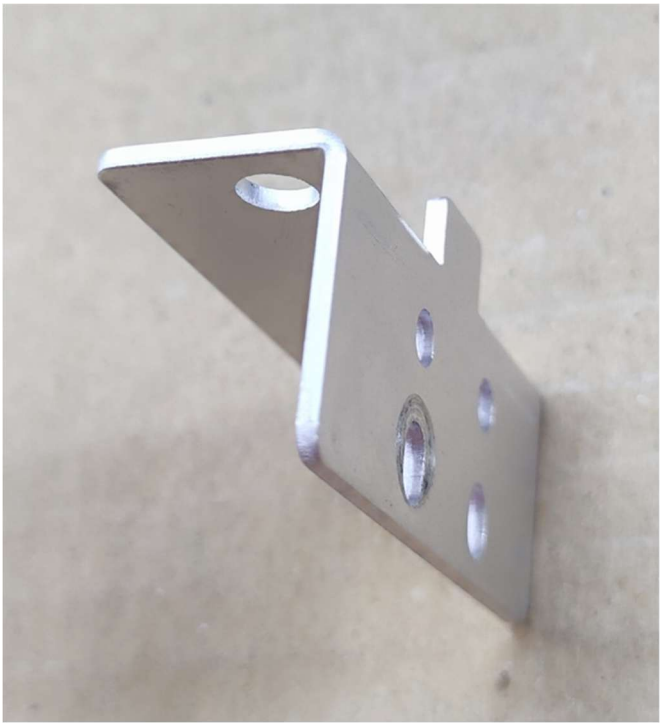
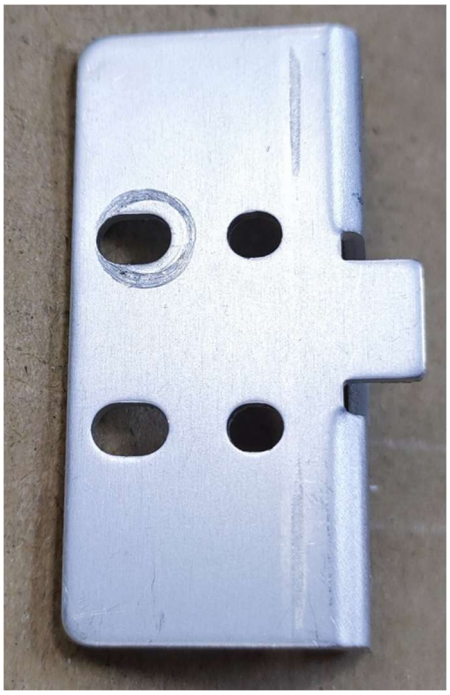
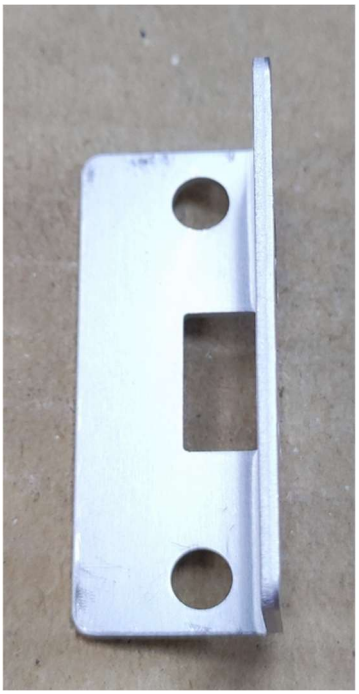










設計驗證
工程課
2025 -08- 04
發行
鈺緯科技開發股份有限公司

雄業實業股份有限公司

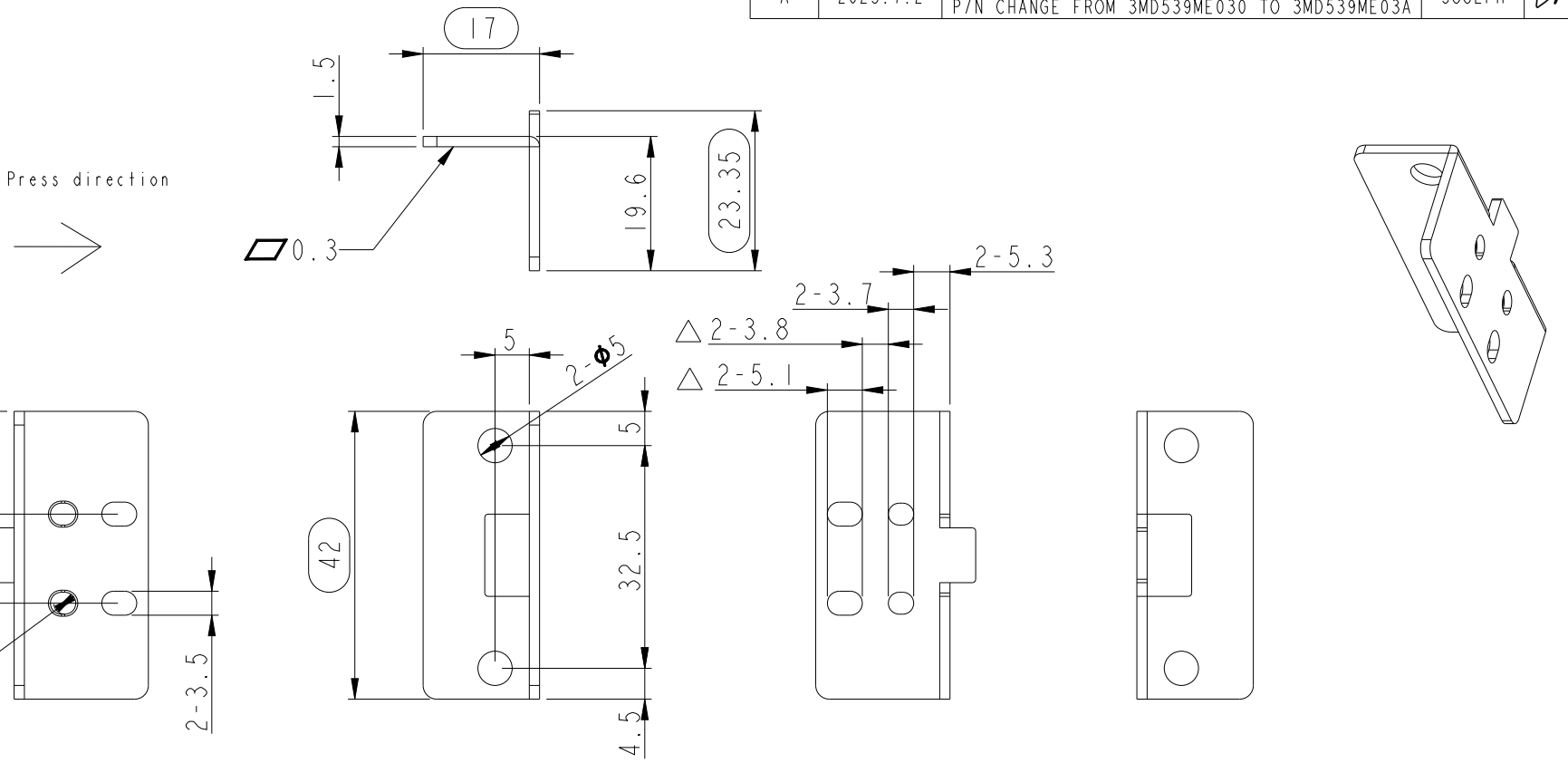
樣 品 承 認 書

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：	鈺緯科技
料　　號：	3MD539ME03A (M3219)
品　　名：	LCD SUP BRACKET (24" EPIQ)
日　　期：	114/7/29
送樣數量：	3　　PCS

