

SDS (Safety Data Sheet)

安全資料表

Section 01 Identification of the substance or mixture and of the supplier 品名及廠商資料	
Product Name 品名	NiPdAu plated leadframe
GHS product identifier	NA
Product Code 物品編號	C7025 Cu ALLOY
Manufacturer 製造商或供應商	Advanced Assembly Materials China Limited
Address 地址	Block 6101-6301,10/1F, 12-14, 15/2-3, Fuqiao 2nd Industrial Estate, Qiaotou Community, Fuhai, Bao'an District, Shenzhen City, Guangdong Province, P.R. China
Telephone 電話	86 -755 - 29618263
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Emergency Telephone 緊急聯絡電話	Phone: 86 -755 - 29618263 135-3424-0104

Section 02 Hazard Identification 危害辨識資料	
GHS classification of the substances / mixture and any national or regional information	<p>The leadframe products, NiPdAu Plating are non hazardous in their as-shipped form.</p> <p>However, incorrect handling of the leadframe, the products made thereof, or production scrap generated may lead to injuries. Operations generating dust or fumes, such as grinding, polishing, welding or melting, may create health hazards by inhalation or by irritation of the eyes.</p> <p>A reaction of a few chemical substances with this product, or its production scrap as well as dust or fumes generated during production, may produce poisonous substances or explosive gases.</p>
GHS label elements	N/A
Potential Health Effects 健康危害效應	<p>Eye 眼睛 : Classification not possible .</p> <p>Skin 皮膚 : Classification not possible .</p> <p>Ingestion 吞食 : Classification not possible .</p> <p>Inhalation 吸入 : Metallic taste, dryness of the throat, sneezing, respiratory tract irritation, mixed pneumoconiosis, chills, metal fume fever, short-ness of breath, chest pain, weakness, fatigue, cough, muscle and joint pain.</p>
HMIS CODE 危害物質資訊代碼	<p>Health 健康 : N / A</p> <p>Flammability 易燃性 : N / A</p> <p>Physical Hazard 物理危害 : N / A</p> <p>Personal Protection 個人防護 : N / A</p>

Environmental Effects 環境影響	Hazardous to The Aquatic Environment (Acute) : Classification not possible Hazardous to The Aquatic Environment (Chronic) : CATEGORY 4
Physical and Chemical Hazards 物理及化學的危害	Copper : Irritation of upper airway (single exposure) Liver disease (long term or repeated exposure in a high aerial density) Metal hume fever (fume's inhalation) . Nickel : Possibility of causing allergy, asthma or respiratory difficulty when inhaling Possibility of causing allergic skin reaction Suspicion of possibility of carcinogenesis Damage of organs (respiratory, kidney) Organ disease (long term or repeated exposure in a hogh aerail density) Possibility of harmful in the aquatic (long-term influence)
Specific Hazards 特殊危害	N / A

Section 03 Composition and Information on Ingredients 成分辨識資料

Substance/mixture 物質/混合物:	Mixture		
Product family 產品系列:	Metal material		
Chemical Ingredients (Main) 化學成分(主要)	CAS Number	Percent Weight (%)	OSHA PEL- TWA
Copper (Cu)	7440-50-8	balance	
Chemical Ingredients (Minor) 化學成分(次要)	CAS Number	Percent Weight (%)	OSHA PEL- TWA
Silicon (Si)	7440-21-3	0.25-1.20	
Nickel (Ni)	7440-02-0	2.2-4.2	
Magnesium (Mg)	7439-95-4	0.05-0.30	
Nickel (Ni)	7440-02-0	0.8	Plating material
Palladium (Pd)	7440-05-3	0.016	Plating material
Gold (Au)	7440-57-5	0.01 Max.	Plating material

Section 04 First Aid Information 急救措施

First Aid Information in Different Exposed Way 不同暴露途徑之急救措施	<p>Eye CONTACT 眼睛接觸 : Wash the eye for 15 minutes or more by a stream of clean water, and see a doctor.</p> <p>Skin Contact 皮膚接觸 : Wash the adhesion part by soapy water, and flush it with bags of water.</p> <p>Ingestion 吞食 : Wash the mouth well with water and, if possible, induce vomiting, then immediately arrange for medicat treatment.</p> <p>Inhalation 吸入 : When inhaling voluminously, transfer the patient to a fresh place or air at once. The patient should be kept warm and at rest while a doctor is sent for.</p> <p>Hazards Effects 危害效應 : In the situation handled with the product machined Skin Contac : If heated chips, ect., adhere to your skin to cause a minor burn, immediately allow the affected part to cool under plenty of funning water. In the situation handled with the product melted Inhaled : Transfer the patient to a fresh place of air once, Practice artificial respiration at once when respiratory difficulty or asphyxia is perceived.</p> <p>Notes to Physicians 對醫師之指示 : N / A</p>
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Section 05 Fire Fighting Measures 滅火措施	
Flash point 發火點	N / A
Flammability Classification 易燃性分類	N / A
Extinguishing Media 適用滅火劑	N/A (stable, nonflammable substance)
Unusual Fire and Explosion Hazards 特殊火災及爆炸危害	Metal products do not present fire or explosion hazards under normal conditions.
Fire-Fighting Methods 滅火方法	Not specified
Hazardous Combustion Products 危險的燃燒產物	N / A

Section 06 Accidental Release Measures 洩漏處理方法	
Precautions and Equipment 預防措施及設備	Not applicable for the solid.
Methods For Clean-up 清潔方法	Not applicable for the solid.
Personal Precaution 個人防護措施	Not applicable for the solid.

