

Material Safety Data Sheet Copper

Document # - MSDS-16
Issue No. - 2.3
Issue Date: 01/01/16
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A. GENERAL INFORMATION

Trade Name (Common Name) COPPER SHEET - FLASHING	<input checked="" type="checkbox"/> C.A.S. No. <input type="checkbox"/> General Product Code# 7440-50-8
Chemical Name and/or Synonym Copper 99.9+%	
Formula Cu	Molecular Weight 63.55
Copper Cat Systems LLC 1748 Traditional Drive, Ste B, Walled Lake MI 48390	
Contact – Mark Edgson	Phone Number - 866-526-2228

B. FIRST AID MEASURES

Eyes: Flush eyes immediately with water for at least 15 minutes. Get medical attention.
Skin: Promptly wash with plenty of soap and water.
Inhalation: Remove to fresh air. Get medical assistance for irritation or any other symptoms.
Ingestion: If conscious, give plenty of water or milk. Induce vomiting by touching finger to back of throat. Get immediate medical attention.

C. HAZARDS INFORMATION HEALTH

Inhalation Dust or fume inhalation can cause "metal Fume Fever", Headaches, cramps, pain in extremities in addition to respiratory irritation.
Ingestion Ingestion of copper will irritate the gastrointestinal tract producing salivation, nausea, vomiting and gastric pain.
Skin Although not commonly associated with industrial dermatitis, mechanical irritation is possible along with skin discoloration.
Eyes Mechanical irritation, potentially severe, can result from eye contact with this material.
Permissible Concentration: Air TWA = 1 mg/m ³ (dust); TWA = 0.2 mg/m ³ (fume); PEL = 1 mg/m ³ (dust).
Unusual Chronic Toxicity Wilson's disease may be affected by copper exposure.

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C. HAZARDS INFORMATION (Cont.) FIRE AND EXPLOSION

Flash Point	°C	Auto Ignition Temperature	°C	Flammable limits in Air (% by Vol.)
None				Not applicable
<input type="checkbox"/> Open Cup	<input type="checkbox"/> Closed Cup	Not Applicable		LOWER UPPER
Unusual Fire and Explosion Hazards				
None Known				

D. PRECAUTIONS/PROCEDURES

Fire Extinguishing Agents RECOMMENDED
Use any agent suitable for surrounding fire.
Fire Extinguishing Agents to AVOID
None known.
Special Fire Fighting Precautions
Avoid breathing dusts and fumes from burning material. Use NIOSH approved breathing apparatus and full protective clothing.
Ventilation
Local exhaust: In packaging and unloading areas, over open processing equipment, and any other places where dusty or misty condition prevails.
Natural ventilation: Adequate for other areas.
Normal Handling
Avoid contact with eyes, skin, or clothing. Avoid breathing dust or fume. Use good personal hygiene and housekeeping.
Storage
Avoid storage near acetylene, chlorine, oxidizers, magnesium, and halogenates.
Spill or Leak (Always Wear Personal Protective Equipment - Section E)
Promptly sweep up with minimum dusting. Collect for reuse.
Special: Precautions/Procedures/Label Instructions
None
SIGNAL WORD - N/A

E. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection
None needed under most conditions. If dust or fume is expected, use a NIOSH approved HEPA or fume respirator.
Eyes and Face
Safety glasses or goggles.
Hands, Arms and Body
None normally needed. Impervious gloves may be used to prevent mechanical irritation.
Other Clothing and Equipment
Eye-wash is recommended.

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F. PHYSICAL DATA

Material is (at Normal Conditions): <input type="checkbox"/> Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> _____		Appearance and Odor Yellow-red metal, odorless, various shapes	
Boiling Point	2595°C	Specific Gravity (H ₂ O = 1)	Vapor Density (Air = 1)
Melting Point	1083°C	8.94	Not applicable
Solubility in Water (% by weight) Low in metallic form		Ph	Vapor Pressure (mmHg at 20°C) <input type="checkbox"/> (PSIG) <input type="checkbox"/>
Evaporation Rate (Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/> Not applicable		% Volatiles by Volume (at 20°C)	Not applicable

G. REACTIVITY DATA

Stability <input type="checkbox"/> Unstable <input checked="" type="checkbox"/> Stable	Conditions to Avoid None Known
Incompatibility (Materials to Avoid) Acetylene, chlorine, oxidizers, magnesium and halogenate.	
Hazardous Decomposition Products Extreme temperatures can generate metal fume.	
Hazardous Polymerization <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur	Conditions to Avoid Not applicable

H. HAZARDOUS INGREDIENTS (Mixtures Only)

Material or Component/C.A.S. #	WT %	Hazard Data (See Sect. J)
Not Applicable	N/A	N/A

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I. ENVIRONMENTAL

Degradability/Aquatic Toxicity Not Determined	Octanol/Water Partition Coefficient Not determined
EPA Hazardous Substance? (Clean Water Act Sect. 307) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If so, Reportable Quantity: <u>5000# (less than 100 micron diameter)</u>	
Waste Disposal Methods (Disposer must comply with Federal, State and Local Disposal or Discharge Laws) Users should review their operations in terms of any applicable federal, state and local laws and regulations, then consult with appropriate regulatory agencies before discharging or disposing of waste materials. If regulations permit, waste may be disposed of by burial in an approved chemical wastes landfill or removed by a licensed waste disposal contractor.	
RCRA Status of <u>Unused</u> Material if Discarded: Follow EPA & local regulations to determine	Hazardous Waste Number: (If Applicable) N/A

J. REFERENCES

Permissible Concentration References 29 CFR 1910.1000 (1989) ACGIH 1991-92-List: "Threshold Limit Values for Chemical Substances".
D.O.T. Classification - Not regulated
General Lucky, T.D., "Metal Toxicity In Mammals", 1977, Plenum Press, N.Y. Sax, E.I., "Dangerous Properties of Industrial Materials", 7th edition Sittig, M. "Handbook of Toxic and Hazardous Chemicals", 1985, Noyes, Park Ridge, N.J.

K. ADDITIONAL INFORMATION

NOTICE: This material contains the following toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To Know Act of 1986 and of 40 CFR 372:						
<table> <tr> <th>CAS#</th> <th>Chemical Name</th> <th>% By Weight</th> </tr> <tr> <td>7440-50-8</td> <td>Copper</td> <td>99.9+</td> </tr> </table>	CAS#	Chemical Name	% By Weight	7440-50-8	Copper	99.9+
CAS#	Chemical Name	% By Weight				
7440-50-8	Copper	99.9+				
This information must be included in all MSDS's that are copied and distributed for this material.						

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