設計驗證 工程課 2025 -08- 04 發行 鈺緯科技開發股份有限公司

REV.	DATE	DESCRIPTION	BY	APVD
A	2025.7.2	REVISE TWO OBLONG HOLES DIMENSION P/N CHANGE FROM 3MD539ME030 TO 3MD539ME03A	JOSEPH	



設計驗證
工程課
2025-08-04
發行

Note:
1. ⬭ Inspection dimension.
2. Plating:N/A
3. Painting:N/A
4. Burrs & sharp edge(s) allowed in 0.1mm max, based on the principle of not hurtting hands.
5. Deformation and flatness Distortion <0.3MM
6. Unspecified Dimension refer to CAD Drawing file.
7. Burry Hole:Torque >=6kgf/cm
   Stand Off/ NUT :Pull sterength >=20kgf ;Torque >=6kgf/cm.
8. IQC Inspection Document NO.:QWI-014
9. No oil , Scratch , Water marks ...cosmetic defect on surface.
10. RoHS Compliant

RANGE OF DIMENSION	TOLERANCE CLASS DESIGNATION V 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

UNITS:mm	SCALE: 1/1	SHEET: 1 OF 1	MODEL NO.: 24" Epiq Premium
MATERIAL: AL5052 1.5t		TREATMENT: Conductive chromate conversion coat	
DSGD by Kate Chiang	2019.10.30	PART NAME: LCD SUP BRACKET (24" EPIQ)	
CHK by			
APVD by	2025.07.31	PART NO.: 3MD539ME03A	REV. A
APVD NO.: (M3219)	3D FILE NAME: 24_14601_LCD_SUP_BRACKET	DIVA Laboratories ,Ltd.	

Test Result	

DIVA FAI DATA SHEET

Part Number :	3MD539ME03A (M3219)	Supplier :	雄業	Date:	2025/7/29
Part Description :	LCD SUP BRACKET (24" EPIQ)			Cavity / Tool # :	
Revision :	0	Material Spec:	AL5052 T=1.5mm	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	A1	1.50	0.10	0.10		1.500	1.500	1.510	0.000	0.000	0.010	1.503	10%	0%				
2	A4	17.00	0.10	0.10		17.040	17.020	17.020	0.040	0.020	0.020	17.027	40%	0%				
3	B4	19.60	0.10	0.10		19.630	19.600	19.600	0.030	0.000	0.000	19.610	30%	0%				
4	B5	23.35	0.10	0.10		23.410	23.390	23.400	0.060	0.040	0.050	23.400	60%	0%				
5	C1	15.00	0.10	0.10		15.050	15.050	15.030	0.050	0.050	0.030	15.043	50%	0%				
6	C1	13.00	0.10	0.10		13.010	13.020	13.000	0.010	0.020	0.000	13.010	20%	0%				
7	D1	3.20	0.10	0.10		3.220	3.200	3.220	0.020	0.000	0.020	3.213	20%	0%				
8	D2	3.50	0.10	0.10		3.500	3.520	3.500	0.000	0.020	0.000	3.507	20%	0%				
9	C3	42.00	0.15	0.15		42.030	42.000	42.020	0.030	0.000	0.020	42.017	20%	0%				
10	B4	5.00	0.10	0.10		5.060	5.070	5.050	0.060	0.070	0.050	5.060	70%	0%	Alert			
11	B4	5.00	0.10	0.10		5.020	5.010	5.000	0.020	0.010	0.000	5.010	20%	0%				
12	C4	5.00	0.10	0.10		5.050	5.060	5.040	0.050	0.060	0.040	5.050	60%	0%				
13	C4	32.50	0.15	0.15		32.510	32.500	32.520	0.010	0.000	0.020	32.510	13%	0%				
14	C4	4.50	0.10	0.10		4.530	4.520	4.530	0.030	0.020	0.030	4.527	30%	0%				
15	B6	5.30	0.10	0.10		5.300	5.320	5.310	0.000	0.020	0.010	5.310	20%	0%				
16	B5	3.70	0.10	0.10		3.650	3.620	3.620	-0.050	-0.080	-0.080	3.630	0%	80%		Alert		
17	B5	3.80	0.10	0.10		3.820	3.790	3.800	0.020	-0.010	0.000	3.803	20%	10%				
18	C5	5.10	0.10	0.10		5.100	5.120	5.090	0.000	0.020	-0.010	5.103	20%	10%				
19		以下空白																
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
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32																		

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

測試報告
Test Report

號碼(No.): EKR24501928　　日期(Date): 07-Jun-2024　　

中鋼鋁業股份有限公司 (C.S. ALUMINIUM CORPORATION)
高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

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)	:	中鋼鋁業股份有限公司 (C.S. ALUMINIUM CORPORATION)
樣品名稱(Sample Name)	:	ALUMINIUM PLATE /SHEET (鋁板/片)
樣品型號(Style/Item No.)	:	ALUMINIUM ALLOY 5052

==========

收件日(Sample Receiving Date)	:	30-May-2024
測試期間(Testing Period)	:	30-May-2024 to 07-Jun-2024

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: 94B0F8E6

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測試報告
Test Report

中鋼鋁業股份有限公司 (C.S. ALUMINIUM CORPORATION)
高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

測試部位敘述 (Test Part Description)

No.1 : 銀色金屬 (SILVER COLORED 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))	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	100
鉛 (Pb) (Lead (Pb))		mg/kg	2	12.3	1000
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(With reference 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)	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.	-
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.	1000

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高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

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，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.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))		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.)

