

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

Product identifier**Product Description:** PENNCOZEB® 75 DF**Other means of identification****Product code** 12-370**Registration number(s)** 70506-185**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



| | | |
|-------------------------------------|--|------------------------------------|
| Appearance grey Yellow brown | Physical state Free flowing microgranules | Odor Slight Rotten egg-like |
|-------------------------------------|--|------------------------------------|

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 | 75 |
| 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

| | |
|---------------------|---|
| 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 a 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, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately. |
| Ingestion | 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**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

No information available.

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

| | | | |
|-----------------------|----------------------------|-------------|------------------------|
| Physical state | Free flowing microgranules | Odor | Slight Rotten egg-like |
| Appearance | grey Yellow brown | | |
| color | No information available | | |

| <u>Property</u> | <u>VALUES</u> | <u>Remarks/ • Method</u> |
|---|--------------------------|--------------------------|
| 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 | No information available | |
| 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

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| molecular weight | No information available |
| VOC Content | 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 recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

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. |
| Aspiration hazard | No information available. |

Numerical Measures of Toxicity - Product information

| | |
|------------------------|---|
| LD50 Oral | 5000 mg/kg (rat) |
| LD50 Dermal | > 2000 mg/kg (rat) |
| LC50 Inhalation | LC50/inhalation/4h/rat = > 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

No information available.

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:

IATA

| | |
|-----------------------------|---|
| UN/ID no. | UN3077 |
| Proper shipping name | Environmentally hazardous substances, solid, n.o.s Mancozeb |
| Hazard class | 9 |
| Packing group | PG III |
| Description | 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 is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION

Ventilation Control 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.

Keep out of Reach of Children. Causes moderate eye irritation. Harmful if swallowed. Harmful if inhaled or absorbed through skin. Toxic to fish.

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 (75) | 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 (75) | 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 70506-185

16. Other Information

NFPA

HEALTH 2

flammability 0

Instability 0

Physical hazard -

Preparation Date 02-May-2015

Revision date 02-Jan-2019

Revision Summary

Update logo Update section 1 Update Section 16***

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End of SDS