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INTRAMICRON

MATERIAL SAFETY DATA SHEET - MSDS

PRODUCT IDENTIFICATION

CHEMICAL NAME: **Copper Fiber, Brass Fiber, C11000**
CHEMICAL FAMILY: **Copper Alloys**
FORMULA: **Varies by Grade**

Date Prepared: April 14th, 2011
24 Hour Emergency # (USA):
(334) 740-8310

HAZARDOUS INGREDIENTS

Alloys & Metallic Coatings			[OSHA]
Component	CAS #	Weight%	ACGIH TLV (mg/m ³)
Copper, Cu	7440-50-8	75-99.9%	1 (dust & mist)
Zinc, Zn	7440-66-6	<25%	5 (Respirable Dust)
Iron, Fe	7439-89-6	0-8% [10 (Oxide)]	5 (oxide fume)

TLV (2003 ACGIH Threshold Limit Value)

*All components of this product are listed on the Toxic Substance Control Act (TSCA) inventory of chemical substances.

PHYSICAL PROPERTIES

APPEARANCE:	Metallic fiber
ODOR:	Odorless
MELTING POINT:	1982°F (1083°C) (for Copper)
BOILING POINT:	4653°F (2567°C) (for Copper)
VAPOR PRESSURE:	Not Applicable
SPECIFIC GRAVITY (of solid):	8.92 g / cc (for Copper)
VAPOR DENSITY:	Not applicable
% VOLATILE (BY VOL.):	Not applicable
EVAPORATION RATE:	0
SOLUBILITY IN WATER:	None

HEALTH & HAZARD INFORMATION

THRESHOLD LIMIT VALUE: 1 mg / meter³ dust

EFFECTS OF OVER-EXPOSURE: Short-term exposure to fumes/dust may may produce irritation of the eyes and respiratory system. Inhalation of high concentrations of freshly formed oxide fumes of copper cause metal fume fever characterized by a metallic taste in the mouth and irritation of the throat and influenza-like symptoms. Chronic overexposure to small (<10 µm) airborne fibers may cause lung injury. Copper is toxic if ingested and has produced cancer in laboratory animals.

FIRST AID: In case of skin contact, wash affected areas of skin with soap and water. In case of eye contact, immediately irrigate with plenty of water for fifteen (15) minutes.

FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT: Not Applicable
FLAMMABLE LIMITS: Not Applicable
EXTINGUISHING MEDIA: Water, carbon dioxide or dry chemical
SPECIAL FIRE FIGHTING: Wear self-contained, positive

PROCEDURES: pressure breathing apparatus and full fire fighting protective clothing

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fine fiber is capable of rapid oxidization if a spark is provided.

REACTIVITY DATA

STABILITY: Oxidizes in air.
CONDITIONS TO AVOID: Exposure during storage to strong acids, bases or oxidizing agents.
POLYMERIZATION: Will not occur
INCOMPATIBLE MATERIALS: Mercury, Ammonia, Acetylene, Acids
HAZARDOUS DECOMPOSITION: Thermal decomposition or combustion
PRODUCTS: may produce oxides of copper

SPECIAL PROTECTION INFORMATION

Fiber may penetrate unprotected skin so gloves should be worn when handling (disposable latex or heavier). Like wood splinters, metal fibers are a skin irritant.

Engineering controls are not usually necessary, if good hygiene practices are strictly followed. For fiber less than 2.0 mm long extra precautions should be taken, due to its tendency to become airborne, especially as the supplied diameter drops below 20 micron. Respiratory protection is generally not required during normal operations, but should be used if the fiber is "opened" (separated in air). Approved dust and fume respirators should be used to avoid excessive inhalation of particulate when exposure exceeds TLVs.

Spill or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up spills and place in a waste disposal container. Flush area with water. Dispose of according to local, state, and federal regulations.

SPECIAL PRECAUTIONS

HANDLING AND STORAGE / OTHER: None

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