

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND CONTACT INFORMATION

Product Name: Copper Oxide (Rare Earth Base)

AR 170, AR 170B

Alpha Resources, Inc.
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Phone: 269-465-5559

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO.	%W	CHEMICAL NAMES	OSHA PEL (mg/m3)	ACGIH TLV (mg/m3)
1317-38-0	<90	Cupric Oxide	1.0 (dust) 0.1 (fume)	1.0 (dust) 0.1 (fume) 10 (total dust) 5 (respirable dust)
1332-58-7	< 8	Kaolin		
MIXTURE 1306-38-3 1312-81-8	<5	Rare Earth Oxides (see below) Ceric Oxide Lanthanum Oxide	N/A	N/A

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation. May cause conjunctivitis.

SKIN: May cause skin irritation. May cause skin discoloration.

INHALATION: Can cause irritation of upper respiratory tract. May cause ulceration and perforation of the nasal septum.

INGESTION: May cause central nervous system depression, kidney damage and liver damage.

CHRONIC OVEREXPOSURE: Prolonged or repeated skin contact may cause dermatitis.

Individuals with Wilson's disease are unable to metabolize copper. Copper accumulates in various tissues and may result in liver, kidney and brain damage.

CARCINOGENICITY: None.

4. FIRST AID MEASURES

EYES: Flush with large amounts of water, occasionally lifting upper and lower lids. Get medical attention

INHALATION: Removed from exposure to fresh air immediately.

SKIN: Wash skin with plenty of soap and water.

INGESTION: Give two glasses of milk or water and induce vomiting by having patient touch the back of his throat with his finger. Call a physician immediately. Never give anything by mouth to an unconscious person. The use of d-Penicillamine as a chelating agent should be determined by a qualified medical personnel.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Non-flammable

Flash Point: Not available

Flammable Limits: (% by Volume in Air): Lower: None Upper: None

AUTO-IGNITION TEMPERATURE: N/A

HAZARDOUS COMBUSTION PRODUCTS: None known.

EXTINGUISHING MEDIA: Use extinguishing agent appropriate to surrounding fire.

FIREFIGHTING INSTRUCTIONS: N/A.

6. ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Wear protective clothing. With a clean shovel, carefully place material into a clean, dry container and cover. Remove from area. Flush spill area with water.

7. HANDLING AND STORAGE

HANDLING: Keep tightly closed. Observe personal protective measure and exposure limits.

STORAGE: Keep tightly closed. Suitable for any general chemical storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Good general or local exhaust ventilation should be provided to keep concentrations below exposure limits.

RESPIRATORY PROTECTION: Respiratory protection required if airborne concentration exceeds TLV.

SKIN AND HAND PROTECTION: Rubber gloves are recommended.

EYE AND FACE PROTECTION: Safety goggles are recommended.

OTHER PROTECTIVE EQUIPMENT: N/A

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: gray black granules

BOILING POINT: N/A

FREEZE-MELT POINT: N/A

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

SOLUBILITY IN WATER: Insoluble.

SPECIFIC GRAVITY: Not established.

pH: N/A

ODOR: None

PERCENT VOLATILES: N/A

EVAPORATION RATE: Not established.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

INCOMPATIBILITY: Rare earth oxides are soluble in acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Copper fumes.

HAZARDOUS POLYMERIZATION: None.

11. TOXICOLOGICAL INFORMATION

No specific ratings for rare earth oxides are available in the standard references. They are not believed to have a high degree of toxicity. However, some rare earths have been found toxic when injected by the intraperitoneal route.

12. ECOLOGICAL INFORMATION

None available.

13. DISPOSAL CONSIDERATION

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

14. TRANSPORTATION INFORMATION

USA DOT: Not regulated

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA STATUS: On toxic Substance Control Inventory

CERCLA Reportable Quantity: None

RCRA Status: Not available

SARA TITLE III:

Section 302 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: Acute, Chronic

Section 313 Toxic Chemicals: None

CANADIAN REGULATIONS

WHMIS: Not regulated.

16. OTHER INFORMATION

SUPPLEMENTAL INFORMATION

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

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