

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

**Product identifier****Product Description:** Penncozeb® 80 WP**Other means of identification****Product code** 12-358CAN**Registration number(s)** PCPA Reg No. 25396**Recommended use of the chemical and restrictions on use****Recommended use** Fungicides.**Uses advised against** Activities contrary to label recommendation**Details of the Supplier of the Safety Data Sheet****Supplier Address**UPL NA Inc.  
630 Freedom Business Center  
Suite 402  
King of Prussia, PA 19406**Emergency telephone number****Company Phone Number** 1-800-438-6071**Emergency telephone number** Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887Medical: Rocky Mountain Poison Control Center  
(866) 673-6671 (24hrs)

## 2. Hazards Identification

**Classification****OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Skin sensitization	Category 1
Reproductive Toxicity	Category 1B

**Label elements****EMERGENCY OVERVIEW****DANGER****Hazard Statements**

Harmful in contact with skin

May cause an allergic skin reaction

May damage fertility or the unborn child

Toxic to aquatic life



<b>Appearance</b> grey Yellow brown	<b>Physical state</b> Free flowing microgranules	<b>Odor</b> Slight Rotten egg-like
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**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood  
 Wear cold insulating gloves/face shield/eye protection  
 Do not get in eyes, on skin, or on clothing  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 Call a POISON CENTER or doctor if you feel unwell  
 Wash contaminated clothing before reuse  
 If skin irritation or rash occurs: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards Not Otherwise Classified (HNOC)****OTHER INFORMATION**

- Causes mild skin irritation
- Very toxic to aquatic life

### 3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	80
Ethylene thiourea	96-45-7	0-0.5
Sodium diisopropyl naphthalene sulfonate	1332-93-6	2.07

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

### 4. First aid measures

**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 a poison control center or doctor for treatment advice.
<b>Inhalation</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

**Most Important Symptoms and Effects, Both Acute and Delayed**

**Most Important Symptoms and** no data available.

**Effects****Indication of Any Immediate Medical Attention and Special Treatment Needed**

**Notes to physician** No information available.

**5. Fire-fighting measures****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>).

Use: Dry chemical. Water spray. alcohol-resistant foam.

**Unsuitable extinguishing media** no data available.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapours.

**Hazardous combustion products** If heated to decomposition (>235 F) flammable ethylene is produced.

**Explosion data****Protective equipment and precautions for firefighters**

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****Personal Precautions**

Avoid contact with skin and eyes. Wear protective gloves/protective clothing and eye/face protection. Wash thoroughly after handling.

**Environmental Precautions****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 and material for containment and cleaning up****Methods for Clean-Up**

Sweep up and shovel into suitable containers for disposal.

**7. Handling and Storage****Precautions for safe handling****Handling**

Avoid breathing dust. Keep out of reach of children. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

**Conditions for safe storage, including any incompatibilities****Storage**

Keep tightly closed in a dry and cool place. If allowed to become wet the product will deteriorate and represent a fire hazard. Keep containers tightly closed in a cool, well-ventilated place.

**incompatible materials**

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

**8. Exposure Controls/Personal Protection****Exposure guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**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**

Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles.

**Skin protection**

Wear protective gloves/clothing. Long sleeved clothing. Socks and footwear.

**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. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

<b>Physical state</b>	Free flowing microgranules	<b>Odor</b>	Slight Rotten egg-like
<b>Appearance</b>	grey Yellow brown		
<b>color</b>	No information available		

Property	VALUES	Remarks/ • Method
pH	6.9	
Melting point/freezing point	7.9 °C / 46 °F	
Boiling Point/Range	No information available	
Flash Point	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability limit in air		
Upper Flammability Limit	No information available	
Lower Flammability Limit	80 g/m <sup>3</sup> (for dust in air)	
vapor pressure	No information available	
Vapor Density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in Other Solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	159 C	
Decomposition temperature	No information available	
Viscosity, kinematic	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

**OTHER INFORMATION**

<b>Softening point</b>	No information available
<b>molecular weight</b>	No information available
<b>VOC Content</b>	No information available

**Liquid Density** No information available  
**Bulk density** 0.63 g/ml

## 10. Stability and Reactivity

### Reactivity

no data available

### Chemical stability

Stable under normal conditions. Hazardous polymerisation does not occur.

### Possibility of hazardous reactions

None under normal processing.

#### **Hazardous polymerization**

Hazardous polymerisation does not occur.

### Conditions to avoid

Protect from water.

### incompatible materials

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

### Hazardous decomposition products

Lead oxides.

