MATERIAL SAFETY DATA SHEET
13600 SERIES COPPER OXIDE

SECTION I
MANUFACTURER
Continental Clay
404 Stinson Blvd NE
Minneapolis, MN 55413

EMERGENCY TELEPHONE
(406) 227-3302
ATTN: Dan Brinhall

CHEMICAL NAME
CUPROUS OXIDE
CUPRIC OXIDE
METALLIC COPPER
FORMULA CuO
CuO
Cu
CAS NUMBER 1317-39-1
1317-38-0
7440-50-8
APPROX. WT. % 1.5
98
0.5

SECTION II
HAZARDOUS INGREDIENTS
COPPER

% TLV & PEL
78% (Min) 1 mg/m³

There is no ACGIH TLV or OSHA PEL for either cuprous oxide or cupric oxide. Exposure is governed by the 8 hour TWA established for finely divided copper in dusts or mists. Cuprous oxide, cupric oxide and copper are not carcinogenic materials as listed by OSHA (29CFR1910) or ACGIH (Appendix A, Threshold Limit Values for Chemical Substances 1989-1990).

SECTION III
PHYSICAL DATA
Boiling Point (°F):
H₂O: 160
Evaporation Rate:
Solubility in Water:
NA
Negligible
Na

Vapor Density:
NA
Specific Gravity:
H₂O: 1.0
Vapor Pressure:
NA

Percent Volatile by volume (%): 0%

Melting Point:
Cupric oxide decomposes at 1847°F to cuprous oxide and oxygen. Cuprous oxide melts at 2255°F. Black finely divided powder.

SECTION IV
FIRE & EXPLOSION HAZARD DATA
Flash Point
NA

Flammable Limits
LEL
UEL
NA
NA

SECTION V
HEALTH HAZARD DATA
Threshold Limit Value: See Section II
Signs, Symptoms, and Effects of Overexposure: Nausea, chills, diarrhea. May cause respiratory irritation; skin irritation (oxide pox); fever, eye irritation with redness, pain and conjunctivitis; preexisting lung diseases may be aggravated by exposure. Could result in respiratory disease if overexposed on a chronic basis.

Primary Routes of Entry: Inhalation and/or ingestion.
Emergency and First Aid Procedure: Remove to fresh air. Lay patient down. Cover with blanket. If irritated, flush eyes and skin with large volumes of fresh water for 15 minutes. Refer to physician.

SECTION VI
REACTIVITY DATA
Stable

Unstable

Conditions and Materials to Avoid: Cupric oxide may react violently with strong reductants, e.g., organic compounds, such as but not limited to hydrazine and acetylene carbide compounds, acids, bases, and metals such as but not limited to Al, Mg, B, K, Na, Ti, & Zr.

Hazardous Decomposition Products: Copper fumes will be released if cuprous oxide is heated above its melting point (2255°).

Hazardous Polymerization: Will not occur.

SECTION VII
SPILL OR LEAK PROCEDURES
Steps to be taken in case material is released or spilled. Clean up with vacuum or conventional tools. Avoid dusting.
Waste Disposal: Approved land fill if allowed by local, state and federal authorities.

SECTION VIII
SPECIAL PROTECTION INFORMATION
Respiratory Protection: Cartridge type filter or dust mask approved by MSHA or NIOSH. Refer to Respiratory Protective Devices approved by Bureau of Mines Circular 1C 8436.
Ventilation: To keep below listed TLV in Section II, use general dilution type ventilation.
Protective Gloves: Wear if skin contact is probable and skin is sensitive.
Eye Protection: Safety glasses or goggles.
Other Protective Equipment: Long sleeve shirts if contact is probable and skin is sensitive.

SECTION IX
SPECIAL PRECAUTIONS

SPECIAL SARA TITLE III
This product contains copper compounds and is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.