



設計驗證
工程課
2023.09.04
發行
宏鎂科技開發股份有限公司

雄業實業股份有限公司

樣 品 承 認 書

雄業實業股份有限公司
TEL:2201-9999
臺北市新莊區新樹路288-10號

客　　戶：	鈺緯
料　　號：	3MD674ME010 (M3473)
品　　名：	PANEL SUPPORT BKT
日　　期：	112/8/20
送樣數量：	3　　PCS

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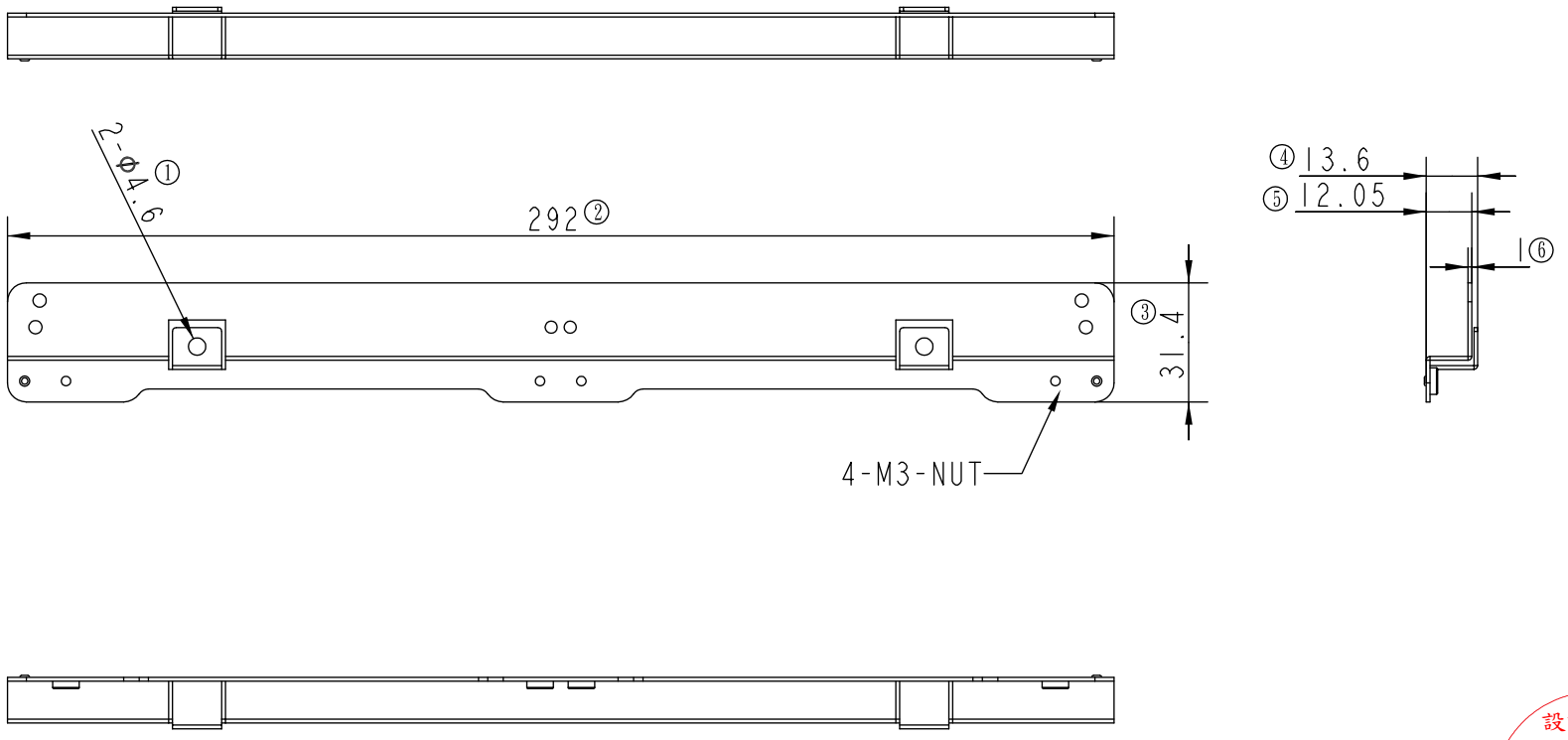
REV.	DATE	DESCRIPTION	BY	APVD



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NOTE:
1.Material: SECC, t=1.0mm.
2.Finish: Chemical Conversion Coat(Phosphate coating).
3.Flatness tolerance : ±0.5
4.RoHS Compliant.
5.All pitch dimensions without accumulated.
6.Burrs not exceed 10% Max Thickness.
7.Unspecified dimension tolerance reference tolerance table.
8.Unspecified Angle Tolerance is ±0.5°.
9.Unspecified radii to be thickness.
10.All of rust was not allowed.
11." O " is MAJOR Dimension.
12.Please refer to 3D file when dimensions can't found in drawing.
13.All surfaces without oil stain.
14.Burry Hole: Torque >=7kgf/cm Stand Off/ NUT :Pull sterength >=20kgf
;Torque >=9kgf/cm Rivet:Pull sterength >=4kgf
16.DIVA QC Inspection Document NO.:QWI-014 (Metal)

RANGE OF DIMENSION	TOLERANCE CLASS DESIGNATION f	V m	V c
UP TO 30	±0.10	±0.20	±0.50
ABOVE 30~120	±0.15	±0.30	±0.80
ABOVE 120~315	±0.20	±0.50	±1.20
ABOVE 315~1000	±0.30	±0.80	±2.00
ANGLE ±1° (±1.75/100)			

THIRD ANGLE PROJECTION

DSGD by	KimHuang	2023/07/20	
CHK by			
APVD by		2023-09-04	
APVD NO.:		3D FILE NAME: PANEL_SUPPORT_BKT	

UNITS:mm	SCALE: 1/1	SHEET: 1 OF 1	MODEL NO.:
MATERIAL:		TREATMENT:	

PART NAME: PANEL SUPPORT BKT(MCD271002)

PART NO.: 3MD674ME010 REV.

DIVA Laboratories ,Ltd.

Test Result	

DIVA FAI DATA SHEET

Part Number :	3MD674ME010 (M3473)	Supplier :	雄業	Date:	2023/8/20
Part Description :	PANEL SUPPORT BKT			Cavity / Tool # :	
Revision :	0	Material Spec:	SECC T=1.0	Inspector:	李宥廷

MOI-Method of inspection abbreviation: HG = Height gauge, MIC = Micrometer, DC = Dial Caliper, P = Protractor, OC = Optical Comparator, CG = Checking Gauge, CMM = Coordinate Measuring Machine, OMM = Optical Coordinate Measuring Machine, HT = Hardness Trester, TG = Thickness Gauge, VIS = V D

OTHER:

DRAWING SPECIFICATIONS						INSPECTION RESULTS							INSPECTION ANALYSIS					
						Sample Number							% Tolerance		Alert/Rej		Supplier	RD Engineering
ITEM	LOCATION	NOMINAL	+TOL	-TOL	Method	1	2	3	1	2	3	Mean	UPPER	LOWER	HIGH	LOW	Remarks	Disposition
1	C2	4.60	0.20	0.20		4.650	4.680	4.550	***0.050***	***0.080***	***-0.050***	***4.627***	**40%**	**25%**				
1	C2	4.60	0.20	0.20		4.560	4.600	4.650	***-0.040***	***0.000***	***0.050***	***4.603***	**25%**	**20%**				
2	B4	292.00	0.50	0.50		292.250	292.280	292.300	***0.250***	***0.280***	***0.300***	***292.277***	**60%**	**0%**				
3	C6	31.40	0.30	0.30		31.350	31.250	31.350	***-0.050***	***-0.150***	***-0.050***	***31.317***	**0%**	**50%**				
4	B7	13.60	0.20	0.20		13.560	13.600	13.560	***-0.040***	***0.000***	***-0.040***	***13.573***	**0%**	**20%**				
5	B7	12.05	0.20	0.20		12.150	12.090	12.100	***0.100***	***0.040***	***0.050***	***12.113***	**50%**	**0%**				
6	B7	1.00	0.20	0.20		0.980	0.990	1.000	***-0.020***	***-0.010***	***0.000***	***0.990***	**0%**	**10%**				

Instructions:
1.Inspector mest fillout the yellow area.
2. The table will automatically calculate the data in green area.

中國鋼鐵股份有限公司
CHINA STEEL CORPORATION
中華民國高雄市小港區中鋼路1號
1 CHUNG KANG ROAD HSIAO KANG, KAOHSIUNG 81223
TAIWAN, REPUBLIC OF CHINA
TEL: (07)802-1111 FAX: (07)802-2511, (07)801-9427
E-mail: t211rae@mail.csc.com.tw

品質證明書
TEST CERTIFICATE

F0153-02 COMPANY REGISTRATION NUMBER: 30414175 0411

客戶名稱 CUSTOMER	永發鋼鐵工業股份有限公司 YUNG FA STEEL & IRON INDUSTRY CO., LTD.		產品名稱 PRODUCT	EG SHEET-COIL	
			發票號碼 INVOICE NO.	AH69819947	證明書編號 CERTIFICATE NO. 110506F0153
規格名稱 SPEC.	CSC SECC1-SD, ZINC COATING MASS: ZZ20/ZZ20 (20/20 G/M2), CHROMATE-FREE ANTI-FINGER PRINT TREATED (A/A), UNOILED. R-36		客戶編號 CUSTOMER NO.	95489006	中鋼訂單編號 CSC ORDER NO. JC12011
			交運日期 SHIPPING DATE	MAY. 05, 2022	證明書日期 T/C ISSUE DATE MAY. 06, 2022
檢驗 INSP.	CSC MILL INSPECTION.	T/C 02	客戶訂單編號 CUST ORDER NO.		

項目 ITEM NO.	產品序號 LABEL NO.	尺寸 DIMENSIONS 厚度 THICK mm	寬度 WIDTH mm	長度 LENGTH mm	數量 QTY	質量 MASS kg	爐號 HEAT	鋼捲號碼 COIL NO.	試片編號 SAMPLE ID.	拉伸試驗 *1 G.L. = 50 mm 降伏 Y.S. MPa	抗拉 T.S. N/mm2	伸長 EL. %	*02 彎曲試驗	*05 硬度 RB	*12 單點上 g/m2	*13 單點下 g/m2	化學成分 CHEMICAL COMPOSITION % C 2 X10	Mn 2 X10	P 3 X10	S 3 X10	Si	Cu	Ni	Cr	Al 3 X10	備註 REMARK
001	E784640	0.980	1219	COIL	1	8,630	SND015	0337401	5033740	215	328	45.0	OK	49	18.7	18.5	2	15	12	3	Tr				32	
	E784737	"	"	"	1	9,090	BUX765	0371771	5037177	243	336	46.0	OK	49	19.2	19.4	2	14	14	4	1				30	
	E784738				1	9,100	BUX765	0371772	5037177	243	338	46.0	OK	49	19.2	19.4										
			TOTAL:		3	26,820																				

註釋 NOTES

*01 拉伸試驗 TENSILE TEST
*02 彎曲試驗 BEND TEST
*05 硬度試驗 HARDNESS TEST
*12 上表面鍍鋅量 UPPER COAT (SINGLE)
*13 下表面鍍鋅量 LOWER COAT (SINGLE)

1MPa = 1N/mm2
Al = TOTAL Al

Tr: TRACE ELEMENT WITH ITS CONTENT CONFORMING TO THE SPECIFICATION REQUIREMENTS.

茲證明本表所列產品，均依材料規格製造及試驗，並符合規格之要求。
WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

SURVEYED BY

Shen-Chin Huang
冶金技術處處長
GENERAL MANAGER, METALLURGICAL DEPARTMENT

0002/0006
2022 06/07 2:58 PM FAX 033294994

測試報告
Test Report

號碼(No.): EKR23702128　　日期(Date): 15-Aug-2023　　頁數(Page) : 1 of 8

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)	:	中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
樣品名稱(Sample Name)	:	電鍍鋅產品(ELECTRO-GALVANIZED PRODUCTS)
樣品型號(Style/Item No.)	:	無鉻耐指紋電鍍鋅鋼捲(ELECTRO-GALVANIZED COILS (COATING AFP))
收件日(Sample Receiving Date)	:	31-Jul-2023
測試期間(Testing Period)	:	31-Jul-2023 to 15-Aug-2023

測試需求(Test Requested) : 依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages.)

結　論(Conclusion) : 根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。 (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)

報告簽署人/張伯睿 博士/部經理
Ray Chang, Ph.D./ Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
化學實驗室-高雄/Chemical Laboratory-Kaohsiung

PIN CODE: B8D71B40

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測試報告
Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

測試部位敘述 (Test Part Description)

No.1 : 灰色金屬 (GRAY METAL)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
鎘 (Cd) (Cadmium (Cd))	依據IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(According to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	100
鉛 (Pb) (Lead (Pb))		mg/kg	2	n.d.	1000
汞 (Hg) (Mercury (Hg))	依據IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(According to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
六價鉻 (Hexavalent Chromium) Cr(VI) (#2)	依據IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。(According to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.	-
一溴聯苯 (Monobromobiphenyl)	參考IEC 62321-6: 2015自訂方法，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015 in house method, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.	-
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.	-
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	n.d.	-
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.	1000

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
一溴聯苯醚 (Monobromodiphenyl ether)	參考IEC 62321-6: 2015自訂方法，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015 in house method, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.	-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.	-
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))	依據IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(According to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP))		mg/kg	50	n.d.	1000
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))		mg/kg	50	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))		mg/kg	50	n.d.	1000

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備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.)
6. 除非另有說明，參照ILAC-G8:09/2019，採用簡單二元(w=0)允收規則進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)
7. 申請人提交的產品是用於電機電子設備之原物料。(The product from the applicant submitted is a raw material which is used for electric and electronic equipment.)

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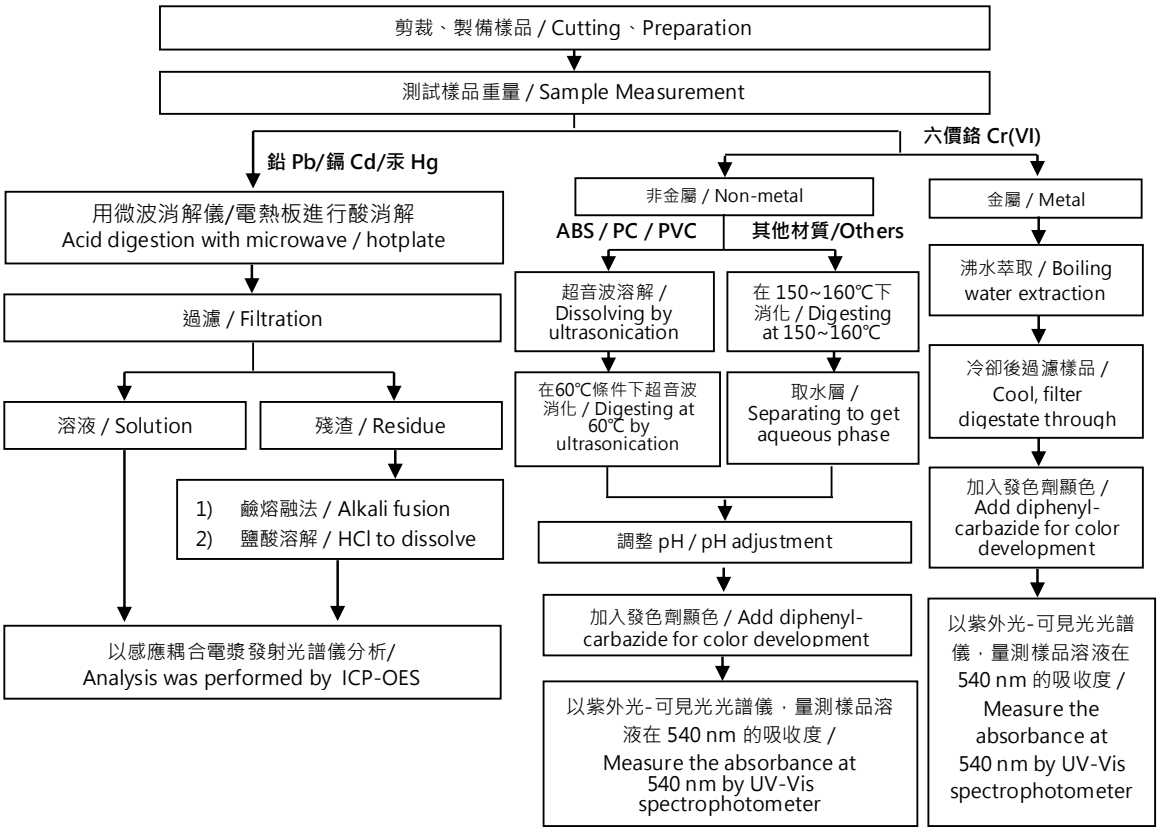
重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）

These samples were dissolved totally by pre-conditioning method according to below flow chart.

