

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ChampION⁺⁺ Fungicide/Bactericide

EPA Reg. No.: 55146-115

Product Type: Fungicide/Bactericide

Company Name: Nufarm Americas Inc.
11901 S. Austin Avenue

Alsip, IL 60803 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300 For Medical Emergencies Only, Call 1-877-325-1840

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 Certain sections are superseded by federal law governed by EPA for a registered pesticide.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

2. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS

None

HEALTH HAZARDS:

Acute toxicity, oral Category 4
Acute toxicity, inhalation Category 4
Skin irritation Category 2
Eye irritation Category 2B
Specific target organ toxicity – Repeated exposure Category 2

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Harmful if swallowed or inhaled. Causes skin irritation. Causes eye irritation. May cause damage to organs (upper respiratory tract, liver, and kidney) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.







PRECAUTIONARY STATEMENTS:

Wash hands and exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid breathing dust. Use only outdoors or in well-ventilated area. Wear protective gloves/eye protection/face protection.

IF SWALLOWED: Call a poison center/doctor if you feel unwell. Rinse mouth.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Avoid unintended release to the environment.

Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	% BY WEIGHT
Copper hydroxide	20427-59-2	44.7 - 47.5
Sucrose	57-50-1	14.25 - 15.75
Kaolin	1332-58-7	10 - 11
Titanium dioxide	13463-67-7	<0.25
Amorphous silica (precipitated)	112926-00-8	0.23 - 0.28
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Mixture containing Copper Hydroxide (Copper Hydrate, Cupric Hydroxide)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. 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 in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 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 on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Note to Physician: Probable mucosal damage may contraindicate use of gastric lavage.

Most Important symptoms/effects, acute and delayed: Exposure to the eye may cause moderate irritation. Repeated exposure by inhalation over prolonged time periods may cause damage to upper respiratory tract, eye irriation. Repeated exposure by inhalation (chronic exposure) may cause chronic cough.

Indication of Immediate medical attention and special treatment if needed, if necessary: None expected.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce oxides of carbon, nitrogen and sulfur.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

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Methods for Cleanup and Disposal: Avoid creation of dusty conditions. Scrape up and place in appropriate closed container. Wash entire spill area with a detergent slurry, absorb and sweep into container for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with eyes or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in a cool dry place. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin wear long-sleeved shirt, long pants, shoes plus socks, and chemical resistant gloves such as natural rubber, Selection Category A. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
Copper hydroxide	1*	NE	1*	NE	mg/m³
Sucrose	15	NE	10	NE	mg/m³
Kaolin clay	5 (R) 15 (T)	NE	2 (R)	NE	mg/m³
Titanium dioxide	15(T)	NE	10	NE	mg/m³
Amorphous silica	6	NE	NE	NE	mg/m³
Other Ingredients	NE	NE	NE	NE	

^{*}As copper dusts or mists (CAS No. 7440-50-8)

R = Respirable Fraction

T = Total Dust

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue-green granular solid

Odor: Mild odor

Odor threshold: No data available

pH: 10.0

Melting point/freezing point:
Initial boiling point and boiling range
Flash point:
Evaporation rate:
Flammability (solid, gas):
Upper/lower flammability or explosive limits:
Vapor pressure:

No data available

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Vapor density: No data available

Relative density:

Solubility(ies):

Partition coefficient: n-octanol/water:

1.18 g/cm³

Dispersible

No data available

Partition coefficient: n-octanol/water:No data availableAutoignition temperature:No data availableDecomposition temperature:No data availableViscosity:No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be

construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Excessive heat. **Incompatible Materials:** Acids and sulfur.

Hazardous Decomposition Products: Decomposes to CuO and water above 140° F (60° C).

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin contact, eye contact, inhalation

Symptoms of Exposure:

Eve Contact: Mildly irritating based on toxicity studies.

Skin Contact: Minimally toxic and slightly irritating based on toxicity studies.

Ingestion: Slightly toxic if ingested based on toxicity studies. **Inhalation:** Low inhalation toxicity based on toxicity studies.

Delayed, immediate and chronic effects of exposure: None reported.

Toxicological Data:

Data from laboratory studies conducted on this product or a substantially similar product as noted by (*):

Oral: Rat LD₅₀: 1,098 mg/kg (female) **Dermal:** Rat LD₅₀: >5,000 mg/kg *Inhalation: Rat 4-hr LC₅₀: 1.53 mg/L

Eye Irritation: Rabbit: Moderately irritating (MMTS = 30.3) **Skin Irritation:** Rabbit: Slightly irritating (PDII = 1.8)

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated ingestion of copper salts may result in anemia, liver, and kidney damage. Chronic inhalation exposure may cause a metallic taste in the mouth, irritation of the upper respiratory tract such as the nasal mucosa that may progress to perforation of the nasal septum. Chronic cough may also occur. Copper Hydroxide, which comprises 46.1% of this product, governs the toxicity of the product. The remaining components have low to negligible toxicity.

Carcinogenicity/Chronic Health Effects: Low chronic toxicity unless excessive exposure is encountered. Excessive exposure to copper by inhalation may result in irritation of the upper respiratory tract which, if severe, may lead to perforation of the nasal septum after long periods of exposure.

Reproductive Toxicity: No information available. **Developmental Toxicity:** No information available.

Genotoxicity: No information available.

Assessment of Carcinogenicity:

Component	Regulatory Agency Listing As Carcinogen				
	ACGIH	IARC	NTP	OSHA	
Copper hydroxide	No	No	No	No	
Sucrose	No	No	No	No	
Kaolin	No	No	No	No	
Titanium dioxide	No	No	No	No	
Amorphous silica (precipitated)	No	No	No	No	
Other Ingredients	No	No	No	No	

See Section 2: HAZARDS IDENTIFICATION for more information.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Copper Hydroxide:

96-hour LC_{50} Bluegill: 180 mg/l Bobwhite Quail Oral LC_{50} : >340 mg/kg 96-hour LC_{50} Rainbow Trout: 0.023 mg/l Mallard Duck 8-day Dietary LD_{50} : >10,000 ppm

48-hour EC₅₀ Daphnia: 0.0065 mg/l

Environmental Fate:

The degree of mobility of copper in the environment depends upon the pH of ambient soils and waters. The higher the acidity, the more soluble copper salts are and, hence, the more mobile. Partitioning of copper into the air is negligible due to the low vapor pressure of copper salts.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest Environmental Protection Agency Regional Office for guidance.

Container Handling and Disposal:

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORTATION INFORMATION

DOT

< 882 pounds per completed package:

Not regulated by DOT unless shipped by water. See IMO / IMDG description.

≥ 882 pounds per completed package:

UN3077, Environmentally hazardous substance, solid, n.o.s.,

(Copper Hydroxide), 9, III, Marine Pollutant

IMO / IMDG

UN3077, Environmentally hazardous substance, solid, n.o.s.,

(Copper Hydroxide), 9, III, Marine Pollutant

ΙΔΤΔ

UN3077, Environmentally hazardous substance, solid, n.o.s.,

(Copper Hydroxide), 9, III, Marine Pollutant

15. REGULATORY INFORMATION

EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing dust.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Immediate and delayed

Section 313 Toxic Chemical(s):

ChampION** Fungicide/Bactericide

None Listed

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: None listed.

16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

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