

MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: **COPPER**

Product use: Cutting and welding tips and electrode bodies.

Supplier name and address:
Victor-Thermal Dynamics
 82 Benning Street
 West Lebanon, NH 03784, USA
 Phone: (603) 298-5711

24 Hour Emergency Telephone #: (CHEMTREC) (800) 424-9300 USA / Canada
 (703) 527-3887 International

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	OSHA PEL (welding)	ACGIH TLV	LC ₅₀ (rat, inh)	LD ₅₀ (mg/kg)
<i>Oxygen-free Copper #1100</i>	7440-50-8	1 mg/m ³ (dust & mist as Cu)	1 mg/m ³ (dust & mist as Cu)	N/AV	N/AV
Copper	7440-50-8	1 mg/m ³ (dust & mist as Cu)	1 mg/m ³ (dust & mist as Cu)	N/AV	N/AV
<i>Tellurium Copper</i>	7440-50-8	1 mg/m ³ (dust & mist as Cu)	1 mg/m ³ (dust & mist as Cu)	N/AV	N/AV
Copper	7440-50-8	1 mg/m ³ (dust & mist as Cu)	1 mg/m ³ (dust & mist as Cu)	N/AV	N/AV
Tellurium	13494-80-9	0.1 - 1	0.1 mg/m ³	2420	83

SECTION 3 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Solid, with silver or yellowish to reddish colour. No odour.
 Caution! May cause mild eye or skin irritation. May cause irritation of the respiratory or gastrointestinal tract.
 Contains material which may cause blood cell, liver or kidney damage.

*****POTENTIAL HEALTH EFFECTS*****

Target organs: Eyes, skin, respiratory system, gastrointestinal system, liver, kidneys.
 Signs and symptoms of short-term (acute) exposure:
 Inhalation: Exposure to dust or fumes may cause irritation of the upper respiratory tract. Symptoms of overexposure may include coughing, metallic taste in the mouth, nausea and a garlic odor in the breath. When fumes are released (during processes such as welding), inhalation may result in "metal fume fever", with symptoms of nasal congestion, headache, chills, fever and body aches, similar to influenza. Symptoms may be delayed for several hours.
 Skin contact: Skin contact may result in redness and mild irritation.
 Eye contact: Contact with fumes may cause mild irritation. Contact with dusts may cause mechanical irritation. Symptoms may include tearing, blinking and conjunctivitis
 Ingestion: No health effects expected from small amounts. Large amounts may cause gastrointestinal discomfort, nausea, vomiting and diarrhea.

Effects of long-term (chronic) exposure: Contains ingredients which may cause blood cell, liver or kidney damage. Prolonged or repeated contact may cause thickening of the skin and greenish discoloration of the skin, teeth or hair.

Other important hazards: See TOXICOLOGICAL INFORMATION, Section 11.

SECTION 4 — FIRST AID MEASURES

Inhalation: If irritation occurs, remove victim to fresh air. If breathing is difficult, give artificial respiration. Obtain medical attention.
 Skin contact: Wash skin thoroughly with mild soap and running water. Obtain medical attention if irritation develops. Launder clothing before reuse.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical form, colour and odour: Solid with silver or yellow to reddish colour, no odour.
 Odour threshold: N/AV
 Boiling point: N/AV
 Specific gravity (water=1): 7.5 - 9.0
 Coefficient of oil/water distribution: N/AV
 Solubility in water: Insoluble
 Volatile organic compounds (VOC's): N/AV
 Evaporation rate (BuAc=1): N/AV
 Melting/freezing point: N/AV
 Vapour pressure (mm Hg @ 25°C): N/AV
 Vapour density (Air=1): N/AV
 Percent Volatile by Weight: 0
 pH: N/AV

SECTION 10 — STABILITY AND REACTIVITY

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed.
 Hazardous polymerization: Will not occur.
 Conditions to avoid: None known.
 Materials to avoid: Incompatible materials (see Section 7).
 Hazardous decomposition products: None known. Refer to 'Hazardous combustion products', Section 5.

SECTION 11 — TOXICOLOGICAL INFORMATION

Routes of exposure: Skin contact, eye contact, ingestion and inhalation.
 Toxicological data: There is no available data for the product itself, only for the ingredients.
 LD₅₀: See Section 2; LC₅₀: See Section 2.
 Carcinogenicity: None of the ingredients are listed as carcinogens by IARC or ACGIH.
 Teratogenicity, mutagenicity, other reproductive effects: This product contains Copper. There is some evidence from animal data which indicates Copper may decrease fertility in both males and females.
 Sensitization to material: There is some evidence that Copper may cause allergic skin reactions only in hypersensitive individuals. Not expected to cause allergic respiratory reactions.
 Synergistic materials: None known.
 Conditions aggravated by exposure: None known.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.
 Chemical fate information: There is no data available on the product itself.
 Aquatic toxicity: There is no data available on the product.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Handle waste according to recommendations in Section 7.
 Methods of disposal: Containers should be disposed of in accordance with all applicable federal, provincial, state, and local regulations.

SECTION 14 — TRANSPORT INFORMATION

Canadian Transportation of Dangerous Goods Regulations (TDGR) Shipping Information:
 This product is not regulated for transportation by ground within Canada.

US DOT 49 CFR Information:

This product is not regulated for transportation by ground within the continental United States.

SECTION 15 — REGULATORY INFORMATION

WHMIS Information:

Canadian WHMIS Classification: Class D2B (Materials Causing Other Toxic Effects, Toxic Material)
 This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.