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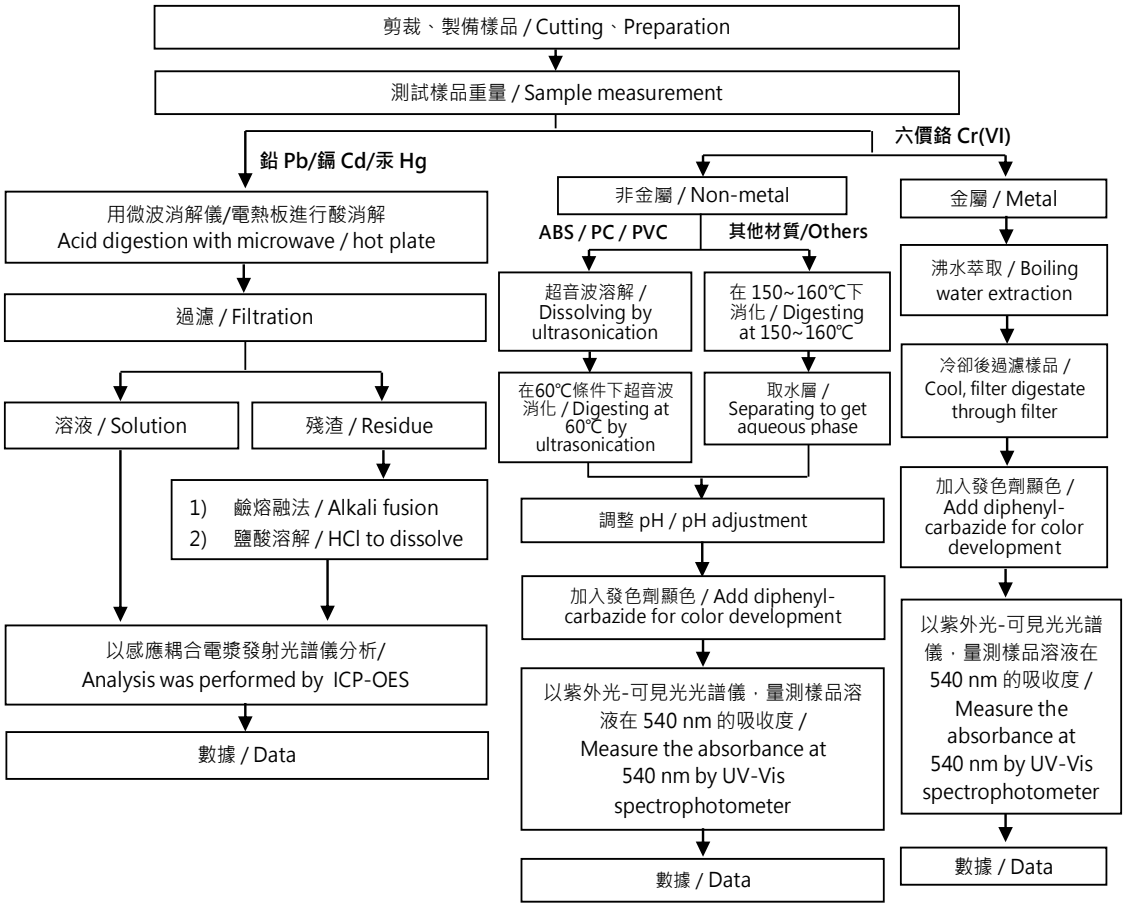
中鋼鋁業股份有限公司 (C.S. ALUMINIUM CORPORATION)
高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

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.

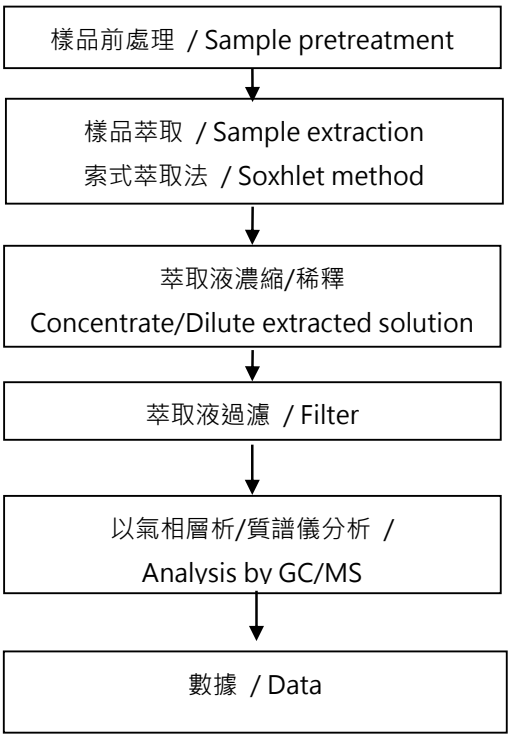
（Cr^{6+} test method excluded）



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高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

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

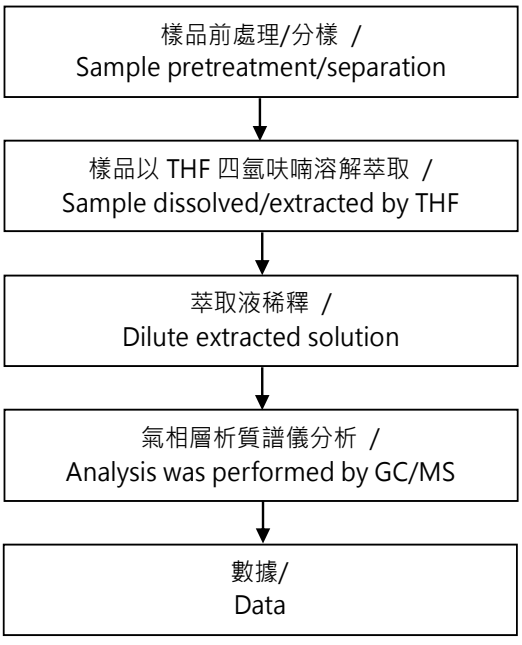


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高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

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

【測試方法/Test method: IEC 62321-8】



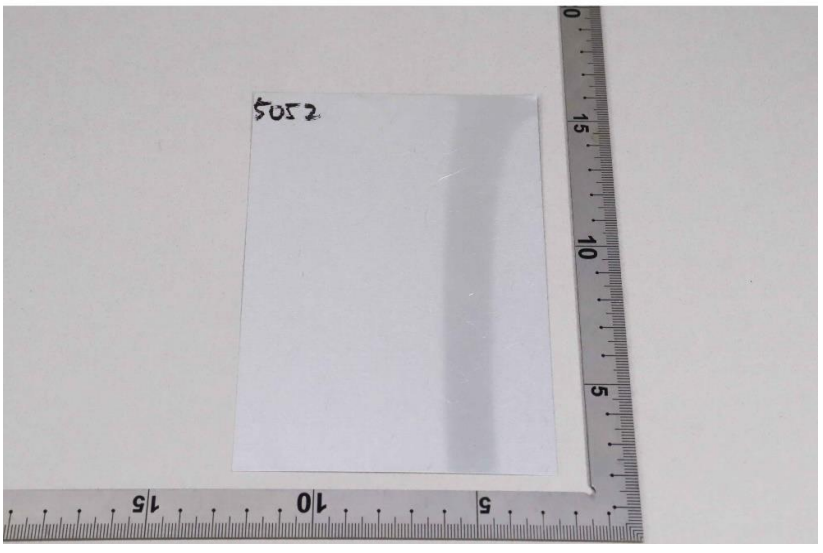
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測試報告
Test Report

中鋼鋁業股份有限公司 (C.S. ALUMINIUM CORPORATION)
高雄市小港區東林路17號 (NO.17 TUNG LIN ROAD ,HSIAOKANG DISTRICT, KAOHSIUNG CITY)

*** 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.)

EKR24501928



** 報告結尾 (End of Report) **

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Safety Data Sheet

REVISION DATE：01/02/2024

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME： Aluminum Alloy

CATALOG CODE： 5XXX Series Alloys

MANUFACTURER：

C.S Aluminium Corporation NO.17 Tung Lin Road Hsiao Kang Kaohsiung,812 Taiwan.R.O.C

Tel：886(7)871-8666

Fax：886(7)872-1967

SECTION 2 – HAZARDS IDENTIFICATION

Health：1

Flammability：1

Reactivity：1

Precautionary statements：

This product is present in a massive form as an alloys. Aluminum alloys are alloys in which aluminum (Al) is the predominant metal. Aluminum alloys are considered an “article” and not hazardous in its solid form. Fine particles from processing (such as cutting, sawing, welding, grinding, polishing, milling, and machining) may be readily ignitable.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	Typical Percent (Wt %)	CAS Numbers
Aluminum (Al)	Rem.	7429-90-5
Silicon (Si)	<0.40	7440-21-3
Iron (Fe)	<0.70	7439-89-6
Copper (Cu)	<0.20	7440-50-8
Manganese (Mn)	<1.00	7439-96-5
Magnesium (Mg)	0.50-5.0	7439-95-4
Zinc (Zn)	<0.25	7440-66-6

SECTION 4 – FIRST AID MEASURES

SKIN：For minor burns, apply cold water. For severe burns, seek immediate medical attention.

