 12626-81-2)	n. d.	-	TRC1
C.I.顏料黃41 / Pyrochlore, antimony lead yellow*** (CAS No.: 8012-00-8)	n. d.	-	TRC1
磷酸氧化鉛 / Trilead dioxide phosphonate*** (CAS No.: 12141-20-7)	n. d.	-	TRC1
含鉛的矽酸鋇 / Silicic acid, barium salt, lead-doped*** (CAS No.: 68784-75-8)	n. d.	-	TRC1
呋喃 / Furan (CAS No.: 110-00-9)	n. d.	0.05	CC2
環氧丙烷 / Propylene oxide; 1,2-epoxypropane; methyloxirane (CAS No.: 75-56-9)	n. d.	0.05	CC2; MC2
硫酸二乙酯 / Diethyl sulphate (CAS No.: 64-67-5)	n. d.	0.05	CC2; MC2
硫酸二甲酯 / Dimethyl sulphate (CAS No.: 77-78-1)	n. d.	0.05	CC2
3-乙基-2-甲基-2-(3-甲基丁基)-1,3-噁唑烷 / 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine (CAS No.: 143860-04-2)	n. d.	0.05	TRC2
2-(1-甲基丙基)-4,6-二硝基苯酚 / Dinoseb (CAS No.: 88-85-7)	n. d.	0.05	TRC2
4,4'-二氨基-3,3'-二甲基聯苯基甲烷 / 4,4'-methylenedi-o-toluidine (CAS No.: 838-88-0)	n. d.	0.05	CC2
4,4'-二氨基二苯醚 / 4,4'-oxydianiline and its salts (CAS No.: 101-80-4)	n. d.	0.05	CC2; MC2
4-苯基偶氮基苯胺 / 4-Aminoazobenzene; 4-Phenylazoaniline (CAS No.: 60-09-3)	n. d.	0.05	CC2
2,4-二氨基甲苯 / 4-methyl-m-phenylenediamine (2,4-toluenediamine) (CAS No.: 95-80-7)	n. d.	0.05	CC2
3-甲基-6-甲氧基苯胺 / 6-methoxy-m-toluidine (p-cresidine) (CAS No.: 120-71-8)	n. d.	0.05	CC2
4-胺基聯苯 / Biphenyl-4-ylamine (CAS No.: 92-67-1)	n. d.	0.05	CC1
鄰氨基偶氮甲苯 / o-aminoazotoluene (CAS No.: 97-56-3)	n. d.	0.05	CC2
鄰甲苯胺 / o-Toluidine; 2-Aminotoluene (CAS No.: 95-53-4)	n. d.	0.05	CC2

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 11 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)	分類 (Classification) 【附錄 (Appendix) A】
N-甲基乙醯胺 / N-methylacetamide (CAS No.: 79-16-3)	n.d.	0.05	TRC2
正丙基溴 / 1-bromopropane (CAS No.: 106-94-5)	n.d.	0.05	TRC2

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. "-" = Not Regulated (無規格值)
6. (*): 重鉻酸鈉二水合物(CAS No.: 7789-12-0)含量 = 重鉻酸鈉含量 × 1.1374
(conc. of Sodium dichromate dihydrate = conc. of sodium dichromate × 1.1374)
7. (*1): 鉻酸與重鉻酸的寡聚體: 因為其寡聚體是由未知數的鉻酸或與重鉻酸所組成, 而導致沒有固定分子量, 因此以單體鉻酸或重鉻酸較為重要並應被考慮。/ Oligomers of chromic acid and dichromic acid : since the oligomers are made of the unknown amount of chromic acid or dichromic acid that results in no fixed molecular weight, therefore the monomer of chromic acid or dichromic acid is relevant and considered.
8. (*2): 水合硼酸鈉: 依照歐洲化學總署解釋以無水四硼酸二鈉數據作為代表(歐洲化學總署回信編號 Ref no.: INC 000000032519) / Tetraboron disodium heptaoxide, hydrate: Only anhydrous form of disodium tetraborate is relevant and considered according to ECHA explanation (Ref no.: INC 000000032519).
9. (**): 上述混合物的濃度是經由所獲得的成分比例介於被選擇標靶物及混合物所推估出來。/ The concentrations of above-mentioned mixtures are evaluated per the gained composition rate between the selected marks and the mixtures.
10. ***: 該物質是由"三丁基錫"或各別元素 (例如: 砷、鉛、六價鉻、硼、鈷、鋇)之測試結果計算得知。/ The substance was calculated by the test results of Tributyl Tin or element (Ex. Arsenic, Lead, Cr(VI), Boron, Cobalt, Barium respectively).

