



# Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 08-Feb-2007

Revision Date 22-Dec-2010

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

### 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** 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 <sup>3</sup> Respirable fraction. 15 mg/m <sup>3</sup> 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**  
**Autoignition Temperature**

Not available  
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	ACGIH TLV	OSHA PEL
Calcium sulfate dihydrate	10 mg/m <sup>3</sup> Inhalable fraction.	5 mg/m <sup>3</sup> Respirable fraction. 15 mg/m <sup>3</sup> 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

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

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions
<b>Conditions to Avoid</b>	Heat, flames and sparks
<b>Incompatible Materials</b>	Strong acids.
<b>Hazardous Decomposition Products</b>	Oxides of copper.
<b>Possibility of Hazardous Polymerization</b>	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 ratio 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

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

### IATA

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

### IMDG/IMO

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

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

## 15. REGULATORY INFORMATION

International Inventories

Copper sulfate, basic

<b>DSL</b>	Listed
<b>EINECS/ELINCS</b>	Listed
<b>CHINA</b>	Listed
<b>KECL</b>	Listed

Sodium lignosulfonate

<b>DSL</b>	Listed
<b>ENCS</b>	Listed
<b>CHINA</b>	Listed
<b>KECL</b>	Listed

Naphthalene sulfonic acid polymer with formaldehyde, sodium salt

<b>DSL</b>	Listed
<b>ENCS</b>	Listed
<b>CHINA</b>	Listed
<b>KECL</b>	Listed

Calcium sulfate dihydrate

<b>DSL</b>	Listed
<b>CHINA</b>	Listed

USAFederal Regulations

SARA 313

Y

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

## SARA 311/312 Hazardous Categorization

<b>Chronic Health Hazard</b>	Yes
<b>Acute Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	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 <sup>3</sup>

**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**



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**