EYE：Immediately flush with water for 15 minutes. Seek medical attention if irritation persists.

INHALATION：Remove to fresh air.

INGESTION：None necessary.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABILITY：YES? NO? X

FLASH POINT (Method Used)：N/A

WHAT CONDITIONS? N/A

UEL：N/A

LEL：N/A

MEANS OF EXTINCTION：

This product is non-combustible in bulk form. For fires involving aluminum fines or chips, use dry sand or Class D extinguishing agents approved for this use. DO NOT USE water or other liquids, foam, or halogenated extinguishing agents.

SPECIAL PROCEDURES：

Suspended aluminum dust, allowed to accumulate in a confined area, may be explosive. If remelted, moisture present in cavities or on external surfaces may cause an explosion.

AUTO IGNITION TEMPERATURE：N/A

HAZARDOUS COMBUSTION PRODUCTS：None known

SENSITIVITY TO STATIC DISCHARGE：None known

SENSITIVITY TO IMPACT：None known

ND = NOT DETERMINED N/A = NOT APPLICABLE

SECTION 6 – ACCIDENTAL RELEASE MEASURES

These products are solid aluminium sheets and plates, with no spill or leak hazards.

Put on appropriate personal protective equipment (see section 8).

PERSON-RELATED SAFETY PRECAUTIONS：Put on appropriate personal protective equipment (see section 8).

ENVIRONMENTAL PRECAUTIONS：

Collect scrap for recycling. (Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.) Ensure adequate ventilation.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP：

Sweep or vacuum up and place in an appropriate closed container. Avoid generating dust.

SECTION 7 – HANDLING AND STORAGE

HANDLING PROCEDURES：

Ensure good ventilation and exhaust at the workplace. In the case of operations generating dust, avoid excessive generation of dust or prolonged contact with skin and eyes.

STORAGE REQUIREMENTS：Tightly closed. In a cool, dry location. Remelting of return material for re-use, make certain no water or moisture is present in cavities or on external surfaces.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS：

If ventilation is used to convey aluminum dust, generated by grinding, sawing, etc., special ventilation procedures may be necessary to avoid explosion hazards**.**

PERSONAL PROTECTIVE EQUIPMENT：

GLOVES：As needed.

EYEWEAR：Safety glasses, goggles, face shield, or welding helmet, etc., as needed.

RESPIRATORY：Use NIOSH/MSHA-approved respirator for dusts/fume/mist, if TLVs or PELs are exceeded.

FOOTWEAR：Safety shoes, as needed.

CLOTHING：Appropriate protective work clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE：Solid	FLASHPOINT：N/A
APPEARANCE/ODOR：Odorless, silvery gray color	VAPOR PRESSURE：N/A
ODOR THRESHOLD：N/A	VAPOR DENSITY：N/A
pH：N/A	EVAPORATION RATE：N/A
SPECIFIC GRAVITY：2.5-2.9 g/cm^3	COEFFICIENT OF WATER/OIL DIST：N/A
MELTING POINT：568℃-660℃	SOLUBILITY IN WATER：N/A
BOILING POINT：N/A	AUTOIGNITION TEMPERATURE：N/A

SECTION 10 – CHEMICAL STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY：Stable

REACTIVITY AND UNDER WHAT CONDITIONS：

If remelted, moisture present in cavities or on external surfaces may cause an explosion. Bulk aluminum dust when damp may heat spontaneously.

INCOMPATIBILITY TO OTHER SUBSTANCES：YES

For aluminum fines: water, Strong acids, strong bases, strong oxidizers, metal oxides, and halogenated compounds.

HAZARDOUS DECOMPOSITION PRODUCTS：

Finely divided aluminum reacts with water, some acids, and alkalis to produce hydrogen gas. Aluminum in contact with halogenated compounds can produce violent reactions and/or explosions.

SECTION 11 – TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY

INHALATION：YES

INGESTION：NO

SKIN ABSORPTION：NO

EYE CONTACT：YES

EFFECTS OF ACUTE EXPOSURE：

Aluminum is considered a nuisance particulate. Welding or machining aluminum may generate dusts and fumes which may cause eye, nose, and throat irritation. Generally, if exposures for aluminum oxide are kept below the exposure limit, the alloy components should not present a health risk. Ozone may be emitted as a by-product during welding or plasma arc cutting. Exposure to ozone may produce irritation to eyes, nose, and throat. Welding and/or plasma arc cutting of aluminum alloys generates ultraviolet radiation which can cause skin burns or welders flash to unprotected skin and eyes.

EFFECTS OF CHRONIC EXPOSURE：

Prolonged exposure to ozone may result in nausea, headache, and pulmonary damage. Chromium and certain of its compounds are classified as carcinogens in the latest Annual Report on Carcinogens as published by the National Toxicology Program (NTP) and by the International Agency for Research on Cancer (IARC).

LD50 OF PRODUCT：	LC50 OF PRODUCT：
Aluminum：>5000 mg/kg (Aluminum oxide / Orl-Rat)	Aluminum：Not known
Silicon：3160 mg/kg (Orl-Rat)	Silicon：Not known
Iron：984 mg/kg (Orl-Rat)	Iron：Not known
Copper：3.5 mg/kg (Orl-Rat)	Copper：Not known
Manganese：>9000 mg/kg (Orl-Rat)	Manganese：Not known
Magnesium：230 mg/kg (Orl-Rat)	Magnesium：Not known

IRRITANCY OF PRODUCT：Mild

EXPOSURE LIMITS OF PRODUCT：Use levels for aluminum shown in Section 2.

SENSITIZATION TO PRODUCT：None known

SYNERGISTIC MATERIALS：None known

CARCINOGENICITY：NTP, IARC, ACGIH

REPRODUCTIVE EFFECTS：None known

TERATOGENICITY：None known

MUTAGENICITY：None known

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE：

Pre-existing upper respiratory and lung diseases such as, but not limited to, Bronchitis, Emphysema, and Asthma.

SECTION 12 – ECOLOGICAL INFORMATION

TOXICITY：Aluminum can be recycled. Aluminum alloys under solid form, such as ingots, coil or sheets, do not present any hazard for the environment because metals are not biologically available.

BIOACCUMULATIVE POTENTIAL：None available.

MOBILITY IN SOIL：None available.

OTHER ADVERSE EFFECTS：*None availab*le.

SECTION 13 – DISPOSAL INFORMATION

WASTE DISPOSAL：

For disposal of this material as a waste, act in accordance with all applicable federal, state, and local waste management regulations.

