

Safety Data Sheet

COMPSOL™

MRD-201

*** Section 1 - IDENTIFICATION***

Product Identifier:

COMPSOL™

Chemical Name

Copper Ammonium Carbonate Solution

Recommended Use

Burlap preserver

Restrictions on Use

None known.

Manufacturer Information

MINERAL RESEARCH & DEVELOPMENT
5910 Pharr Mill Road
Harrisburg, NC 28075

Phone: 704-455-4811
FAX: 704-454-7390
CHEMTREC: (800) 424-9300
US and Canadian Shipping Only- 1-703-527-3887

General Comments

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - HAZARD(S) IDENTIFICATION***

Classification in accordance with 29 CFR 1910.1200.

Serious eye damage/Irritation, Category 1
Specific Target Organ Toxicity - Repeated Exposure, Category 1 (liver)
Hazard to aquatic life – Acute Hazard, Category 1
Hazard to aquatic life – Chronic Hazard, Category 1
Skin corrosion/irritation, Category 1B
Acute toxicity, Inhalation, Category 3
Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory system)

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

DANGER

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Hazard Statement(s)

May cause respiratory irritation.
Toxic if inhaled.
Causes severe skin burns and eye damage.
Causes damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician.

Storage

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

Disposal

Dispose in accordance with all applicable regulations.

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS ***

CAS	Component	Percent
7732-18-5	Water	70 - 80
Proprietary	Copper ammonium carbonate complex	20 - 30

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Copper (Copper Compound) (7440-50-8), Ammonium Hydroxide (1336-21-6), Ammonia (7664-41-7).

Additional Information

This product is an approved pesticide registered with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Pesticide Registration Number 83997-2.

This Safety Data Sheet, as distributed with the pesticide product, is part of the pesticide labeling governed by the Environmental Protection Agency (40 CFR Parts 152-186) and provides information supplemental to the FIFRA required label on product packaging. This product is subject to certain labeling requirements under federal pesticide law. These requirements differ from classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels on non-pesticide chemicals. See Section 15 for specific pesticide labeling

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requirements. READ PRODUCT LABEL FOR COMPLETE INFORMATION.

This product is considered hazardous under the criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

* * * Section 4 - FIRST-AID MEASURES * * *

Description of Necessary Measures

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms/Effects

Acute

EYES: Contact can cause moderate to severe irritation and possible injury to the eyes. Overexposure will cause irritation, pain, redness, and may result in blindness.

SKIN: This product is severely irritating to the skin and may cause burns. Depending on the duration of contact, symptoms will include reddening, discomfort, irritation, ulceration, and chemical burns. Repeated contact with this material may produce dermatitis. This product contains copper and copper salts which have caused allergic skin reactions in rare cases.

INGESTION: This product may be harmful or fatal if swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion of high doses of copper salts can cause gastrointestinal disturbances, anemia, and secondary liver and kidney damage.

INHALATION: This product may be harmful by inhalation. This product is severely irritating to the respiratory system. Inhalation may produce nasal perforations.

Delayed

Causes damage to liver through prolonged or repeated exposure.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Respiratory ailments, pre-existing skin conditions, and pre-existing eye conditions may be aggravated by exposure.

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*** Section 5 - FIRE-FIGHTING MEASURES***

Suitable Extinguishing Media

This product as supplied is not a fire hazard. Use extinguishing media suitable for surrounding fire.

Unsuitable Extinguishing Media

Do not scatter spilled material with high-pressure water streams.

Specific Hazards Arising from the Chemical

Product is a water mixture. Negligible fire hazard.

Hazardous Decomposition Products

Combustion: Combustion products include irritating vapors and toxic gases, copper compounds, ammonia and nitrogen oxides.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire-fighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure

Fire Fighting Measures

Move container from fire area if it can be done without risk. Dike for later disposal. Cool containers with water spray until well after the fire is out. Withdraw immediately in case of rising sound from venting safety device. Keep unnecessary people away, isolate hazard area and deny entry. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 0 Other: 0

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



*** Section 6 - ACCIDENTAL RELEASE MEASURES***

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment

Stop the flow of material, if this is without risk. Contain the discharged material and dike the spilled material where possible. Move containers away from spill to a safe area.