$$AX = A \times F$$

AX	A	F
硫酸鈷(二價) / Cobalt(II) sulphate	鈷 / Cobalt	2.63
硝酸鈷(二價) / Cobalt(II) dinitrate		3.1042
碳酸鈷(二價) / Cobalt(II) carbonate		2.0183
醋酸鈷(二價) / Cobalt(II) diacetate		3.0038

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 12 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

AX = A × F

AX	A	F
三丁基錫氧化物 / Bis(tributyltin)oxide	三丁基錫 / Tributyl Tin (TBT)	1.0276
硼酸 / Boric acid	硼 / Boron	5.7195
無水四硼酸二鈉 / Disodium tetraborate, anhydrous		4.6531
水合硼酸鈉(五水四硼酸二鈉) / Disodium tetraborate, pentahydrate		6.7361
水合硼酸鈉(十水四硼酸二鈉) / Disodium tetraborate, decahydrate		8.8191
三氧化二硼 / Diboron trioxide		3.2199
五氧化二砷 / Diarsenic pentaoxide	砷 / Arsenic	1.5339
三氧化二砷 / Diarsenic trioxide		1.3203
三乙基砷酸酯 / Triethyl arsenate		3.0179
砷酸氫鉛 / Lead hydrogen arsenate		4.6332
苦味酸鉛 / Lead dipicrate	鉛 / Lead	1.6753
中性斯蒂酚酸鉛 / Lead styphnate		3.2017
疊氮化鉛 / Lead diazide, Lead azide		2.1732
疊氮化鉛 / Lead diazide, Lead azide		1.4056
砷酸鉛 / Trilead diarsenate		1.447
砷酸 / Arsenic acid	砷 / Arsenic	6.0025
砷酸鈣 / Calcium arsenate		1.8946
重鉻酸鈉 / Sodium dichromate	六價鉻 / Hexavalent Chromium Cr(VI)	2.6566
鉻酸鈉 / Sodium chromate		2.5192
重鉻酸銨 / Ammonium dichromate		3.1151
重鉻酸鉀 / Potassium dichromate		2.4239
鉻酸鉀 / Potassium chromate		2.8289
三氧化鉻 / Chromium trioxide		3.7347
鉻酸 / Chromic acid		1.9231
重鉻酸 / Dichromic acid		2.2696
鉻酸鋇 / Strontium chromate		2.0963
八氫氧化五鉻酸鋅 / Pentazinc chromate octahydroxide		3.9159
氫氧化鉻酸鋅鉀 / Potassium hydroxyoctaoxodizincatedi-chromate		11.1345
鉻酸鉻 / Dichromium tris (chromate)		4.0277
		2.8975

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 13 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

