

## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMPANY ADDRESS:**

ALBAUGH INC.  
121 NE 18<sup>th</sup> Street  
Ankeny, IA 50021  
(800) 247-8013

**EMERGENCY TELEPHONE NUMBERS:**

(800) 424-9300 (CHEMTREC, transportation and spills  
toll free number USA, Canada and US Virgin Islands)  
(703) 527-3887 (CHEMTREC for calls elsewhere, collect  
calls are accepted)

**PRODUCT NAME:** COP O ZINC

**CHEMICAL NAME & SYNONYMS:** Basic Copper Sulfate & Zinc Oxide

**CHEMICAL FAMILY:** Transitional metal

**EPA REG. No:** 42005-21

### SECTION 2. CHEMICAL COMPOSITION AND DATA ON COMPONENTS

**COMPONENT:** Basic copper sulfate

**CAS No:** 1344-73-6

**% ACTIVE INGREDIENT:** 45%

**OSHA (PEL):** Copper dusts and mists -1 mg/m<sup>3</sup>.

**ACGIH (TLV):** Copper dusts and mists -1 mg/m<sup>3</sup>.

**COMPONENT:** Zinc Oxide

**CAS No:** 1314-13-2

**% ACTIVE INGREDIENT:** 31%

**OSHA (PEL):** 5 mg/m<sup>3</sup>

**ACGIH (TLV):** Not listed.

### SECTION 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Fine, pale green powder with no appreciable odor.

- May be harmful if swallowed, inhaled or absorbed through skin.
- Causes severe eye irritation.
- Avoid breathing dusts or spray mist.
- Avoid contact with eyes, skin or clothing.
- KEEP OUT OF REACH OF CHILDREN.

**POTENTIAL HEALTH HAZARDS:**

**SKIN:** Prolonged or repeated skin contact may cause irritation.

**INHALATION:** Spray mists or dust concentrations may be harmful if inhaled.

**INGESTION:** May be harmful if swallowed

**EYES:** Severely irritating to the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage.

**POTENTIAL PHYSICAL HAZARDS:** Can decompose at high temperatures forming toxic gases.

**ENVIRONMENTAL HAZARDS:** None known.

### SECTION 4. FIRST AID MEASURES

**IF IN EYES:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

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## **SECTION 5. FIRE FIGHTING MEASURES**

**FLASH POINT:** NA

**LeL:** NA

**UeL:** NA

**FIRE OR EXPLOSION HAZARDS:** Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**EXTINGUISHING MEDIA:** Proper to primary cause of fire. Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical fire extinguishing system is preferred to prevent excessive water run off.

**SPECIAL FIRE FIGHTING PROCEDURES:** If Copper Basic Sulfate is involved in a fire, avoid breathing smoke. Use a positive-pressure, self-contained breathing air supply. Avoid getting water from fire fighting into domestic or irrigation water supplies.

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of Copper, hydrogen chloride.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **STEPS TO BE TAKEN IF THE MATERIAL IS RELEASED OR SPILLED:**

Clean up spills immediately, observing precautions in Protective Equipment section. Isolate hazard area. Keep unnecessary personnel from entering. Vacuum collect into containers for reuse or disposal. Mark and store containers as hazardous waste.

**WASTE DISPOSAL METHOD:** Dispose on approved hazardous waste disposal site. Follow applicable State and Federal regulations.

## **SECTION 7. HANDLING AND STORAGE**

### **KEEP OUT OF REACH OF CHILDREN!**

**AVERAGE LIFE:** Five years under normal storage conditions.

**SPECIAL SENSITIVITY (HEAT, LIGHT, MOISTURE, ETC):** None.

**HANDLING:** Use only in a well-ventilated area. Minimize dust generation and accumulation.

**STORAGE:** Store in a well-ventilated, dry place away from heat and other sources of ignition. Store in a cool, clean area. Keep away from food, feed and drinking water.