SECTION 14 – TRANSPORTATION INFORMATION

SPECIAL SHIPPING INFORMATION：None known

SECTION 15 – REGULATORY INFORMATION

SARA

This product contains a chemical or chemicals subject to the reporting requirements of **Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.**

SECTION 16 – OTHER INFORMATION

All statements, technical information and recommendations contained herein are based on tests and data which this Company believes to be currently reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto. This information is not intended as a license to operate under or a recommendation to practice or infringe any patent of this Company or others covering any process, composition of matter or use. Since the Company shall have no control of the use of the product described herein, the Company assumes no liability for loss or damage incurred from the proper or improper use of such product.

測試報告
Test Report

號碼(No.): EKR24500629　　日期(Date): 21-May-2024　　

台灣塑膠工業股份有限公司 仁武碱廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

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)	:	台灣塑膠工業股份有限公司 仁武碱廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
樣品名稱(Sample Name)	:	CAUSTIC SODA FLAKE(片鹼)
收件日(Sample Receiving Date)	:	14-May-2024
測試期間(Testing Period)	:	14-May-2024 to 20-May-2024

測試需求(Test Requested) :
(1) 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).)
(2) 其他測試項目請見下一頁。 (Please refer to next pages for the other item(s).)

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

結　論(Conclusion) :
(1) 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

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PIN CODE: F4F189D8

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測試報告
Test Report

台灣塑膠工業股份有限公司 仁武鹼廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

測試部位敘述 (Test Part Description)

No.1 : 白色片狀 (WHITE SLICE)

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))	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	100
鉛 (Pb) (Lead (Pb))	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
六價鉻 Cr(VI) (Hexavalent Chromium Cr(VI))	參考IEC 62321-7-2: 2017，以紫外光-可見光分光光度計分析。(With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.)	mg/kg	8	n.d.	1000
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.	1000

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測試報告
Test Report

台灣塑膠工業股份有限公司 仁武鹼廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

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，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.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))		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
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))		mg/kg	50	n.d.	1000
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.	-
四溴雙酚 A (TBBP-A) (Tetrabromobisphenol A (TBBP-A)) (CAS No.: 79-94-7)	參考RSTS-E&E-121，以液相層析儀/質譜儀分析。(With reference to RSTS-E&E-121, analysis was performed by LC/MS.)	mg/kg	10	n.d.	-
中鏈氯化石蠟(C14-C17) (MCCP) (Medium Chain Chlorinated Paraffins(C14-C17) (MCCP)) (CAS No.: 85535-85-9)	參考ISO 18219-2: 2021，以氣相層析儀/質譜儀分析。(With reference to ISO 18219-2: 2021, analysis was performed by GC/MS.)	mg/kg	50	n.d.	-

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台灣塑膠工業股份有限公司 仁武鹼廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

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. 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.)

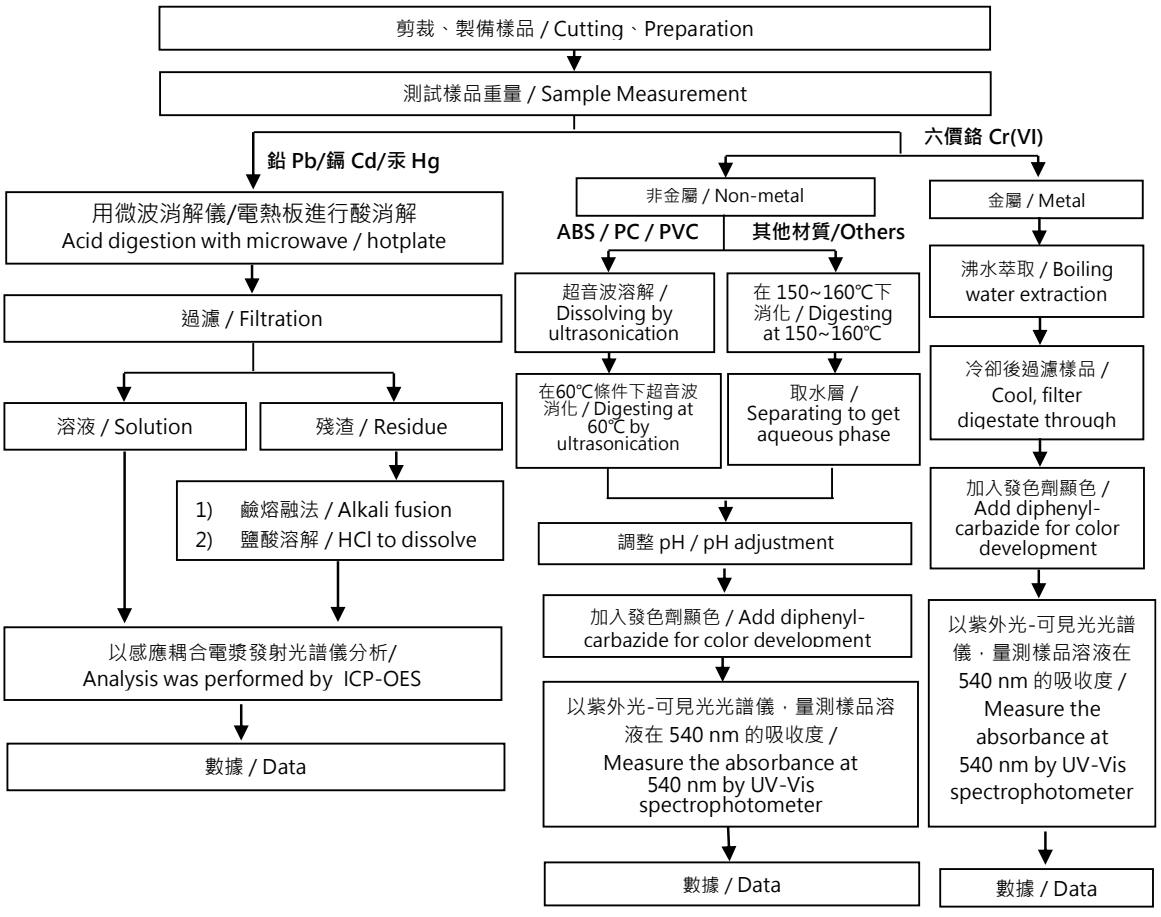
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台灣塑膠工業股份有限公司 仁武碱廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

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）

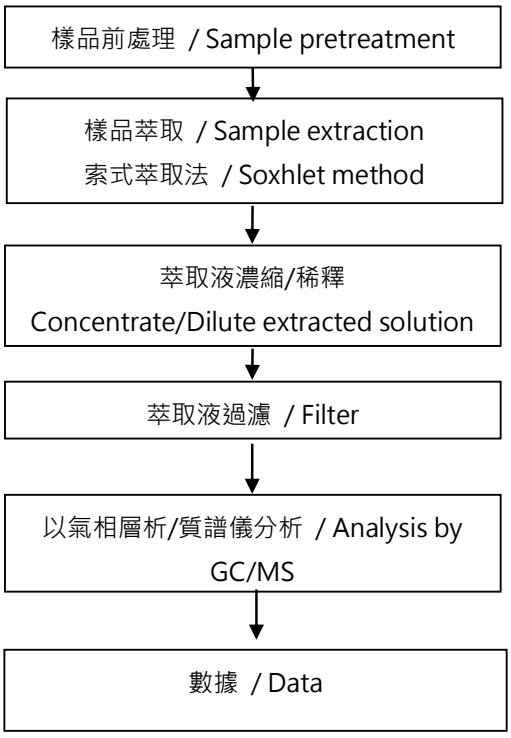
These samples were dissolved totally by pre-conditioning method according to below flow chart.
（Cr^{6+} test method excluded）



