

LCY Technology Corp.

Safety Data Sheet

Ver 1.1

1. Product and company information

Product Name : Electrodeposited Copper Foil
Synonyms : —
Recommended use and restrictions on the use : Only use to make copper clad laminate, printed circuit board.
Manufacturer/importer or supplier : Lee Chang Yung Technology Corporation
Company Address : 3F, 83, Pateh Rd., Sec. 4, Taipei, 105 Taiwan Factory Address : 3-1, Chung Lin Rd., Hsiaokang Kaohsiung, 812 Taiwan.
General Information : TEL : 886-2-2763-1611, FAX : 886-2-2764-5749
Transportation Emergency Number : TEL : 886-2-2763-1611/886-07-871-1291

2. Hazard Identification Data

Items hazard classification : —		
Health	Environmental	Physical
—	—	—
Labeling information : —		
Other hazards : —		

3. Component identification data

Pure substance :

Name : Electrodeposited Copper Foil
Synonymous name : —
CAS No. : 7440-50-8
Hazard ingredients (ingredients percentage) : <0.5

Mixture

Component	Weight %	CAS No.
Copper	> 99.60%	7440-50-8
Zinc	< 0.04%	7440-66-6
Nickel	< 0.04%	7440-02-0
Chromium	< 0.01%	7440-47-3

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4. First-Aid Measures

Eye : Contact of the foil form of this product with the skin is not anticipated to be irritating. Rare cases of allergic contact dermatitis have been reported in people working with copper dust. Contact with the foil form of this product or metal dust generated during routing operations can be physically damaging and irritating to the eye (i.e., foreign object).

Skin : Skin absorption is not known to be a significant route of over-exposure for any component of this product.

Inhalation : Ingestion is not anticipated to be a likely route of occupational exposure for this product. If particulates generated during routing operations are ingested (i.e., through poor hygiene practices), nausea, vomiting, diarrhea, and abdominal cramps can occur.

Ingestion : Injection of this product is not anticipated to be a significant route of exposure.

The most important symptoms and reactions: With obstructive respiratory diseases, may be inhaled copper powder, leaving deterioration due to stimulation.

For emergency personnel of protection: —

Physician's tips: —

5. Fire Fighting Measures

Suitable Extinguishing Media : Water Spray, Carbon Dioxide, Foam, Dry Chemical, Halon, Other : Any "ABC" Class

May encounter when the special fire hazards:

Copper smoke particles can cause irritation and upper respiratory tract, note should be upwind of fire (Note: copper itself is not flammable).

Fire Fight Procedures : —

The special protective equipment for fire-fighters : —

6. Accidental Release Measures

Individuals should note : —

Environmental Considerations : —

Methods for cleaning up : —

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7. disposal and storage methods

Disposal:

1. foil roll, with a certain weight according to different specifications, please select the appropriate tools and equipment when handling.
2. The operator should be trained and authorized qualified jobs.
3. carefully selected employees, do not have the mental state of poor physical and mental tiredness.
4. Prohibition did not wear protective gloves, dust mask and safety glasses or goggles are close to copper, because copper avoid human breath, tears and other secretions Spit or pollution caused by oxidation.

Storage:

1. at 20 ~ 25 °C, RH: <60%, can be stored for 90 days.
2. However, if the proposal does not match the conditions of storage sites, does not affect the safety of the concerns.
3. Storage building body copper foil should be durable, not uneven ground, put the reservoir should be really smooth firm, set up the pile or block retaining wall, if necessary, in order to avoid collapse, rolling or sliding (Note: It is highly recommended to store less than 1 m).

8. Exposure prophylaxis

Engineering Controls:

1. Use local exhaust equipment.
2. Control Winds recommends 0.5 m / sec or more, the residual copper foil to avoid fugitive

Control parameters

When the amount of eight hours daily average allowable concentration TWA	A short amount of time the average allowable concentration STEL	Maximum allowable concentration CEILING	Biological indicators BEI
-	-	-	-

Personal Protective Equipment (PPE) :

Respiratory Protection: The above level of N95 respirators.

Hand protection: Protective gloves, Dyneema, Spectra, Kevlar and other fiber materials.

Eye protection: compliance with the provisions of the CNS safety glasses or goggles.