（Cr^{6+} test method excluded）



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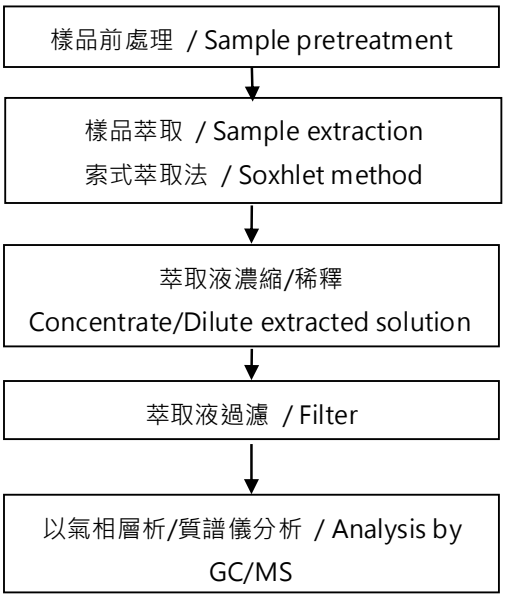
多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART



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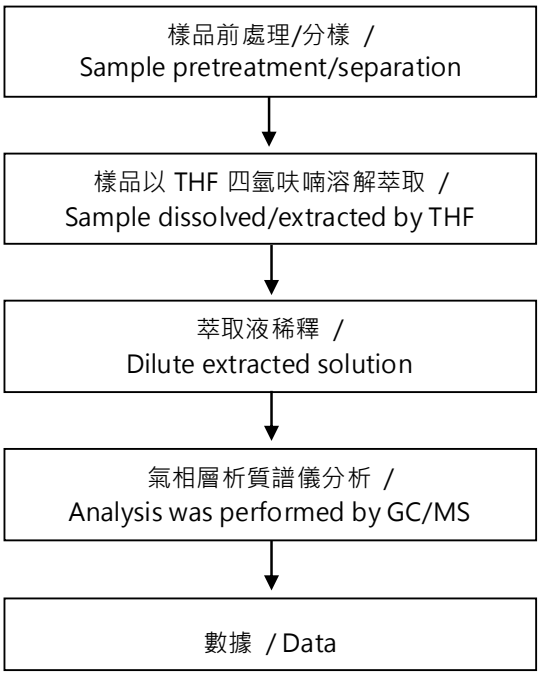
中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

可塑劑分析流程圖 / Analytical flow chart of phthalate content

【測試方法/Test method: IEC 62321-8】



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測試報告
Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
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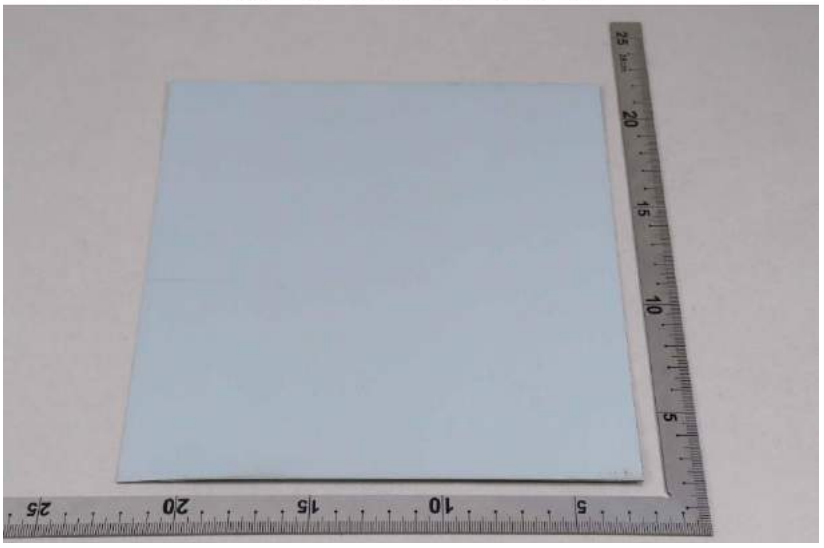
*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

EKR23702128



** 報告結尾 (End of Report) **

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以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)	：	中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
樣品名稱(Sample Name)	：	電鍍鋅產品(ELECTRO-GALVANIZED PRODUCTS)
樣品型號(Style/Item No.)	：	無鉻耐指紋電鍍鋅鋼捲(ELECTRO-GALVANIZED COILS (COATING AFP))

==========

收件日(Sample Receiving Date)	：	31-Jul-2023
測試期間(Testing Period)	：	31-Jul-2023 to 15-Aug-2023

測試需求(Test Requested) ： 235項高關注物質篩檢及額外的項目是依客戶特定要求. 高關注物質候選清單是根據歐洲化學總署(ECHA)於2023年06月14日，就關於REACH之Regulation (EC) No 1907/2006的公告。(235 Substances of Very High Concern (SVHC) screening in addition of item(s) by specific client's request. SVHC candidate list based on the publication by European Chemicals Agency (ECHA) on 2023 June 14, regarding Regulation (EC) No 1907/2006 concerning the REACH.)

測試結果(Test Results) ： 請參閱下一頁 (Please refer to following pages).

總　　結(Summary) ： 根據歐洲法院對於REACH規範下成品定義的裁決以及指定範圍和分析技術，送測樣品中所選擇的零部件成品的高關注物質(SVHC) 測試結果濃度均 ≤ 0.1%(w/w) (According to the ruling of the Court of Justice of the European Union on the definition of an article under REACH, and the specified scope as well as analytical technique, the test results of the selected component article are ≤ 0.1% (w/w) in the submitted sample(s).)

報告簽署人/張伯睿 博士/部經理
Ray Chang, Ph.D./ Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
化學實驗室-高雄/Chemical Laboratory-Kaohsiung

CHECK REPORT
PIN CODE: D88FC34E

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Test Report

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測試部位敘述 (Test Part Description)

No.1 : 灰色金屬 (GRAY METAL)

測試方法(Test Method)

參考RSTS-EE-SVHC-007，以感應耦合電漿發射光譜儀、紫外光-可見光分光光度計、氣相層析儀/質譜儀、液相層析儀/質譜儀、氣相層析儀/火焰光度偵測器、液相層析儀/二極體陣列偵測器、液相層析串聯質譜儀分析。(With reference to RSTS-EE-SVHC-007, analysis was performed by ICP-OES, UV-VIS, GC/MS, LC/MS, GC/FPD, LC/DAD, LC/MS/MS.)

測試結果 (Test Results) **單位 (Unit): %**

高關注物質(SVHC)候選清單 Candidate List of SVHC (2023/06/14)

物質名稱 (Substance Name)	RL	濃度 (Concentration)	限值 (Limit)
		No.1	
所有高關注物質(SVHC)候選清單測試 (All tested SVHC in candidate list)	-	n.d.	0.1

除歐洲化學總署(ECHA)於2023年06月14日所公告的SVHC範圍外，客戶要求以下額外的篩檢 (Additional screening by client's request outside the scope of SVHC as published by ECHA on June 14, 2023):

物質名稱 (Substance Name)	RL	濃度 (Concentration)	限值 (Limit)
		No.1	
環十二烷 (Cyclododecane) (CAS No.: 249-62-2)	0.05	n.d.	0.1

Remark：

1. 高關注物質(SVHC)候選清單 Candidate List of SVHC (2023/06/14)
   https://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).

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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. 如果樣品中高關注物質的濃度超過0.1% (w/w)和/或歐盟(EC)No.1272/2008 CLP法規及其修訂中設定的特殊濃度限值，建議客戶根據歐盟REACH法規No.1907/2006對有關高關注物質準備安全資料表(SDS)以符合供應鏈通信的義務，如：
   (I) 根據(EC)No.1272/2008 CLP法規被列為有害物質。
   (II) 根據(EC)No.1272/2008 CLP法規被列為有害混合物，而當中物質的濃度大於或等於(EC)No.1272/2008 CLP法規列出的濃度限值;或
   (III) 根據(EC)No.1272/2008 CLP法規並未列為有害混合物，但包含：
   (a) 對人類健康或環境有害的物質，而在固體或液體混合物(即非氣體混合物)中其濃度≥1%(w/w)或在氣體混合物中占體積≥0.2%，或
   (b) PBT或vPvB物質，在固體或液體混合物(即非氣體混合物)中個別濃度≥0.1%(w/w)，或
   (c) 授權審議的高關注物質候選清單上的物質(除上述以外的原因)在個別非氣體混合物中的濃度≥0.1%(w/w)，或
   (d) 設有歐洲範圍內工作場所接觸限值的物質。

   If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and its amendments, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

   (I) a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.
   (II) mixture that is classified as hazardous under the CLP Regulation (EC) No 1272/2008, when it contains a substance with concentration equal to, or greater than the classification limit as set in Regulation (EC) No. 1272/2008; or
   (III) a mixture is not classified as hazardous under the CLP Regulation (EC) No 1272/2008, but contains either:
   (a) a substance posing human health or environmental hazards in an individual concentration of ≥ 1 % by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or ≥ 0.2 % by volume for gaseous mixtures; or
   (b) a substance that is PBT, or vPvB in an individual concentration of ≥ 0.1 % by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
   (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of ≥ 0.1 % by weight for non-gaseous mixtures; or
   (d) a substance for which there are Europe-wide workplace exposure limits

5. 倘若SVHC超出報告極限值，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.

備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. RL = Reporting Limit (報告極限值)
3. n.d. = Not Detected (未檢出)；小於RL (Less than RL)
4. "-" = Not Regulated (無規格值)

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5. (*): 重鉻酸鈉二水合物(CAS No.: 7789-12-0)含量 = 重鉻酸鈉含量 × 1.1375
   (conc. of Sodium dichromate dihydrate = conc. of sodium dichromate × 1.1375)
6. (**): 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.)
7. ***: 該物質是由單辛基錫、二辛基錫、三丁基錫、二丁基錫、全氟辛酸或各別元素 (例如：砷、鉛、六價鉻、硼、鈷、鋇、鎘)之測試結果計算得知。(The substance was calculated by the test results of Monooctyl Tin, Dioctyl Tin, Tributyl Tin, Dibutyl Tin, PFOA or element (Ex. Arsenic, Lead, Cr(VI), Boron, Cobalt, Barium, Cadmium respectively).)

表格 (Table) 1：測試結果如下(The test result is given as): **單位(Unit): %**

物質名稱 / 特定元素 (Substance Name / Specific Element(s))	RL	濃度 (Concentration)
		No.1
三丁基錫 (Tributyl Tin) (TBT)	0.0487	n.d.
砷 (Arsenic) (As) (※ E)	0.005	n.d.
六價鉻 (Hexavalent chromium) (Cr(VI))	0.005	n.d.
硼 (Boron) (B) (※ E)	0.005	n.d.
鈷 (Cobalt) (Co)	0.005	n.d.
二丁基錫 (Dibutyl Tin) (DBT)	0.027	n.d.
鋇 (Barium) (Ba)	0.005	n.d.
二辛基錫 (Dioctyl Tin) (DOT)	0.023	n.d.
單辛基錫 (Monooctyl Tin) (MOT)	0.0138	n.d.
鉛 (Lead) (Pb)	0.005	n.d.
鎘 (Cadmium) (Cd)	0.005	n.d.

8. F參數換算表&分類 (F Parameter Conversion Table & Classification): https://eecloud.sgs.com/Region_TW/DocDownload.aspx?name=Others
9. (※ P): 此化合物之濃度是取六價鉻及鉛兩者各別換算出化合物濃度，並取其最小值做為最後出報告之依據。
   (Regarding the compound containing Cr(VI) and lead, lead and Cr(VI) are tested and respectively used for the calculation of the independent concentration of the compound containing Cr(VI) and lead. The minimum value of the two independently calculated concentrations is used as the final concentration for the report.)
10. (※ C): 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.)
11. (※ H): 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).)

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12. (※ S): 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.)
13. (※ T): 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.)
14. (※ B): 只有在矽與鉛定性結果為陽性時，再以鋇之濃度換算之。(Only if both qualitative results of lead and silicon are positive, the test result of the compound will be calculated based on the concentration of barium.)
15. (※ R): RP-HP無法直接測得且無法自特定元素計算含量，RP-HP之所以被定義於SVHC是因為4-HPbI，因此分析4-HPbI取代RP-HP。(RP-HP can't be identified directly and test result can't be calculated based on specific element(s) or compound. RP-HP is identified as SVHC because of 4-HPbI, therefore 4-HPbI is analysed instead of RP-HP.)
16. (●) : 因為鉛有一很廣泛應用，不太可能判定是否檢驗出的鉛是來自鉛離子，鉛元素或鉛化合物，因此用檢驗出的總鉛來代表鉛。(Since lead has a wide application, it is unlikely to determine if the detected lead comes from the lead ion, lead element or/ and lead compounds. Therefore the detected total lead is used on behalf of lead.)
17. (※ U): 硼酸鈉鹽及其水合物; 硼酸二鈉鹽; 硼酸三鈉; 硼酸鈉鹽; 硼酸鈉; 硼酸鈉鹽 (1:1) (CAS No.: 25747-83-5; 22454-04-2; 14312-40-4; 1333-73-9; 13840-56-7; 14890-53-0)，依據其中最大分子量的硼酸鈉鹽 (CAS No.: 13840-56-7)進行計算，其F參數為11.8215。(Boric acid (H3BO3), sodium salt, hydrate; Boric acid (H3BO3), disodium salt; Trisodium orthoborate; Boric acid, sodium salt; Orthoboric acid, sodium salt; Boric acid (H3BO3), sodium salt (1:1) (CAS No.: 25747-83-5; 22454-04-2; 14312-40-4; 1333-73-9; 13840-56-7; 14890-53-0). The calculation is based on the largest molecular weight of Orthoboric acid, sodium salt (CAS No.: 13840-56-7). The F Parameter is 11.8215.)
18. (※ D): 此化合物之濃度是取硼及鉛兩者各別換算出化合物濃度，並取其最小值做為最後出報告之依據。
(Regarding the compound containing Boron and lead, lead and Boron are tested and respectively used for the calculation of the independent concentration of the compound containing Boron and lead. The minimum value of the two independently calculated concentrations is used as the final concentration for the report.)
19. (※ G): 此化合物先定性初篩，當該化合物有訊號，再利用特定元素硫及磷計算化合物濃度。
(The compound is qualitatively screened first. When there is a signal of the compound, specific elements Sulfur and Phosphorus are used to calculate the concentration of compound.)
20. (※ I): 先對特定指標化合物進行初篩，再經評估後，如有特定訊號時，實驗室需加測總氟來計算化合物濃度。
(A specific index compound is qualitatively screened first. After the evaluation, and the specific signal is positive, the total Fluorine is used to calculate the concentration of SVHC compound.)
21. (※ A): 此化合物之濃度是取硼及鋇兩者各別換算出化合物濃度，並取其最小值做為最後出報告之依據。
(Regarding the compound containing Boron and Barium, Barium and Boron are tested and respectively used for the calculation of the independent concentration of the compound containing Boron and Barium. The minimum value of the two independently calculated concentrations is used as the final concentration for the report.)
22. (※ E): 被萃取出的溶出硼/砷是以感應耦合電漿發射光譜儀檢測得之。(The extracted soluble Boron / Arsenic are detected by ICP-OES.)

