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**Stanford Advanced Materials** 

We not only sell products, we provide satisfactions. 72 Fairbanks Suite 100, Irvine, CA 92618, USA Tel: (949) 407-8904 Fax: (949) 812-6690

> Current Version: 2.0 Revision Date: Sep 5, 2012

# Material Safety Data Sheet

Identity: Copper (I) oxide

Formula: Cu<sub>2</sub>O

SECTION I - GENERAL INFORMATION

Manufacturer: Stanford Advanced Materials (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

#### SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Molecular weight: 159.092

 CAS #
 OSHA PEL
 ACGIH TLV
 %

 1317-39-1
 1.2mg/m<sup>3</sup>
 0.1mg/m<sup>3</sup>
 100

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: N/A Melting Point: 1235 °C Evaporation Rate: N/A Solubility in water: Insoluble Vapor Pressure (vs. air or mmHg): N/A Density: 6.0 g/cm<sup>3</sup> Flash Point: N/A

Appearance and odor: various colors, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:			
Method Used: Non-flammable	Explosive Limits: LEL: N/A	UEL: N/A	
Extinguishing Media: Use suitable extinguishing agent for surrounding material and type of fire			

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards: None recorded

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): N/A

Incompatibility: Avoid open air, water/moisture, and oxidizing agents



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**OSHA Regulated?** No

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Hazardous Decomposition or Byproducts: Will not occur Hazardous Polymerization: Will not occur Conditions to avoid (hazardous polymerization): N/A

## SECTION VI - HEALTH HAZARD DATA

Health Hazards (Acute and Chronic):

*Inhalation:* Irritation to throat, lungs may occur with dizziness, fume fever and/or anemia *Ingestion:* May cause vomiting, injury to kidneys, liver and pancreas and/or gastric pain and cramps

*Skin*: May cause redness, burning and/or itching

Eye: May cause redness, itching, burning, itching and watering

Carcinogenicity: NTP? No IARC Monographs? No

### Emergency and First Aid Procedures:

*Inhalation:* Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention

*Ingestion:* Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person

*Skin:* Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist

*Eye:* Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Waste disposal method:Dispose of in accordance with state, local, and federal regulations.Hazard Label Information:Store in cool, dry area and in tightly sealed container. Store under INERT GAS.<br/>Wash thoroughly after handling.

## SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information): NIOSH approved respirator, impervious gloves, safety glasses, clothes to prevent contact.

*Ventilation:* Local Exhaust: To maintain concentration at low exposure levels. Mechanical (General): Recommended.

Work/Hygienic/Maintenance Practices:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established