



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 08-Feb-2007

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Revision Number: 10

1. PRODUCT AND COMPANY IDENTIFICATION

UPI
 630 Freedom Business Center
 Suite 402
 King of Prussia, PA 19406

Emergency Telephone Number
 Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
 Medical: Rocky Mountain Poison Control Center
 (866) 673-6671 (24hrs)

Company Information
 UPI

Contact Information
 Customer Service
 R&D Technical Service

Phone Number
 1-800-438-6071
 610-878-6100

Available Hrs
 8:00 am to 5:00 pm EST
 8:00 am - 5:00 pm (EST)

Product Name Cuprofix® Ultra 40 Disperss®
EPA Reg # 70506-201
Recommended Use fungicide Bactericide
Product Code 12-413

2. HAZARDS IDENTIFICATION

Emergency Overview

Harmful if swallowed
Causes moderate eye irritation
May cause liver effects based on animal data.
Prolonged skin contact may cause local redness. May cause an allergic reaction in sensitive individuals.

CAUTION

Appearance Green, Khaki.

Physical State Pellets.

Odor Odorless.

Potential Health Effects

- Inhalation
- Skin contact

Eyes

Irritating to eyes.

Skin

Irritating to skin. Prolonged or repeated contact may cause irritation, redness and rash..

Inhalation

Irritating to respiratory system.

Ingestion

Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Copper sulfate, basic	1344-73-6	20-90	N/A
Sodium lignosulfonate	8061-51-6	<15	N/A
Napthalene sulfonic acid polymer with formaldehyde, sodium salt	9084-06-4	<25	N/A
Calcium sulfate dihydrate	13397-24-5	<10	5 mg/m ³ Respirable fraction. 15 mg/m ³ Total dust.

4. FIRST AID MEASURES

Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin Contact

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call poison control center or doctor for treatment advice.

Inhalation

Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration.
Call a poison control center or doctor for further treatment advice.

Ingestion Call a physician or Poison Control Center immediately
Have person sip a glass of water if able to swallow
Do not induce vomiting unless told to do so by a poison control center or doctor
Never give anything by mouth to an unconscious person

Notes to Physician No information available
Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties

Flash Point Not available
Autoignition Temperature Not available

Flammability Limits in Air Not available

Extngushing Media Use: Water spray, Foam, Carbon dioxide (CO2), Dry chemical.

Fire/Explosion Hazard Firefighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.

Hazardous Combustion Products No information available.

NFPA Health 1 Flammability 0 Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid contact with the skin and the eyes.

Environmental Precautions Do not flush into surface water or sanitary sewer system. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits..

Methods for Clean-up Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling Avoid dust formation. Keep out of reach of children. Avoid breathing dust. Handle in accordance with good industrial hygiene and safety practice.

Storage Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL
Calcium sulfate dihydrate	10 mg/m ³ Inhalable fraction.	5 mg/m ³ Respirable fraction. 15 mg/m ³ Total dust.

Engineering Controls

Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. .

PESTICIDE APPLICATORS & WORKERS. THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170..

Personal Protective Equipment

Eye/face Protection

Avoid contact with eyes. Goggles.

Skin Protection

Long sleeved clothing. Long pants. Socks and footwear.

Respiratory Protection

Avoid breathing dust. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. .

General Hygiene Considerations

Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Green Khaki	Odor	Odorless
Physical State	Pellets	pH	approx.7
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	Not available	Solubility	Dispersible in water
Evaporation Rate	Not available	Vapor Pressure	Not available
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	No data available
Bulk Density	700-100 kg/m ³	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Conditions to Avoid	Heat, flames and sparks
Incompatible Materials	Strong acids.
Hazardous Decomposition Products	Oxides of copper.
Possibility of Hazardous Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Copper sulfate

Workers exposed by inhalation have reported irritation of the nose and throat, occasional ulceration of nasal septum, and inflammation and diffuse fibrosis of the lungs. Humans exposed to high levels in drinking water have experienced abdominal pain, vomiting, diarrhea, nausea, and a metallic taste in the mouth. Accidental human poisonings have caused similar gastrointestinal symptoms and, in severe cases, fatalities due to vascular injury and hemolytic anemia which caused severe kidney and liver damage. Individuals with Wilson's Disease, a genetic defect in copper transport, may be particularly susceptible to copper exposure. Liver damage and anemia have been observed in these individuals. Greenish skin discoloration may occur from dermal contact. Although there have been some reports of contact dermatitis in human studies with copper metals, industrial exposure has rarely resulted in allergic reactions or dermatitis.