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台灣塑膠工業股份有限公司 仁武鹼廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

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

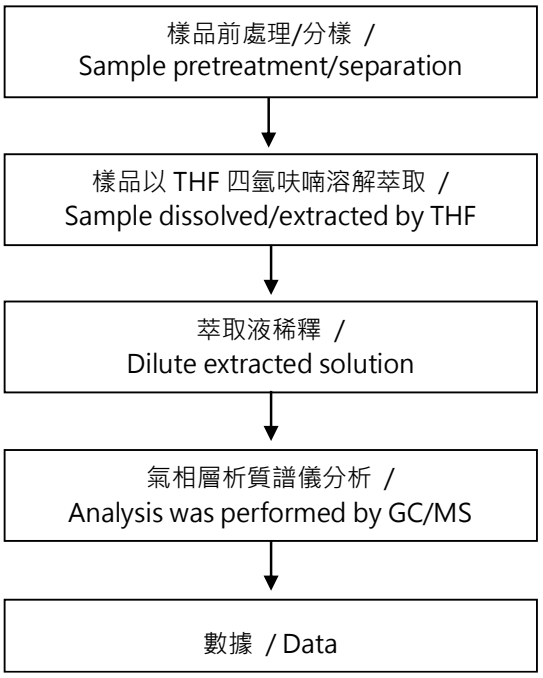


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可塑劑分析流程圖 / Analytical flow chart of phthalate content

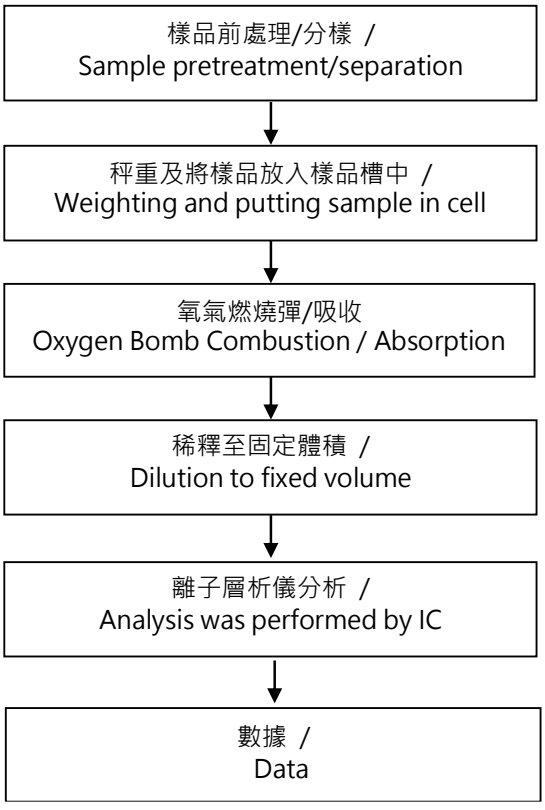
【測試方法/Test method: IEC 62321-8】



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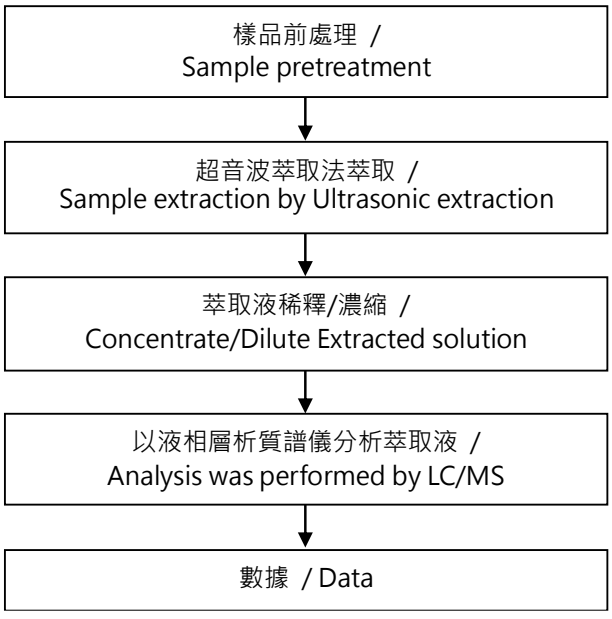
鹵素分析流程圖 / Analytical flow chart of Halogen



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四溴雙酚-A分析流程圖 / TBBP-A analytical flow chart



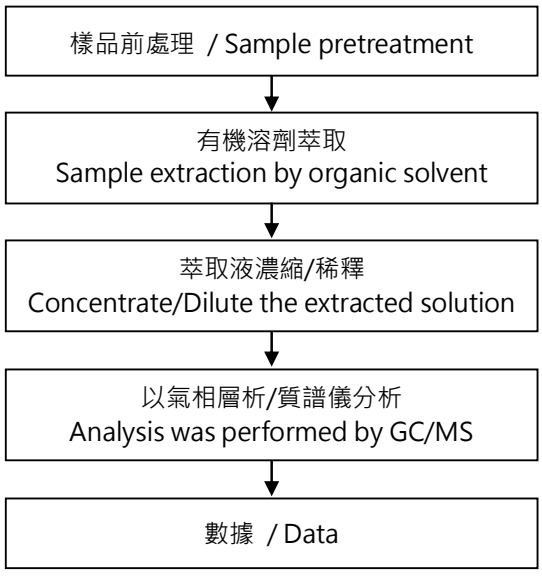
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分析流程圖 / Analytical flow chart

【適用於：多氯聯苯、多氯奈、多氯三聯苯、滅蟻靈、氯化石蠟、DBBT】

*Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



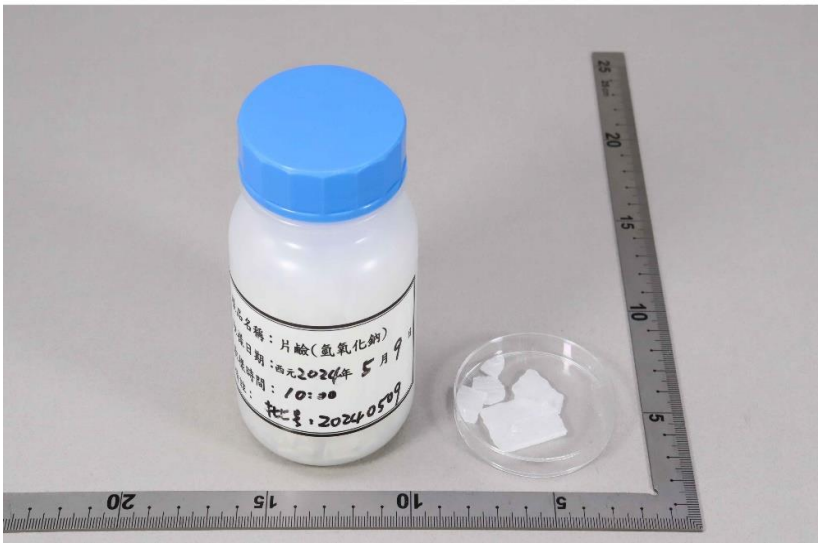
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測試報告
Test Report