AX = A × F

AX	A	F
甲基磺酸鉛 / Lead(II) bis(methanesulfonate)	鉛 / Lead	1.9179
城式醋酸鉛 / Acetic acid, lead salt, basic		1.367
城式碳酸鉛 / Trilead bis(carbonate) dihydroxide (basic lead carbonate)		1.2478
城式硫酸鉛 / Lead oxide sulfate		1.2704
[1,2-苯二羧酸根合]二氧化三鉛 / [Phthalato(2-)] dioxotrilead		1.3155
雙(十八烷基)二氧代三鉛 / Dioxobis(stearato) trilead		1.9635
C16-18-脂肪酸鉛鹽 / Fatty acids, C16-18, lead salts		3.7362
氨基氰鉛鹽 / Lead cyanamidate		1.2029
硝酸鉛 / Lead dinitrate		1.5985
氧化鉛 / Lead oxide (lead monoxide)		1.0772
四氧化鉛 / Lead tetroxide (orange lead)		1.103
氧化鉛與硫酸鉛的複合物 / Pentalead tetraoxide sulphate		1.1545
矽酸鉛 / Silicic acid, lead salt		1.3672
亞硫酸鉛(II) / Sulfurous acid, lead salt, dibasic		1.2753
四乙基鉛 / Tetraethyllead		1.561
三鹼式硫酸鉛 / C.I. 顏料白 / Tetralead trioxide sulphate		1.1738
四氟硼酸鉛 (II) / Lead bis(tetrafluoroborate)		1.8379
鈦酸鉛 / Lead titanium trioxide		1.4627
鈦酸鉛鋇 / Lead Titanium Zirconium Oxide		1.9029
C.I.顏料黃41 / Pyrochlore, antimony lead yellow		1.8579
磷酸氧化鉛 / Trilead dioxide phosphonate	1.1801	
含鉛的矽酸鋇 / Silicic acid, barium salt, lead-doped	鋇 / Barium	1.9916

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 14 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

測試結果如下(The test result is given as):

物質名稱 (Substance Name)	成品濃度 (Concentration) (%)	報告 極限值 (RL)(%)
三丁基錫 / Tributyl Tin (TBT)	n.d.	0.005
砷 / Arsenic (As) (※2)	n.d.	0.005
鉛 / Lead (Pb)	n.d.	0.005
六價鉻 / Hexavalent Chromium Cr(VI)	n.d.	0.005
硼 / Boron (B) (※2)	n.d.	0.005
鈷 / Cobalt (Co) (※2)	n.d.	0.005
鋇 / Barium (Ba)	16.5	0.005

- (※1): 此砷鉛化合物之濃度是取砷及鉛兩者各別換算出砷鉛化合物濃度，並取其最小值做為最後出報告之依據。
(Regarding the compound containing arsenic and lead, lead and arsenic are tested and respectively used for the calculation of the independent concentration of the compound containing arsenic and lead. The minimum value of the two independently calculated concentrations is used as the final concentration for the report.)
- (※2): 被萃取出之溶出硼/砷/鈷是以感應耦合電漿原子發射光譜儀檢測得之。 / The extracted soluble Boron / Arsenic / Cobalt are detected by ICP-AES.
- (※3): 由於TGIC本身含有β-TGIC，依照ECHA 技術文件 β-TGIC與 TGIC 約為 1:10 比例，因此β-TGIC將以1/10 的TGIC計算濃度。 / TGIC is a mixture and also contains β-TGIC. According to the ECHA's technical dossier the ratio of β-TGIC to TGIC is around 1 to 10. Therefore β-TGIC is issued based on the above-mentioned ratio.

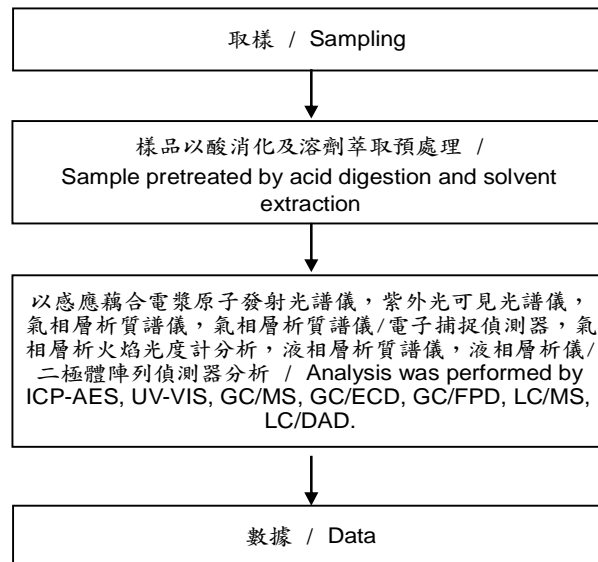
測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 15 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, 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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

