

**SAFETY DATA SHEET  
FOR  
THORN SMITH LABORATORIES**

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**SECTION 1 - IDENTIFICATION**

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Trade Name: **Copper Ore** for Cu  
Catalog Number: 80-1200  
Product Description: Analyzed Quantitative Unknowns  
Manufacturer: Auric Enterprises, Inc.  
d/b/a Thorn Smith Laboratories  
Address: 7755 Narrow Gauge Road  
Beulah, MI 49617  
Phone Number: 231-882-4672  
SDS Number: TSL-019

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**SECTION 2 – HAZARDS IDENTIFICATION**

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**Potential Acute Health Effects:** Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

**Potential Chronic Health Effects:** CARCENOGENIC EFFECTS: N/A  
MUTAGENIC EFFECTS: N/A  
TERATOGENIC EFFECTS: N/A  
DEVELOPMENTAL TOXICITY: N/A

The substance is toxic to lungs and mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

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**SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS**

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**Cupric Oxide**

Formula: CuO  
Formula Weight: 79.55 g/mol  
CAS No.: 1317-38-0  
Common Synonyms: Cupric Oxide, Copper (II) Oxide  
OSHA PEL: TWA-0.1 mg/m<sup>3</sup> (Copper fumes)  
ACGIH TLV: TWA=0.2mg/m<sup>3</sup> (Copper fumes)

**Limestone Standard**

Formula: Primary carbonates of calcium, magnesium. Non-hazardous.  
CAS No.: N/A  
OSHA PEL: TWA 10mg/m<sup>3</sup>  
ACGIH TLV: N/E  
OTHER LIMITS: N/A

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#### SECTION 4 – FIRST AID MEASURES

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**Eye Contact:** Check for and remove contact lenses. Flush with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek medical attention.

**Skin Contact:** Remove any contaminated clothing. Wipe off excess from skin. Flush skin with water. Get medical attention if irritation develops or persists.

**Inhalation:** If inhaled, move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.

**Ingestion:** If swallowed, and if person is conscious, immediately rinse mouth with plenty of water. DO NOT induce vomiting. Get medical attention.

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#### SECTION 5 – FIRE FIGHTING MEASURES

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**Flammability:** Non-Flammable

**Flash Points:** Not Applicable

**Auto-Iginition:** Not Applicable

**Flammable Limits:** N/A

**Extinguishing Media:** Use extinguishing media appropriate to the surrounding fire.

**Fire Fighting Procedure:** Firefighters should wear self-contained breathing apparatus and protective clothing to prevent inhalation or contact with skin and eyes.

**Special Hazards arising from substance or mixture:** No data available.

**Fire/Explosion Hazards:** No Data Available.

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#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

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**Spill or Leak Procedures:** Utilize recommended protective clothing and equipment. Sweep up or shovel spills in a manner that does not disperse dust into the air. Place spilled solid in a convenient waste disposable container. Finish cleaning by spreading water on the contaminated surface and dispose of in accordance to all applicable federal, state and local regulations.

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#### SECTION 7 – HANDLING AND STORAGE

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**Storage Temperatures:** Store at ambient temperatures.

**Shelf Life:** Unlimited in tightly closed container in a dry and well-ventilated place.

**Special Sensitivity:** Keep away from incompatible materials.

**Precautions to be taken in handling and storage:** Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible.

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#### SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Respiratory Protection (Specify Type):** None where adequate ventilation conditions exist. If airborne Concentration is high, use an appropriate respirator.

**Protective Gloves:** Wear protective gloves.

**Eye Protection:** Wear chemical safety glasses.

**Ventilation To Be Used:** Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

Local Exhaust     Mechanical (General)     Special

Other (Specify)

**Other Protective Clothing and Equipment:** Wear clean body-covering clothing. Emergency showers and eye wash stations should be available.

**Hygienic Work Practices:** Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling. Do not let product enter drains.

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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**Physical Form:** Powder  
**Color:** Black  
**Molecular Weight:** 79.55 g/mole  
**Boiling Point:** N/A  
**Melting Point/Freezing Point:** 1336°C (2737°F)  
**Flash Point:** N/A  
**Solubility in Water:** Insoluble in water  
**Density:** 6.32g/cm<sup>3</sup> (water=1)

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## SECTION 10 – STABILITY AND REACTIVITY

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**STABILITY:**  Stable  Unstable  
**Conditions to Avoid:** Moisture  
**Incompatibility (Materials to avoid):** Reducing agents, hydrogen sulfide gas, aluminum, alkali metals, powdered metals.  
**Hazardous Decomposition Products:** Copper Oxides  
**HAZARDOUS POLYMERIZATION:**  May Occur  Will Not Occur

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## SECTION 11 – TOXICOLOGICAL INFORMATION

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**Routes of Exposure:** Eye Contact. Ingestion. Inhalation.  
**Toxicity Data:** Toxicity to Animals: LD50 – N/A LC50 – N/A  
Chronic Effects on Humans: This substance is toxic to lungs, mucous membranes.  
Other Toxic Effects on Humans: Hazardous in case of ingestion, inhalation. Slightly hazardous in case of skin contact (irritant).  
Special Remarks on Chronic Effects on Humans: N/A  
Special Remarks on other Toxic Effects on Humans: N/A

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## SECTION 12 – ECOLOGICAL INFORMATION

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**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are as toxic as the original product.

**Other Adverse Effects:** Very toxic to aquatic life with long lasting effects.

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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Dispose of in accordance with all applicable local, state and federal environmental regulations.

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**SECTION 14 – TRANSPORTATION INFORMATION**

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Domestic (D.O.T.)

Proper Shipping Name: Chemicals, n.o.s.

International (T.M.O.)

Proper Shipping Name: Chemicals, n.o.s.

Air (I.C.A.O.)

Proper Shipping Name: Chemicals, n.o.s.

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**SECTION 15 – REGULATORY INFORMATION**

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**SARA TITLE III HAZARD CATEGORIES AND LISTS**

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 304 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 304.

**SARA 311 Components**

Acute Health Hazard.

**SARA 312 Components**

Acute Health Hazard

**SARA 313 Components**

Toxic chemical notification and release reporting: Cupric Oxide

**WHMIS – Canada**

Class D-1B: Poisonous and infectious material – Immediate and serious effects – Toxic

Class D-2A: Material causing other toxic effects (VERY TOXIC)

Class D-2B: Poisonous and infectious material – Other effects – Toxic

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**SECTION 16 – OTHER INFORMATION**

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**HMIS Rating**

Health Hazard: 2  
Fire Hazard: 0  
Reactivity: 0  
Personal Protection: E

**NFPA Rating**

Health Hazard: 2  
Fire Hazard: 0  
Reactivity Hazard: 0

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