Methods and Materials for Containment and Cleaning Up

Stop leak if possible without personal risk. Prevent entry into waterways, sewers, basements, or confined areas. Do not get water inside container. Neutralize spill area with citric acid or other neutralizing agent for basic liquids. Absorb spill with inert material such as polypads, or other suitable absorbent material. Rinse spill area with water and test area with litmus paper. Repeat neutralization until spill area is no longer acidic. Place material in suitable, covered, labeled containers.

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*** Section 7 - HANDLING AND STORAGE***

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid release to the environment.

Conditions for Safe Storage, including any Incompatibilities

Store locked up. Store away from direct sunlight and any sources of heat. Do not freeze. Do not store this material in open or unlabeled containers. Store in a cool, dry, well-ventilated area. Material should be stored in a secondary container or a diked area. Floors should be sealed to prevent absorption of this material.

Incompatibilities: Strong acids.

*** Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION***

Component Exposure Limits

Copper ammonium carbonate complex (Proprietary)

ACGIH:	1 mg/m ³ TWA (as Cu, dust and mist, related to Copper compounds) 35 ppm STEL (related to ammonia) 25 ppm TWA (related to ammonia)
OSHA:	1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound)) 50 ppm TWA; 35 mg/m ³ TWA (related to ammonia) 35 ppm STEL; 27 mg/m ³ STEL (related to ammonia)
NIOSH:	1 mg/m ³ TWA (as Cu, dust and mist, related to Copper compounds) 35 ppm STEL; 27 mg/m ³ STEL (related to ammonia) 25 ppm TWA; 18 mg/m ³ TWA (related to ammonia)
Mexico	0.2 mg/m ³ TWA LMPE-PPT (as Cu, fume); 1 mg/m ³ TWA LMPE-PPT (as Cu, dust and mist, related to Copper (Copper Compound)) 2 mg/m ³ STEL [LMPE-CT] (as Cu, fume); 2 mg/m ³ STEL [LMPE-CT] (as Cu, dust and mist, related to Copper (Copper Compound)) 35 ppm STEL [LMPE-CT]; 27 mg/m ³ STEL [LMPE-CT] (related to ammonia) 25 ppm TWA LMPE-PPT; 18 mg/m ³ TWA LMPE-PPT (related to ammonia)
Alberta:	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound)) 35 ppm STEL; 24 mg/m ³ STEL (related to ammonia) 25 ppm TWA; 17 mg/m ³ TWA (related to ammonia)
British Columbia:	1 mg/m ³ TWA (dust and mist); 0.2 mg/m ³ TWA (fume, related to Copper (Copper Compound)) 35 ppm STEL (related to ammonia) 25 ppm TWA (related to ammonia)
Manitoba:	1 mg/m ³ TWA (as Cu, dust and mist, related to Copper compounds) 35 ppm STEL (related to ammonia) 25 ppm TWA (related to ammonia)
New Brunswick:	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper

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	Compound)
	35 ppm STEL; 24 mg/m ³ STEL (related to ammonia)
	25 ppm TWA; 17 mg/m ³ TWA (related to ammonia)
Newfoundland and Labrador:	1 mg/m ³ TWA (as Cu, dust and mist, related to Copper compounds)
	35 ppm STEL (related to ammonia)
	25 ppm TWA (related to ammonia)
Nova Scotia:	1 mg/m ³ TWA (as Cu, dust and mist, related to Copper compounds)
	35 ppm STEL (related to ammonia)
	25 ppm TWA (related to ammonia)
Nunavut:	0.6 mg/m ³ STEL (fume); 2 mg/m ³ STEL (dust and mist, related to Copper (Copper Compound))
	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound))
	35 ppm STEL; 24 mg/m ³ STEL (related to ammonia)
	25 ppm TWA; 17 mg/m ³ TWA (related to ammonia)
Ontario:	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound))
	35 ppm STEL (related to ammonia)
	25 ppm TWA (related to ammonia)
Prince Edward Island:	1 mg/m ³ TWA (as Cu, dust and mist, related to Copper compounds)
	35 ppm STEL (related to ammonia)
	25 ppm TWA (related to ammonia)
Quebec:	0.2 mg/m ³ TWAEV (fume); 1 mg/m ³ TWAEV (dust and mist, related to Copper (Copper Compound))
	35 ppm STEL; 24 mg/m ³ STEL (related to ammonia)
	25 ppm TWA; 17 mg/m ³ TWA (related to ammonia)
Saskatchewan:	0.6 mg/m ³ STEL (fume); 3 mg/m ³ STEL (dust and mist, related to Copper (Copper Compound))
	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound))
	0.2 mg/m ³ STEL (fume); 2 mg/m ³ STEL (dust and mist, related to Copper (Copper Compound))
	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound))
	35 ppm STEL (related to ammonia)
	25 ppm TWA (related to ammonia)
Yukon:	0.2 mg/m ³ STEL (fume); 2 mg/m ³ STEL (dust and mist, related to Copper (Copper Compound))
	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist, related to Copper (Copper Compound))
	40 ppm STEL; 30 mg/m ³ STEL (related to ammonia)
	25 ppm TWA; 18 mg/m ³ TWA (related to ammonia)

