

Kurt J. Lesker Company

1515 Worthington Avenue, Clairton, PA 15025-2700
 (800) 245-1656 Fax: (412) 233-9705 www.lesker.com

Copper Pellets, Cu , 99.999% Pure
 1/8" Diameter X 1/8" Long , 100 grams
 Part# EVMCU50EXED
 Lot# CU59213651 / PO#526706

Material Certification

Material Type: Copper , Cu		Analysis Type: Actual,PPM by Wt.	
Description: Pellets , 1/8" Dia. X 1/8"Long , 100 grams		Purity: 99.999%	
KJLC Part Number: EVMCU50EXED		Lot Number: CU59213651 / 526706	
Ac:	Cu: 99.9992	N:	Sc:
Ag: <0.2	F:	Na: <1	Se:
Al: <0.5	Fe: <0.5	Nb:	Si: <1
Ar:	Ga:	Ne:	Sm:
As:	Ge:	Ni: <0.5	Sn: <0.5
At:	H:	O:	Sr:
Au:	He:	Os:	Ta:
B:	Hf:	P:	Tb:
Ba:	Hg:	Pb: <0.5	Te:
Be:	I:	Pd:	Ti:
Bi: <0.5	In:	Pt:	V:
Br:	Ir:	Ra:	W:
C:	K:	Rb:	Y:
Ca: <0.2	Kr:	Re:	Zn: <0.2
Cd: <0.5	La:	Rh:	Zr:
Cl:	Li:	Rn:	:
Co:	Mg: <0.2	Ru:	:
Cr: <1	Mn: <0.2	S:	:
Cs:	Mo:	Sb:	:

Materials Technician: John McElhattan

Date: 7-31-03

MATERIAL SAFETY DATA SHEET

COPPER METAL

Section I

Kurt J. Lesker Company 1515 Worthington Avenue Clairton, PA 15025 Ph: 412/233-4200 Fax: 412/233-4275		Emergency Phone Numbers Chemtrec 800/424-9300 Poison Center 800/562-8236	
Chemical Name and Synonyms Copper Metal		Date of Last Revision 6/25/97	
Formula Cu	Chemical Family Metal	Chemical Abstract No. 7440-50-8	
TSCA Listed		Calc. Molecular Wt. 63.546	

Section II Hazardous Ingredients

Hazardous Ingredients	CAS #	%	TLV	OSHA PEL
Copper Metal	7440-50-8	100	1mg/m ³	1mg/m ³

Section III Physical Data

Boiling Point (0°C): 2324	Density (gmcc): 8.92
Vapor Pressure: 1mg Hg @ 1628°	% Volatile by Volume: NA
Reaction with Water: None	Evaporation Rate (H ₂ O -1): NA
Solubility in Water: Insoluble	Melting Point (°C): 1083
Appearance and Odor: Reddish pieces or powder, odorless	Other Comments:

Section IV Fire & Explosion Hazard Data

Flash Point (method) NA	Autoignition Temp. NA	Flammability slight for fine powder	LEI NA	UEI NA
Extinguishing Media: Agents for metal fires such as dolomite, graphite, MET-L-X, TEC				
Special Fire Fighting Procedures: Do not use water on metal fires.				
Unusual Fire and Explosion Hazards: Powder below 50 micron size range are weakly explosive in air. Not easily ignited by sparks.				

Section V Spill or Leak Process

Steps to be Taken in Case Material is Released or Spilled Sweep or vacuum solids. Do not raise dust.
Waste Disposal Method (Consult federal, state or local authorities for proper disposal procedures.): Reclaim for scrap value.

Section VI Health Hazard Data

Toxicity Data oral rat TDLO = 152mg/kg ipl rat TDLO = 100mg/kg oral hmn TDDO = 120mg/kg		HMIS Hazard Rating Health: 1 Flammability: 1 Reactivity: 0 Personal Protection: E	
Route(s) of Entry	Inhalation X	Skin	Ingestion
Effects of Overexposure (acute and chronic) Inhalation: Fumes and dusts of copper can cause irritation of the upper respiratory tract, metallic taste in the mouth, nausea and metal fume fevers. Dermal/Eye Contact: Repeated skin contact has been reported to cause hardening of the hands. Fine powder are mild eye irritants. Other (specify): Ingestion of copper metal may cause GI disturbances.			
Medical Conditions Generally Aggravated by Exposure Individuals with Wilson's disease are at increased risk.			
Carcinogenicity	NTP:	IARC Monographs	OSHA Regulations
none			
Emergency and First Aid Procedures Ingestion: Induce vomiting. Contact a physician Inhalation: Remove to fresh air. Provide symptomatic treatment. Watch for signs of metal fume fever. Skin Contact: Wash with soap and water. Eye Contact: Flush with water. Consult a physician.			

Section VII Reactivity Data

Stable: X Unstable:	Conditions Contributing to Instability: None
Incompatibility (materials to avoid) Strong acids, H ₂ O, magnesium, acetylene, Cl ₂ , halogenates	
Hazardous Decomposition Products - Thermal and Other (list) NO ₂ in contact with nitric acid	
Hazardous Polymerization May Occur: X Will Not Occur:	Conditions to Avoid: None

Section VIII Special Protective Information

Respiratory Protection (specify type). Use Only Niosh Approved Equip. Any respirator approved for dusts with TLV's not less than 0.05mg/m ³	
Ventilation (always maintain exposure below permissible limits) Local Exhaust: To maintain exposure below TLV Mechanical (general): Not advised Special:	
Other:	
Protective Gloves: Any glove to limit skin contact	Eye Protection: Safety Glasses
Other Protective Equipment/Work Practices: None	

Section IX**Special Precautions**

Precautions to be Taken in Handling and Storing: None

Transportation Requirements

DOT Class: Not classified

UN Number: Not classified

IMCO Class: Not classified

Other:

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ND = NO DATA FOUND

NA = NOT APPLICABLE