## **SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

### **PERSONAL PROTECTIVE EQUIPMENT:**

Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
3. Shoes plus socks
4. Protective eyewear
5. Chemical-resistant headgear for overhead exposure
6. Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **USER SAFETY RECOMMENDATIONS:**

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing if product gets inside. Then wash thoroughly and put on clean clothing.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:** Fine, blue-green powder

**ODOR:** No appreciable odor.

**VAPOR PRESSURE (25 °C):** NA

**MOLECULAR WEIGHT (technical):** 470.3 (basic copper Sulfate), ZnO (zinc oxide)

**COLOR:** Blue-green

**BULK DENSITY:** 40 lb/ft<sup>3</sup>

**Ph:** 6.5 (1% w/w in water)

**VAPOR DENSITY (AIR = 1):** NA

**MELT POINT:** NA

**SPECIFIC GRAVITY:** NA

**WATER SOLUBILITY (25 °C):** Dispersible

**BOILING POINT:** NA

**% VOLATILE BY VOLUME:** < 1%

**FREEZING POINT:** NA

## **SECTION 10. STABILITY AND REACTIVITY**

**STABILITY:** Stable. However may decompose if heated.

**CONDITIONS TO AVOID:** Temperatures over 125 °F. Avoid exposure to high moisture conditions for prolonged periods.

**POLYMERIZATION:** Does not polymerize.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Acidic conditions and materials, ammonia. Copper is corrosive to aluminum and iron, especially when in aqueous state and at elevated temperatures.

**HAZARDOUS DECOMPOSITION:** Hydrogen chloride, oxides of hydrogen and copper.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

**OSHA PERMISSIBLE EXPOSURE LIMIT (PEL):** Copper dusts and mists -1 mg/m<sup>3</sup>.

**ACGIH THRESHOLD LIMIT VALUE (TLV):** Copper dusts and mists -1 mg/m<sup>3</sup>.

**ACUTE TOXICITY:**

**LD<sub>50</sub> ORAL (Rats):** 1,000 mg/kg

**LD<sub>50</sub> DERMAL (Rats):** >2,000 mg/kg

**LC<sub>50</sub> INHALATION (Rabbit):** > 2.0 mg/l

**EYE IRRITATION (rabbit):** Severe.

**SKIN IRRITATION (rabbit):** Slight.

**SENSITIZATION (guinea pig):** Non sensitizing.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Acute asthma and/or other chronic pulmonary diseases due to inhalation of dust or spray mists.

**CARCINOGEN STATUS:**

**OSHA:** Not listed

**NTP:** Not listed

**IARC:** Not listed

**MUTAGENIC DATA:** No evidence of effects during *in vivo* or *in vitro* studies.

**ADDITIONAL DATA:** Not known to exhibit reproductive or teratogenic (birth defect) effects.

## **SECTION 12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** This product is toxic to fish and aquatic organisms. Do not apply directly to water, or to areas where surface water is present. Do not contaminate water when disposing of equipment wash waters.

**FISH TOXICITY:** (Technical)

**FISH LC<sub>50</sub> (as 100% active):** Blue Gill Unknown.

**FISH LC<sub>50</sub> (as 100% active):** Rainbow Trout Unknown.

**AVIAN TOXICITY:** (Technical)

**ORAL LD<sub>50</sub> (Bobwhite quail):** Unknown

**ORAL LD<sub>50</sub> (Mallard duck):** Unknown.

**BEE TOXICITY:** Non toxic.

### **SECTION 13. DISPOSAL CONSIDERATIONS**

**WASTE:** Product wastes are Toxic. Dispose in accordance with applicable Federal, State and Local laws and regulations.

**CONTAINER:** Refer to product label.

### **SECTION 14. TRANSPORT INFORMATION**

**UN NUMBER:** None

**DOT HAZARD CLASS:** Not regulated.

**D.O. T. LABELS/PLACARDS REQUIRED:** None required.

**FREIGHT CLASSIFICATION:** Agricultural fungicide, solid, N.O.I. B.N.

**DOT EMERGENCY RESPONSE GUIDE #:** NA

### **SECTION 15. REGULATORY INFORMATION**

**FIFRA:** All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside the normal use and application as a pesticide.

**OSHA HAZARD COMMUNICATION STANDARD STATUS:** Regulated

**SARA TITLE III:**

**Sec. 302- 304 (40 CFR 350):** Not listed.

**Extremely Hazardous Substance (EHS):** Not applicable.

**Reportable Quantity (RQ) (CERCLA):** Copper -5,000 pounds.

**Sec. 312 Reporting (40 CFR 370):**

SARA/OSHA Hazardous Chemical reporting Quantity is 10,000 pounds.

**Reporting Status:** Mixture, solid.

**Reporting Hazards:** Acute.

**Sec. 313 Reporting (40 CFR 372):** Not listed.

**RCRA Hazardous Waste:** Not listed.

### **SECTION 16. OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	3
	FLAMMABILITY	1
	PHYSICAL HAZARD	1
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

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**Approved by:** Pablo Diaz

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