



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 08-Feb-2007

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Revision Number: 11

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

Contact Information

Phone Number

Available Hrs

UPI

Customer Service 1-800-438-6071
R&D Technical Service 610-223-2180

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

Product Name

EPA Reg

Recommended Use

Product Code

Cuprofix® Ultra 40 Disperss®
70506-201
fungicide Bactericide
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 Solid. Dry Flowable.

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
Calcium sulfate dihydrate	13397-24-5	<10	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction
Napthalene sulfonic acid polymer with formaldehyde, sodium salt	9084-06-4	<25	N/A
Sodium lignosulfonate	8061-51-6	<15	N/A

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

If breathing is irregular or stopped, administer artificial respiration
May cause allergic respiratory reaction
Call a poison control center or doctor for further treatment advice.

Ingestion Call a physician or poison control center immediately
May produce an allergic reaction
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

Extnguishing 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	Calcium sulfate dihydrate
ACGIH TLV	TWA: 10 mg/m ³ inhalable fraction
OSHA PEL	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction

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

Eyeface 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	Solid Dry Flowable	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) Naphthalene 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

Carcinogenicity

There are no known carcinogenic chemicals in this product.

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

Proper Shipping Name
Hazard Class
UN-No
Packing Group
Marine pollutant

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 IMDG shipping description:

Environmentally hazardous substances, solid, n.o.s. (Basic Copper sulfate)
9
UN3077
PG III
Y.

ICAO

UN-No
Proper Shipping Name
Hazard Class
Packing Group
Description

UN3077
Environmentally hazardous substance, solid, n.o.s (Basic Copper Sulfate)
9
PG III
Marine pollutant

IATA

UN-No
Proper Shipping Name

UN3077
Environmentally hazardous substances, solid, n.o.s. (Basic copper sulfate)

12-413

Cuprofix® Ultra 40 Disperss®

Hazard Class	9
Packing Group	PG III
ERG Code	9L
Description	Marine pollutant

IMDG/IMO

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

Chemical Name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	CHINA	KECL	AICS
Copper sulfate, basic	XU	X		X	(1)-300	X	KE-32586	X
Calcium sulfate dihydrate		X			(1)-193	X		
Napthalene sulfonic acid polymer with formaldehyde, sodium salt	XU	X			(4)-557	X	KE-25565	X
Sodium lignosulfonate	XU	X			(8)-209	X	KE-31519	X

USA**Federal Regulations****SARA 313**

Y

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

This product does not contain any HAPs.

CERCLA**RCRA****Pesticide Information**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Copper sulfate, basic 1344-73-6 (20-90)			X	
Napthalene sulfonic acid polymer with formaldehyde, sodium salt 9084-06-4 (<25)			X	
Sodium lignosulfonate 8061-51-6 (<15)			X	

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
Calcium sulfate dihydrate		X	X		

International Regulations

Mexico - Grade

Mexico - Grade

Component	Category	Carcinogen Status	Exposure Limits
Calcium sulfate dihydrate 13397-24-5 (<10)			Mexico: TWA 10 mg/m³

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

16. OTHER INFORMATION

Revision Date

22-Aug-2013

Revision Summary

Recurrent confirmation/update of data

UPI, Inc. believes that the information and recommendations container herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPI, Inc. UPI, Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of MSDS