

# SDS (Safety Data Sheet)

## 安全資料表

### 一、物品與廠商資料 Identification of the substance

物品名稱：LEAD FRAME導線架 Product Name：A194
製造商名稱：復盛精密工業股份有限公司 Manufacturer's Name：Fusheng Electronics Corporation
地址：新竹科學工業園區工業東九路17號 Address：NO. 17. INDUSTRYE. RD. IX. SCIENCE PARK HSIN-CHU TAIWAN. R. O. C.
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### 二、危害辨識資料 Hazards identification

健康危害效應：無，但輕微的細小粉末可能造成呼吸道不適。 HEALTH HAZARDS：Not classified. But a slight powder may cause respiratory uncomfortable.
環境影響：無 ENVIRONMENTAL HAZARDS：Classification not possible
物理性及化學性危害：無 PHYSICAL AND CHEMICAL HAZARDS：Not classified
其他危害：無 Other hazards: No

### 三、成分辨識資料 Composition/information on ingredients

混合物：  
Mixture

化學性質 Chemical properties:				
組件名稱 Elements	組成百分比(%) Content(Wt-%)	危害物質成分名稱 Components	濃度或濃度範圍 (%) balance%	化學文摘社登記號碼 (CAS No.)
Base Material 底材(A194)	96.50%	Copper (Cu)	97.3	7440-50-8
		Iron (Fe)	2.4	7439-89-6
		Phosphorus (P)	0.1	7723-14-0
		Zinc (Zn)	0.2	7440-66-6

#### 四、急救措施 First-aid measures

不同暴露途徑之急救方法：

- 吸入：若受到粉塵、氣味、煙霧、氣體侵害時，須將患者移到新鮮空氣之處，若發生呼吸困難的時候，應立即就醫。
- 皮膚接觸：皮膚接觸到粉塵時，用水或肥皂水將粉塵洗掉。
- 眼睛接觸：眼睛接觸到粉塵時，用乾淨的水沖洗15分鐘，若眼睛仍會疼痛，則應立即就醫。
- 食入：若患者意識清醒，立刻給予患者大量的水喝及漱口。

First-aid measures :

- Inhaled :When inhaling dust, smell, smoke, gas, transfer the patient to a fresh place of air at once. If difficult breathing, be sure call for a doctor.
- Skin contact: Wash the adhesion part by soapy water, and flush it with bags of water.
- Eye Contact : Wash the eye for 15minutes or more by a stream of clean water, and see a doctor.
- Ingestion : Rinse out mouth and then drink plenty of water.

最重要症狀及危害效應: 無

Most important symptom and harm effect: No

對急救人員之防護：無

To protection of the first-aid personnel' s: No

對醫師之提示：無

Advice for Doctor: No

#### 五、滅火措施 Fire-fighting measures

適用滅火劑: 水、二氧化碳、乾粉滅火器、泡沫滅火器、或是任何可以撲滅火勢的任何東西。

Suitable extinguishing media : For water, smother with dry sand, dry dolomite. Use fire-extinguishing media appropriate to fight surrounding.

滅火時可能遭遇之特殊危害：無（請參照相關消防法規）

When fire-fighting possible bitter experience special harm: No

特殊滅火程序：無（請參照相關消防法規）

Special hazards arising from the substance or mixture : No

消防人員之特殊防護設備：無（請參照相關消防法規）

Advice for firefighters Protective equipment: No special measures required.

#### 六、洩漏處理方法 Accidental release measures

個人應注意事項：無

Personal precautions, protective equipment and emergency procedures: Not required.

環境注意事項：無

Environmental precautions: Not required

清理方法：無（依相關規定處理廢棄物）

Methods and material for containment and cleaning up: Dispose of the collected material according to regulations.

#### 七、安全處置與儲存方法 Handling and storage

處置：戴上安全手套，以防止可能會割傷雙手的線圈邊緣；當工作中預計會產生金屬粉末或碎片時，請佩戴防護眼鏡；處理重卷時，請放上安全鞋。

Handling: 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.

儲存：化學品存放區環境應不含酸、鹼、氯化物、硫化物等腐蝕性化學物質，防止生鏽或腐蝕。  
Storage facilities: Do not allow acid, alkali, chloride, sulfide and other corrosive chemicals to come into contact with the product. Avoid keeping in the place where humidity is high to prevent discoloration and rust.

