SAFETY DATA SHEET



Revision date 30-Jul-2021 Revision Number 2

1. Identification

Product identifier

Product Name Cop-O-Zinc

Other means of identification

Product Code(s) 45002-21

Synonyms None

Registration Number(s) 45002-21

Recommended use of the chemical and restrictions on use

Recommended use Fungicide

Restrictions on use Follow label instructions

Details of the supplier of the safety data sheet

Company Address

ALBAUGH LLC 1525 NE 36th St, Ankeny, IA 50211

Emergency telephone number

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night

- Within USA and Canada: 1-800-424-9300
- Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by US EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. Hazard(s) identification

Classification

Acute toxicity - Inhalation (Dusts/Mists)

Category 4

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Warning

Hazard statements

Harmful if inhaled



Appearance granules Physical state Powder Odor Odorless

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a POISON CENTER or doctor if you feel unwell

Other information

May be harmful in contact with skin. Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS No	Weight-%	Active Ingredient
Basic Copper Sulfate	1344-73-6	45.76-48.58	x
Zinc oxide (ZnO)	1314-13-2	31.04-32.96	
Other Ingredients	PROPRIETARY	>20.0	

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation If breathing has stopped, give artificial respiration. Get medical attention immediately.

Remove to fresh air. If symptoms persist, call a physician.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

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Never give anything by mouth to an unconscious person. Get medical attention.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination. Avoid breathing

dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. See

section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

5. Fire-fighting measures

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the

chemical

No data available.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust. Use personal

protective equipment as required.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing

dust/fume/gas/mist/vapors/spray. Avoid generation of dust. Ensure adequate ventilation. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach

of children.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Basic Copper Sulfate	TWA: 1 mg/m³ Cu dust and mist -		IDLH: 100 mg/m³ Cu dust and
1344-73-6			mist
			TWA: 1 mg/m³ Cu dust and
			mist
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m³ respirable	TWA: 5 mg/m³ respirable	TWA: 5 mg/m³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m³ fume
		(vacated) TWA: 5 mg/m ³ fume	
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
		(vacated) STEL: 10 mg/m ³	
		fume	

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protectionNo special protective equipment required.

Respiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using

this product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical statePowderAppearancegranulesColorlight greenOdorOdorlessOdor thresholdNo data available

Property Values Remarks • Method

No data available

pH 7.2 8.2

Melting point / freezing point

Boiling point / boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

No data available
No data available
No data available

Flammability Limit in Air

Upper flammability or explosive

limits

Lower flammability or explosive No data available

limits

Vapor pressureNo data availableVapor densityNo data availableRelative densityNo data availableWater solubilityNo data availableSolubility(ies)No data availablePartition coefficientNo data availableAutoignition temperatureNo data available

Decomposition temperature

Kinematic viscosity

No data available

Pynamic viscosity

No data available

Other information

Explosive properties

Oxidizing properties

Softening point

Molecular weight

VOC Content (%)

No data available
No data available
No data available
No data available

Liquid Density $0.41 - 0.45 \text{ g/cc } (3.42 - 3.76 \text{ lb/kg})^*$

Bulk density No data available

*Listed density is an approximate value and does not necessarily represent that of a specific batch

10. Stability and reactivity

Reactivity No data available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Excessive heat.

Incompatible materialsNone known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Harmful by inhalation.

(based on components).

Eye contact Specific test data for the substance or mixture is not available.

Skin contact May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing.

Acute toxicity

Numerical measures of toxicity

 Oral LD50
 > 5,050 mg/kg

 Dermal LD50
 > 2,020 mg/kg

 Inhalation LC50
 2.60 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³ (Rat)4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation non-irritating.

Serious eye damage/eye irritation Mildly irritating.

Respiratory or skin sensitization Did not cause sensitization on laboratory animals.

Germ cell mutagenicity No data available.

Carcinogenicity No data available.

Reproductive toxicity No data available.

STOT - single exposure No data available.

STOT - repeated exposure No data available.

Target organ effects liver, kidney, Respiratory system, Eyes, Skin.

Aspiration hazard No data available.

Other adverse effects No data available.

Interactive effects No data available.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

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Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide (ZnO)	-	LC50: =1.55mg/L (96h,	-	-
1314-13-2		Danio rerio)		

Persistence and degradability No data available.

Bioaccumulation There is no data for this product.

Other adverse effects No data available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused Dispose of in accordance with local regulations. Dispose of waste in accordance with

products environmental legislation.

Contaminated packaging Do not reuse empty containers.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as

a hazardous waste.

14. Transport information

DOT Not regulated

15. Regulatory information

U.S. EPA Label Information

EPA Pesticide Registration Number 45002-21

EPA Pesticide LabelCaution. Harmful if absorbed through skin. Causes moderate eye irritation.

International Inventories

TSCA Does not comply DSL/NDSL Does not comply **EINECS/ELINCS** Does not comply **ENCS** Does not comply Does not comply **IECSC KECL** Does not comply **PICCS** Does not comply **AICS** Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

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US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Basic Copper Sulfate - 1344-73-6	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Basic Copper Sulfate 1344-73-6	-	X	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Basic Copper Sulfate 1344-73-6	X	-	X
Zinc oxide (ZnO) 1314-13-2	X	-	Х
Diatomaceous earth 68855-54-9	-	-	Х
Water 7732-18-5	-	-	X

16. Other information

NFPAHealth hazards2Flammability0Instability0Physical and chemical properties -HMISHealth hazards2Flammability0Physical hazards0Personal protectionX

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value * Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

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End of Safety Data Sheet