## 11. Toxicological Information

### Information on Likely Routes of Exposure

#### **Product information**

Mancozeb:  
 Acute oral LD50 (rat) = >5.0 g/kg  
 Acute dermal LD50 (rabbit) = >2.0 g/kg  
 Acute Inhalation LC50 (rat) = >5.2 mg/L - 4 hr

#### **Inhalation**

Harmful by inhalation.

#### **Eye contact**

Moderately irritating to the eyes.

#### **Skin contact**

May be harmful if absorbed through the skin.

#### **Ingestion**

MAY BE HARMFUL IF SWALLOWED.

### Information on Toxicological Effects

#### **Symptoms**

No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### **Sensitization**

May cause sensitization by skin contact.

#### **Mutagenic effects**

no data available.

#### **Carcinogenicity**

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

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylene thiourea 96-45-7	-	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.*

#### **Reproductive effects**

May damage fertility or the unborn child.

#### **STOT - Single Exposure**

no data available.

#### **STOT - Repeated Exposure**

no data available.

<b>Chronic toxicity</b>	Avoid repeated exposure.
<b>Target organ effects</b>	Respiratory System, EYES, skin.
<b>Aspiration hazard</b>	No information available.

**Numerical Measures of Toxicity - Product information**

<b>LD50 Oral</b>	5000 mg/kg
<b>LD50 Dermal</b>	> 2000 mg/kg (rat)
<b>LC50 Inhalation</b>	> 20 mg/l (1 hr)

**12. Ecological Information****ecotoxicity**

Mancozeb = Rainbow trout = 0.73 mg/L 96 hr  
 Fathead minnow 0.57 mg/L 96 hr  
 Bluegill sunfish = 0.84 mg/L 96 hr  
 Freshwater algae = 0.43 mg/L 72 hr

**Persistence/Degradability**

no data available.

**Bioaccumulation/ Accumulation**

Does not bioaccumulate.

**Other Adverse Effects**

no data available

**13. Disposal Considerations****Waste Treatment Methods****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**

Refer to product label.

**14. Transport Information****DOT**

Not regulated when shipped domestically by highway in non-buk containers as per 49 CFR 171.4

When shipped in bulk, by vessel, or internationally use the IMDG shipping description:

**TDG**

When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1  
 In bulk - use IMDG description

**IATA**

UN/ID no.

UN3077

**Proper shipping name** Environmentally hazardous substances, solid, n.o.s Mancozeb  
**Hazard class** 9  
**Packing group** PG III  
**Description** IMDG - Marine Pollutant

**IMDG**

**UN/ID no.** UN3077  
**Proper shipping name** Environmentally hazardous substances, solid, n.o.s (Mancozeb)  
**Hazard class** 9  
**Packing group** PG III  
**Environmental hazards** IMDG - Marine Pollutant

**15. Regulatory Information**

This chemical/product is a pesticide product registered by the PMRA and is subject to specific label requirements under these regulations. The requirements may differ classification and hazard information required for safety data sheets and for labels of non-pesticide products. The following is information as required on the registered product label.

**Keep out of Reach of Children. May irritate eyes, nose, throat and skin. Potential skin sensitizer.**

**International Inventories**

**USINV** Not present  
**DSL/NDSL** Not present  
**EINECS/ELINCS** Not Present  
**ENCS** Not Present  
**China** Not Present  
**KECL** Not Present  
**PICCS** Not Present  
**AICS** Not Present  
**TSCA** Not Present

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

**CERCLA**

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Ethylene thiourea 96-45-7	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

**CERCLA**

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

**SARA Product RQ** 0

**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**

**State Regulations**

Component	CAS No	CATEGORY
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 80 )	8018-01-7	Carcinogen
Ethylene thiourea 96-45-7 ( 0-0.5 )	96-45-7	Carcinogen
Component	California Prop. 65	Non-additive, corrosive chemical type
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 80 )	Carcinogen	
Ethylene thiourea 96-45-7 ( 0-0.5 )	Carcinogen Developmental	

**State Right-to-Know**

Not applicable

**International regulations**

**U.S. EPA Label information**

EPA Pesticide registration number PCPA Reg No 25396

**16. Other Information**

**NFPA**                      **HEALTH 2**                      **flammability 0**                      **Instability 0**                      **Physical hazard -**

**Preparation Date**                      02-May-2015

**Revision date**                      06-Jan-2019

**Revision Summary**

Update logo Update section 1 Update Section 16

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**End of SDS**