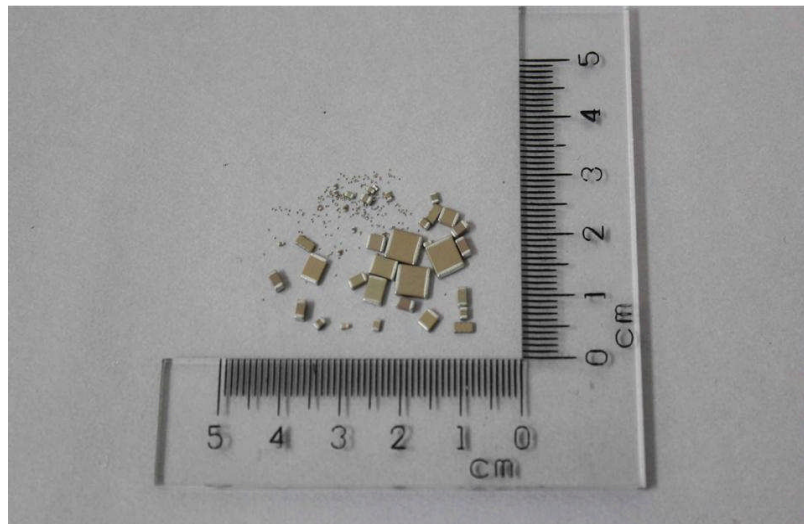
測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 16 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。 ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

KA/2013/10512



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 17 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, 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)
CC1: 致癌物質 類別1 (Carcinogen Category 1)	已知會對人類致癌的物質。有足夠的證據證明人體暴露於該物質和癌症發展之間有相互的關聯性 (Substances known to be carcinogenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and the development of cancer)。
CC2: 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質。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): - 適當的長期動物實驗 (appropriate long-term animal studies)。 - 其他相關資訊 (other relevant information)。
MC1: 導致基因突變 類別1 (Mutagen Category 1)	已知會對人類導致基因突變的物質。有足夠的證據證明人體暴露於該物質和遺傳基因損害之間有相互的關聯性 (Substances known to be mutagenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and heritable genetic damage)。
MC2: 導致基因突變 類別2 (Mutagen Category 2)	應被視為是否對人體會導致基因突變的物質。有足夠的證據強力推論人體暴露於該物質可能導致遺傳基因損害，上述基於下列研究所得之結果 (Substances which should be regarded as if they are mutagenic to man. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in the development of heritable genetic damage, generally on the basis of): - 適當的長期動物實驗 (appropriate animal studies)。 - 其他相關資訊 (other relevant information)。
TRC1: 對生殖系統有害 類別1 (Toxic to Reproduction Category 1)	已知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和生殖能力削弱之間有相互的關聯性 (Substances known to impair fertility in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and impaired fertility)。 已知會在人體引起毒性的物質。有足夠的證據證明人體暴露於該物質和其後產生之毒性對後代造成影響有相互之關聯性 (Substances known to cause developmental toxicity in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and subsequent developmental toxic effects in the progeny)。

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 18 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
TRC2: 對生殖系統有害 類別2 (Toxic to Reproduction Category 2)	<p>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):</p> <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) <p>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):</p> <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)
PBT 長期生物蓄積性及毒性物質 & vPvB 高持久性和高生物蓄積性物質	<p>長期生物蓄積性及毒性物質 (PBT) 或高持久性和高生物蓄積性物質 (vPvB) 造成化學安全管理上特別挑戰。這些物質在環境中無法用一個"安全"濃度建立足夠的可靠度。/ Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) pose a particular challenge to the chemicals safety management. For these substances a "safe" concentration in the environment cannot be established with sufficient reliability.</p>

