



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 08-Feb-2007

Revision Date 19-Nov-2009

Revision Number: 6

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

PENNCOZEB® 4FL

70506-194

fungicide

12-394A

2. HAZARDS IDENTIFICATION

Emergency Overview

Mild eye irritation
Harmful by inhalation, in contact with skin and if swallowed

CAUTION

Appearance Yellow, Green.

Physical State Liquid.

Odor Pungent.

Potential Health Effects

- Inhalation
- Skin contact

Eyes

Irritating to eyes.

Skin

Irritating to skin.

Inhalation

Slightly toxic if inhaled.

Ingestion

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	37	N/A
Ethylene thiourea	96-45-7	0-0.5	N/A
Napthalenesulfonic acid, sodium salt, polymer with...	9008-63-3	1.47	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

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

5. FIRE-FIGHTING MEASURES**Flammable Explosive Properties**

Flash Point	Not available
Autoignition Temperature	Not available

Flammability Limits in Air	Not available
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Extnguishing Media	Use: Water spray, Carbon dioxide (CO2), Foam, Dry chemical.
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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.
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Hazardous Combustion Products	Carbon disulfide, ethylene thiourea (ETU) .
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NFPA	Health 1	Flammability 0	Instability 0
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with the skin and the eyes. Use personal protective equipment.
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Environmental Precautions	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.. Do not flush into surface water or sanitary sewer system.
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Methods for Clean-up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.
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7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Keep out of reach of children.
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Storage	Keep tightly closed in a dry and cool place. Keep in properly labelled containers.
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

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. .

Personal Protective Equipment

Eye/face Protection

Avoid contact with eyes. Goggles.

Skin Protection

Rubber gloves. Wear protective gloves/clothing.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. .

General Hygiene Considerations

Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow Green	Odor	Pungent
Physical State	Liquid	pH	8
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	1.27-1.33	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	1270 kg/m ³	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability

Stable under recommended storage conditions

Conditions to Avoid

No information available.

Incompatible Materials

Strong oxidizing agents. Strong acids. quaternary ammonium salts. EDBC sequestering agents.

Hazardous Decomposition Products

carbon disulfide, ethylene thiourea. Oxides of sulfur.

Possibility of Hazardous Polymerization

Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information**Maneb**

Single exposure studies indicate that this material is practically non-toxic if swallowed (rat LD50 >5,000 mg/kg), no more than slightly toxic if absorbed through skin (rabbit LD50>2,000 mg/kg), practically non-toxic if inhaled (rat 4 hr LC50 5.34-7.38 mg/l) and is slightly irritating to rabbit eyes and skin.

An increased risk of retinal degeneration was observed in some workers. Skin allergy has been observed in guinea pigs following repeated exposure. Repeated and long-term oral administration produced adverse effects on the thyroid in mice, rats, and dogs. Long-term oral administration produced an increased incidence of lung tumors in mice and one strain, but not in three other strains. No effects were seen on the ability of male and female rats to reproduce when exposed orally for multiple generations, although adverse effects were noted in the liver and thyroid. Developmental delays, but not birth defects, were observed in the offspring of rats exposed orally during pregnancy, but only at doses that produced adverse effects on the mothers. No genetic changes were observed in tests using bacteria, animal cells or animals.

Chronic Toxicity

There are no known carcinogenic chemicals in this product

Carcinogenicity

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethylene thiourea			X	

12. ECOLOGICAL INFORMATION**Ecotoxicity**

No information available.

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. . Dispose of contents/container in accordance with local regulation.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

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 use IMDG shipping description

ICAO

Not regulated

14. TRANSPORT INFORMATION

IATA

UN-No	3082
Proper Shipping Name	Environmentally hazardous substances, liquid, n.o.s. (Mancozeb)
Hazard Class	9
Packing Group	PG III
ERG Code	9L

IMDG/IMO

Proper Shipping Name	Environmentally hazardous substances, liquid, n.o.s. Mancozeb
Hazard Class	9
UN-No	3082
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

Zinc manganese ethylenebis dithiocarbamate

ENCS	Listed
CHINA	Listed
KECL	Listed

Ethylene thiourea

DSL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Naphthalenesulfonic acid, sodium salt, polymer with...

DSL	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

USAFederal Regulations**SARA 313**

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Chemical Name	CAS-No	Weight %
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	37
Ethylene thiourea	96-45-7	0-0.5

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	No
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 contains the following HAPs:

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	37	Listed.			
Ethylene thiourea	96-45-7	0-0.5	Listed.			

CERCLA

Chemical Name	RQ
Zinc manganese ethylenebis dithiocarbamate	Listed.
Ethylene thiourea	Listed.

RCRA

Chemical Name	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethylene thiourea			U116

Pesticide Information**State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	California Prop. 65
Zinc manganese ethylenebis dithiocarbamate	8018-01-7		Listed. Listed: January 1, 1990 Carcinogenic.
Ethylene thiourea	96-45-7		Listed. Listed: January 1, 1988 Carcinogenic. Listed: January 1, 1993 Developmental toxin. 20 ug/day

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Zinc manganese ethylenebis dithiocarbamate		Substance no. 2370 Listed. Substance no. 2369 Listed. Substance no. 2371 Listed. Substance no. 2372 Listed. Substance no. 2324 Listed.		Listed.	Listed.
Ethylene thiourea	Listed.	Substance no. 0883 Listed. Substance no. 0883 Special hazard.	Listed.	Listed.	Listed.

International Regulations**Mexico - Grade**

Not available

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
Zinc manganese ethylenebis dithiocarbamate	X
Ethylene thiourea	X

16. OTHER INFORMATION

Revision Date

19-Nov-2009

Revision Summary

Update section 14 Update section 15

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End of MSDS