



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 11-Mar-2011

Revision Date

Revision Number: 0

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® 80 WP
EPA Reg # 70506-183 / PMRA PCP No 25396
Recommended Use fungicide
Product Code 12-358CAN

2. HAZARDS IDENTIFICATION

Emergency Overview

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

CAUTION

Appearance Grey, Green, Yellow.

Physical State Powder.

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

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

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 152°C

Flammability Limits in Air
Lower 80 g/m³ (for dust in air)

Extnguishing Media Use: Water spray Carbon dioxide (CO2) 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

Personal Precautions Avoid contact with skin, eyes and clothing. Avoid dust formation. Use personal protective equipment.

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.

Methods for Clean-up Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling Avoid dust formation. Avoid breathing dust. Keep out of reach of children. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage 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

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

Appearance	Grey Green Yellow	Odor	Slight Rotten egg-like
Physical State	Powder	pH	(1% solution) approx.7
Boiling Point/Range	Not available	Melting Point/Range	Decomposes before melting
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	0.59 g/ml	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

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

IARC: (International Agency for Research on Cancer)

A trace contaminant, Ethylene thiourea (ETU) a breakdown product of Maneb, has been catergorized 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 following shipping description:

ICAO

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s (Mancozeb)
Hazard Class	9
Packing Group	PG III

14. TRANSPORT INFORMATION

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

Sodium lauryl sulfate

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

Zinc manganese ethylenebis dithiocarbamate

ENCS Listed
CHINA Listed
KECL Listed

Ethylene thiourea

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

USAFederal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	80
Ethylene thiourea	96-45-7	0-0.5

SARA 311/312 Hazardous Categorization

Chronic Health Hazard Yes
Acute Health Hazard Yes
Fire Hazard No

Sudden Release of Pressure Hazard
Reactive Hazard

No
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	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 not been classified under the hazard criteria of the Controlled Products Regulations (CPR)

WHMIS Hazard Class

Not determined

Chemical Name	NPRI
Zinc manganese ethylenebis dithiocarbamate	X
Ethylene thiourea	X

16. OTHER INFORMATION

Revision Date

Revision Summary

Add to system

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End of MSDS