Acute inhalation exposure to guinea pigs showed evidence of reduced lung function. In studies conducted by the NTP, repeated administration in the feed of rats produced inflammation of the liver and forestomach lining, kidney damage, and slight anemia. Mice showed only inflammatory changes of the forestomach. Dietary administration prior to and during pregnancy in mice resulted in increased litter size, fetal weight, fetal mortality and the number of birth defects. No genetic changes were observed in tests using bacteria; however, changes were observed in animal cells.

Single exposure studies indicate that this material is slightly to moderately toxic if swallowed (rat LD50 300-960 mg/kg)

Napthalene sulfonic acid polymer with formaldehyde, sodium salt

Single exposure studies indicate that this material is practically non-toxic if swallowed (rat LD50 4,300 mg/kg) no more than slightly toxic if absorbed through skin (rat LD50 >2,000 mg/kg) and slightly toxic to rabbit eyes and skin.

Chronic Toxicity

There are no known carcinogenic chemicals in this product

Carcinogenicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Copper sulfate

This material is highly toxic to worms, snails, and clams (EC50 35.9-900ug/l); Daphnia magna, Daphnia pulex, crayfish, and midges (EC50 6.5-25.42ug/l); salmon (LC50 17-890 ug/l), polychaete worm, abalone, mussel, and oyster (LC50 5.3-480 ug/l); and, Florida pompano (LC50 360-510 ug/l). It is moderately to highly toxic to carp, minnows, guppies, pumpkinseed, perch, and bass (LC50 22-1760 ug/l) and bluegill sunfish (LC50 200-10,200 ug/l, depending on water hardness).

Chem Fate

The bioconcentration factor (BCF) in fish is 10-100, indicating a low potential for bioconcentration. The BCF is higher in molluscs, especially oysters, where it may reach 30,000. The biomagnification ration in fish is less than 1, indicating no biomagnification in the food chain. No bioaccumulation was obtained from a study of pollutant concentrations in the muscle and livers of 10 mammal species and no evidence of biomagnification in the food chain was observed. .

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

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

Contaminated Packaging

Non refillable container. Do not reuse this container. . Completely empty bag into application equipment. Then 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. TRANSPORT INFORMATION

DOT

When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

When shipped in bulk, by vessel, or internationally use the following shipping description:

ICAO

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s. (Basic Copper Sulfate)
Hazard Class	9
Packing Group	PG III

IATA

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substances, solid, n.o.s. (Basic copper sulfate)
Hazard Class	9
Packing Group	PG III
ERG Code	9L

IMDG/IMO

Proper Shipping Name	Environmentally hazardous substances, solid n.o.s. (Basic Copper sulfate)
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14. TRANSPORT INFORMATION

Hazard Class	9
UN-No	UN3077
Packing Group	PG III
Marine Pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

15. REGULATORY INFORMATION

International Inventories

Copper sulfate, basic

DSL	Listed
EINECS/ELINCS	Listed
CHINA	Listed
KECL	Listed

Sodium lignosulfonate

DSL	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Naphthalene sulfonic acid polymer with formaldehyde, sodium salt

DSL	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Calcium sulfate dihydrate

DSL	Listed
CHINA	Listed

USAFederal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Copper sulfate, basic	1344-73-6	20-90

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	Yes
Acute Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper sulfate, basic		Listed.		

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

CERCLA

Chemical Name	RQ
Copper sulfate, basic	Listed.

RCRA

Pesticide Information

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Copper sulfate, basic		Substance no. 2215 Listed. Substance no. 2871 Listed. Substance no. 2276 Listed. Substance no. 2275 Listed. Substance no. 2277 Listed. Substance no. 2278 Listed.		Listed.	
Calcium sulfate dihydrate	Listed.		Listed.	Listed.	Listed.

International Regulations

Mexico - Grade

Mexico - Grade

Chemical Name	Category	Carcinogen Status	Exposure Limits
Calcium sulfate dihydrate			10 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

Chemical Name	NPRI
Copper sulfate, basic	X

16. OTHER INFORMATION

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Revision Date

22-Dec-2010

Revision Summary

Update section 8 Update section 13

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End of MSDS