



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.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Champ® WG
Synonyms: Copper Hydrate, Cupric Hydroxide
EPA Reg. No.: 55146-1

Company Name: Nufarm Americas Inc. AGT Division
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

Date of Issue: August 13, 2007 **Supersedes:** March 20, 2007
Sections Revised: 14

2. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance and Odor: Light blue granules with characteristic copper odor.

Warning Statements: Keep out of reach of children. DANGER. Corrosive. Causes irreversible eye damage. Harmful if swallowed, absorbed through skin or inhaled. May cause skin sensitization reactions in certain individuals. Do not get in eyes. Avoid contact with skin or clothing. Avoid breathing dust.

Potential Health Effects:

Likely Routes of Exposure: Inhalation, eye and skin contact.

Eye Contact: Severely irritating to the eyes. Direct contact may cause destruction of eye tissue. May be corrosive to the eyes if not washed immediately.

Skin Contact: Slightly toxic and slightly irritating by dermal exposure. Excessive exposure, especially if prolonged, may cause skin irritation. Repeated exposure may cause allergic contact dermatitis.

Ingestion: Slightly toxic by oral exposure. This material may produce toxicity if ingested in large quantities. Overexposure may cause nausea and vomiting, abdominal pain, and central nervous system depression, which, if severe enough, may lead to death.

Inhalation: Slightly toxic by inhalation. Overexposure by inhalation may cause cough, mucous production, shortness of breath, reflecting metal fume fever.

Medical Conditions Aggravated by Exposure: Copper intolerant individuals should not be exposed to this material. No additional information is available on whether overexposure to this material would aggravate other existing special medical conditions.

See Section 11: TOXICOLOGICAL INFORMATION for more information.

Potential Environmental Effects:

This product is toxic to fish and aquatic organisms. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites.

See Section 12: ECOLOGICAL INFORMATION for more information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Copper Hydroxide	20427-59-2	77.0
Other Ingredients		23.0

4. FIRST AID MEASURES

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: 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.

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 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.

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

5. FIRE FIGHTING MEASURES

Flash Point: Not determined

Autoignition Temperature: Not determined

Flammability Limits: Not determined

Extinguishing Media: Use dry chemical, carbon dioxide, water spray or foam. No incompatible fire fighting media known.

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

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

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

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.

Methods for Clean-Up and Disposal: If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. If feasible, copper may be precipitated/ultrafiltrated with caustics or other chemicals and resulting sludge disposed of in a chemical landfill. 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:

Do not get in eyes. Avoid contact with skin or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 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 below 95°F (35°C). Store in a clean, dry place. Do not store near feed, food or within the reach of children. 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.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear face shield, goggles or safety glasses with front, brow and temple protection. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves made of any waterproof material. 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:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Copper Hydroxide	1*	NE	1*	NE	mg/m ³

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

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Light blue granules with characteristic copper odor.

Boiling Point:	Not applicable	Solubility in Water:	Dispersible
Density:	12 - 16 pounds/cubic foot	Specific Gravity:	1.09
Evaporation Rate:	Not applicable	Vapor Density:	Not applicable
Freezing Point:	Not determined	Vapor Pressure:	Not applicable
pH:	8 - 9 (1% w/w slurry)	Viscosity:	Not determined

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

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

Conditions to Avoid: Excessive heat.

Incompatible Materials: Acids and sulfur.

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

Hazardous Reactions: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Data from laboratory studies on this product are summarized below:

Oral: Rat LD₅₀: 846 mg/kg (female) and 943 mg/kg (male)

Dermal: Rat LD₅₀: >2,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: 1.04 mg/l (female) and 1.53 mg/l (male)

Eye Irritation: Rabbit: Severely irritating

Skin Irritation: Rabbit: Slightly irritating

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 77% 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. This product contains 7 to 8% of an inert vehicle that, itself, contains a small fraction of crystalline silica. Although crystalline silica is associated with silicosis and lung cancer, the International Agency for Research on Cancer (IARC) has evaluated this inert vehicle and designated it as a Class 3 (insufficient evidence in either animals or humans to conclude carcinogenic activity). This product contains less than 0.1% crystalline silica.

Reproductive Toxicity: No information available.

Developmental Toxicity: No information available.

Genotoxicity: No information available.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

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 EC ₅₀ 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:

Completely empty bag into application equipment. 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

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

DOT

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

IMO / IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,
(COPPER HYDROXIDE), 9, UN 3077, PG III, MARINE POLLUTANT

IATA

Not regulated

15. REGULATORY INFORMATION**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

Section 313 Toxic Chemical(s):

Copper- (CAS No. 7440-50-8), 50.0% equivalent by weight in product

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

Copper- (CAS No. 7440-50-8) 5,000 pounds

RCRA Waste Code:

None

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Listed under copper (CAS No 7440-50-8) with footnotes referencing above federal standards.

16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product

container). This MSDS 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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