台灣塑膠工業股份有限公司 仁武碱廠 (FORMOSA PLASTICS CORPORATION (REN-WU CHLOR-ALKALI PLANT))
高雄市仁武區水管路100號 (NO.100.SHUI-GUAN RD.,REN-WU DIST., KAOHSIUNG CITY 814 ,TAIWAN)

*** 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.)

EKR24500629



** 報告結尾 (End of Report) **

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安 全 資 料 表

一、 化學品與廠商資料

化學品名稱：片鹼(Caustic flake)
其他名稱：
建議用途及限制使用：製造化學品；嫘縈與賽珞凡；精製石油的中和劑；紙漿與紙；鋁；清潔劑；肥皂；處理織品；精製植物油；再生橡膠；再生離子交換樹脂有機熔融；食品工業中水果與蔬菜的去皮；實驗試劑；蝕刻與電鍍；食物添加劑。
製造者、輸入者或供應者名稱、地址及電話：台灣塑膠工業股份有限公司仁武碱廠 高雄市仁武區水管路 100 號 (07)3711411-5406
緊急聯絡電話/傳真電話：(07)3711411-5407　傳真：(07)3718449

二、 危害辨識資料

化學品危害分類：急毒性物質第 4 級（皮膚）、金屬腐蝕物第 1 級、腐蝕／刺激皮膚物質第 1 級、嚴重損傷／刺激眼睛物質第 1 級
標示內容： 象徵符號：  警示語：危險 危害警告訊息： 皮膚接觸有害 可能腐蝕金屬 造成嚴重皮膚灼傷和眼睛損傷 造成嚴重眼睛損傷 危害防範措施： 操作時應配戴適當個人安全防護具。 應避免皮膚或眼睛與之接觸，若不慎觸及時；應以大量清水至少沖洗 20 分鐘復送醫， 若有洩漏；應以稀酸中和，並以大量水稀釋復排入廢水系統處理，禁止直接排入水溝造成污染。 如遇意外或覺得不適，立即洽詢醫療
其他危害：-

三、 成分辨識資料

純物質：

中英文名稱：氫氧化納(SODIUM HYDROXIDE)
同義名稱：Hydroxyde de sodium (solide)、燒鹼、White caustic、Sodium hydroxide、苛性鈉、Caustic soda、Caustic flake、Sodium hydrate
化學文摘社登記號碼（CAS No.）：1310-73-2
危害成分（成分百分比）：98%

四、 急救措施

不同暴露途徑之急救方法：

安 全 資 料 表

吸　　入：1.施救前先做好自身的防護措施，以確保自身的安全。2.移除污染源或將患者移至新鮮空氣處。3.如果呼吸困難，於醫師指示下由受過訓的人供給氧氣。4.避免患者不必要的移動。5.肺水腫的症狀可能會延後出現。6.立即就醫。 皮膚接觸：1.必要時則戴防滲手套以避免觸及該化學品。2.立即緩和的吸掉或刷掉多餘的化學品。3.以溫水緩和沖洗受污染部位 60 分鐘。4.沖洗時不要間斷。5.沖水中脫掉受污染的衣物、鞋子和皮飾品。6.立即就醫。7.需將污染的衣物、鞋子以及皮飾品須完全洗淨除污後方可再用或丟棄。 眼睛接觸：1.必要時則戴防滲手套以避免觸及該化學品。2.立即緩和的吸掉或刷掉多餘的化學品。3.立即將眼皮撐開，以緩和流動的溫水沖洗污染的眼睛 60 分鐘。4.可能情況下可使用生理食鹽水沖洗，且沖洗時不要間斷。5.避免清洗水進入未受影響的眼睛。6.如果刺激感持續，反覆沖洗。7.立即就醫。 食　　入：1.若患者即將失去意識，或已失去意識或痙攣，不可經口餵食任何東西。2.以水徹底沖口。3.切勿催吐。4.給予患者喝 240-300 毫升的水，以稀釋胃中的物質。5.若有牛奶可於喝水後再給予牛奶喝。6.若患者自然性嘔吐，讓患者身體向前傾以避免吸入嘔吐物及反覆給水。7.立即就醫。
最重要症狀及危害效應：嚴重灼傷，潰瘍及永久性發紅，可能導致永久性失明。
對急救人員之防護：未著全身式化學防護衣及空氣呼吸器之人員不得進入災區搬運傷患，應穿著 C 級防護裝備在安全區實施急救。
對醫師之提示：患者吸入時，考慮給予氧氣幫助呼吸。避免洗胃及引發嘔吐。

五、 滅火措施

用滅火劑：針對燃燒物質，選用適當的滅火器。
滅火時可能遭遇之特殊危害：1.不會燃燒但會與某些物質（如強酸、過氧有機物等）起激烈、爆炸性反應。2.會與某些金屬反應如鋁、錫、鋅，而釋放出易燃性的氫氣。
特殊滅火程序：1.撤退並自安全距離或受保護的地點滅火。2.隔離未著火物質且保護人員。3.安全情況下將容器搬離火場。4.噴水以冷卻暴露火場的容器。5.高溫下可能產生燻煙，釋放腐蝕性氣體，未著特殊防護設備之人員不可進入。
消防人員之特殊防護裝備：配戴全身式化學防護衣與空氣呼吸器（必要時外加抗閃火鋁質被覆外套）

六、 洩漏處理方法

個人應注意事項：1.在污染區尚未完全清乾淨前，限制人員進入該區。2.確定清理工作是由受過訓練的人員負責。3.穿戴適當之個人防護設備。
環境注意事項：1.對該區進行通風換氣。2.撲滅或除去所有發火源。3.移開會與外洩物反應之化學品。4.通知政府安全衛生與環保相關單位。
清理方法：1.圍堵外洩物，剷起或掃起欲回收或處理之外洩物。2.避免流入下水道及水溝。3.中和處理最後剩量，用水清洗外洩區。4.用砂、泥土或其他惰性物質來圍堵洩漏物。5.溶液可回收利用，或小心的用水稀釋以及用酸（如醋酸或鹽酸）來中和。6.若有大量物質外洩，向供應商、消防及緊急應變單位求助。

七、 安全處置與儲存方法

處置：1.此物質具有腐蝕性，需要工程控制及個人防護設備；工作人員應適當受訓並告知此物質之危險性及安全使用法。2.未著防護設備之人員避免接觸此化學品包括受污染之設備。3.若有此物質釋放出應立刻戴上呼

吸防護具且離開，直到確定釋放的嚴重性。4.若有溢漏或通風不良應立即呈報。5.操作前檢查容器是否溢漏。6.使用製造商建議之貯存容器。7.儘可能小量操作，操作區應與貯存區分開。8.不要與不相容物一起使用。9.與水混合時是將腐蝕性物質倒入水中，而非水加入腐蝕液中，加料時應在攪拌下緩慢加入，使用冷水以避免過剩的熱產生。10.容器要標示，不使用時保持容器密閉並避免受損。11.不要將污染的物質倒回原貯存桶。12.操作區和貯存區附近應有立即可得的火災、溢漏等緊急處理設備。
儲存： 1.貯存在陰涼、乾燥、通風良好的地區和遠離不相容物質。2.貯存區應標示清楚，無障礙物並允許委任或受過訓的人員進入。3.限量貯存。4.於適當處張貼警告標示。5.定期檢查容器、貯存區是否溢漏、破損或腐蝕。6.檢查新進容器，確定標示清楚和無受損。7.容器要標示，不使用或空了時應保持容器密閉並避免受損。8.儘可能貯存在原貯存桶或製造商建議的容器內，並保持標示位於可見處。9.貯存區與工作區分開。10.地板應不透水以及沒有龜裂。11.貯存區應設斜坡、門檻或築溝渠以圍堵或能流到安全的地方。12.最好使用鎳合金製成的貯存容器，若溫度不高(攝氏 40 度以下)也可使用不鏽鋼材質。13.空桶應與貯存區分開。14.貯存區應有適當之消防和溢漏清理設備。15.使用抗腐蝕性的建構材料、照明和通風系統。16.貯槽須在地面上，底部整個區域應封住以防滲漏，周圍須有防溢堤能圍堵整個容量。