Appropriate Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

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Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

Wear splash resistant safety goggles with a face-shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear chemical resistant clothing to prevent skin contact.

Glove Recommendations

Use impervious gloves. Recommended gloves include neoprene or rubber. Use of impervious apron and boots are recommended.

Respiratory Protection

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided (i.e. air-purifying respirator with an ammonia cartridge). Respirators should be selected by and used under the direction of a trained health and safety professional following the requirements found in OSHA's respirator standard (29 CFR 1901.134) and ANSI's standard for respiratory protection (Z88.2-1992), applicable U.S. regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces. A written respiratory protection program, including provisions for medical certification, training, fit-testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage, must be implemented. For concentrations above the TLV and/or PEL but less than 10 times these limits, a NIOSH approved half-facepiece respirator equipped with vapor cartridges may be used. For concentrations greater than 10 times the TLV and/or PEL, consult the NIOSH respirator decision logic found in Publication No. 87-116 or ANSI Z88.2-1992. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

PPE Pictograms:



*** Section 9 - PHYSICAL AND CHEMICAL PROPERTIES***

Appearance:	Dark Blue Liquid	Odor:	Ammonia
Physical State:	Liquid	Odor Threshold:	Not Available
Vapor Pressure:	Not available	pH:	8 - 10 @ 15°C (59°F)
Vapor Density:	Not available	Specific Gravity:	1.08 – 1.26 @ 15°C (59°F)
Boiling Point / Boiling Range:	Not available	Evaporation Rate:	Similar to water (n-BuAc = 1)
Melting Point / Freezing Point:	Not available / -5°C (23°F)	Relative Density:	9.0 – 10.5 lbs/gal
Solubility (H₂O):	Soluble	Auto-ignition Temperature:	Not available
Flash Point:	Not flammable	Decomposition Temperature:	Not available
Upper Flammable Limit (UFL):	Not applicable	Lower Flammable Limit (LFL):	Not applicable
Viscosity:	Not available	Partition Coefficient (n-octanol / water):	Not available
Flammability:	Not available		

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*** Section 10 - STABILITY AND REACTIVITY***

Reactivity

No reactivity hazard is expected.

Chemical Stability

This is a stable material.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Keep away from excessive heat, sparks and open flame. Keep away from incompatible materials.

Incompatible Materials

Strong acids.

Hazardous Decomposition Products

Combustion: Decomposition products include copper compounds, ammonia and nitrogen oxides.

*** Section 11 - TOXICOLOGICAL INFORMATION***

Acute Toxicity

No information available for the product.

The Copper complex expressed as copper oxide in this product contains copper salts which, upon ingestion of high oral doses, can cause gastrointestinal disturbances, anemia, and secondary liver and kidney damage.

Exposure to Ammonia liquid or high concentrations of vapor can cause immediate and permanent damage to the eyes, skin, and respiratory and digestive tracts, and may be fatal. Respiratory effects may be delayed and include asthma-like bronchitis, pulmonary edema, laryngeal edema and glottis spasms creating a feeling of suffocation, and pneumonitis.

Component Analysis - LD50/LC50

Copper ammonium carbonate complex (Proprietary)

Inhalation LC50 Rat : 2000 ppm/4H (related to Ammonia)

Oral LD50 Rat : 350 mg/kg (related to Ammonium hydroxide)

100 mg/m³ IDLH (dusts and mists) (related to Copper)

300 ppm IDLH (related to Ammonia)

Information on Likely Routes of Exposure

Inhalation

Toxic if inhaled. May cause respiratory tract irritation.

Ingestion

May be harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin Contact

May be harmful in contact with skin. May cause an allergic skin reaction.

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Eye Contact

May cause severe eye damage.

Immediate Effects

Allergic skin reaction, severe eye damage, respiratory system damage.

Delayed Effects

Chronic exposure to copper and its salts may cause rare cases of anemia (from hemolytic effects) and allergic contact dermatitis.