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23. 除非另有說明，參照ILAC-G8:09/2019，採用簡單二元(w=0)允收規則進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)

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【附錄 (Appendix) 1】

高關注物質(SVHC)候選清單 Candidate List of SVHC (2023/06/14) : **單位 (Unit): %**

No.	物質名稱 (Substance Name)	RL
1.	4,4' - 二氨基二苯甲烷 (4,4'- Diaminodiphenylmethane) (MDA) (CAS No.: 101-77-9)	0.05
2.	二甲苯麝香 (5-tert-butyl-2,4,6-trinitro-m-xylene) (Musk Xylene) (CAS No.: 81-15-2)	0.05
3.	短鏈氯化石蠟 (Alkanes, C10-13, chloro) (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	0.05
4.	蒽 (Anthracene) (CAS No.: 120-12-7)	0.05
5.	鄰苯二甲酸丁苯甲酯 (Benzyl butyl phthalate) (BBP) (CAS No.: 85-68-7)	0.05
6.	氧化雙三丁基錫 (Bis(tributyltin) oxide) (TBTO)*** (CAS No.: 56-35-9)	-
7.	五氧化二砷 (Diarsenic pentaoxide)*** (CAS No.: 1303-28-2)	-
8.	三氧化二砷 (Diarsenic trioxide)*** (CAS No.: 1327-53-3)	-
9.	鄰苯二甲酸二丁酯 (Dibutyl phthalate) (DBP) (CAS No.: 84-74-2)	0.05
10.	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))	0.05
11.	砷酸氫鉛 (Lead hydrogen arsenate)*** (CAS No.: 7784-40-9) (※ S)	-
12.	重鉻酸鈉 (Sodium dichromate)*** (CAS No.: 10588-01-9, 7789-12-0) (*)	-
13.	三乙基砷酸酯 (Triethyl arsenate)*** (CAS No.: 15606-95-8)	-
14.	鄰苯二甲酸二 (2-乙基己基)酯 (Bis (2-ethylhexyl)phthalate) (DEHP) (CAS No.: 117-81-7)	0.05
15.	2,4-二硝基甲苯 (2,4-Dinitrotoluene) (CAS No.: 121-14-2)	0.05
16.	蒽油 (Anthracene oil) (CAS No.: 90640-80-5) (**)	0.05
17.	蒽油, 蒽糊 (Anthracene oil, anthracene paste) (CAS No.: 90640-81-6) (**)	0.05
18.	蒽油, 蒽糊, 蒽餾分 (Anthracene oil, anthracene paste, anthracene fraction) (CAS No.: 91995-15-2) (**)	0.05
19.	蒽油, 蒽糊, 輕油 (Anthracene oil, anthracene paste, distn. Lights) (CAS No.: 91995-17-4) (**)	0.05
20.	蒽油, 含蒽量少 (Anthracene oil, anthracene-low) (CAS No.: 90640-82-7) (**)	0.05
21.	鄰苯二甲酸二異丁酯 (Diisobutyl phthalate) (DIBP) (CAS No.: 84-69-5)	0.05
22.	鉻酸鉛 (Lead chromate)*** (CAS No.: 7758-97-6) (※ P)	-
23.	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) (※ P)	-
24.	鉻酸鉛；顏色索引: 顏料黃34 (Lead sulfochromate yellow (C.I. Pigment Yellow 34))*** (CAS No.: 1344-37-2) (※ P)	-
25.	煤瀝青, 高溫 (Pitch, coal tar, high-temp.) (CAS No.: 65996-93-2) (**)	0.05
26.	磷酸三(2-氯乙基)酯 (Tris(2-chloroethyl) phosphate) (TCEP) (CAS No.: 115-96-8)	0.05
27.	丙烯醯胺 (Acrylamide) (CAS No.: 79-06-1)	0.05

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No.	物質名稱 (Substance Name)	RL
28.	重鉻酸銨 (Ammonium dichromate)*** (CAS No.: 7789-09-5)	-
29.	硼酸 (Boric acid)*** (CAS No.: 10043-35-3, 11113-50-1)	-
30.	無水四硼酸二鈉 (Disodium tetraborate, anhydrous)*** (CAS No.: 1303-96-4, 1330-43-4, 12179-04-3)	-
31.	鉻酸鉀 (Potassium chromate)*** (CAS No.: 7789-00-6)	-
32.	重鉻酸鉀 (Potassium dichromate)*** (CAS No.: 7778-50-9)	-
33.	鉻酸鈉 (Sodium chromate)*** (CAS No.: 7775-11-3)	-
34.	水合硼酸鈉 (Tetraboron disodium heptaoxide, hydrate) (CAS No.: 12267-73-1) (※ H)	-
35.	三氯乙烯 (Trichloroethylene) (CAS No.: 79-01-6)	0.05
36.	乙二醇乙醚 (2-Ethoxyethanol) (CAS No.: 110-80-5)	0.05
37.	乙二醇甲醚 (2-Methoxyethanol) (CAS No.: 109-86-4)	0.05
38.	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)	-
	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)	-
	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) (※ C)	-
39.	三氧化鉻 (Chromium trioxide)***(CAS No.: 1333-82-0)	-
40.	碳酸鈷(二價) (Cobalt(II) carbonate)*** (CAS No.: 513-79-1)	-
41.	醋酸鈷(二價) (Cobalt(II) diacetate)*** (CAS No.: 71-48-7)	-
42.	硝酸鈷(二價) (Cobalt(II) dinitrate)*** (CAS No.: 10141-05-6)	-
43.	硫酸鈷(二價) (Cobalt(II) sulphate)*** (CAS No.: 10124-43-3)	-
44.	1,2,3-三氯丙烷 (1,2,3-trichloropropane) (CAS No.: 96-18-4)	0.05
45.	鄰苯二甲酸二 (C6-8支鏈)烷基酯，富C7 (1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich) (DIHP) (CAS No.: 71888-89-6)	0.05
46.	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) (DHNUP) (CAS No.: 68515-42-4)	0.05
47.	N-甲基吡咯烷酮 (1-Methyl-2-pyrrolidone) (NMP) (CAS No.: 872-50-4)	0.05
48.	乙二醇乙醚乙酸酯 (2-Ethoxyethyl acetate) (CAS No.: 111-15-9)	0.05
49.	聯氨 (Hydrazine) (CAS No.: 7803-57-8, 302-01-2)	0.05
50.	鉻酸鍶 (Strontium chromate)*** (CAS No.: 7789-06-2)	-
51.	二氯化鈷 (Cobalt dichloride) (CAS No.: 7646-79-9)	0.005
52.	1,2-二氯乙烷 (1,2-Dichloroethane) (CAS No.: 107-06-2)	0.05
53.	4,4'-亞甲雙 (2-氯苯胺) (2,2'-dichloro-4,4'-methylenedianiline) (CAS No.: 101-14-4)	0.05

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No.	物質名稱 (Substance Name)	RL
54.	鄰甲氧基苯胺 (2-Methoxyaniline, o-Anisidine) (CAS No.: 90-04-0)	0.05
55.	對特辛基苯酚 / 辛基酚 (4-(1,1,3,3-tetramethylbutyl)phenol) (CAS No.: 140-66-9)	0.05
56.	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】)	0.05
57.	砷酸 (Arsenic acid)*** (CAS No.: 7778-39-4)	-
58.	双(2-甲氧基乙基)醚 (Bis(2-methoxyethyl) ether) (CAS No.: 111-96-6)	0.05
59.	鄰苯二甲酸二甲氧基乙酯 (Bis(2-methoxyethyl) phthalate) (CAS No.: 117-82-8)	0.05
60.	砷酸鈣 (Calcium arsenate)*** (CAS No.: 7778-44-1)	-
61.	鉻酸鉻 (Dichromium tris(chromate))*** (CAS No.: 24613-89-6)	-
62.	甲醛與苯胺的寡聚體 (Formaldehyde, oligomeric reaction products with aniline (technical MDA)) (CAS No.: 25214-70-4)	0.05
63.	疊氮化鉛 (Lead diazide, Lead azide)*** (CAS No.: 13424-46-9)	-
64.	苦味酸鉛 (Lead dipicrate)*** (CAS No.: 6477-64-1)	-
65.	中性斯蒂酚酸鉛 (Lead styphnate)*** (CAS No.: 15245-44-0)	-
66.	N,N-二甲基乙醯胺 (N,N-dimethylacetamide) (DMAC) (CAS No.: 127-19-5)	0.05
67.	八氫氧化五鉻酸鋅 (Pentazinc chromate octahydroxide)*** (CAS No.: 49663-84-5)	-
68.	酚酞 (Phenolphthalein) (CAS No.: 77-09-8)	0.05
69.	氫氧化鉻酸鋅鉀 (Potassium hydroxyoctaoxodizincatedichromate)*** (CAS No.: 11103-86-9)	-
70.	砷酸鉛 (Trilead diarsenate)*** (CAS No.: 3687-31-8) (※ S)	-
71.	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】)	0.05
72.	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]) (CAS No.: 2580-56-5)	0.05
73.	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]) (CAS No.: 548-62-9)	0.05
74.	三甘醇二甲醚 (1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)) (CAS No.: 112-49-2)	0.05
75.	乙二醇二甲醚 (1, 2-dimethoxyethane; ethylene glycol dimethyl ether) (EGDME) (CAS No.: 110-71-4)	0.05
76.	異氰尿酸三縮水甘油酯 (1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione) (TGIC) (CAS No.: 2451-62-9)	0.05

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No.	物質名稱 (Substance Name)	RL
77.	異氰尿酸β-三縮水甘油酯 (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) (β-TGIC) (CAS No.: 59653-74-6) (※ T)	0.05
78.	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] (CAS No.: 561-41-1)	0.05
79.	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)	0.05
80.	三氧化二硼 (Diboron trioxide)*** (CAS No.: 1303-86-2)	-
81.	甲醯胺 (Formamide) (CAS No.: 75-12-7)	0.05
82.	甲基磺酸鉛 (Lead(II) bis(methanesulfonate))*** (CAS No.: 17570-76-2)	-
83.	4,4'-(对二甲氨基)二苯基甲烷 (米氏鹼) (N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)) (CAS No.: 101-61-1)	0.05
84.	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]) (CAS No.: 6786-83-0)	0.05
85.	[1,2-苯二羧酸根合]二氧化三鉛 ([Phthalato(2-)]dioxotrilead)*** (CAS No.: 69011-06-9)	-
86.	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)	0.05
87.	乙二醇二乙醚 (1,2-Diethoxyethane) (CAS No.: 629-14-1)	0.05
88.	正丙基溴 (1-bromopropane (n-propyl bromide)) (CAS No.: 106-94-5)	0.05
89.	3-乙基-2-甲基-2-(3-甲基丁基)-1,3-惡唑烷 (3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine) (CAS No.: 143860-04-2)	0.05
90.	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])	0.05
91.	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)	0.05
92.	4,4'-二氨基二苯醚 (4,4'-Oxydianiline and its salts) (CAS No.: 101-80-4)	0.05
93.	4-苯基偶氮基苯胺 (4-Aminoazobenzene) (CAS No.: 60-09-3)	0.05
94.	2,4-二氨基甲苯 (2,4-Diaminotoluene) (CAS No.: 95-80-7)	0.05
95.	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])	0.05
96.	3-甲基-6-甲氧基苯胺 (6-methoxy-m-toluidine (p-cresidine)) (CAS No.: 120-71-8)	0.05
97.	堿式醋酸鉛 (Acetic acid, lead salt, basic)*** (CAS No.: 51404-69-4)	-
98.	4-氨基聯苯 (Biphenyl-4-ylamine) (CAS No.: 92-67-1)	0.05

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No.	物質名稱 (Substance Name)	RL
99.	十溴聯苯醚 (Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)) (CAS No.: 1163-19-5)	0.05
100.	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)	0.05
101.	偶氮[二]甲醯胺 (Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA) (CAS No.: 123-77-3)	0.05
102.	二氯二丁基錫 (Dibutyltin dichloride) (DBTC)*** (CAS No.: 683-18-1)	-
103.	硫酸二乙酯 (Diethyl sulphate) (CAS No.: 64-67-5)	0.05
104.	鄰苯二甲酸二異戊酯 (Diisopentyl phthalate) (CAS No.: 605-50-5)	0.05
105.	硫酸二甲酯 (Dimethyl sulphate) (CAS No.: 77-78-1)	0.05
106.	2-(1-甲基丙基)-4,6-二硝基苯酚 (Dinoseb (6-sec-butyl-2,4-dinitrophenol)) (CAS No.: 88-85-7)	0.05
107.	雙(十八酸基)二氧代三鉛 (Dioxobis(stearato)trilead)*** (CAS No.: 12578-12-0)	-
108.	C16-18-脂肪酸鉛鹽 (Fatty acids, C16-18, lead salts)*** (CAS No.: 91031-62-8)	-
109.	呋喃 (Furan) (CAS No.: 110-00-9)	0.05
110.	全氟十一酸 (Henicosafluoroundecanoic acid) (CAS No.: 2058-94-8)	0.05
111.	全氟十四酸 (Heptacosafluorotetradecanoic acid) (CAS No.: 376-06-7)	0.05
112.	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) 3-甲基六氫苯酐 (Hexahydro-3-methylphthalic anhydride) (CAS No.: 57110-29-9) 1-甲基六氫苯酐 (Hexahydro-1-methylphthalic anhydride) (CAS No.: 48122-14-1)	0.05
113.	四氟硼酸鉛 (II) (Lead bis(tetrafluoroborate))*** (CAS No.: 13814-96-5) (※ D)	-
114.	氨基氰鉛鹽 (Lead cyanamidate)*** (CAS No.: 20837-86-9)	-
115.	硝酸鉛 (Lead dinitrate)*** (CAS No.: 10099-74-8)	-
116.	氧化鉛 (Lead monoxide) (lead oxide)*** (CAS No.: 1317-36-8)	-
117.	堿式硫酸鉛 (Lead oxide sulfate)*** (CAS No.: 12036-76-9)	-
118.	鈦酸鉛 (Lead titanium trioxide)*** (CAS No.: 12060-00-3)	-
119.	鈦酸鉛鋯 (Lead Titanium Zirconium Oxide)*** (CAS No.: 12626-81-2)	-
120.	甲氧基乙酸 (Methoxyacetic acid) (CAS No.: 625-45-6)	0.05
121.	環氧丙烷 (Methyloxirane (Propylene oxide)) (CAS No.: 75-56-9)	0.05
122.	N,N-二甲基甲醯胺 (N,N-dimethylformamide; dimethyl formamide) (CAS No.: 68-12-2)	0.05
123.	N-甲基乙醯胺 (N-methylacetamide) (CAS No.: 79-16-3)	0.05
124.	鄰苯二甲酸正戊異戊酯 (n-pentyl-isopentylphthalate) (CAS No.: 776297-69-9)	0.05
125.	鄰氨基偶氮甲苯 (o-aminoazotoluene) (CAS No.: 97-56-3)	0.05