八、 暴露預防措施

工程控制：1.使用抗腐蝕性通風系統並與其他排氣系統分開。2.使用局部排氣裝置。3.排氣口直接通到室外。4.供給足夠新鮮空氣以補足排氣系統抽出空氣。

控制參數			
八小時日時量平均 容許濃度 TWA	短時間時量平均 容許濃度 STEL	最高容許 濃度 CEILING	生物指標 BEIs
2mg/m^3	4mg/m^3	-	-

個人防護設備：

呼吸防護：10mg/m^3 以下：一定流量型供氣式呼吸防護具，含有機蒸氣濾罐的動力型空氣淨化式或全面型化學濾罐式呼吸防護具、含有機蒸氣濾罐的防毒面罩、全面型自攜式或供氣式呼吸防護具。

未知濃度：正壓自攜式呼吸防護具、正壓全面型供氣式呼吸防護具輔以正壓自攜式呼吸防護具。

逃生：含有機蒸氣濾罐之氣體面罩、逃生型自攜式呼吸防護具。

手部防護：防滲手套

眼睛防護：化學安全護目鏡、防護面罩、洗眼設備

皮膚及身體防護：連身式防護衣、工作靴

衛生措施：1.工作後儘速脫掉污染之衣物，洗淨後才可以再穿戴或丟棄，且須告知洗衣人員污染物之危害性。2.工作場所嚴禁抽煙或飲食。3.處理此物後，須徹底洗手。4.維持作業場所清潔。

九、 物理及化學性質

外觀：白色片狀或條狀	氣味：無味
嗅覺閾值：無味	熔點：318.4℃(固態鹼)
pH 值：>14 強鹼	沸點 / 沸點範圍：1390 ℃

安 全 資 料 表

易燃性（固體，氣體）：-	閃火點：不燃
分解溫度：-	測試方法：
自燃溫度：/	爆炸界限：-
蒸氣壓：0mmHg	蒸氣密度：-
密度：2.13	溶解度：111g/100ml @ 20 ^{O}C（水）
辛醇 / 水分配係數（ log Kow ）：-	揮發速率：/

十、 安定性及反應性

安定性：正常狀況下安定
特殊狀況下可能之危害反應：1.與強酸、有機鹵素化合物、硝基芳香族、乙二醇和過氧有機物會起激烈、爆炸性的反應。2.與金屬(如鋁、錫、鋅)產生易燃性、爆炸性的氫氣。3.與 1.2-二氯乙烯、三氯乙烯、四氯乙烯形成自燃性化學物質。4.與糖類產生一氧化碳。
應避免之狀況：
應避免之物質：強酸、金屬、有機鹵素、氮、氯有機化合物、鋁、錫、鋅、鋼、硝基芳香族、硝基烷類、乙二醇、過氧化物、乙醛、丙烯醛、丙烯、糖
危害分解物：

十一、毒性資料

暴露途徑：吸入、食入、皮膚接觸、眼睛接觸
症狀：刺激感、肺積水、水腫、潰瘍、嚴重發紅、瘀傷、嘔吐、腹瀉、虛脫。
急毒性：吸入：1.具腐蝕性，吸入霧滴會刺激鼻、咽及肺。2.吸入煙霧也會導致肺積水，威脅生命。 皮膚：1.嚴重灼傷、潰瘍及永久性發紅，灼傷不會立即疼痛，可能延遲數小時。2.敷 4%水溶液於 15 分鐘內可破壞皮膚外層硬細胞，60 分鐘後皮膚層完全破壞，當 PH=13.5 將液體滴在頭上則頭髮會融掉、頭皮灼傷、禿頭，但會康復。3.敷 0.12%溶液於健康皮膚 1 小時內就已受損。 眼睛：1.受損程度依暴露時間，濃度及滲透度而定，從嚴重刺激、中度發紅到水腫、潰瘍、嚴重發紅、瘀傷等。2.影響視力的情況如綠內障般之癥狀可能遲遲才出現。3.嚴重時逐漸潰瘍及眼睛組織瘀傷可能導致永久性失明。 食入：1.可能造成嚴重的疼痛，並灼傷口、咽及食道，引起嘔吐、腹瀉、虛脫及死亡。 LD50(測試動物、暴露途徑)：1350mg/kg (兔子，皮膚) LC50(測試動物、暴露途徑)：-- 500mg/24H(兔子，皮膚)：造成嚴重刺激。 50ug/24H（兔子，眼睛）：造成嚴重刺激。
慢毒性或長期毒性：1.重覆接觸引起皮膚乾燥，龜裂發炎。2.曾食入者，在 12 到 42 年後得食道癌，此應與其有關。嚴重熱灼傷部位也引發相似的癌症，可能因組織破壞，形成疤導致癌症，而非其本身具致癌性。

十二、生態資料

生態毒性：LC50（魚類）：43mg/l/96H EC50（水生無脊椎動物）：- 生物濃縮係數（ BCF ）：-

安 全 資 料 表

持久性及降解性： 半衰期（空氣）：- 半衰期（水表面）：- 半衰期（地下水）：- 半衰期（土壤）：-
生物蓄積性：-
土壤中之流動性：洩漏至地面，會慢慢瀝濾至土壤中。
其他不良效應：-

十三、廢棄處置方法

廢棄處置方法： 1.參考政府相關法規處理。2.可中和、稀釋後排往合格廢水處理機構。3.可在核准的焚化爐內將其稀釋氣化。4.高濃度時對水中生物有害。

十四、運送資料

聯合國編號：1823
聯合國運輸名稱：氫氧化鈉
運輸危害分類：第八類腐蝕性物質。
包裝類別：Ⅱ
海洋污染物（是/否）：否
特殊運送方法及注意事項：-

十五、法規資料

適用法規：	
1.職業安全衛生設施規則	2.危害性化學品標示及通識規則
3.勞工作業場所容許暴露標準	4.道路交通安全規則
5.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	1.CHEMINFO資料庫，CCINFO光碟，2005-3 2.RTECS資料庫，TOMES PLUS光碟，Vol.65，2005 3.HSDB資料庫，TOMES PLUS光碟，Vol.65，2005 4.ChemWatch資料庫，2005-1	
製表者單位	名稱：台灣塑膠工業股份有限公司仁武碱廠	
	地址/電話：高雄市仁武區水管路 100 號 (07)3711411-5401	
製表人	職稱：高級工程師	姓名（簽章）：許祐銘
製表日期	中華民國 111 年 11 月 22 日	
備註	上述資料中符號”-”代表目前查無相關資料。	

上述資料係依據參考文獻製作，各項數據與資料僅供參考