



SOUTHERN COPPER & SUPPLY COMPANY, INC.

**Southern Copper & Supply Company, Inc.**

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**MATERIAL SAFETY DATA SHEETS**

<b>Section I - Material Identification</b>	
Copper Development Association (CDA #110) Electrolytic Tough Pitch Copper	Composition - Percent Copper - 99.90% Oxygen - .04%

<b>Section II - Hazardous Ingredients/Identity Information</b>					
Hazardous Components (Specific Chemical Identity: Common Names (s))					
	1985 OSHA PEL (mg/m <sup>3</sup> )	1985 - 1986 ACGIS-TLV (mg/m <sup>3</sup> )		Other Limits Recommended	% (Optional)
		TWA	STEL		
Copper					100
Fume	0.1	0.2	NA	NA	
Dust and Mists	1	1	2	NA	

<b>Section III - Physical/Chemical Characteristics</b>			
Boiling Point	2300°C	Specific Gravity (H <sub>2</sub> 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.			

<b>Section IV - Fire Explosion Hazard Data</b>			
<i>Flash Point:</i> Not Applicable	<i>Flammable Limits:</i> Not Applicable	<i>LEL:</i> N/A	<i>UEL:</i> N/A
<i>Extinguishing Media:</i> Use no water, use powdered extinguishing agents: graphite, dolomite, sodium chloride.			
<i>Special Fire Fighting Procedures:</i> Powder extinguisher agents should be applied gently on metal fires to avoid breaking any crust which may be formed over metal.			
<i>Unusual Fire and Explosion Hazards:</i> 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> <input checked="" type="checkbox"/> Inhalation? of dust, fumes and mists <span style="margin-left: 200px;"><input type="checkbox"/> Skin?</span> <span style="margin-left: 100px;"><input type="checkbox"/> Ingestion?</span>			
<i>Effects of Overexposure:</i> <b>Acute:</b> <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.			