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No.	物質名稱 (Substance Name)	RL
126.	四氧化鉛 (Orange lead (lead tetroxide))*** (CAS No.: 1314-41-6)	-
127.	鄰甲苯胺 (o-Toluidine) (CAS No.: 95-53-4)	0.05
128.	全氟十三酸 (Pentacosafluorotridecanoic acid) (CAS No.: 72629-94-8)	0.05
129.	氧化鉛與硫酸鉛的複合物 (Pentalead tetraoxide sulphate)*** (CAS No.: 12065-90-6)	-
130.	C.I.顏料黃41 (Pyrochlore, antimony lead yellow)*** (CAS No.: 8012-00-8)	-
131.	含鉛的矽酸鋇 (Silicic acid (H2Si2O5), barium salt (1:1), lead-doped) (※ B) (CAS No.: 68784-75-8)	0.05
132.	矽酸鉛 (Silicic acid, lead salt)*** (CAS No.: 11120-22-2)	-
133.	亞硫酸鉛(II) (Sulfurous acid, lead salt, dibasic)*** (CAS No.: 62229-08-7)	-
134.	四乙基鉛 (Tetraethyllead)*** (CAS No.: 78-00-2)	-
135.	三鹼式硫酸鉛/ C.I. 顏料白 (Tetralead trioxide sulphate)*** (CAS No.: 12202-17-4)	-
136.	全氟十二酸 (Tricosafluorododecanoic acid) (CAS No.: 307-55-1)	0.05
137.	堿式碳酸鉛 (Trilead bis(carbonate) dihydroxide (basic lead carbonate))*** (CAS No.: 1319-46-6)	-
138.	磷酸氧化鉛 (Trilead dioxide phosphonate)*** (CAS No.: 12141-20-7)	-
139.	分支或線性的乙氧化壬基酚，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, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof])	0.05
140.	全氟辛酸銨 (Ammonium pentadecafluorooctanoate) (APFO)*** (CAS No.: 3825-26-1)	-
141.	鎘 (Cadmium) (Cd) (CAS No.: 7440-43-9)	0.005
142.	氧化鎘 (Cadmium oxide)*** (CAS No.: 1306-19-0)	-
143.	鄰苯二甲酸二戊酯 (Dipentyl phthalate) (DPP) (CAS No.: 131-18-0)	0.05
144.	全氟辛酸 (Pentadecafluorooctanoic acid) (PFOA) (CAS No.: 335-67-1)	0.05
145.	硫化鎘 (Cadmium sulphide)*** (CAS No.: 1306-23-6)	-
146.	鄰苯二甲酸二正己酯 (Di-n-hexyl phthalate) (DNHP) (CAS No.: 84-75-3)	0.05
147.	直接紅28 (Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)) (CAS No.: 573-58-0)	0.05
148.	直接黑38 (Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)) (CAS No.: 1937-37-7)	0.05
149.	亞乙基硫脲 (Imidazolidine-2-thione (2-imidazoline-2-thiol)) (CAS No.: 96-45-7)	0.05
150.	醋酸鉛 (Lead di(acetate))*** (CAS No.: 301-04-2)	-
151.	磷酸三(二甲苯)酯 (Trixylyl phosphate) (CAS No.: 25155-23-1)	0.05

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No.	物質名稱 (Substance Name)	RL
152.	鄰苯二甲酸二己酯(支鏈和直鏈) (1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear) (CAS No.: 68515-50-4)	0.05
153.	氯化鎘 (Cadmium chloride)*** (CAS No.: 10108-64-2)	-
154.	過硼酸鈉 (Sodium perborate; perboric acid, sodium salt)***	-
155.	過氧偏硼酸鈉 (Sodium peroxometaborate)*** (CAS No.: 7632-04-4)	-
156.	2-(2'-羥基-3',5'-二-叔-戊基苯基)苯並三唑 (紫外線吸收劑328) (2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol) (UV-328) (CAS No.: 25973-55-1)	0.05
157.	2-[2-羥基-3',5'-二-叔-丁基苯基]-苯並三唑 (紫外線吸收劑320) (2-benzotriazol-2-yl-4,6-di-tert-butylphenol) (UV-320) (CAS No.: 3846-71-7)	0.05
158.	二正辛基-雙(2-乙基己基巰基乙酸酯)錫 (2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE))*** (CAS No.: 15571-58-1)	-
159.	氟化鎘 (Cadmium fluoride)*** (CAS No.: 7790-79-6)	-
160.	硫酸鎘 (Cadmium sulphate)*** (CAS No.: 10124-36-4, 31119-53-6)	-
161.	二正辛基-雙(2-乙基己基巰基乙酸酯)錫和單辛基-三(2-乙基己基巰基乙酸酯)錫的反應物 (Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE))***	-
162.	鄰苯二甲酸二(C6-10)烷基酯; 鄰苯二甲酸二己、二辛、二癸酯混合物;鄰苯二甲酸二己酯 ≧ 0.3% (1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with ≧ 0.3% of dihexyl phthalate) (CAS No.: 68515-51-5, 68648-93-1)	0.05
163.	5-二級丁基-2-(2,4-二甲基環己-3-烯-1-基)-5-甲基-1,3-二氧環己烷[1],5-二級丁基-2-(4,6-二甲基環己-3-烯-1-基)-5-甲基-1,3-二氧環己烷[2],[任何[1]和[2]或者其任意組合的單獨異構物或其任何組合] (5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof])	0.05
164.	1,3-丙烷磺內酯 (1,3-propanesultone) (CAS No.: 1120-71-4)	0.05
165.	2,4-二-叔丁基-6-(5-氯-2H-苯并三唑-2-基)苯酚(紫外線吸收劑327) (2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol) (UV-327) (CAS No.: 3864-99-1)	0.05
166.	2-(3-仲-丁基-5-叔丁基-2-羟苯基)苯并三唑(紫外線吸收劑 UV-350) (2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol) (UV-350) (CAS No.: 36437-37-3)	0.05
167.	硝基苯 (Nitrobenzene) (CAS No.: 98-95-3)	0.05
168.	全氟壬酸 (Perfluorononan-1-oic-acid and its sodium and ammonium salts) (CAS No.: 375-95-1, 21049-39-8, 4149-60-4)	0.05
169.	苯并(a)芘 (Benzo[def]chrysene (Benzo[a]pyrene)) (CAS No.: 50-32-8)	0.05

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No.	物質名稱 (Substance Name)	RL
170.	雙酚A (4,4'-isopropylidenediphenol) (Bisphenol A) (CAS No.: 80-05-7)	0.05
171.	4-庚基苯酚，支鍊及直鍊 (4-HPbl)，包括含有7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7個碳烷基鏈的UVCB物質 (4-Heptylphenol, branched and linear (4-HPbl) [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof])	0.05
172.	十九氟癸酸及其鈉和銨鹽 (Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts) (CAS No.: 3108-42-7, 335-76-2, 3830-45-3)	0.05
173.	對(1,1-二甲基丙基)苯酚 (p-(1,1-dimethylpropyl)phenol) (CAS No.: 80-46-6)	0.05
174.	全氟己基磺酸及其鹽類 (Perfluorohexane-1-sulphonic acid and its salts) (PFHxS) (CAS No.: 355-46-4)	0.05
175.	德克隆(涵蓋各個反式及順式同分異構物或者相關組合) (1,6,7,8,9,14,15,16,17, 17,18,18-Dodecachloropentacyclo [12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"TM) [covering any of its individual anti- and syn-isomers or any combination thereof])	0.05
176.	苯並[a]蒽 (Benz[a]anthracene) (CAS No.: 56-55-3)	0.05
177.	硝酸鎘 (Cadmium nitrate)*** (CAS No.: 10325-94-7)	-
178.	碳酸鎘 (Cadmium carbonate)*** (CAS No.: 513-78-0)	-
179.	氫氧化鎘 (Cadmium hydroxide)*** (CAS No.: 21041-95-2)	-
180.	苯並[a]菲 (Chrysene) (CAS No.: 218-01-9)	0.05
181.	1,3,4-噻唑烷-2,5-二硫酮，甲醛及4-庚基苯酚支鏈及直鏈反應物, (RP-HP) [含≥0.1% w/w 支鏈及直鏈4-庚基苯酚] (Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]) (※ R)	-
182.	鄰苯二甲酸二環己酯 (Dicyclohexyl phthalate) (DCHP) (CAS No.: 84-61-7)	0.05
183.	1,2,4-苯三甲酸酐 (Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride; TMA)) (CAS No.: 552-30-7)	0.05
184.	苯並(G,H,I)苝 (Benzo[ghi]perylene) (CAS No.: 191-24-2)	0.05
185.	八甲基環四矽氧烷 (Octamethylcyclotetrasiloxane) (D4) (CAS No.: 556-67-2)	0.05
186.	十甲基環五矽氧烷 (Decamethylcyclopentasiloxane) (D5) (CAS No.: 541-02-6)	0.05
187.	十二甲基環六矽氧烷 (Dodecamethylcyclohexasiloxane) (D6) (CAS No.: 540-97-6)	0.05
188.	氧化硼鈉 (Disodium octaborate)*** (CAS No.: 12008-41-2)	-
189.	乙二胺 (Ethylenediamine) (CAS No.: 107-15-3)	0.05
190.	鉛 (Lead) (Pb) (CAS No.: 7439-92-1) (●)	0.005
191.	氫化三聯苯 (Terphenyl, hydrogenated) (CAS No.: 61788-32-7)	0.05
192.	2,2-雙(4-羥基苯基)-4-甲基戊烷 (2,2-bis(4'-hydroxyphenyl)-4-methylpentane) (CAS No.: 6807-17-6)	0.05

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No.	物質名稱 (Substance Name)	RL
193.	苯駢(k)螢蒽 (Benzo[k]fluoranthene) (CAS No.: 207-08-9)	0.05
194.	苯駢芘 (Fluoranthene) (CAS No.: 206-44-0)	0.05
195.	菲 (Phenanthrene) (CAS No.: 85-01-8)	0.05
196.	芘 (Pyrene) (CAS No.: 129-00-0)	0.05
197.	1,7,7-三甲基-3-(苯亞甲基)雙環[2,2,1]庚-2-酮 (1,7,7-trimethyl-3-(phenylmethylene) bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)) (CAS No.: 15087-24-8)	0.05
198.	2,3,3,3-四氟-2-(七氟丙氧基)丙酸，鹽類，及其醯鹵(涵蓋他們其個別和組合之同分異構物) (2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof))	0.05
199.	2-甲烷氧基乙基乙酯 (2-methoxyethyl acetate) (CAS No.: 110-49-6)	0.05
200.	4-叔丁基苯酚 (4-tert-butylphenol) (CAS No.: 98-54-4)	0.05
201.	三(4-壬苯基,支鏈及直鏈)亞磷酸酯 含≥0.1%的支鏈及直鏈4-壬基酚 (Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear) (4-NP)	0.05
202.	二異己基鄰苯二甲酸酯 (Diisohexyl phthalate) (CAS No.: 71850-09-4)	0.05
203.	2-苄基-2-二甲基氨基-1-(4-嗎啉苯基)丁酮 (2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone) (CAS No.: 119313-12-1)	0.05
204.	2-甲基-1-(4-甲硫基苯基)-2-嗎啡基-1-丙酮 (2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one) (CAS No.: 71868-10-5)	0.05
205.	全氟丁磺酸及其相關鹽類 (Perfluorobutane sulfonic acid (PFBS) and its salts)	0.05
206.	1-乙烯基咪唑 (1-vinylimidazole) (CAS No.: 1072-63-5)	0.05
207.	2-甲基咪唑 (2-methylimidazole) (CAS No.: 693-98-1)	0.05
208.	4-羥基苯甲酸丁酯 (Butyl 4-hydroxybenzoate) (CAS No.: 94-26-8)	0.05
209.	二正丁基雙(乙醯丙酮基)錫 (Dibutylbis(pentane-2,4-dionato-O,O')tin)*** (CAS No.: 22673-19-4)	-
210.	雙(2-(2-甲氧基乙氧基)乙基)醚 (Bis(2-(2-methoxyethoxy)ethyl) ether) (CAS No.: 143-24-8)	0.05
211.	二月桂酸二辛基錫，錫烷，二辛基-，雙(椰油醯氧基)衍生物，以及任何其他錫烷，二辛基-，雙(脂肪醯氧基)衍生物。其中C12為脂肪醯氧基部分的主要碳原子數 (Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety)***	-
212.	1,4-二氧陸圜 (1,4-dioxane) (CAS No.: 123-91-1)	0.05
213.	2,2-雙(溴甲基)-1,3-丙二醇 (2,2-bis(bromomethyl)propane1,3-diol) (BMP) (CAS No.: 3296-90-0)	0.05
	3-溴-2,2-雙(溴甲基)-1-丙醇 (2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol) (TBNPA) (CAS No.: 36483-57-5, 1522-92-5)	0.05
	2,3-二溴-1-丙醇 (2,3-dibromo-1-propanol) (2,3-DBPA) (CAS No.: 96-13-9)	0.05

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中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

No.	物質名稱 (Substance Name)	RL
214.	2-(4-叔丁基苄基)丙醛及其個別立體異構物 ((2R)-3-(4-叔丁基苯基)-2-甲基丙醛; 2-(4-叔丁基苄基)丙醛; (2S)-3-(4-叔丁基苯基)-2-甲基丙醛) (2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers ((2R)-3-(4-tert-butylphenyl)-2-methylpropanal; 2-(4-tert-butylbenzyl)propionaldehyde; (2S)-3-(4-tert-butylphenyl)-2-methylpropanal)) (CAS No.: 75166-31-3; 80-54-6; 75166-30-2)	0.05
215.	雙酚B (4,4'-(1-methylpropylidene)bisphenol; (bisphenol B)) (CAS No.: 77-40-7)	0.05
216.	戊二醛 (Glutaral) (CAS No.: 111-30-8)	0.05
217.	中鏈氯化石蠟 (C14-16); 中鏈氯化石蠟 (C14-17); 二、三及四氯十四烷; 十四烷氯衍生物 (Alkanes, C14-16, chloro; Alkanes, C14-17, chloro; di-, tri- and tetrachlorotetradecane; Tetradecane, chloro derivs.) (CAS No.: 1372804-76-6; 85535-85-9; 198840-65-2)	0.05
218.	硼酸鈉鹽 (Orthoboric acid, sodium salt)*** (CAS No.: 13840-56-7)，硼酸鈉鹽及其水合物; 硼酸二鈉鹽; 硼酸三鈉; 硼酸鈉; 硼酸鈉鹽 (1:1) (boric acid (H3BO3), sodium salt, hydrate; Boric acid (H3BO3), disodium salt; Trisodium orthoborate; Boric acid, sodium salt; Boric acid (H3BO3), sodium salt (1:1)) (CAS No.: 25747-83-5; 22454-04-2; 14312-40-4; 1333-73-9; 14890-53-0) (※ U)	-
219.	經由低聚合反應烷基化的苯酚產物(主要在對位位置)帶有12個碳的支鏈或直鏈，並涵蓋各種同分異構物及/或其各種組合 (支鏈 4-十二烷基苯酚; 4-異十二烷基苯酚; 4-異十二烷基苯酚; 支鏈十二烷基苯酚; 四丙烯基苯酚衍生物; 四丙烯苯酚) (Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (Phenol, 4-dodecyl, branched; 4-isododecylphenol; Phenol, 4-isododecyl-; Phenol, dodecyl-, branched; Phenol, (tetrapropenyl) derivatives; Phenol, tetrapropylene-)) (CAS No.: 210555-94-5; 27459-10-5; 27147-75-7; 121158-58-5; 74499-35-7; 57427-55-1)	0.05
220.	(±)-1,7,7-三甲基-3-[(4-甲基苯基)亞甲基]二環[2.2.1]庚烷-2-酮，包括各個異構體和/或其組合 ((±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof) (4-MBC)	0.05
221.	6,6'雙二叔丁基-2,2'-亞甲基雙對甲酚 (6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol) (DBMC) (CAS No.: 119-47-1)	0.05
222.	硫-(三環[5.2.1.0'2,6]癸-3-烯-8(或9)-基) 氧-(異丙基或異丁基或2-乙基己基) 氧-(異丙基或異丁基或2-乙基己基)二硫代磷酸酯 (S-(tricyclo[5.2.1.0'2,6]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate) (CAS No.: 255881-94-8) (※ G)	0.05
223.	三(2-甲氧基乙氧基)乙烯基矽烷 (Tris(2-methoxyethoxy)vinylsilane) (CAS No.: 1067-53-4)	0.05
224.	N-羥甲基丙烯醯胺 (N-(hydroxymethyl)acrylamide) (CAS No.: 924-42-5)	0.05
225.	1,2-雙(2,4,6-三溴苯氧基)乙烷 (1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene]) (CAS No.: 37853-59-1)	0.05
226.	四溴雙酚A (2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol) (CAS No.: 79-94-7)	0.05
227.	雙酚S (4,4'-sulphonyldiphenol) (CAS No.: 80-09-1)	0.05