#### 八、暴露預防措施 Exposure controls/personal protection

<p>工程控制：無 Engineering measures: No</p>
<p>個人防護設備：  <ul style="list-style-type: none"> <li>• 呼吸防護：通常不需要。如果暴露量超過PEL / TLV，請使用經NIOSH認可的呼吸防護設備。</li> <li>• 手部防護：使用橡膠手套來防止機械傷害</li> <li>• 眼睛防護：建議使用護目鏡，具體取決於半成品的進一步加工。</li> </ul> </p> <p>Personal protection:  <ul style="list-style-type: none"> <li>• Respiratory protection: Not normally needed. If dusting occurs or fumes are generated above the PEL/TLV, use a NIOSH-approved half-face or full-face respirator equipped with High Efficiency Particulate (HEPA) filter cartridges.</li> <li>• Hand protection: Protect gloves required</li> <li>• Eye Protection: Safety glasses</li> </ul> </p>
<p>衛生措施：在粉塵狀態下操作，請勿飲食、吸菸。 Hygiene measures: Do not eat, drink, or smoke while using this product in dust form.</p>

#### 九、物理及化學性質 Physical and Chemical properties

<p>物質狀態：固體 Appearance: solid</p>	<p>形狀：- Shape: -</p>
<p>顏色：紅銅色 Color: brown</p>	<p>氣味：無 Odor: None</p>
<p>pH值：不適用 pH:data none</p>	<p>沸點/沸點範圍：不適用 Boiling point:No</p>
<p>分解溫度：金屬1080°C Melting Point: 1080°C</p>	<p>閃火點：不適用 Flash point: not applicable 測試方法：不適用 Test method (open cup or close cup): not applicable</p>
<p>自燃溫度：不適用 Burning point (solid, gas): No</p>	<p>爆炸界限：無 Danger of explosion: Product does not present an explosion hazard</p>
<p>蒸氣壓：不適用 Vapor pressure(mm Hg): Not applicable</p>	<p>蒸氣密度：不適用 Vapor density: not applicable</p>
<p>密度：8.91 g/cm<sup>3</sup> Density at 20 °C (68 °F): 8.91 g/cm<sup>3</sup></p>	<p>溶解度：不適用 Solubility: negligible (in water)</p>

## 十、安定性及反應性 Stability and reactivity

安定性：穩定 Stability: Very stability.
應避免之狀況：無 Conditions to avoid: No
應避免之物質：無 Materials to avoid: No
危害分解物：無 Hazardous decomposition products: No

## 十一、毒性資料 Toxicological information

急毒性:銅粉LD50口服給藥 - 小鼠> 3.5mg / kg 2 Acute Toxicity: Copper powders LD50 orally administered-mouse > 3.5mg/kg 2)
局部效應： 吞嚥時急性中毒症狀為噁心，嘔吐，虛弱。 吸入粉塵和煙塵的症狀是咳嗽，乳房疼痛和發燒。 Local effect: The symptom of the acute toxicity when swallowing is nausea, vomiting, weakness. The symptom when inhaling the dust and Hume is the cough, breast pain, and the fever.
致敏感性 Sensitization: 呼吸：根據日本職業衛生學會的允許水平等的推薦（2005年），將鎳分類為第二次氣道敏化，並歸入日本職業衛生協會的呼吸道敏化 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. 鎳有可能在吸入時引起過敏，哮喘或呼吸困難。 Nickel have a possibility of causing allergy, asthma or respiratory difficulty when inhaling. 皮膚過敏性：銅由日本職業衛生協會（推薦；2004年）劃分為第二類皮膚敏化（可能對人有致敏作用的材料）。 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). 根據日本職業衛生學會允許等級的推薦等（2005年），將鎳分類為第一批皮膚過敏，歸類為日本職業過敏學會和DFG的皮膚過敏。 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.
慢毒性或長期毒性 Chronic Toxicity: 無 Data none

## 十二、生態資料 Ecological Informatin

生態毒性：無 Eco Toxicity: No data is available on this product.
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## 十三、廢棄處置方法 Disposal Information

廢棄處置方法：收集金屬，因為構成產品的物質是可回收的，並將其交給處置承包商。 Handling: Collect as a metal because th substance that composes the product is recyclable, and consign it to the disposal contractor.
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#### 十四、運送資料 Transport Informatin

國際運送規定：無 National Transport：No
聯合國編號：無 UN number: No
國內運送規定：無 Internal Transport：No
特殊運送方法及注意事項：無 Transport classification and labeling: none

#### 十五、法規資料

通常無特定法令規，但是在會產生粉塵的場所必須遵守勞工安全衛作業環境空氣中有害物質容許濃度標準。 USA / OSHA : Occupational Safety & Health Administration USA / ACGIH Guide to protective Clothing, Cincinnati, OH: American Conference of Government Industrial Hygienists, 1987 USA / SARA313
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#### 十六、其他資料

參考文獻	
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