Alpha Resources Inc.

Safety Data Sheet (SDS)

Revision Date: April 23, 2015

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

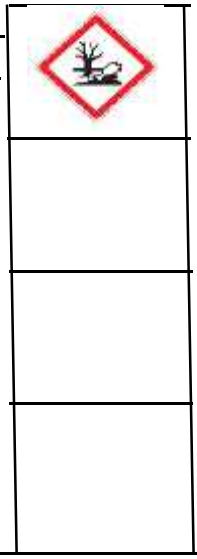
Copper(II) Oxide (Cupric Oxide)

AEB1002, AEB1002-500, AEB1003, AEB1014, AEB1051, AEB1071, AR01029, AR01029B, AR01039
This product is intended for laboratory use.

Alpha Resources Inc. 3090 Johnson Rd. Stevensville, MI 49127 (269)465-5559

CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word: WARNING



SECTION 2— HAZARDS IDENTIFICATION

Classification: Acute aquatic toxicity (Category 1) and chronic aquatic toxicity (Category 3).

Hazard Statements: Very toxic to aquatic life (H400) and harmful to aquatic life with long lasting effects (H412).

Precautionary statements: Avoid release to the environment (P273), collect spillage (P391), and dispose of contents/container to an approved waste disposal plant (P501).

SECTION 3— COMPOSITION, INFORMATION ON INGREDIENTS

Substance required for disclosure.

Component	CAS #	Common %
Cupric Oxide	1317-38-0	<100

SECTION 4— FIRST AID MEASURES

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). If breathing is difficult qualified personnel may administer Oxygen. If not breathing give artificial respiration when qualified.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Wash with plenty of water. (P302+P352). Wash contaminated clothing before reuse (P363).
If swallowed: Call a poison center or physician (P310). May cause central nervous system depression, kidney problems, and liver damage.

SECTION 5 — FIRE FIGHTING MEASURES

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Firefighters Advice: Wear a self-contained breathing apparatus for firefighting, along with any routine personal protection clothing available.
Special Hazards Arising: Copper Oxides

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use the proper personal protective equipment when dealing with this materials. Avoid breathing vapors, mist or gas. Be sure that adequate ventilation is available. Evacuate any personnel, which can be done safely. Keep dust inhalation to a minimum.
Environmental precautions: Keep this material from entering sewers or drains. Prevent further spillage if safe to do so.
Method for Cleanup: Sweep together into a pile and use an electrically protected vacuum to remove from area. A wet cloth can be used to sweep into a disposal container. Dispose of according to applicable regulations.

SECTION 7 — HANDLING AND STORAGE

Handling: Keep sealed and don't breathe dust if produced. Wear appropriate clothing for protection. Where no ventilation is available a respirator will be required. Keep away from sources of ignition-no smoking. Prevent the build-up of static electricity.

Storage: This product should be stored in a cool, dry place and kept sealed (P233) when not in use.

Storage class: flammable solid hazardous material (TRGS 510)

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limit Values

Component	CAS#	Value	Limit	Basis
Cupric Oxide	1317-38-0	TWA	0.1mg/m^3	USA, NIOSH Recommended Exposure Limits
	Remarks	Also see listing for Copper (dusts and mists)		
		TWA	0.1mg/m^3 (dust)	USA, NIOSH Recommended Exposure Limits
		Also see listing for Copper (dusts and mists)		
		TWA	0.1mg/m^3 (dust)	USA, NIOSH Recommended Exposure Limits
		Also see listing for Copper (dusts and mists)		

Engineering Controls: Proper ventilation must be available to be certain exposure limits are not exceeded.

Personal Protection: Respiratory protection could be required if adequate ventilation has not been achieved.

Hand Protection: Glove suitability will differ depending on the end use of product. Chemical resistant gloves can provide an excellent barrier of protection.

Eye protection: Safety glasses with side shields are necessary if splashing is possible.

Skin and Body Protection: Chemical and oil resistant clothing are recommended for extended periods of contact.

Hygiene: Wash hands and areas of possible exposure after handling material especially before eating, drinking, and smoking. The work clothing should also be washed regularly to remove any contaminants. Dispose of contaminated clothing that can't be deemed safe.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health, and environmental considerations only and may not represent the products specifications. Contact supplier for additional information.

Solid black sticks/powder	Odorless	Relative Density: 6.32
Melting Point: 1336ºC	Boiling Point: N/A	Vapor Density: N/A
Refractive index: N/A	Flash point: N/A	Auto-Ignition Temperature: N/A
Water solubility: 0.0001g/L-insoluble		

SECTION 10 — STABILITY AND REACTIVITY

Stable material at normal laboratory conditions.

Avoid: Don't create dust or powder. These fine particles can be harmful and reactive.

Incompatible: Rare earth oxides are soluble in acids.

Hazardous Decomposition: Copper fumes.

SECTION 11 — TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity data: LD50 Oral-rat: >2,500mg/kg

LD50 Dermal-rat: >2000mg/kg

Skin corrosion/irritation data: Skin-rabbit: result-no irritation

Serious eye damage/eye irritation data: Eyes-rabbit: result-mild eye irritation

Respiratory or skin sensitization data: Guinea pig: result-doesn't cause skin sensitization

Germ cell mutagenicity: N/A

Carcinogenicity: N/A

Reproductive toxicity: N/A

Reproductive toxicity: N/A

Specific Developmental Abnormalities: N/A

Developmental Toxicity: N/A

Specific target organ toxicity-single exposure: N/A

Specific target organ toxicity-repeated exposure: N/A

Aspiration hazard: N/A

SECTION 12 — ECOLOGICAL INFORMATION

This product shouldn't be released without the proper paperwork.
Eco-toxicity Data: Toxicity to fish LC50-Oncorhynchus mykiss (rainbow trout): 0.19-0.21mg/l (96hr)
Toxicity to daphnia and other aquatic invertebrates EC50-Daphnia magna (water flea): 0.011-0.039 mg/l (48hr)
NOEC-Lamellibranchia (mussel): 0.007mg/l (288hr)
Toxicity to algae NOEC-Phaeodactylum tricornutum: 0.0057mg/l (72hr)
Bio-accumulative potential: N/A

Mobility in soil: N/A

Other adverse effects: Very toxic to aquatic life. An environmental hazard can't be excluded in the instances of unprofessional handling or disposal.

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste disposal should be done in compliance with existing federal, state and local environmental regulations. Do not contaminate any streams, lakes, or ponds. Contact a professional waste service for disposal of this material.

SECTION 14 — TRANSPORT INFORMATION

DOT (US): Not regulated
IMDG: UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Copper oxide)
Marine pollutant: yes

IATA: UN number: 3077 Class: 9 Packing group: III
Proper shipping name: ENVIRONMENTALLY hazardous substance, solid, n.o.s. (Copper oxide)

SECTION 15 — REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:
TSCA STATUS: On Toxic Substance Control Inventory.
CERCLA REPORTABLE QUANTITY: None.
SARA TITLE III:
Section 302 Extremely Hazardous Substances: None.
Section 311/312 Hazardous Categories: Acute, chronic.
Section 313 Toxic Chemicals: None.
RCRA STATUS: Not regulated.
State Regulations:
Pennsylvania Right to Know Components: Copper oxide CAS#1317-38-0
New Jersey Right to Know Components: Copper oxide CAS#1317-38-0
California Prop 65: No known cancer causing chemicals in this material.
CANADIAN REGULATIONS:
WHMIS: Not regulated.

SECTION 16 — OTHER INFORMATION

The data and information as stated was furnished by the manufacturer/vendor/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.