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高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

No.	物質名稱 (Substance Name)	RL
228.	偏硼酸鋇 (Barium diboron tetraoxide)*** (CAS No.: 13701-59-2) (※ A)	-
229.	雙(2-乙基己基)四溴鄰苯二甲酸酯，覆蓋任何單個異構體和/或其組合 (Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof)	0.05
230.	4-羥基苯甲酸 2-甲基丙酯 (Isobutyl 4-hydroxybenzoate) (CAS No.: 4247-02-3)	0.05
231.	三聚氰胺 (Melamine) (CAS No.: 108-78-1)	0.05
232.	全氟庚酸及其鹽類 (Perfluoroheptanoic acid and its salts)	0.05
233.	2,2,3,3,5,5,6,6-八氟-4-(1,1,1,2,3,3,3-七氟丙烷-2-基)嗎啉和2,2,3,3,5,5,5,6,6-八氟烷-4-(七氟丙基)嗎啉的反應物料 (reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine) (※ I)	0.05
234.	4,4'-二氯二苯基碸 (Bis(4-chlorophenyl) sulphone) (CAS No.: 80-07-9)	0.05
235.	(2,4,6-三甲基苯甲醯基)二苯基氧化磷 (Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide) (CAS No.: 75980-60-8)	0.05

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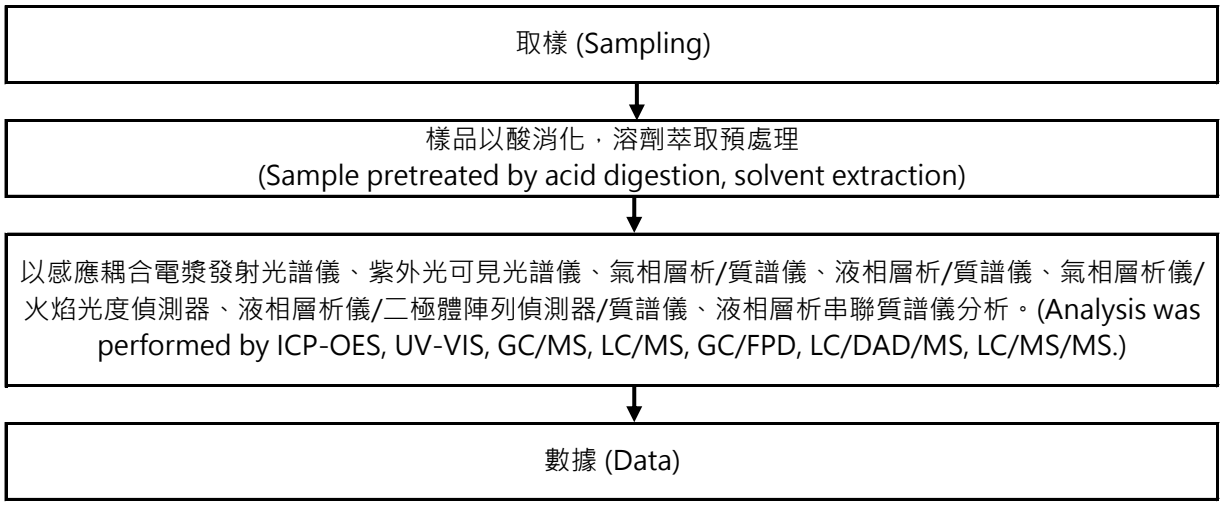
SVHC 分析流程圖 (Analytical flow chart of SVHC)



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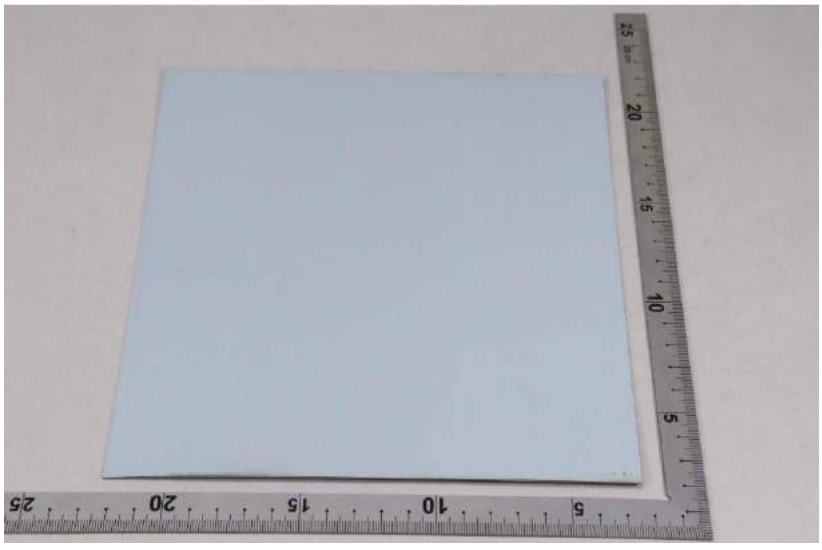
測試報告
Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

*** 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.)

EKR23702132



** 報告結尾 (End of Report) **

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測試報告
Test Report

號碼(No.): EKR23702129　　日期(Date): 15-Aug-2023　　

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)	:	中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
樣品名稱(Sample Name)	:	電鍍鋅產品(ELECTRO-GALVANIZED PRODUCTS)
樣品型號(Style/Item No.)	:	無鉻耐指紋電鍍鋅鋼捲(ELECTRO-GALVANIZED COILS (COATING AFP))
收件日(Sample Receiving Date)	:	31-Jul-2023
測試期間(Testing Period)	:	31-Jul-2023 to 15-Aug-2023

測試需求(Test Requested)　:　依據客戶指定，測試 PAHs 及其他測項。 (As specified by client, to test PAHs and other item(s).)

測試結果(Test Results)　:　請參閱下一頁 (Please refer to following pages.)

報告簽署人/張伯睿 博士/部經理
Ray Chang, Ph.D./ Department Manager
Signed for and on behalf of SGS TAIWAN LTD.
化學實驗室-高雄/Chemical Laboratory-Kaohsiung

CHECK REPORT
PIN CODE: 3A055947

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測試部位敘述 (Test Part Description)

No.1 : 灰色金屬 (GRAY METAL)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
				No.1
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-8)	參考BS EN 14582: 2016，以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537-15-1)		mg/kg	50	n.d.
溴 (Br) (Bromine (Br)) (CAS No.: 10097-32-2)		mg/kg	50	n.d.
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.
石綿 (Asbestos)				
陽起石綿 (Actinolite) (CAS No.: 77536-66-4)	參考EPA 600/R-93/116: 1993，以立體顯微鏡(SM)與分散染色式偏光顯微鏡(DS-PLM)及X光繞射光譜分析法(XRD)分析。(With reference to EPA 600/R-93/116: 1993, analysis was performed by Stereo Microscope (SM), Dispersion Staining Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD).)	-	-	Negative
褐石綿/鐵石綿 (Amosite) (CAS No.: 12172-73-5)		-	-	Negative
斜方角閃石綿 (Anthophyllite) (CAS No.: 77536-67-5)		-	-	Negative
白石綿/溫石綿 (Chrysotile) (CAS No.: 12001-29-5)		-	-	Negative
青石綿 (Crocidolite) (CAS No.: 12001-28-4)		-	-	Negative
透閃石綿 (Tremolite) (CAS No.: 77536-68-6)		-	-	Negative
鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	參考US EPA 3052: 1996，以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
				No.1
多環芳香烴 (Polycyclic Aromatic Hydrocarbons) (PAHs)				
苯駢(a)芘 (Benzo[a]pyrene) (CAS No.: 50-32-8)	參考AfPS GS 2019:01 PAK，以氣相層析儀/質譜儀分析。(With reference to AfPS GS 2019:01 PAK, analysis was performed by GC/MS.)	mg/kg	0.2	n.d.
苯駢(e)芘 (Benzo[e]pyrene) (CAS No.: 192-97-2)		mg/kg	0.2	n.d.
苯駢蒽 (Benzo[a]anthracene) (CAS No.: 56-55-3)		mg/kg	0.2	n.d.
苯(b)苯駢芴 (Benzo[b]fluoranthene) (CAS No.: 205-99-2)		mg/kg	0.2	n.d.
苯(j)苯駢芴 (Benzo[j]fluoranthene) (CAS No.: 205-82-3)		mg/kg	0.2	n.d.
苯(k)苯駢芴 (Benzo[k]fluoranthene) (CAS No.: 207-08-9)		mg/kg	0.2	n.d.
蕗 (Chrysene) (CAS No.: 218-01-9)		mg/kg	0.2	n.d.
二苯駢蒽 (Dibenzo[a,h]anthracene) (CAS No.: 53-70-3)		mg/kg	0.2	n.d.
苯駢苝 (Benzo[g,h,i]perylene) (CAS No.: 191-24-2)		mg/kg	0.2	n.d.
茚酮芘 (Indeno[1,2,3-c,d]pyrene) (CAS No.: 193-39-5)		mg/kg	0.2	n.d.
蒽 (Anthracene) (CAS No.: 120-12-7)		mg/kg	0.2	n.d.
苯駢芴 (Fluoranthene) (CAS No.: 206-44-0)		mg/kg	0.2	n.d.
菲 (Phenanthrene) (CAS No.: 85-01-8)		mg/kg	0.2	n.d.
芘 (Pyrene) (CAS No.: 129-00-0)		mg/kg	0.2	n.d.
萘 (Naphthalene) (CAS No.: 91-20-3)		mg/kg	0.2	n.d.
多環芳香烴15項總和 (Sum of 15 PAHs)		mg/kg	-	n.d.
苊烯 (Acenaphthylene) (CAS No.: 208-96-8)	參考AfPS GS 2019:01 PAK，以氣相層析儀/質譜儀分析。(With reference to AfPS GS 2019:01 PAK, analysis was performed by GC/MS.)	mg/kg	0.2	n.d.
苊 (Acenaphthene) (CAS No.: 83-32-9)		mg/kg	0.2	n.d.
芴 (Fluorene) (CAS No.: 86-73-7)		mg/kg	0.2	n.d.

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備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. 石綿定性分析試驗範圍： <0.1%~100%，石綿鑑定的判定基準是以檢出含有石綿纖維為『Positive』，未檢出石綿纖維為『Negative』。(Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".)

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測試報告
Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

PAHs Remark：

Δ 德國產品安全委員會(AfPS): GS PAHs 要求

AfPS (German commission for Product Safety): GS PAHs requirements

項目 (Parameter)	第 1 類(Category 1)	第 2 類(Category 2)		第 3 類(Category 3)	
	意圖放入口中的材料或者長時間接觸皮膚(超過 30 秒)的 2009/48/EC 定義的玩具材料和 3 歲以下兒童使用的產品(Materials intended to be placed in the mouth, or materials in toys (Directive 2009/48/EC) or articles for children up to 3 years of age with intended long-term skin contact (> 30 seconds))	不屬於第 1 類的材料，並意圖或可預見與皮膚接觸逾 30 秒(長期皮膚接觸)或重複的短時間接觸(Materials that are not in Category 1, with intended or foreseeable long-term skin contact (> 30 seconds) or short-term repetitive contact with the skin)		不屬於第 1 類或第 2 類的材料，並意圖或可預見與皮膚接觸不超過 30 秒(短期皮膚接觸)(Materials not covered by Category 1 or 2, with intended or foreseeable short-term skin contact (≦ 30 seconds))	
		a. 供 14 歲以下兒童使用的產品(Use by children under 14)	b. 其它產品(Other consumer products)	a. 供 14 歲以下兒童使用的產品(Use by children under 14)	b. 其它產品(Other consumer products)
Naphthalene	< 1	< 2		< 10	
Phenanthrene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Anthracene					
Fluoranthene					
Pyrene					
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d] pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
15 項 PAH 總濃度 (Sum of 15 PAH)	< 1	< 5	< 10	< 20	< 50

單位(Unit)：mg/kg

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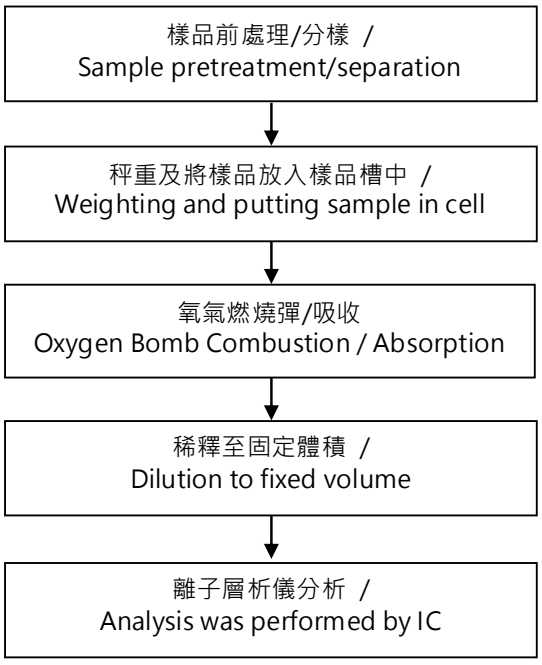
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

