



Southern Copper & Supply Company, Inc.

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MATERIAL SAFETY DATA SHEETS

Section I - Material Identification

Copper Development Association (CDA #110)
 Electrolytic Tough Pitch Copper

Composition - Percent
 Copper - 99.90%
 Oxygen - .04%

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity: Common Names (s))

	1985 OSHA PEL (mg/m ³)	1985 - 1986 ACGIS-TLV (mg/m ³)		Other Limits Recommended	% (Optional)
		TWA	STEL		
Copper					100
Fume	0.1	0.2	NA	NA	
Dust and Mists	1	1	2	NA	

Section III - Physical/Chemical Characteristics

Boiling Point	2300°C	Specific Gravity (H ₂ O -1)	8.92
Vapor Pressure (mm Hg.) @ 20°C	N/A	Melting Point	1083°C
Vapor Density (AIR-1)	N/A	Evaporation Rate/(Bulyl Acetate-1)	N/A
Solubility in Water: Insoluble			
Appearance and Odor: Yellowish-red Metal; No Odor.			

Section IV - Fire Explosion Hazard Data

Flash Point: Not Applicable *Flammable Limits:* Not Applicable *LEL:* N/A *UEL:* N/A

Extinguishing Media: Use no water, use powdered extinguishing agents: graphite, dolomite, sodium chloride.

Special Fire Fighting Procedures: Powder extinguisher agents should be applied gently on metal fires to avoid breaking any crust which may be formed over metal.

Unusual Fire and Explosion Hazards: Dangerous in dispersed form when exposed to flame or spark. Powdered metal may ignite spontaneously.

Section V - Reactivity Data			
Stability	Unstable		Conditions to Avoid: In moist air, copper gradually becomes coated with green basic carbonate.
	Stable	X	
Incompatibility (<i>Materials to Avoid</i>): Copper reacts violently with sodium azide. Avoid contact of powdered metal with oxidizers.			
Hazardous Decomposition or Byproducts: No Data			
Hazardous Polymerization	May Occur		Conditions to Avoid:
	Will not Occur	X	

Section VI - Health Hazard Data			
<i>Route(s) of Entry:</i>			
✓Inhalation? of dust, fumes and mists	Skin?	Ingestion?	
<i>Effects of Overexposure:</i>			
<i>Acute:</i>			
<i>Inhalation:</i> Irritation of upper respiratory tract, metal fume fever (flue-like systems including fever, chills, fatigue, aches, nausea); metallic taste in mouth; skin or hair discoloration			
<i>Ingestion:</i> Acute gastrointestinal irritation with possible nausea, vomiting, diarrhea, gastritis.			
<i>Other:</i> Hemolytic anemia from copper-tubing hemodialysis equipment			
<i>Chronic:</i> Skin, hair and gum discoloration; one study of workers grinding or sieving copper dusts showed symptoms of copper poisoning with effects on the blood, liver, lungs and gastrointestinal tract.			
<i>Carcinogenicity:</i>	NIP? No	IARC Monographs? No	OSHA Regulated? No
<i>Medical Conditions Generally Aggravated by Exposure:</i> Persons with Wilson's disease, G6OPD deficiency or chronic respiratory problems.			
<i>Emergency and First Aid Procedures:</i>			
<i>Inhalation:</i> Remove to fresh air. Establish respiration. Seek medical attention.			
<i>Ingestion:</i> Dilute with water. Induct Vomiting, if conscious. Seek medical attention.			
<i>Eye:</i> For fumes and mists, flush with large amounts of water. Seek medical attention. For dust particles in eye, have trained medical personnel remove the foreign body.			
<i>Skin:</i> Flush with large amounts of water.			