Medical Conditions Aggravated by Exposure

Pre-existing eye, respiratory system and skin conditions.

Irritation/Corrosivity Data

Respiratory tract irritation, skin burns, eye burns.

Respiratory Sensitization

No data available.

Dermal Sensitization

May cause an allergic skin reaction.

Germ Cell Mutagenicity

No data available for the mixture.

Carcinogenicity

Component Carcinogenicity

No information available for the product.

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

Respiratory system

Specific Target Organ Toxicity - Repeated Exposure

Liver.

Aspiration Hazard

Not expected to be an aspiration hazard.

* * * Section 12 - ECOLOGICAL INFORMATION * * *

Ecotoxicity

Very toxic to aquatic life. This product contains a fungicide and bactericide (Copper ammonium carbonate complex) which when released into the environment, is expected to adversely affect or destroy contaminated plants.

Component Analysis - Aquatic Toxicity

Copper ammonium carbonate complex (Proprietary)

Fish: 96 Hr LC50 Pimephales promelas: 0.0068 - 0.0156 mg/L; 96 Hr LC50 Pimephales promelas: <0.3 mg/L [static]; 96 Hr LC50 Pimephales promelas: 0.2 mg/L [flow-

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through]; 96 Hr LC50 Oncorhynchus mykiss: 0.052 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 1.25 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 0.3 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: 0.8 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 0.112 mg/L [flow-through] (related to Copper, Copper Compounds)
96 Hr LC50 Cyprinus carpio, 0.44 mg/L; 96 Hr LC50 Lepomis macrochirus, 0.26 – 4.6 mg/L; 96 Hr LC50 Lepomis macrochirus, 1.17 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas, 0.73 – 2.35 mg/L; 96 Hr LC50 Pimephales promelas, 5.9 mg/L [static]; 96 Hr LC50 Poecilia reticulata, >1.5 mg/L; 96 Hr LC50 Poecilia reticulata, 1.19 mg/L [static]. (related to ammonia)

Algae: 72 Hr EC50 Pseudokirchneriella subcapitata, 0.0426 - 0.0535 mg/L [static]; 96 Hr EC50 Pseudokirchneriella subcapitata: 0.031 - 0.054 mg/L [static] (related to Copper, Copper Compounds)

Invertebrate: 48 Hr EC50 Daphnia magna: 0.03 mg/L [Static] (related to Copper (Copper Compound))
48 Hr EC50 Daphnia magna (water flea): 25.4 mg/L (related to ammonia)

Persistence and Degradability

No information available for the product.

Bioaccumulation Potential

No information available for the product.

Mobility in Soil

No information available for the product.

*** Section 13 - DISPOSAL CONSIDERATIONS***

Disposal Methods

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Disposal of Contaminated Packaging

CONTAINER HANDLING: Do not reuse or refill product container. Triple rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

*** Section 14 - TRANSPORT INFORMATION***

US DOT Information

Shipping Name: Corrosive liquids, n.o.s. (Contains: Copper ammonium carbonate complex, Ammonium hydroxide)

UN/NA #: UN1760 **Hazard Class:** 8 **Packing Group:** II

Required Label(s): CORROSIVE

Emergency Response Guide #: 154



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TDG Information

Shipping Name: Corrosive liquids, n.o.s. (Contains: Copper ammonium carbonate complex, Ammonium hydroxide)

UN/NA #: UN1760 **Hazard Class:** 8, 9.2 **Packing Group:** II

Required Label(s): CORROSIVE



IMDG Information

Shipping Name: Corrosive liquids, n.o.s. (Contains: Copper ammonium carbonate complex, Ammonium hydroxide)

UN/NA #: UN1760 **Hazard Class:** 8 **Packing Group:** II

Required Label(s): CORROSIVE

EmS Number: F-A,S-B



* * * Section 15 - REGULATORY INFORMATION * * *

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4). SARA Section 311/312 (40 CFR 370.21) applies if quantities stored on-site exceed reporting thresholds.

Copper ammonium carbonate complex* (Proprietary)

SARA 302: TPQ = 500 pounds; RQ = 100 pounds (does not meet toxicity criteria but because of high production volume and recognized toxicity is considered a chemical of concern) (related to Ammonia)

SARA 313: form R reporting required for 1.0% de minimis concentration (related to Copper); Metallic copper equivalent = 8%.

form R reporting required for 1.0% de minimis concentration (10% total aqueous ammonia); includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources (related to Ammonia)

CERCLA: final RQ = 100 pounds (45.4 kg) (related to Ammonia)

final RQ = 1000 pounds (454 kg) (related to Ammonium hydroxide)

SARA 311/312: Acute Health Yes Chronic Health Yes Fire No Pressure No Reactive No

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

This product is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels on non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

"No labels required"

DANGER

Corrosive

Causes irreversible eye damage.