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 19 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

【附錄 (Appendix) B】

SVHC 調查表(SURVEY FORM)			
公司名稱(Company Name): 國巨股份有限公司楠梓分公司(國巨/飛元/華亞) (YAGEO CORPORATION NANTZE BRANCH)			
樣品名稱(Product Name): MULTI-LAYER CERAMIC CAPACITOR			
產品/取樣重量(Product/Sampling weight): 65 g			
報告號碼(Report No.): KA/2013/10512			
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)
蒽/ Anthracene	n.d.	N/A	No
4,4' - 二氨基二苯甲烷 / 4,4' - Diaminodiphenylmethane	n.d.	N/A	No
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate)	n.d.	N/A	No
鄰苯二甲酸甲苯基丁酯 / BBP (Benzyl butyl phthalate)	n.d.	N/A	No
鄰苯二甲酸二(2-乙基己基)酯 / Bis (2-ethyl(hexyl) phthalate) (DEHP)	n.d.	N/A	No
二甲苯麝香 / 5-tert-butyl-2,4,6-trinitro- m-xylene (Musk Xylene)	n.d.	N/A	No
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)	n.d.	N/A	No
短鏈氯化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	n.d.	N/A	No
三丁基錫氧化物 / Bis(tributyltin)oxide	n.d.	N/A	No
二氯化鈷 / Cobalt dichloride	n.d.	N/A	No
五氧化二砷 / Diarsenic pentaoxide	n.d.	N/A	No
三氧化二砷 / Diarsenic trioxide	n.d.	N/A	No
三乙基砷酸酯 / Triethyl arsenate	n.d.	N/A	No
砷酸氫鉛 / Lead hydrogen arsenate	n.d.	N/A	No
鉻酸鈉 / Sodium chromate	n.d.	N/A	No
重鉻酸銨 / Ammonium dichromate	n.d.	N/A	No
重鉻酸鉀 / Potassium dichromate	n.d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 20 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
鉻酸鉀 / Potassium chromate	n.d.	N/A	No
重鉻酸鈉 / Sodium dichromate	n.d.	N/A	No
三氧化鉻 / Chromium trioxide	n.d.	N/A	No
從三氧化鉻與其它寡聚體生成的酸類: 鉻酸 / Acids generated from chromium trioxide and their oligomers: Chromic acid	n.d.	N/A	No
從三氧化鉻與其它寡聚體生成的酸類: 重鉻酸 / Acids generated from chromium trioxide and their oligomers: Dichromic acid	n.d.	N/A	No
從三氧化鉻與其它寡聚體生成的酸類: 鉻酸與重鉻酸的寡聚體 / Acids generated from chromium trioxide and their oligomers: Oligomers of chromic acid and dichromic acid	n.d.	N/A	No
鉻酸鋇 / Strontium chromate	n.d.	N/A	No
蒽油 / Anthracene oil	n.d.	N/A	No
蒽油, 蒽糊, 輕油 / Anthracene oil, anthracene paste, distn. Lights	n.d.	N/A	No
蒽油, 蒽糊, 蒽鎔分 / Anthracene oil, anthracene paste, anthracene fraction	n.d.	N/A	No
蒽油, 含蒽量少 / Anthracene oil, anthracene-low	n.d.	N/A	No
蒽油, 蒽糊 / Anthracene oil, anthracene paste	n.d.	N/A	No
煤瀝青, 高溫 / Pitch, coal tar, high-temp.	n.d.	N/A	No
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate)	n.d.	N/A	No
2,4-二硝基甲苯 / 2,4-Dinitrotoluene	n.d.	N/A	No
磷酸三(2-氯乙基)酯 / Tris(2-chloroethyl) phosphate (TCEP)	n.d.	N/A	No
鉻酸鉛 / Lead chromate	n.d.	N/A	No
鉬鉻紅; 顏色索引: 顏料紅104 / Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	n.d.	N/A	No
鉻酸鉛; 顏色索引: 顏料黃34 / Lead sulfochromate yellow (C.I. Pigment Yellow 34)	n.d.	N/A	No