鹵素分析流程圖 / Analytical flow chart of Halogen



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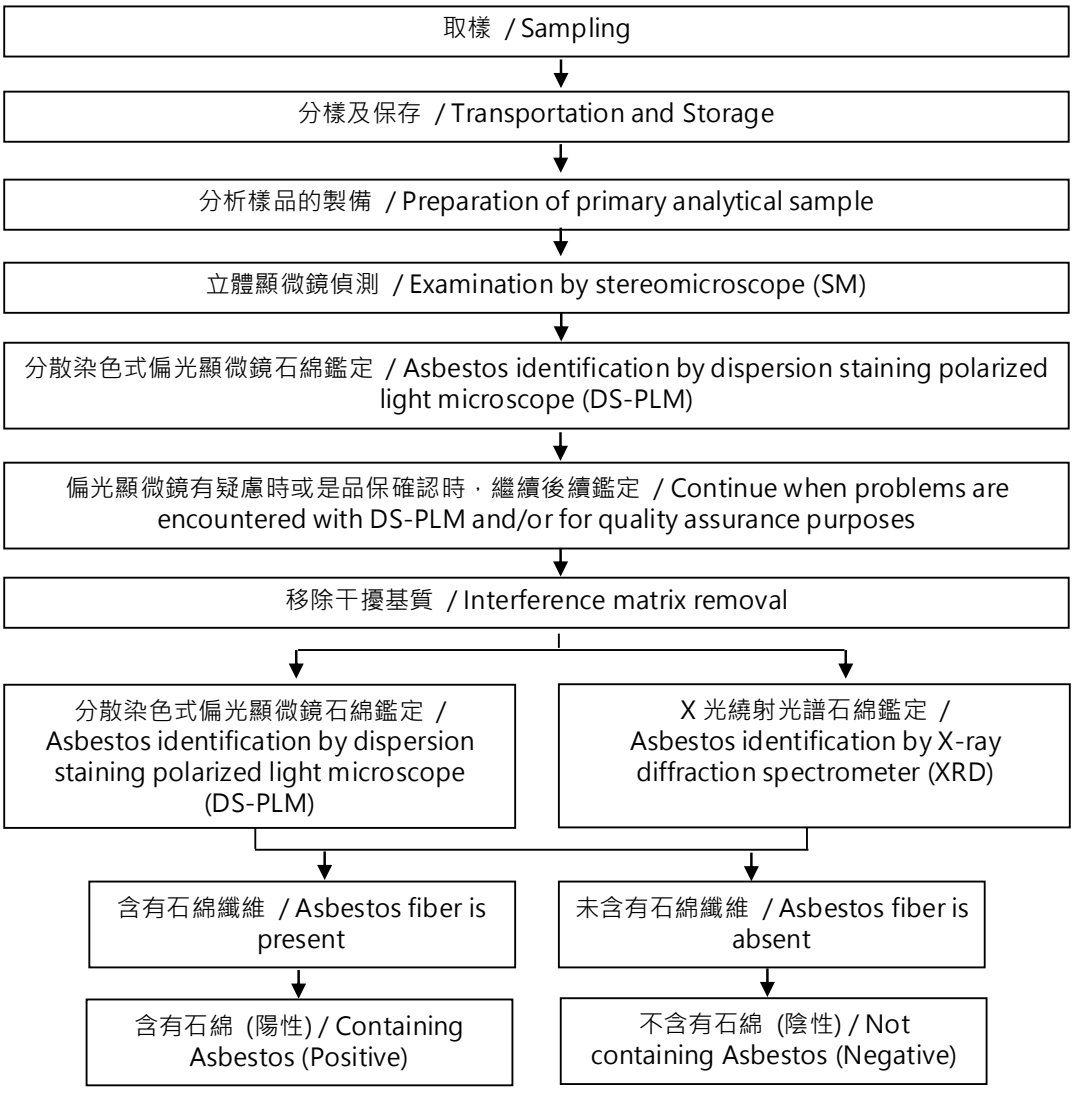
中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos

【參考方法(Reference method): EPA 600/R-93/116】



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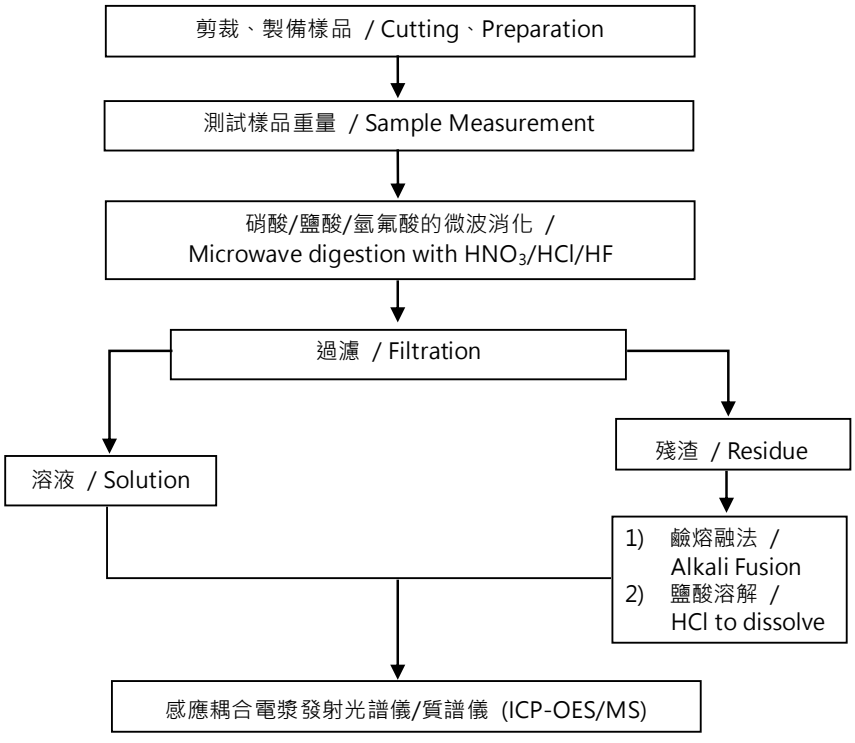
中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

元素(含重金屬)分析流程圖 / Analytical flow chart of Elements (Heavy metal included)

根據以下的流程圖之條件，樣品已完全溶解。

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【參考方法/Reference method：US EPA 3051、US EPA 3052】



* US EPA 3051 方法未添加氫氟酸 / US EPA 3051 method does not add HF.

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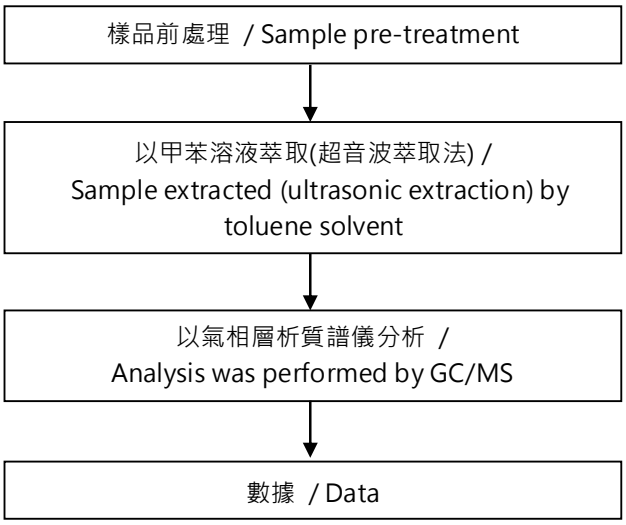
中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

多環芳香烴分析流程圖 /
PAHs (Poly Aromatic Hydrocarbons) analytical flow chart



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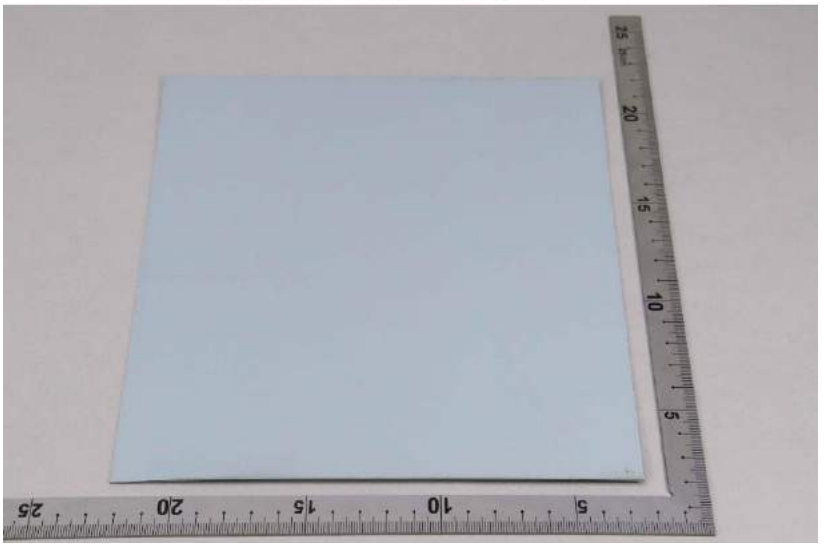
*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

EKR23702129



** 報告結尾 (End of Report) **

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CHINASTEEL 中鋼公司

安全資料表(SDS)

一、物品與廠商資料

物品名稱：電鍍鋅鋼片(Electrogalvanized Sheet Coils & Sheets、簡稱 EG)	
物品編號：	
製造商或供應商名稱、地址及電話：中國鋼鐵股份有限公司 812 高雄市小港區中鋼路 1 號	
緊急聯絡電話：(07)802-1111	傳真電話：(07)8051292

二、危害辨識資料

重要物理性及化學性危害與效應	1.與強酸接觸會起反應產生可燃性氫氣。 2.銲接或加熱會產生氧化鐵燻煙。

三、成分辨識資料

純物質：

物品中（英）文名稱：鋼(STEEL)			
同義名稱：			
化學文摘社登記號碼(CAS.NO.)：			
鐵 Iron	7439-89-6	鋅 Zinc	7440-66-6
碳 Carbon	7440-44-0	矽 Silicon	7440-21-3
錳 Manganese	7439-96-5		
危害物質成分(成分百分比)：鐵>96%			
危害物質成分之中（英）文名稱	濃度或濃度範圍(成分百分比)	危害物質分類及圖式	
鐵(Fe)	>96%		
碳(C)	<0.20%		
錳(Mn)	<0.65%		
表面處理(Surface Treatments):本產品表面塗佈之物質包括下列作為防鏽處理之化學物質及特定產品專用金屬成分			
鋅(Zinc)	<30g/m^2		
聚氨基甲酸乙脂(Polyurethane)	<900mg/m^2		
矽(Silicon)	80~120mg/m^2		

四、急救措施

不同暴露途徑之急救方法：

- 吸入：本產品形態食入之可能性相當低。
- 眼睛接觸：立即將眼皮撐開，用大量水沖洗 15 分鐘。本產品形態進入眼睛之可能性相當低。
- 皮膚接觸：立即用肥皂和水清洗，本產品形態造成刺激皮膚之可能性相當低。

五、滅火措施

適用滅火劑：使用適合週遭火災之滅火器。
滅火時可能遭遇之特殊危害：1.此物若以大塊型式存在時，不可燃。 2.若以微細粉末存在時，遇火源有引起爆炸的危險。 3.本產品若熔化或燃燒，則會產生毒性或刺激性蒸汽，請使用個人呼吸防護器具。

六、洩漏處理方法

本產品為固體狀不適用。

七、安全處置與儲存方法

一般使用：本產品邊緣為尖銳薄片或捲片，進行各項作業必須使用個人防護器具，所有員工必須接受訓練以安全地進行各項作業。

儲存建議：建議儲存於可防止實體破壞、濕氣、直接日曬之場所。

八、暴露預防措施

重要成分	化學文摘社登記號碼 CAS NO.	重量比例 (%)	暴露限制	
			OSHA PEL	ACGIH TLV
鐵 Iron	7439-89-6	96	未建立	未建立
表面處理(Surface Treatments):本產品表面塗佈之物質包括下列作為防鏽處理之化學物質及特定產品專用金屬成分				
鋅(Zinc)	7440-66-6	<30g/m^2	未建立	未建立
聚氨基甲酸乙脂 (Polyurethanes)	--	<900mg/m^2	未建立	未建立
矽(Silicon)	7440-21-3	80~120mg/m^2	未建立	未建立

工程控制：

1. 在進行燃燒、銅鑄、切割、研磨、打光、銲接或其他機械加工時，應使用機械通風裝置。
2. 若在進行機械加工時，有產生粉塵或微粒狀物質，建議採用局部及一般通風裝置以預防過多的危害物質暴露。

個人防護設備：

眼睛防護：在進行本產品作業時請穿戴化學安全護目鏡。

呼吸防護：如需符合暴露標準 在進行切割、研磨、打光或銲接等機械加工作業時，應使用自攜式呼吸防護具。

皮膚防護：1.使用皮革或防割傷手套以免被尖銳薄片或捲片割傷。
2.使用防滲透手套以免被皮膚接觸表面油污。

身體防護：1.連身式防護衣。
2.工作鞋。
3.工作區要有淋浴/沖眼設備。

衛生措施： 1.工作場所嚴禁飲用、抽煙或飲食。
2.處理此物後，須徹底洗手。

九、物理及化學性質

物質狀態：固體	形狀：薄片或捲片
顏色：金屬性灰色	氣味：無味
pH 值：不適用	閃火點：不適用
熔解溫度：基本鋼材－2750 ℉	熔解溫度：表面塗裝材－800 ℉
自燃溫度：不適用	爆炸界限：不適用
密度：7.5 - 8.0（水＝1）	溶解度：不溶於水
熔點/凝固點：不適用	揮發速率：不適用
易燃性(固態、氣態）：不適用	分配係數(正辛醇/水）：不適用

十、安定性及反應性

安定性：正常狀況下安定
應避免之狀況：濕氣及腐蝕性物質會氧化本物質
應避免之物質：酸類、A 類及 B 類爆炸物、強性氧化物、腐蝕劑
危害分解物：引燃或熔解可能會產生有產生毒性或刺激性蒸汽

十一、毒性資料

急毒性(Acute Effects)：
鐵(Iron) LD50(測試動物暴露途徑)：30 g/kg(大鼠，吞食)
過度暴露效應(Symptoms of Overexposure)：
鐵(Iron Oxide)：過度暴露或重覆暴露於高濃度狀況下，可能造成塵肺病 pneumoconiosis，吸入氧化鐵可能會刺激眼睛、鼻子及喉嚨。
矽(Silicon): 主要為厭惡性粉塵(Nuisance Dust)，可能會刺激眼睛及黏液薄膜(Mucous Membranes)，本產品型態無此危害。

十二、生態資料

現有資料無影響生態之考量

十三、廢棄處置方法

廢棄處置方法：
1.參考相關法規處理。
2.相關法規可能會限制金屬性廢棄物之處置。
3.建議採取回收金屬性廢棄物。

十四、運送資料

無特殊運送方法

十五、法規資料

適用法規：
職業安全衛生設施規則
危害性化學品標識及通識規則
勞工作業環境空氣中有害物容許濃度標準
事業廢棄物貯存清除處理方法及設施標準

十六、其他資料

參考文獻		
製表者單位	名稱：中國鋼鐵股份有限公司	
	地址/電話：812 高雄市小港區中鋼路 1 號，Tel：(07)8021111	
製 表 人	職稱：工 程 師	姓名（簽章）：胡哲源
製表日期	2022.01.05	
備 註	1. 本安全資料表僅供參考，中國鋼鐵股份有限公司對使用本資料不承擔任何法律責任或提供任何保證。 2. 本安全資料表之提供是基於對本產品的安全及健康危害相關資訊之最佳瞭解，以安全地進行本產品之各項作業及處理。 3. 每位進行本產品之各項作業及處理之人員應先閱讀本安全資料表，瞭解如何進行本產品之各項作業及處理；也應考量本產品與其他製造廠商產品可能之應用。	