Do not get in eyes or on clothing.

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May be fatal if swallowed.

To follow the recommendations above, registrants should reprint the FIFRA hazard statements (e.g., "May be fatal if swallowed"), signal word, and symbol (if required) in Section 15 ("Regulatory Information") of the SDS. Other elements of the FIFRA label, such as directions for use, should not be included."

This product is toxic to fish.

EPA Registration No.:83997-2

EPA Establishment No.: 10465-TX-1, 10465-GA-1, 10465-NC-1

Component Marine Pollutants

This material does not contain chemicals required by US DOT to be identified as marine pollutants.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Copper ammonium carbonate complex (related to copper)	Proprietary	Yes	Yes	Yes	Yes	Yes

Other state regulations may apply. Check individual state requirements.

Not regulated under California Proposition 65

WHMIS Classification(s)

E: Corrosive

D2B: Toxic materials

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on the IDL.

Copper ammonium carbonate complex (Proprietary)

1 % (related to copper)

1% (related to ammonia)

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Copper ammonium carbonate complex (related to copper)	Proprietary	Yes	DSL	EINECS	Yes	Yes	Yes	Yes	Yes	Yes

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*** Section 16 - OTHER INFORMATION***

Summary of Changes

New MSDS: 10/2/2013; Revised 04/20/2015 v1.5; Revised 04/20/2016 v.2.0 - add FIFRA labeling requirements (Section 12) and update Section 9; Revised 05/17/2016 v.2.1 - Updated Section 6 (Cleanup procedures), Section 13 (Disposal) and Section 15 (FIFRA statement). Revised 12/11/2017 – Update ERG.

Key / Legend

ACGIH = American Conference of Governmental Industrial Hygienists; **AU** = Australia; **BOD** - Biochemical Oxygen Demand; **C** - Celsius; **CA** - Canada; **CAS** = Chemical Abstracts Service; **CERCLA** = Comprehensive Environmental Response, Compensation, and Liability Act; **CFR** = Code of Federal Regulations; **CN** = China; **CPR** = Controlled Products Regulations; **DOT** = Department of Transportation; **DSL** = Domestic Substances List; **EINECS** = European Inventory of Existing Commercial Chemical Substances; **ELINCS** = European List of Notified Chemical Substances; **EmS** = Emergency Response Procedures for Ships Carrying Dangerous Goods; **EPA** = Environmental Protection Agency; **EU** = European Union; **F** - Fahrenheit; **HEPA** = High Efficiency Particulate Air; **HMIS** = Hazardous Material Information System; **HPV** – High Production Volume Chemical (EU); **IARC** = International Agency for Research on Cancer; **IATA** = International Air Transport Association; **ICL** – In Commerce List (Canada); **IDL** - Ingredient Disclosure List; **IDLH** - Immediately Dangerous to Life and Health; **JP** = Japan; **KR** = Korea; **LEL** - Lower Explosive Limit; **MITI** = Japan Ministry of International Trade and Industry; **mg/Kg** = milligrams per Kilogram; **mg/L** = milligrams per Liter; **mg/m³** = milligrams per Cubic Meter; **MSHA** = Mine Safety and Health Administration; **NA** = Not Applicable or Not Available; **NFPA** = National Fire Protection Association; **NIOSH** = National Institute for Occupational Safety and Health; **NJTSSR** = New Jersey Trade Secret Registry; **NDSL** = Non-Domestic Substances Inventory; **NTP** = National Toxicology Program; **NZ** = New Zealand; **OSHA** = Occupational Safety and Health Administration; **PH** = Philippines; **RCRA** = Resource Conservation & Recovery Act; **RQ** = Reportable Quantity; **SARA** = Superfund Amendments and Reauthorization Act; **STEL** = Short Term Exposure Limit; **TDG** = Transport Dangerous Goods; **TSCA** = Toxic Substances Control Act; **TWA** - Time Weighted Average; **UEL** - Upper Explosive Limit; **US** - United States; **WHMIS** = Workplace Hazardous Materials Information System.

Other Information

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.

End of Sheet MRD-201