Section 07 Handling And Storage 處置及儲存	
Handling 處置	Put safety gloves on to protect your hands from edges of coils which might cut your hands. Wear safety glasses when metal powders or chips are expected to be generated in the work. Put safety shoes on when handling heavy coils
Storage 儲存	The environment of stocking area should be free from acid, alkali, chloride, sulfide and other corrosive chemicals to prevent from rusting or corrosion.

Section 08 Exposure Controls And Personal Protection 暴露控制及個人防護			
Eye 眼睛	Protective goggles are recommended, depending upon how the semis are further processed.		
Skin 皮膚	Use rubber glove to prevent mechanical injury		
Ingestion 吞食	Wearing a mask be recommended in the work such as abrasion and buffing. which generates metal powders or chips		
Inhalation 吸入	None normally needed. If exposure exceeds the PEL/TLV, use NIOSH approved respiratory protection equipment.		
Engineering Control 工程控制	Put safety shoes on when handling heavy coils.		
Exposure Limits 暴露限度	Exposure Guidelines 暴露指標 (mg/m3)		
	Components	ACGIH (TLV-TWA)	OSHA (PEL)
	N/A		

Section 09 Physical And Chemical Properties 物理及化學特性	
Appearance 外觀	Solid
Odor 氣味	Odorless
Odor threshold 氣味極限	Odorless
PH 酸鹼值	Not applicable
Boiling Point 沸點	Not applicable
Decomposition 分解	Not applicable
Melting Point 熔點	Not applicable
Flash Point 發火點	Not applicable
Auto-ignition Temperature 自燃溫度	Not applicable
Explosion Properties 爆炸特性	Not applicable
Viscosity 流動性	Not applicable
Vapor Pressure 蒸氣壓	Not applicable
Vapor Density (Air=1) 蒸氣密度	Not applicable
Specific Gravity (H2O=1) 比重	8.8 (g / cm)
Solubility In H2O 水中溶解度	Insoluble
Flammability 易燃性	Not applicable
Volatile Rate 揮發速率	Not applicable
Partition Coefficient 分配係數	Not applicable

Section 10 Stability And Reactivity 安定性及反應性	
Chemical Stability 化學安定性	Stable
Reactivity 反應性	Nothing
Possibility of hazardous reactions 危害反應可能性	Nothing
Conditions To Avoid 應避免狀況	Nothing
Materials To Avoid 應避免物質	Nothing
Hazardous Decomposition Products危害分解物	Nothing

Section 11 Toxicological Information 毒性資料	
Acute Toxicity 急毒性	There is no information on the toxicity of this material. Under normal handling and use of the solid form of this material there are few health hazards.
Carcinogenicity 致癌性	Copper is classified into D (material that cannot be classified into human carcinogenicity) by EPA(1991). Nickel is classified into R (as metallic nickel) by NTP(2005) ¹³⁾ , and classified into 2B (material that have potential of carcinogenesis) (as metallic nickel) by IARC(1990) ¹⁴⁾ .

Sensitization 過敏性	<p>Respiratory : Nickel is classified into the second crowd of airway sensitization by Recommendation of permissible level etc.(2005) of Japan Society for Occupational Health, and classified into the airway sensitization by Japanese Society of Occupational allergy and DFG.</p> <p>Nickel have a possibility of causing allergy, asthma or respiratory difficulty when inhaling.</p> <p>Skin Sensitization : Copper is classified into the second crowd of skin sensitization (Material which might have sensitization to person) by the Japan Society for Occupational Health (Recommendation; 2004).</p> <p>Nickel is classified into the first crowd of skin sensitization by Recommendation of permissible level etc.(2005) of Japan Society for Occupational Health, and classified into the skin sensitization by Japanese Society of Occupational allergy and DFG.</p>
Chronic Toxicity 慢毒性	Data none

Section 12 Ecological Information 生態資料

Mobility 移動性	N / A
Eco Toxicity 生態毒性	No data is available on this product. Individual constituents are as follows: Copper: The toxicity of copper to aquatic organisms varies significantly not only with the species, but also with physical and chemical characteristics of the water, such as its temperature, hardness, turbidity and carbon dioxide content. Copper concentrations varying from 0.1 to 1.0 mg/L have been found by various investigators to be not toxic for most fish. However, concentrations of 0.015 to 3.0 mg/L have been reported as toxic, particularly in soft water to many kinds of fish, crustaceans, mollusks, insects and plankton.
Persistence and degradability 持久性及降解性	No degradation
Bioaccumulative potential 生物蓄積性	N/A
Mobility in soil 土壤中之流動性	N/A
Other adverse effects 其他不良效應	N/A

Section 13 Disposal Information 處理資料

Waste From Residues 廢棄處置方法	Collect as a metal because th substance that composes the product is recyclable, and consign it to the disposal contractor.
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Section 14 Transport Information 運送資料

UN number 联合国编号:	N / A
UN Transport Name 聯合國運輸名稱	N / A
Classification of Transport Hazards 運輸危害分類	N / A
Packing category 包裝類別:	N / A
Ocean pollutants (Yes/No) 海洋污染物 (是 / 否) :	No
Shipping Basic Description 運送基本描述	N / A
Internal Transport 國內運輸規定	N / A
Notes 注意事項	N / A

Section 15 Regulatory Information 法規資料

Data none

Section 16 Other Informatin 其他資料Additional Information
補充說明

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