丙烯醯胺 / Acrylamide	n.d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 21 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
硼酸 / Boric acid	n.d.	N/A	No
無水四硼酸二鈉 / Disodium tetraborate, anhydrous	n.d.	N/A	No
水合硼酸鈉 / Tetraboron disodium heptaoxide, hydrate	n.d.	N/A	No
三氯乙烯 / Trichloroethylene	n.d.	N/A	No
硫酸鈷(二價) / Cobalt(II) sulphate	n.d.	N/A	No
硝酸鈷(二價) / Cobalt(II) dinitrate	n.d.	N/A	No
碳酸鈷(二價) / Cobalt(II) carbonate	n.d.	N/A	No
醋酸鈷(二價) / Cobalt(II) diacetate	n.d.	N/A	No
乙二醇甲醚 / 2-Methoxyethanol	n.d.	N/A	No
乙二醇乙醚 / 2-Ethoxyethanol	n.d.	N/A	No
乙二醇乙醚乙酸酯 / 2-ethoxyethyl acetate	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
聯氨 / Hydrazine	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
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
砷酸 / Arsenic acid	n.d.	N/A	No
砷酸鈣 / Calcium arsenate	n.d.	N/A	No
砷酸鉛 / Trilead diarsenate	n.d.	N/A	No
疊氮化鉛 / Lead diazide, Lead azide	n.d.	N/A	No
中性斯蒂酚酸鉛 / Lead styphnate	n.d.	N/A	No
苦味酸鉛 / Lead dipicrate	n.d.	N/A	No
鉻酸鉻 / Dichromium tris (chromate)	n.d.	N/A	No
氫氧化鉻酸鉍鉀 / Potassium hydroxyoctaoxodizincatedi- chromate	n.d.	N/A	No
八氫氧化五鉻酸鉍 / Pentazinc chromate octahydroxide	n.d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company.除非另有說明,此報告結果僅對測試之樣品負責。本報告未經本公司書面許可,不可部分複製。This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 22 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
甲醛與苯胺的寡聚體 / Formaldehyde, oligomeric reaction products with aniline (technical MDA)	n.d.	N/A	No
鄰苯二甲酸二甲氧基乙酯 / Bis(2-methoxyethyl) phthalate	n.d.	N/A	No
鄰甲氧基苯胺 / 2-Methoxyaniline; o-Anisidine	n.d.	N/A	No
對特辛基苯酚 / 辛基酚 / 4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-Octylphenol)	n.d.	N/A	No
1,2-二氯乙烷 / 1,2-Dichloroethane	n.d.	N/A	No
双(2-甲氧基乙基)醚 / Bis(2-methoxyethyl) ether	n.d.	N/A	No
N,N-二甲基乙醯胺 / N,N-dimethylacetamide (DMAC)	n.d.	N/A	No
4,4'-亞甲雙(2-氯苯胺) / 2,2'-dichloro-4,4'-methylenedianiline (MOCA)	n.d.	N/A	No
酚酞 / Phenolphthalein	n.d.	N/A	No
矽酸鋁, 耐火陶瓷纖維 (主要成分濃度於可變範圍內) / Aluminosilicate, Refractory Ceramic Fibres oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges	n.d.	N/A	No
鋁矽酸鋁, 耐火陶瓷纖維 (主要成分濃度於可變範圍內) / Zirconia Aluminosilicate, Refractory Ceramic Fibres oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges	n.d.	N/A	No
三甘醇二甲醚 / 1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	n.d.	N/A	No
乙二醇二甲醚 / 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	n.d.	N/A	No
甲醯胺 / Formamide	n.d.	N/A	No
甲基磺酸鉛 / Lead(II) bis(methanesulfonate)	n.d.	N/A	No
異氰尿酸三縮水甘油酯 / TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6 (1H,3H,5H)-trione)	n.d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 23 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
