



United Phosphorus, Inc.

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

Issued Date 07-Feb-2007

Revision Date 20-Aug-2013

Revision Number: 9

**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)

<u>Company Information</u>	<u>Contact Information</u>	<u>Phone Number</u>	<u>Available Hrs</u>
UPI	Customer Service R&D Technical Service	1-800-438-6071 610-223-2180	8:00 am to 5:00 pm EST 8:00 am - 5:00 pm (EST)

**Product Name** PENNCOZEB® 80 WP  
**EPA Reg #** 70506-183  
**Recommended Use** fungicide  
**Product Code** 12-358

**2. HAZARDS IDENTIFICATION**

<b>Emergency Overview</b> Mild eye irritation Harmful by inhalation, in contact with skin and if swallowed		
<b>CAUTION</b>		
<b>Appearance</b> Grey, Green, Yellow.	<b>Physical State</b> Powder.	<b>Odor</b> Slight. Rotten egg-like.

**Potential Health Effects**

- Inhalation
  - Skin contact
- |                   |                              |
|-------------------|------------------------------|
| <b>Eyes</b>       | May cause slight irritation. |
| <b>Skin</b>       | Irritating to skin.          |
| <b>Inhalation</b> | Slightly toxic if inhaled.   |
| <b>Ingestion</b>  | May be harmful if swallowed. |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Sodium lauryl sulfate	151-21-3	5	N/A
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	80	N/A
Ethylene thiourea	96-45-7	0-0.5	N/A

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.
<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
<b>Notes to Physician</b>	No information available

### 5. FIRE-FIGHTING MEASURES

#### Flammable Explosive Properties

**Flash Point** Not available  
**Autoignition Temperature**  
152 C

**Flammability Limits in Air**  
**Lower** 80 g/m<sup>3</sup> (for dust in air)

**Extinguishing Media** Use: Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, 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** Carbon disulfide, ethylene thiourea (ETU), If heated to decomposition (>235 F) flammable ethylene is produced.

**NFPA**

**Health 2**

**Flammability 0**

**Instability 0**

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Avoid dust formation. Use personal protective equipment.
<b>Environmental Precautions</b>	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.
<b>Methods for Clean-up</b>	Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid dust formation. Avoid breathing dust. Keep out of reach of children. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Storage</b>	Keep tightly closed in a dry and cool place. If allowed to become wet the product will deteriorate and represent a fire hazard.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

<b>Engineering Controls</b>	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 Green Yellow	<b>Odor</b>	Slight Rotten egg-like
<b>Physical State</b>	Powder	<b>pH</b>	(1% solution); approx 7
<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>	0.59 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
<b>Hazardous Decomposition Products</b>	Oxides of carbon and nitrogen
<b>Possibility of Hazardous Polymerization</b>	Hazardous polymerisation does not occur

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Product Information

**Mancozeb 80:**  
**Acute oral LD50 (rat) = > 5.0 g/kg**  
**Acute dermal LD50 (rabbit) = >2.0 g/kg**  
**Acute inhalation LC50 (rat)= >5.2 mg/L air 4 hr**  
**Skin irritation (rabbit) = slightly irritating**

### 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		Group 3	Reasonably Anticipated	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

Chem Fate: No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method** Dispose of contents/container in accordance with local regulation. 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** 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, by vessel, or internationally use the IMDG shipping description:

**ICAO**  
**UN-No** UN3077  
**Proper Shipping Name** Environmentally hazardous substance, solid, n.o.s mancozeb  
**Hazard Class** 9  
**Packing Group** PG III

**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**

Chemical Name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	CHINA	KECL	AICS
Sodium lauryl sulfate	Present	X		X	(2)-1679 (2)-1675	X	KE-21884	X
Zinc manganese ethylenebis dithiocarbamate					(2)-2127 (2)-1841	X	KE-13636	X
Ethylene thiourea	Present	X		X	(5)-423	X	KE-20941	X

**USA**

**Federal Regulations**

**SARA 313**  
Y

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Ethylene thiourea	96-45-7	0-0.5	0.1

**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**

**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	80				
Ethylene thiourea	96-45-7	0-0.5				

**CERCLA**

Component	RQ
Ethylene thiourea 96-45-7 ( 0-0.5 )	10 lb

**RCRA**

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethylene thiourea 96-45-7 ( 0-0.5 )			U116

**Pesticide Information**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Sodium lauryl sulfate 151-21-3 ( 5 )			X	
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 80 )			X	
Ethylene thiourea 96-45-7 ( 0-0.5 )			X	

**State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	California Prop. 65	Non-additive, corrosive chemical type
---------------	--------	----------	---------------------	---------------------------------------

Zinc manganese ethylenebis dithiocarbamate	8018-01-7	Carcinogen	Carcinogen	
Ethylene thiourea	96-45-7	Carcinogen	Carcinogen Developmental	

**State Right-to-Know**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Zinc manganese ethylenebis dithiocarbamate				X	
Ethylene thiourea	X	X	X	X	

**International Regulations**

**Mexico - Grade** Not available

Component	Category	Carcinogen Status	Exposure Limits
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 80 )	Carcinogen		
Ethylene thiourea 96-45-7 ( 0-0.5 )	Carcinogen		

**Canada**

This product has not been classified under the hazard criteria of the Controlled Products Regulations (CPR)

**WHMIS Hazard Class**

Not determined

Chemical Name	NPRI
Ethylene thiourea	X

**16. OTHER INFORMATION**

**Revision Date** 20-Aug-2013

**Revision Summary**

Recurrent confirmation/update of data

UPI, Inc. believes that the information and recommendations contained 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**