

MATERIAL SAFETY DATA SHEET

NORDOX®

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Issue Date: 01/06

SECTION 1. PRODUCT AND COMPANY INFORMATION

Chemical Product

NORDOX®

EPA Reg. No. 48142-1

Common Name: Cuprous oxide

Chemical Description: Cu_2O

TSCA/CAS No.: 1317-39-1

Manufactured By

NORDOX Industrier AS

c/o Monterey AgResources

P.O. Box 35000

Fresno, CA 93745-5000

Emergency Phone Numbers

Emergency Telephone: DAYS: (559) 499-2100 EVES.: (559) 994-9144

CHEMTREC (24-Hour Emergency Number): (800) 424-9300

EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Cuprous oxide	1317-39-1	56.4%	*N.A.	*N.P.

* N.A. – Not Available.

* N.P. – Not Pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Under certain conditions cuprous oxide may react violently with strong reactants such as acids, bases, and metals such as, but not limited to, Al and Mg. Copper fumes will be released if cuprous oxide is heated above its melting point (2255°F). Not D.O.T. Regulated.

HEALTH: 1 REACTIVITY: 1 FLAMMABILITY: 0 ENVIRONMENT: 0

(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

SECTION 4. FIRST AID

- Eyes: Immediately flush eyes with plenty of water. Call a physician if irritation persists.
- Skin: Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. If irritation persists, seek medical attention.
- Ingestion: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water or milk and induce vomiting by touching back of throat with finger or if available by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.
- Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

SECTION 5. FIRE AND EXPLOSION HAZARDS

- Flash Point: Nonflammable.
- Test Method: Not pertinent.
- LEL Flammable Limits: Not pertinent.
- UEL Flammable Limits: Not pertinent.
- Autoignition Temperature: Not pertinent.
- Flammability Classification: Nonflammable.
- Known Hazardous Products of Combustion: Copper fumes.
- Properties that Initiate/Contribute to Intensity of Fire: None.
- Potential For Dust Explosion: None.
- Reactions that Release Flammable Gases or Vapors: None known.
- Potential For Release of Flammable Vapors: None.
- Unusual Fire & Explosion Hazards: None.
- Extinguishing Media: Does not burn. Use water, CO₂, foam or dry chemical as appropriate for surrounding fire.
- Special Firefighting Procedures: If water is used to extinguish fires in which NORDOX is present, contain water to prevent contamination of drinking water supplies or streams. Move bags from fire area if it can be done without risk.

SECTION 6. SPILLS AND LEAKS

- Containment: Prevent product spillage from entering drinking water supplies or streams.
- Clean Up: Wearing protective clothing, use a clean shovel and carefully place material into clean, dry container and cover; remove from area. Use according to label instructions or dispose of at an approved waste disposal facility. Flush spill area with water and collect liquid or absorb onto absorbent material and package for disposal.
- Evacuation: Not necessary, but restrict entry.

SECTION 7. STORAGE AND HANDLING

Storage: Store original bags in a cool, well-ventilated, dry place. Keep away from strong alkalies, acids and/or oxidizing agents. Do not reuse bag. Do not store near food or feeds.

Work/Hygienic Practices: Harmful if swallowed. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash thoroughly before reuse. Do not contaminate feed and foodstuffs.

SECTION 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes: Chemical dust/splash goggles, safety glasses or full-face shield may be worn to prevent eye contact. As a general rule, do not wear contact lenses when handling.

Skin: Impervious gloves and clothes if skin contact is probable and skin is sensitive.

Respiratory: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).

Ventilation: Recommended but no TLV established.

SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance:	Reddish-brown powder.
Odor:	None.
pH:	Not available.
Vapor Pressure:	Not available.
Vapor Density (Air=1):	Not available.
Boiling Point:	Not available.
Freezing Point:	Not available.
Water Solubility:	Not water soluble. Soluble in acids and ammonia.
Density:	62 lbs./ft ³ .
Evaporation Rate:	Not available.
Viscosity:	Not available.
% Volatile:	Not available.
Octanol/Water Partition Coefficient:	Not available.
Saturated Vapor Concentration:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Under certain conditions cuprous oxide may react violently with strong reactants such as acids, bases, and metals such as, but not limited to, Al and Mg.
Incompatibility:	Not available.
Hazardous Decomposition Products:	Copper fumes will be released if cuprous oxide is heated above its melting point (2255°F).
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTSAcute Effects:

Eyes:	May cause irritation (redness and/or burning).
Skin:	May cause irritation (redness and/or itching).
Ingestion:	May cause nausea, vomiting and diarrhea.
Inhalation:	May cause respiratory irritation. Preexisting lung diseases may be aggravated by exposure. May result in respiratory disease if overexposed on a chronic basis.

Subchronic Effects: None known.

Chronic Effects: None known.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition:	Not known.
Toxicity to Fish and Invertebrates:	Not known.
Toxicity to Plants:	Not known.
Toxicity in Birds:	Not known.

SECTION 13. DISPOSAL

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents according to state and local regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal. Do not discharge.

SECTION 14. TRANSPORTATION

D.O.T. Proper Shipping Description:	Not D.O.T. Regulated.
Other Shipping Description:	Insecticides or Fungicides, Agricultural, Dry. (NMFC Item 102120, LTL Class 60)

SECTION 15. REGULATORY INFORMATION

CERCLA:	Copper and its compounds are listed as priority pollutants by the EPA under the Clean Water Act and as such fall under CERCLA spill reporting requirements of 40 CFR 302.
SARA TITLE III, Section 313 Toxic Chemicals:	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.
PROPOSITION 65:	None.

SECTION 16. OTHER

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