異氰尿酸β-三縮水甘油酯 / β-TGIC (1,3,5-tris [(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6- (1H,3H,5H)-trione)	n.d.	N/A	No
4,4'-二(N,N-二甲氨基)二苯甲酮 (米氏酮) / 4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	n.d.	N/A	No
4,4'-(對二甲氨基)二苯基甲烷 (米氏鹼) / N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	n.d.	N/A	No
鹼性紫 3 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / [4-[4,4'-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone or Michler's base]	n.d.	N/A	No
鹼性藍 26 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / [4-[[4-anilino-1-naphthyl] [4-(dimethylamino) phenyl] methylene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone or Michler's base]	n.d.	N/A	No
溶劑藍 4 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / α,α-Bis[4-(dimethylamino) phenyl]-4 (phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone or Michler's base]	n.d.	N/A	No
三氧化二硼 / Diboron trioxide	n.d.	N/A	No
α, α-二[(二甲氨基)苯基]-4-甲氨基苯甲醇 [內含 ≥ 0.1% 的米氏酮或米氏鹼] / 4,4'-bis (dimethylamino)-4''-(methylamino) trityl alcohol [with ≥ 0.1% of Michler's ketone or Michler's base]	n.d.	N/A	No
十溴聯苯醚 / Bis(pentabromophenyl) ether (DecaBDE)	n.d.	N/A	No
全氟十三酸 / Pentacosfluorotridecanoic acid	n.d.	N/A	No
全氟十二酸 / Tricosfluorododecanoic acid	n.d.	N/A	No
全氟十一酸 / Henicosfluoroundecanoic acid	n.d.	N/A	No
全氟十四酸 / Heptacosfluorotetradecanoic acid	n.d.	N/A	No
4-(1,1,3,3-四甲基丁基)苯酚, 乙氧基— 以及所有的被定義的物質, 未知成分或可變成分的物質, 聚合物和同系物 / 4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated- covering well-defined substances and UVCB substances, polymers and homologues	n.d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 24 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
分支或線性的壬基酚, 包括含有9個碳烷基鏈的所有獨立的同分異構體和所有含有線性或分支9個碳烷基鏈的UVCB物質 / 4-Nonylphenol, branched and linear - substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	n. d.	N/A	No
偶氮[二]甲醯胺 / Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	n. d.	N/A	No
六氫苯二甲酸酐 / Cyclohexane-1,2-dicarboxylic anhydride (HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	n. d.	N/A	No
甲基六氫苯酐 / Hexahydromethylphthalic anhydride 4-甲基六氫苯酐 / Hexahydro-4-methylphthalic anhydride 1-甲基六氫苯酐 / Hexahydro-1-methylphthalic anhydride 3-甲基六氫苯酐 / Hexahydro-3-methylphthalic anhydride	n. d.	N/A	No
甲氧基乙酸 / Methoxy acetic acid	n. d.	N/A	No
支鏈和直鏈1,2-苯二羧二戊酯 / 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	n. d.	N/A	No
鄰苯二甲酸二異戊酯 / Diisopentylphthalate	n. d.	N/A	No
鄰苯二甲酸正戊基異戊基酯 / N-pentyl-isopentylphthalate	n. d.	N/A	No
乙二醇二乙醚 / 1,2-Diethoxyethane	n. d.	N/A	No