Skin and body protection:

1. ultra-high molecular weight polyethylene fiber (Dyneema, Spectra) or

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more than aramid (Kevlar) fiber material and other protective clothing.
2. comply with the provisions of CNS safety shoes.
3. comply with the provisions of CNS helmet.
Hygiene measures:
1. worker skin, body after exposure to copper, wash the affected area with soap and water.
2. overalls, protective gear when contaminated, must clean changed daily.

9、Physical and chemical properties

State of matter: solid	shape: Foil
Color: brass	Odor: Odorless
Odor threshold: -	Melting point: melting 1,083 °C
pH: -	Boiling point / boiling range: 2582 °C, 1atm °C
Flammability (solid, gas): -	Flash Point: - Test method: (-) Open Cup (-) On Cup
Decomposition Temperature: -	
Self-ignition temperature: -	Explosion limits: -
Vapour pressure: -	Vapour density: -
Density / specific gravity: (water = 1.0) 8.9at 20 °C	Solubility: Do not dissolve in hot water and cold water; soluble in nitric acid, hot sulfuric acid; in hydrochloric acid and ammonium hydroxide solubility minimal.
Octanol / water partition coefficient (log Kow): -	evaporation rate: -

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10. Stability and Reactivity

Stability Prolonged exposure to air foil color will darken, moist air will oxidize.
Under special conditions of Hazardous Reactions: -
The situation should be avoided: -
The substance should be avoided: Ammonium nitrate, bromate, chlorate, iodate, chloride, polyoxyethylene, biphenyl ammonium nitrate (hydrazine mononitrate), hydrogen and nitrogen acid (hydrazoic acid), potassium, sodium azide (sodium azide).
Hazardous Decomposition Products: -

11. Toxicological Information

Route of Exposure: Inhalation: - Skin: - Eyes: - Ingestion
Acute toxicity: LD50 (test animals, absorption pathways): - LC50 (test animals, absorption pathways): - Symptoms: - Chronic or long term toxicity: -
Symptoms: -
Chronic or long term toxicity: -

12. Ecological Information

Ecotoxicity: -
Persistence and degradability: -
Bioaccumulation: -
The soil Mobility: -
Other adverse effects: -

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13. Disposal Considerations

Waste Disposal Method:

1. The foil can be completely disposed of recycling or reuse.
2. To scrap of copper (excluding board and components are), you can notify the company recycled.
3. mix containing copper foil substrate or zero components, please hazardous industrial waste in accordance with recognized standards of Schedule 2 of the waste project classification number 10, E-0222 attached components of waste printed circuit board processing declaration.

14. Transport Information

UN number: -

UN shipping name:

-

Transport Hazard

Classification: -

Packing group: -

Marine pollutant (Yes / No):

-

Special delivery methods
and precautions: -

15. Regulatory Information

Applicable Regulations:

National Standard 15030.

National Standards 6864.

Hazardous materials and hazardous material labeling and Liberal rule.

Labeling of hazardous chemicals and Liberal rule

Toxic chemical labeling and safety data sheet management approach

Road safety rules.

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16. Other Information

References:	
1. The globally harmonized system of classification & labeling of chemicals, GHS-ST / SG / AC.10 / 30 / Rev.1, 2005.	
2. LCY Technology Co., Ltd. R & D room.	
3. toxic chemicals Internet reporting system http://flora2.epa.gov.tw	
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Lister	Title: shift supervisor name (signature): 黃冠銘
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Remark	<ol style="list-style-type: none">1. The LCY Technology Co., Ltd. copper Safety Data Sheet, referring to GHS-ST / SG / AC.10 / 30 / Rev.1, 2005 version of the production. Health hazard classification of copper metal ($\geq 0.1\%$) is determined, there is no through integrity testing and evaluation, the Department of copper toxicological literature aggregated together.2. The Company has sought to perfect foil safety data sheet for complete; data sheet recommends the contents and data lines for reference only, please according to the actual situation of the user determine their own.3. The contents of the form inquiries, please contact your company or factory diameter (field) of the safety and health personnel, environmental technicians, emergency personnel, or related professional and technical personnel instructions.4. The contents of the form found in error, please feel free to notify the Company amended.