






# Material Safety Data Sheet

## United Phosphorus, Inc.

<b>NFPA</b>	<b>PPE</b>		
			

Issued Date 02-Nov-2007

Revision Date 19-Nov-2009

Revision Number: 7

### 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** PENNCOZEB® 75 DF  
**EPA Reg #** 70506-185  
**Recommended Use** fungicide  
**Product Code** 12-370

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

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

#### CAUTION

**Appearance** Grey, Yellow, Brown.

**Physical State** Free flowing microgranules.

**Odor** Slight. Rotten egg-like.

#### Potential Health Effects

- Inhalation
- Skin contact

**Eyes**

May cause slight irritation.

**Skin**

Irritating to skin.

**Inhalation**

Slightly toxic if inhaled.

**Ingestion**

Harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	75	N/A
Ethylene thiourea	96-45-7	0-0.5	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



## 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

Handle in accordance with good industrial hygiene and safety practice

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Grey Yellow Brown	<b>Odor</b>	Slight Rotten egg-like
<b>Physical State</b>	Free flowing microgranules	<b>pH</b>	(1% solution)6.9
<b>Boiling Point/Range</b>	Not available	<b>Melting Point/Range</b>	Decomposes before melting
<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>	0.63 g/ml	<b>Percent Solids</b>	Not available
<b>Percent Volatiles</b>	Not available		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
<b>Conditions to Avoid</b>	Protect from water.
<b>Incompatible Materials</b>	Strong acids. Strong oxidizing agents. Water. quaternary ammonium salts. EDBC sequestering agents.
<b>Hazardous Decomposition Products</b>	carbon disulfide, ethylene thiourea.
<b>Possibility of Hazardous Polymerization</b>	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**

**Carcinogenicity**

The information below indicates whether any agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethylene thiourea			X	

**IARC: (International Agency for Research on Cancer)**

A trace contaminant, Ethylene thiourea (ETU) a breakdown product of Maneb, has been categorized as a probable human carcinogen by NTP.

**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

## 14. TRANSPORT INFORMATION

**ICAO** Not regulated

**IATA**

**UN-No** 3077  
**Proper Shipping Name** Environmentally hazardous substances, solid, n.o.s. (Mancozeb)  
**Hazard Class** 9  
**Packing Group** PG III  
**ERG Code** 9L

**IMDG/IMO**

**Proper Shipping Name** Environmentally hazardous substances, solid, n.o.s. Mancozeb  
**Hazard Class** 9  
**UN-No** 3077  
**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

**USA****Federal Regulations**

**SARA 313**  
 Y

Chemical Name	CAS-No	Weight %
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	75
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	75	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**

WHMIS Hazard Class

Chemical Name	NPRI
Zinc manganese ethylenebis dithiocarbamate	X
Ethylene thiourea	X

**16. OTHER INFORMATION**

Revision Date 19-Nov-2009

**Revision Summary**

Update section 15 Update section 14

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**End of MSDS**