測試報告

號碼: ETR23101433　　日期: 11-Jan-2023　　

三利金屬有限公司
新北市三重區光復路二段141號

以下測試樣品係由申請廠商所提供及確認：

送樣廠商　：　三利金屬有限公司
樣品名稱　：　1215MS/Y08MnS

==========

收件日　：　05-Jan-2023
測試期間　：　05-Jan-2023 to 11-Jan-2023

測試需求　：　依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。

測試結果　：　請參閱下一頁。

結　論　：　根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。

Troy Chang / Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

CHECK REPORT
PIN CODE: 771DBE57

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三利金屬有限公司
新北市三重區光復路二段141號

測試部位敘述

No.1 : 銀色金屬

測試結果

測試項目	測試方法	單位	MDL	結果 No.1	限值
鎘 (Cd) (CAS No.: 7440-43-9)	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。	mg/kg	2	n.d.	100
鉛 (Pb) (CAS No.: 7439-92-1)	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。	mg/kg	2	n.d.	1000
汞 (Hg) (CAS No.: 7439-97-6)	參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。	mg/kg	2	n.d.	1000
六價鉻 Cr(VI) (CAS No.: 18540-29-9) (#2)	參考IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。	μg/cm²	0.1	n.d.	-
一溴聯苯	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。	mg/kg	5	n.d.	-
二溴聯苯		mg/kg	5	n.d.	-
三溴聯苯		mg/kg	5	n.d.	-
四溴聯苯		mg/kg	5	n.d.	-
五溴聯苯		mg/kg	5	n.d.	-
六溴聯苯		mg/kg	5	n.d.	-
七溴聯苯		mg/kg	5	n.d.	-
八溴聯苯		mg/kg	5	n.d.	-
九溴聯苯		mg/kg	5	n.d.	-
十溴聯苯		mg/kg	5	n.d.	-
多溴聯苯總和		mg/kg	-	n.d.	1000
一溴聯苯醚		mg/kg	5	n.d.	-
二溴聯苯醚		mg/kg	5	n.d.	-
三溴聯苯醚		mg/kg	5	n.d.	-
四溴聯苯醚		mg/kg	5	n.d.	-
五溴聯苯醚		mg/kg	5	n.d.	-
六溴聯苯醚		mg/kg	5	n.d.	-
七溴聯苯醚		mg/kg	5	n.d.	-
八溴聯苯醚		mg/kg	5	n.d.	-
九溴聯苯醚		mg/kg	5	n.d.	-
十溴聯苯醚		mg/kg	5	n.d.	-
多溴聯苯醚總和		mg/kg	-	n.d.	1000

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三利金屬有限公司
新北市三重區光復路二段141號

測試項目	測試方法	單位	MDL	結果	限值
				No.1	
鄰苯二甲酸丁苯甲酯 (BBP) (CAS No.: 85-68-7)	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。	mg/kg	50	n.d.	1000
鄰苯二甲酸二丁酯 (DBP) (CAS No.: 84-74-2)	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。	mg/kg	50	n.d.	1000
鄰苯二甲酸二異丁酯 (DIBP) (CAS No.: 84-69-5)	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。	mg/kg	50	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (CAS No.: 117-81-7)	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。	mg/kg	50	n.d.	1000

備註：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於 MDL
4. "-" = 無規格值
5. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻.
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻.
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻.
6. 除非另有說明，參照ILAC-G8:09/2019，採用簡單二元(w=0)允收規則進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。

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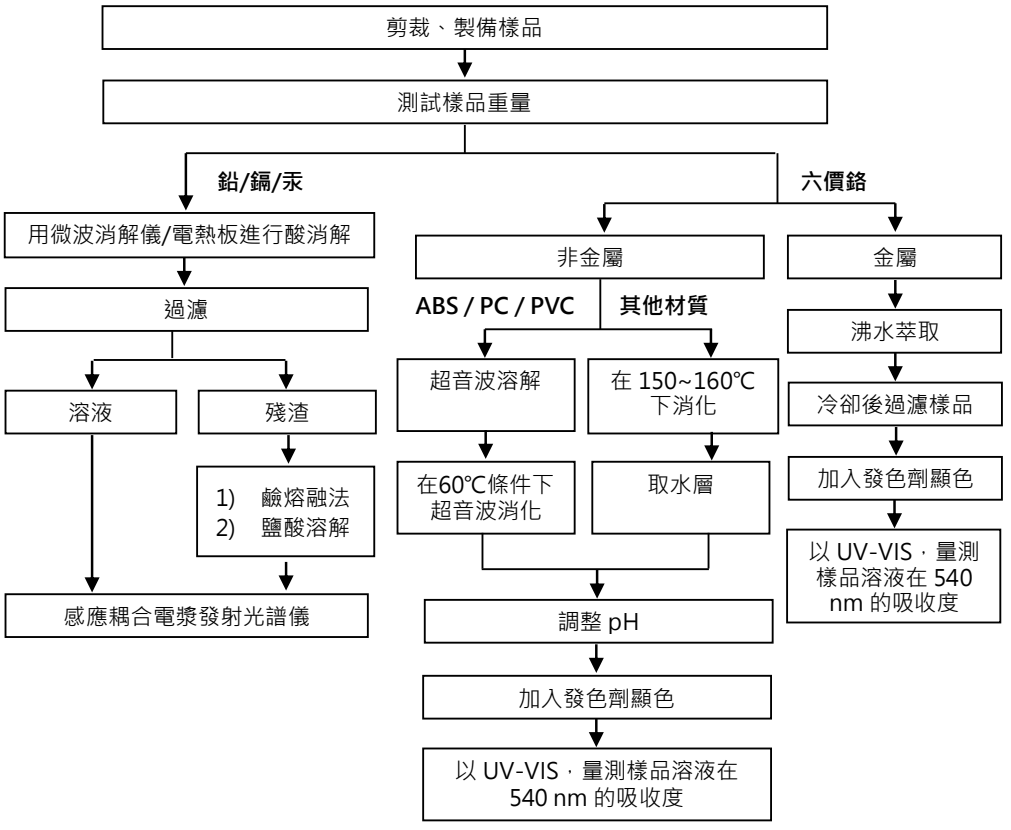
重金屬流程圖

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）



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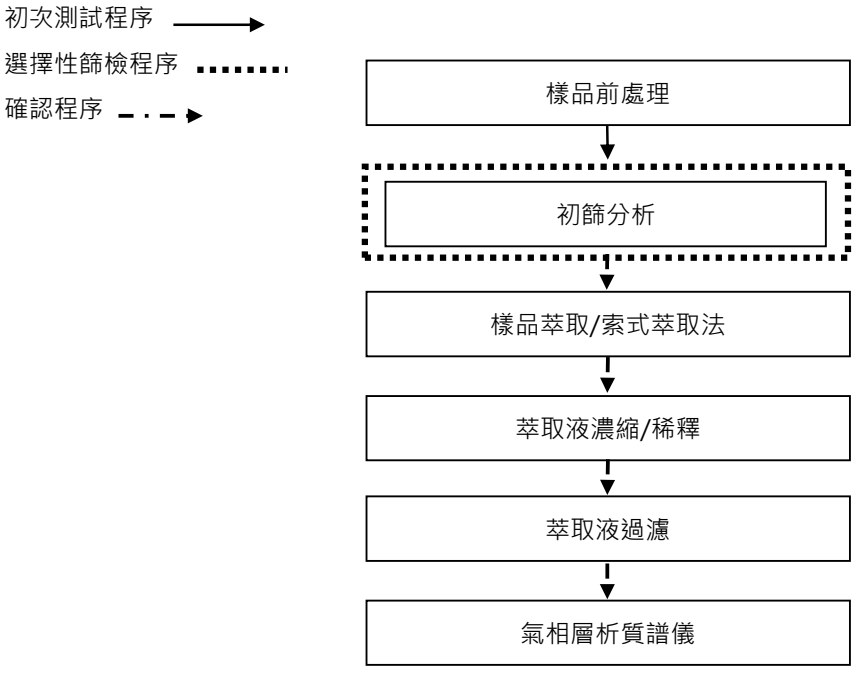
三利金屬有限公司
新北市三重區光復路二段141號

多溴聯苯/多溴聯苯醚分析流程圖



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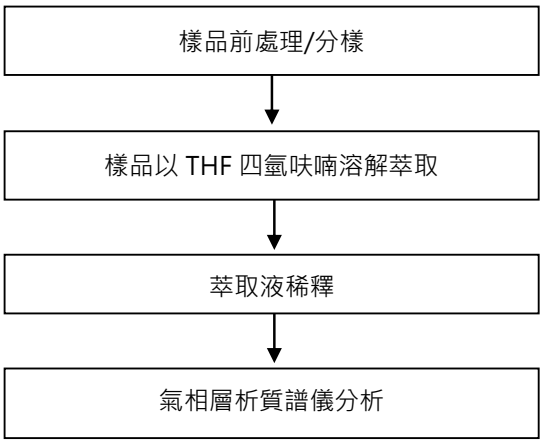
可塑劑分析流程圖

【測試方法: IEC 62321-8】



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新北市三重區光復路二段141號

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***

ETR23101433



** 報告結尾 **

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物 質 安 全 資 料 表

一、物品與廠商資料

物品名稱：碳鋼（CARBON-STEEL）	
物品編號：1215MS	
供應商名稱：三利金屬有限公司	地址：新北市三重區光復路二段 141 號
緊急聯絡電話：（02）2995-9192	傳真電話：（02）2995-8864

二、成分辨識資料

純物質：鐵

中英文名稱：碳鋼（CARBON STEEL）	
物質成分（成分百分比）：	
Fe（鐵）：	98.147
C（碳）：	0.1
Si（矽）：	0.03
Mn（錳）：	1.26
P（磷）：	0.067
S（硫）：	0.37
N（氮）：	0.01
Pb（鉛）：	0.01
Al（鋁）：	0.006

混合物

化學性質		
危害物質成分之中英文名稱	濃度或濃度範圍（PPM）	危害物質分類及圖式
六價鉻 Hexavalent Chromium Cr（VI）	N/A	雜質
鎘 Cadmium（Cd）	N/A	雜質
汞 Mercury（Hg）	N/A	雜質
鉛 Lead（Pb）	N/A	雜質

三、危害辨識資料

最重要危害效應	健康危害效應： 1、常溫下不易分解，鐵在固體下對人體不會有危害，離子狀態下不會污染環境，因地表岩石幾乎都含鐵。 2、碳鋼內的雜質在固體狀態不會分解，污染環境。
	環境影響：不可隨便丟棄，無法在自然條件下分解，易生鏽氧化污染環境。
	物理性及化學性危害：固體，可溶於強酸、強鹼後污染環境。
	特殊危害：目前沒有發現有特殊危害。
主要症狀：無。	
物品危害分類：目前沒有分類。	

四、急救措施

不同暴露途徑之急救方法：

- 吸入：常溫固態不會吸入。
- 皮膚接觸：無影響，小心鐵屑劃傷皮膚。
- 眼睛接觸：燃燒狀態下才會刺激眼睛，請立即就醫。
- 食入：立即就醫。

最重要症狀及危害效應：隨便丟棄會對環境排水系統、河流及海洋造成環境污染，請務必做好回收。

對急救人員之防護：燃燒狀態下，急救人員要穿著高溫防護服裝。

對醫師之提示：受傷立即包紮手術。

五、滅火措施

適用滅火劑：泡沫、CO2、化學乾粉、沙土、噴水。

滅火時可能遭遇之特殊危害：燙傷。

特殊滅火程序：消防人員應穿著防高溫服，選用滅火劑滅火。

消防人員之特殊防護設備：防護服。

六、洩漏處理方法

個人應注意事項：常溫下不易分解，在強酸或高溫下會分解。

環境注意事項：不可隨意丟棄，應通知環保人員處理。

清理方法：回收再處理。

七、安全處置與儲存方法

處置：

1、於常溫乾燥、通風的地方保存，可重複回收使用。

2、不可隨便丟棄，無法在自然環境中被生物分解。

3、容易氧化生鏽。

儲存：於常溫乾燥、通風的地方保存，防止氧化或受強酸、強鹼腐蝕。

八、暴露預防措施

工程控制：

控制參數：八小時日時量平均容許濃度／短時間時量平均容許濃度／最高容許濃度：固體不揮發。

個人防護設備：

- 呼吸防護：常溫下不用防護。
- 手部防護：常溫下不用防護，但工作時需佩戴手套避免受金屬割傷。
- 眼睛防護：常溫下不用防護。
- 皮膚及身體防護：常溫下不用防護，但足部需穿著安全鞋避免不慎受重物壓傷。

九、物理及化學性質

物質狀態：固體	形狀：可隨意成型
顏色：銀灰色	氣味：無味
分解溫度：1,538℃	
密度：7.89g/cm^3	

十、安定性及反應性

安定性：安定
特殊狀況下可能之危害反應：燃燒時可能會產生灼熱的光。
應避免之狀況：避免高溫焚化。
應避免之物質：強酸、強鹼。
危害分解物：在強酸溶解的狀態下，有害物質才會分解。

十一、毒性資料

急毒性：沒有證據顯示有毒。
局部效應：沒有證據顯示有毒。
致敏感性：沒有證據顯示有毒，不會對人體有敏感性。
慢毒性或長期毒性：沒有證據顯示有毒。

十二、生態資料

可能之環境影響／環境流佈： ● 隨便丟棄會對環境排水系統、河流及海洋造成環境污染，請務必做好回收。 ● 愈強酸、強鹼可發生氧化或分解。 ● 鉛離子對水中生物有毒。 ● 鉛離子生物蓄積性，以貝類為顯著。

十三、廢棄處置方法

廢棄處置方法：集中回收再利用

十四、運送資料

國際運送規定： 1、包裝運輸，不可暴露在空氣中，以防氧化。 2、不可和強酸、強鹼混放在一起。
特殊運送方法及注意事項：防止包裝破損。

十五、法規資料

適用法規：勞工安全衛生設施規則

十六、其它資料

參考文獻	CHEMINFO 資料庫，CCINFO 光碟，2000-3 RETCS 資料庫，TOMES PLUS 光碟，VOL.45，2000 HSDB 資料庫，TOMES PLUS 光碟，VOL.45，2000 Material Safety Date Sheets，Genium Publishing Corporation，1997
製表單位	名稱：三利金屬有限公司
	地址：新北市三重區光復路二段 141 號
製 表 人	劉建華
製表日期	2020.01.15

測試報告
Test Report

號碼(No.): ETR23200141　　日期(Date): 07-Feb-2023　　

樺德鍍金有限公司 (GOLD-PLATED CO., LTD. OF HUA DE)
新北市新莊區化成路403巷34號 (NO. 34, LANE 403, HUACHENG RD., SINJHUANG DISTRICT, NEW TAIPEI CITY 24253, TAIWAN, R. O. C.)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)　：　樺德鍍金有限公司 (GOLD-PLATED CO., LTD. OF HUA DE)
樣品名稱(Sample Name)　：　三價藍鋅五金扣件

==========

收件日(Sample Receiving Date)　：　01-Feb-2023
測試期間(Testing Period)　：　01-Feb-2023 to 07-Feb-2023

測試需求(Test Requested)　：　依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)

測試結果(Test Results)　：　請參閱下一頁 (Please refer to following pages.)

Troy Chang / Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

CHECK REPORT
PIN CODE: 503FEC50

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測試報告
Test Report

樺德鍍金有限公司 (GOLD-PLATED CO., LTD. OF HUA DE)
新北市新莊區化成路403巷34號 (NO. 34, LANE 403, HUACHENG RD., SINJHUANG DISTRICT, NEW TAIPEI CITY 24253, TAIWAN, R. O. C.)