N,N-二甲基甲醯胺 / N,N-dimethylformamide; dimethyl formamide	n. d.	N/A	No
二氯二丁基錫 / Dibutyltin dichloride (DBTC)	n. d.	N/A	No
城式醋酸鉛 / Acetic acid, lead salt, basic	n. d.	N/A	No
城式碳酸鉛 / Trilead bis(carbonate) dihydroxide (basic lead carbonate)	n. d.	N/A	No
城式硫酸鉛 / Lead oxide sulfate	n. d.	N/A	No
[1,2-苯二羧酸根合]二氧化三鉛 / [Phthalato(2-)] dioxotrilead	n. d.	N/A	No
雙(十八酸基)二氧化三鉛 / Dioxobis(stearato) trilead	n. d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 25 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
C16-18-脂肪酸鉛鹽 / Fatty acids, C16-18, lead salts	n. d.	N/A	No
氨基氰鉛鹽 / Lead cyanamidate	n. d.	N/A	No
硝酸鉛 / Lead dinitrate	n. d.	N/A	No
氧化鉛 / Lead oxide (lead monoxide)	n. d.	N/A	No
四氧化鉛 / Lead tetroxide (orange lead)	n. d.	N/A	No
氧化鉛與硫酸鉛的複合物 / Pentalead tetraoxide sulphate	n. d.	N/A	No
矽酸鉛 / Silicic acid, lead salt	n. d.	N/A	No
亞硫酸鉛(II) / Sulfurous acid, lead salt, dibasic	n. d.	N/A	No
四乙基鉛 / Tetraethyllead	n. d.	N/A	No
三鹼式硫酸鉛 / C.I. 顏料白 / Tetralead trioxide sulphate	n. d.	N/A	No
四氟硼酸鉛 (II) / Lead bis(tetrafluoroborate)	n. d.	N/A	No
鈦酸鉛 / Lead titanium trioxide	n. d.	N/A	No
鈦酸鉛銻 / Lead Titanium Zirconium Oxide	n. d.	N/A	No
C.I. 顏料黃41 / Pyrochlore, antimony lead yellow	n. d.	N/A	No
磷酸氧化鉛 / Trilead dioxide phosphonate	n. d.	N/A	No
含鉛的矽酸鋇 / Silicic acid, barium salt, lead-doped	n. d.	N/A	No
呋喃 / Furan	n. d.	N/A	No
環氧丙烷 / Propylene oxide; 1,2-epoxypropane; methyloxirane	n. d.	N/A	No
硫酸二乙酯 / Diethyl sulphate	n. d.	N/A	No
硫酸二甲酯 / Dimethyl sulphate	n. d.	N/A	No
3-乙基-2-甲基-2-(3-甲基丁基)-1,3-噁唑烷 / 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	n. d.	N/A	No
2-(1-甲基丙基)-4,6-二硝基苯酚 / Dinoseb	n. d.	N/A	No
4,4'-二氨基-3,3'-二甲基聯苯基甲烷 / 4,4'-methylenedi-o-toluidine	n. d.	N/A	No
4,4'-二氨基二苯醚 / 4,4'-oxydianiline and its salts	n. d.	N/A	No
4-苯基偶氮基苯胺 / 4-Aminoazobenzene; 4-Phenylazoaniline	n. d.	N/A	No
2,4-二氨基甲苯 / 4-methyl-m-phenylenediamine (2,4-toluenediamine)	n. d.	N/A	No

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

測試報告(SVHC) Test Report

號碼(No.): KA/2013/10512 日期(Date): 2013/01/21 頁數(Page): 26 of 26

國巨股份有限公司楠梓分公司(國巨/飛元/華亞)
YAGEO CORPORATION NANTZE BRANCH (YAGEO/PHYCOMP/COMPOSTAR)
高雄市楠梓加工出口區西三街16號
16, WEST 3RD STREET N. E. P. Z. KAOHSIUNG, TAIWAN, R. O. C.

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)
3-甲基-6-甲氧基苯胺 / 6-methoxy-m-toluidine (p-cresidine)	n.d.	N/A	No
4-胺基聯苯 / Biphenyl-4-ylamine	n.d.	N/A	No
鄰氨基偶氮甲苯 / o-aminoazotoluene	n.d.	N/A	No
鄰甲苯胺 / o-Toluidine; 2-Aminotoluene	n.d.	N/A	No
N-甲基乙醯胺 / N-methylacetamide	n.d.	N/A	No
正丙基溴 / 1-bromopropane	n.d.	N/A	No

備註(Note):

(A) N/A = 不適用 (Non-Available)

** 報告結尾(End of Report) **