

MICRO PLUS™ COPPER

Material Safety Data Sheet (rev.03/27)

**SECTION I PRODUCT IDENTIFICATION**

	<b>NFPA HAZARD RATINGS</b>
	HEALTH HAZARD 2      FIRE HAZARD 0      REACTIVITY 0
	<b>SARA/ TITLE III HAZARD CATEGORIES (See Section IX)</b>
	Immediate (ACUTE) Health: Yes      Reactive Hazard: none
	Delayed (Chronic) Health: Yes      Fire Hazard: none      Sudden Release of Pressure: not applic
Company Name:	STOLLER USA, INC.
Address:	4001 W. Sam Houston Parkway, N., Suite 100 Houston, Texas 77043-1226 U.S.A.
Emergency Phone Number:	CHEMTREC: In the U.S. and Canada call Toll- free: 1(800) 424-9300 From other countries call collect: +1 (703) 527-3887
Phone Number for Information:	1(800)539-5283 or 1(713)461-1493
Chemical Family:	metallic chloride
Chemical Name & Synonyms:	Copper solution
Trade name & Synonyms:	MICRO PLUS COPPER

**SECTION II PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>INGREDIENTS:</b>	<b>CAS#</b>	<b>Approx. %</b>	<b>TLV</b>
Ferrous Chloride	10125-13-0	<10	N/A

**SECTION III PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>BOILING POINT:</b>	Not Established	<b>VAPOR PRESSURE (mm/ Hg):</b>	
<b>MELTING POINT:</b>	N/ A	<b>VAPOR DENSITY (air = 1):</b>	N/ E
<b>SPECIFIC GRAVITY:</b>	1.2	<b>REACTIVITY IN WATER:</b>	N/ A
<b>SOLUBILITY IN WATER:</b>	100%	<b>EVAPORATION RATE:</b>	0.1
<b>APPEARANCE AND ODOR:</b>	clear blue- green solution, no odor		
<b>PERCENT VOLATILE BY VOLUME:</b>		N/ A	

**SECTION IV FIRE AND EXPLOSION DATA**

<b>FLASH POINT:</b>	Not Established		
<b>FLAMMABLE LIMITS:</b>	Not Established	<b>LEL: N/ E</b>	<b>UEL: N/ E</b>
<b>EXTINGUISHER MEDIA:</b>	None		
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	None		
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	Non explosive. Toxic chloride fumes may evolve under fire.		

**SECTION V****PHYSICAL HAZARDS (REACTIVITY DATA)**

<b>STABILITY:</b>	Stable: Yes	Unstable:
<b>CONDITIONS TO AVOID:</b>	Stable under normal conditions	
<b>INCOMPATIBILITY, MATERIALS TO AVOID:</b>	Not known for this product. CuCl <sub>2</sub> pure reacts violently with potassium and sodium.	
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Toxic chloride fumes under extreme heat, as in a fire.	
<b>MAY OCCUR:</b>	<b>WILL NOT OCCUR: X</b>	

**SECTION VI****HEALTH HAZARDS**

- A. EXPOSURE LIMITS:**
1. OSHA Permissible Exposure Limit (PEL): 1 mg/ m<sup>3</sup> (dust & mists) as Cu
  2. Threshold Limit Value (TLV): NOT ESTABLISHED
- B. CARCINOGEN OR POTENTIAL CARCINOGEN:**
- C. EFFECTS OF OVEREXPOSURE:**
1. **ACUTE:**  
**EYES:** Prolonged exposure to product vapors may cause eye irritation and eye damage can occur.  
**SKIN:** May irritate skin.  
**INHALATION:** Prolonged exposure to low concentrations of vapors may cause sore throat and headache.  
**INGESTION:** May cause malaise, nausea, death unless treated promptly.
  2. **CHRONIC:** Copper poisoning is typified by hepatic cirrhosis, lung, pancreas and kidney damage.
- D. EMERGENCY FIRST AID PROCEDURES:**
- EYES:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Call a physician.  
**SKIN:** Immediately flush affected area with water for 15 minutes. Do not apply greases or ointments.  
**INHALATION:** Move patient to fresh air. Assure mucous does not obstruct airway. Call Physician.  
**INGESTION:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction.
- E. ANIMAL TOXICITY DATA:N/ A**  
CuCl<sub>2</sub> LD<sub>50</sub> Oral (rat): 584 mg/ kg

**SECTION VII****SPECIAL PRECAUTIONS & SPILL/ LEAK PROCEDURES**

- HANDLING AND STORAGE:**Keep containers closed and dry. Wash hands thoroughly after using.
- STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED:** Prevent material from entering sewers or waterways. It is necessary to contain spill into the smallest area possible by diking, etc. Put material in covered labeled containers.
- WASTE DISPOSAL METHODS:** Not considered a hazardous waste, EPA waste numbers are not applicable, disposal by controlled incineration or secure landfill may be acceptable. Consult local regulations for disposal.

**SECTION VIII****SPECIAL PROTECTION / CONTROL MEASURES**

- RESPIRATORY PROTECTION:** Wear a NIOSH/ OSHA approved respirator if under conditions of poor ventilation.
- VENTILATION:** Provide general or local exhaust ventilation.
- PROTECTIVE GLOVES:** Wear butyl rubber, latex or other impervious material made gloves.
- WORK/ HYGIENIC PRACTICES:** Eye wash fountain should be located in immediate work are

**SECTION IX****ENVIRONMENTAL EFFECTS DATA**

The available data on this plant nutrient material does not indicate any undue hazard to the environment under anticipated use and storage. Any waste due to spillage or leakage should be contained and disposed of as a Fertilizer (see above under Waste Disposal Methods). If discharged into the marine environment it may be toxic to fish and other marine organisms. Due to its nutrient value, may contribute to eutrophication in bodies of water.

**SECTION X****TRANSPORTATION DATA**

**PLACARD:** none

**USDOT Proper Shipping Name:** N/ A (Trade name: MICRO PLUS COPPER)

**IATA Proper Shipping Name:** N/ A (Trade name: MICRO PLUS COPPER)

**IMO Proper Shipping Name:** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Copper Chloride), 9, III, Marine Pollutant

**DOT Hazardous Material:** NON HAZARDOUS

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