測試部位敘述 (Test Part Description)

No.1 : 銀藍色金屬鍍層 (PLATING LAYER OF SILVER-BLUE METAL)
No.2 : 銀藍色金屬 (含鍍層) (SILVER- BLUE METAL (INCLUDING THE PLATING LAYER))

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	
				No.1	No.2
鎘 (Cd) (Cadmium (Cd))	酸洗脫鍍層，參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(IEC 62321-5: 2013 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	---
鉛 (Pb) (Lead (Pb))	酸洗脫鍍層，參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(IEC 62321-5: 2013 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2	5.90	---
汞 (Hg) (Mercury (Hg))	酸洗脫鍍層，參考IEC 62321-4: 2013+AMD1: 2017，以感應耦合電漿發射光譜儀分析。(IEC 62321-4: 2013+AMD1: 2017 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	---
六價鉻 (Hexavalent Chromium) Cr(VI) (#2)	參考IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。(With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.	---

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	
				No.1	No.2
一溴聯苯 (Monobromobiphenyl)	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	---	n.d.
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	---	n.d.
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	---	n.d.
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	---	n.d.
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	---	n.d.
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	---	n.d.
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	---	n.d.
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	---	n.d.
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	---	n.d.
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	---	n.d.
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	---	n.d.
一溴聯苯醚 (Monobromodiphenyl ether)		mg/kg	5	---	n.d.
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	---	n.d.
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	---	n.d.
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	---	n.d.
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	---	n.d.
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	---	n.d.
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	---	n.d.
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	---	n.d.
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	---	n.d.
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	---	n.d.
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	---	n.d.
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP))	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	---	n.d.
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))		mg/kg	50	---	n.d.
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))		mg/kg	50	---	n.d.
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))		mg/kg	50	---	n.d.

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測試報告
Test Report

樺德鍍金有限公司 (GOLD-PLATED CO., LTD. OF HUA DE)
新北市新莊區化成路403巷34號 (NO. 34, LANE 403, HUACHENG RD., SINJHUANG DISTRICT, NEW TAIPEI CITY 24253, TAIWAN, R. O. C.)

備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出) ; 小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. "---" = Not Conducted (未測試項目)
6. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.)

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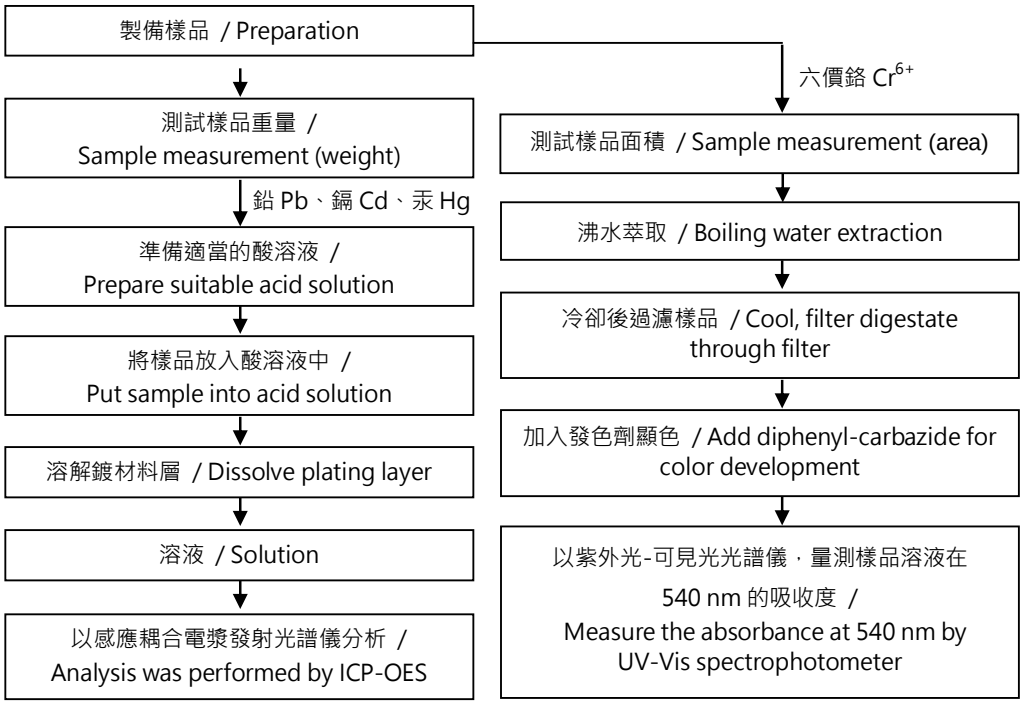
鍍層重金屬測試流程圖 / Flow chart of stripping method for metal analysis

根據以下的流程圖之條件，樣品之外部鍍層已完全溶解。(六價鉻測試方法除外) / The plating layer of samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)



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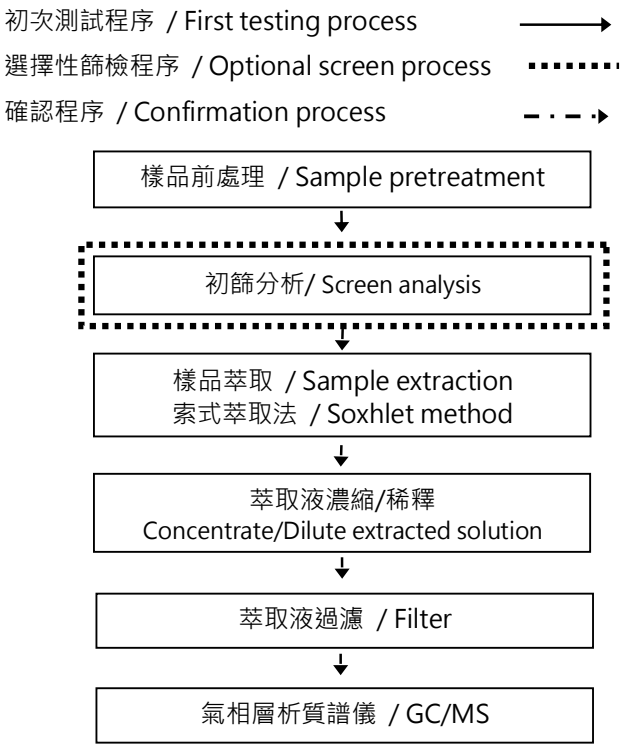
多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs



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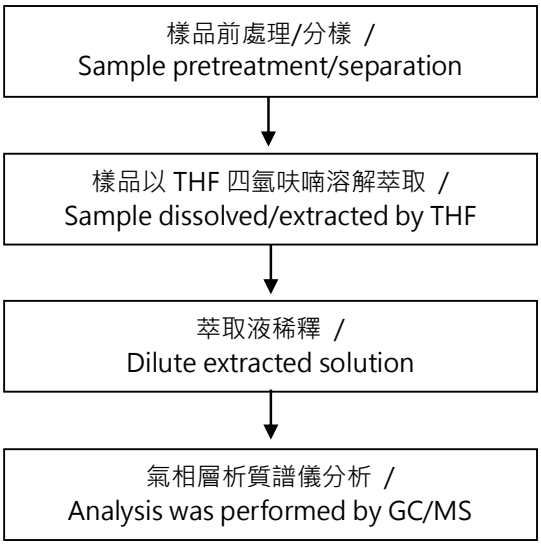
新北市新莊區化成路403巷34號 (NO. 34, LANE 403, HUACHENG RD., SINJHUANG DISTRICT, NEW TAIPEI CITY 24253, TAIWAN, R. O. C.)

可塑劑分析流程圖 / Analytical flow chart - Phthalate

【測試方法/Test method: IEC 62321-8】



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測試報告
Test Report

號碼(No.): ETR23200141　　日期(Date): 07-Feb-2023　　

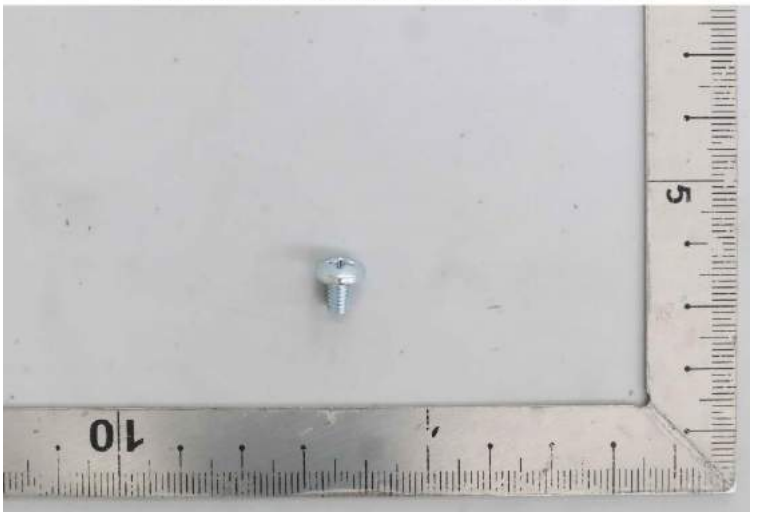
樺德鍍金有限公司 (GOLD-PLATED CO., LTD. OF HUA DE)
新北市新莊區化成路403巷34號 (NO. 34, LANE 403, HUACHENG RD., SINJHUANG DISTRICT, NEW TAIPEI CITY 24253, TAIWAN, R. O. C.)

*** 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.)

ETR23200141 NO.1



ETR23200141 NO.2



** 報告結尾 (End of Report) **

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測試報告

報告編號: HTH23300142　　報告日期: 2023/04/07　　頁數: 1 of 3

勵龍企業有限公司
新北市三重區仁華街80巷8弄2號

以下測試樣品係由申請廠商所提供及確認：

送樣廠商	:	勵龍企業有限公司
樣品名稱	:	1215 MS環保素材電鍍環保鋅
樣品型號	:	鉚釘成品

==========

收件日	:	2023/03/25
測試期間	:	2023/03/25 to 2023/04/07

測試需求 : 依據客戶要求進行測試，測試項目請參閱測試結果表格。

測試結果 : 請見下一頁。

Singh Hsiao / Asst. Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

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測試報告

勵龍企業有限公司
新北市三重區仁華街80巷8弄2號

測試部位敘述

No.1　　:　銀色金屬

測試結果

測試項目	測試方法	單位	RL	結果
				No.1
氟 (F) (CAS No.14762-94-8)	參考BS EN 14582: 2016，以離子層析儀分析。	mg/kg	50	n.d.
氯 (Cl) (CAS No.22537-15-1)		mg/kg	50	n.d.
溴 (Br) (CAS No.10097-32-2)		mg/kg	50	n.d.
碘 (I) (CAS No.14362-44-8)		mg/kg	50	n.d.

備註：

1. mg/kg = ppm；0.1% = 1000 ppm
2. RL = 報告極限值
3. n.d. = Not Detected (未檢出) = 小於 RL
4. 本報告不得分離或擷錄使用。

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勵龍企業有限公司
新北市三重區仁華街80巷8弄2號

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。 ***

HTH23300142



**** 報告結尾 ****

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安 全 資 料 表

一，物品與廠商資料

化學品名稱：鋅
建議用途及限制使用：使用於電鍍、熔鑄…等
製造商、輸入者或供應商名稱：廣泉國際貿易有限公司 製造商或供應商地址：新北市林口區湖北里後湖 17－4 號 製造商或供應商電話：(02) 2601－5353
緊急聯絡電話／傳真電話：(02) 2601－5353／ (02) 2601－5252

二，危害辨識資料

化學品危害分類：
標示內容：  象徵符號： 警示語：警告 危害警告訊息：- 危害防範措施：置於通風良好處

三，成分辨識資料

純物質：

中英文名稱：鋅(ZINC)
同義名稱：無
化學文摘社登記號碼 (CAS No)：7440-66-6
危害成分 (成分百分比)：98.5%以上

混合物：

化學性質：		
危害物質成分之中英文名稱	化學文摘社登記號碼 (CAS No.)	濃度或濃度範圍 (成分百分比)
ZINC	7440-66-6	>99.995%

四，急救措施

不同暴露途徑之急救方法： 吸　　入：遠離鋅塵。鋅粉塵可能有刺激性 皮膚接觸：鋅邊極為銳利，處置不當易割傷 眼睛接觸：鋅粉塵可能對眼睛有刺激性 食　　入：不適用，不適合用藉由此途徑暴露
最重要症狀及危害效應：無嚴重之效應產生
對急救人員之防護：一
對醫師之提示：

五，滅火措施

適用滅火劑：一
滅火時可能遭遇之特殊危害： 可燃性不易燃。當加熱分解時可能演變氧化鋅。非易燃。無火災或爆炸危險。
特殊滅火程序： 火災和爆炸滅火不易燃。
消防人員之特殊防護裝備：

安 全 資 料 表

六，洩漏處理方法

個人應注意事項：應依建議穿著個人防護具
環境注意事項：鋅為固體狀，不需考慮洩漏溢出或釋出等因素
清理方法：可以用清掃或真空吸塵方式清理以避免粉塵

七，安全處置與儲存方法

處置：鋅之鋅邊極為銳利，處理時建議穿著防護手套。
儲存：儲存環境建議保持相對濕度 60%以下，溫度 30℃以下避免氧化，但若儲存場所不符建議條件並無影響安全之疑慮。

八，暴露預防措施

工程控制：一般排氣裝置
控制參數： 八小時日時量平均容許濃度（PEL－TWA）： 短時間時量平均容許濃度（PEL－STEL）： 最高容許濃度（PEL－Ceiling）： 生物指標（BEI）：
個人防護設備： 呼吸防護：如果有粉塵，請著符合國家標準之防護呼吸具。 手部防護：鋅邊緣相當銳利，作業時需戴綿紗或皮革手套，避免被割傷。 眼睛防護：安全護目鏡，護面罩，洗眼設備 皮膚及身體防護：乾淨衣服或著防護衣。
衛生措施： 工作場所嚴禁抽煙或飲食。維持良好之內務管理。

九，物理及化學性質

物質狀態：金屬	形狀：固體
顏色：	氣味：無味
易燃性（固體、氣體）：	沸點／沸點範圍：
分解溫度：	閃火點：不適用℉不適用℃ 測試方法：
自燃溫度：不適用	爆炸界限：
熔點：	蒸氣密度：—
密度：	溶解度：不可溶解的

十，安定性及反應性

安定性：正常狀況下具安定性。
特殊狀況下可能之危害反應：無資料
應避免之狀況：無資料
應避免之物質（或不相容物）：
危害分解物：無

十一，毒性資料

進入人體之途徑： 急毒性：一
慢毒性或長期毒性：—

十二，生態資料

生態毒性：LC50(魚類)：一 EC50(水生無脊椎動物)：一 生物濃縮係數(BCF)：一 持久性及降解性：一 生物蓄積性：一 土壤中之流動性：一 其他不良效應：防止缺染下水道

十三，廢棄處置方法

廢棄處置方法：可完全回收

十四，運送資料

聯合國編號：無
聯合國運輸名稱：無
運輸危害分類：無
包裝類別：一
海洋污染物（是／否）：無
特殊運送方法及注意事項：一

十五，法規資料

適用法規：

十六，其他資料

參考文獻	
製表者單位	名稱：廣泉國際貿易有限公司
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製表日期	108.06.01
備　　註	上述資料中符號”一”代表目前查無相關資料,而符號”/”代表此欄位對該物質並不適用。

本資料表參考國內外文獻及供應商提供之原文資料編制而成，本公司對上述資料已力求正確，以上資訊僅供參考，使用者應依據現場狀況，判斷其可用性，此檔不能當作任何的法律依據。