



# Safety Data Sheet

Preparation Date 20-May-2015

Revision date 10-Mar-2022

Revision Number: 4

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

### Identification of the product

**Product Description** Manzate Pro-Stick

### Other means of identification

**Internal SDS code** 12-371CAN

**UN/ID no** UN3077

**Registration number(s)** PCPA Canada Registration No - 28217

### 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 Agrosolutions Canada Inc.  
c/o 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** Chemtec: (800) 424-9300 (24hrs) or (703) 527-3887  
Medical: Rocky Mountain Poison and Drug Safety (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 2 |

### Label elements

#### EMERGENCY OVERVIEW

#### WARNING

#### Hazard Statements

Harmful in contact with skin

May cause an allergic skin reaction

Suspected of damaging fertility or the unborn child



**Appearance** Yellow**Physical state** solid**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  
 Use only outdoors or in a well-ventilated area  
 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  
 Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

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

- Very toxic to aquatic life
- May be harmful in contact with skin

### 3. Composition/information on Ingredients

| Chemical name     | CAS No    | Weight-% |
|-------------------|-----------|----------|
| Mancozeb          | 8018-01-7 | 75       |
| Ethylene thiourea | 96-45-7   | 0-0.1    |

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> | Remove contaminated clothing and shoes. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Remove and wash contaminated clothing before re-use.      |
| <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 poison control center or doctor for further treatment advice. |
| <b>Ingestion</b>    | Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician or poison control center immediately.  |

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

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

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

**Notes to physician** Treat symptomatically.

## 5. Fire-fighting measures

**Suitable extinguishing media**

Use: Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray. alcohol-resistant foam.

**Unsuitable extinguishing media** no data available.

**Specific hazards arising from the chemical**

No information available.

**Hazardous combustion products** Carbon disulfide, ethylene thiourea (ETU). Sulfur oxides. Oxides of nitrogen. Oxides of carbon.

**Explosion data**

**Protective equipment and precautions for firefighters**

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** Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental Precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for Clean-Up** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

## 7. Handling and Storage

**Precautions for safe handling**

**Handling** Wear personal protective equipment. Do not breathe vapours or spray mist. Use only in area provided with appropriate exhaust ventilation. Use product only in closed system.

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

**Storage** Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Protect from light. Keep in properly labelled containers.

**incompatible materials** Strong oxidizing agents. Acids.

## 8. Exposure Controls/Personal Protection

**Exposure guidelines**

| Chemical name | ACGIH TLV | OSHA PEL                               |
|---------------|-----------|--|
| Mancozeb      |           | (vacated) Ceiling: 5 mg/m <sup>3</sup> |

**Engineering controls** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240 (d) (4-6) ], the handler PPE requirements may be reduced or modified as specified in the WPS.

**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. Goggles.

**Skin protection**

Wear protective gloves/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 and face before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

|                       |                          |
|-----------------------|--------------------------|
| <b>Appearance</b>     | Yellow                   |
| <b>Physical state</b> | solid                    |
| <b>Odor</b>           | Slight Rotten egg-like   |
| <b>color</b>          | No information available |

| <u>Property</u>                               | <u>VALUES</u>            | <u>Remarks/ Method</u> |
|---|--------------------------|------------------------|
| <b>pH</b>                                     |                          | None known             |
| <b>Melting point/freezing point</b>           |                          | None known             |
| <b>Boiling Point/Range</b>                    |                          | None known             |
| <b>Flash Point</b>                            |                          | None known             |
| <b>Evaporation Rate</b>                       |                          | None known             |
| <b>Flammability (solid, gas)</b>              |                          | None known             |
| <b>Specific gravity</b>                       |                          | None known             |
| <b>Bulk density</b>                           | 40-45 lb/cu ft           | None known             |
| <b>Water solubility</b>                       |                          | None known             |
| <b>Solubility in Other Solvents</b>           | No information available | None known             |
| <b>Partition coefficient: n-octanol/water</b> |                          | None known             |
| <b>Autoignition temperature</b>               | 205 C                    | None known             |
| <b>Decomposition temperature</b>              |                          | None known             |
| <b>Viscosity</b>                              |                          | None known             |

### 9.2 OTHER INFORMATION

## 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.

**Conditions to avoid**

To avoid thermal decomposition, do not overheat. Keep away from children.

**incompatible materials**

Strong oxidizing agents. Acids.

**Hazardous decomposition products**

Lead oxides. Hydrogen sulfide.

## 11. Toxicological Information

**Information on Likely Routes of Exposure**

**Product information**

Manzate Pro Stick :  
Oral LD50 (rat) = >5,000 mg/kg  
Dermal LD50 (rabbit) = > 2,000 mg/kg  
Inhalation LC50 (rat) 4 hr = >5.4 mg/L

Mild to moderate eye irritant. Mild to slight skin irritant. Sensitizer .

**Inhalation**

May cause irritation of respiratory tract.

**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**

No information available.

**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<br>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**

Not Available.

**STOT - Single Exposure**

no data available.

**STOT - Repeated Exposure**

no data available.

**Chronic toxicity**

Avoid repeated exposure.

**Target organ effects**

Respiratory System, EYES.

**Aspiration hazard**

No information available.

**Numerical Measures of Toxicity - Product information**

**LD50 Oral**

> 5,000 mg/kg (rat)

**LD50 Dermal**

> 2,000 mg/kg (rat)

**LC50 Inhalation**

LC50/inhalation/4h/rat = > 5.4 mg/l (rat) (4-hr)

## 12. Ecological Information

Marine Pollutant.

**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 can be 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**

Refer to product label.

### 14. Transport Information

**DOT**

When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

**UN/ID no**

UN3077

**Proper shipping name**

Environmentally hazardous substances, solid, n.o.s (Mancozeb)

**Hazard class**

9

**Packing group**

PG III

**IMDG - Marine Pollutant**

Marine Pollutant.

**TDG**

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

**UN/ID no**

UN3077

**Proper shipping name**

Environmentally hazardous substance, solid, n.o.s. (Mancozeb)

**Hazard class**

9

**Packing group**

PG III

**Marine Pollutant: Y or N [List Ingredient(s) with %]**

This product contains a chemical which is listed as a marine pollutant according to TDG.

**ICAO**

**UN/ID no**

UN3077

**Proper shipping name**

Environmentally hazardous substance, solid, n.o.s (Mancozeb)

**Hazard class**

9

**Packing group**

PG III

**Description**

IMDG - Marine Pollutant

**IATA**

|                             |   |
|-----------------------------|---|
| <b>UN/ID no</b>             | UN3077  |
| <b>Proper shipping name</b> | Environmentally hazardous substances, solid, n.o.s (Mancozeb) |
| <b>Hazard class</b>         | 9   |
| <b>Packing group</b>        | PG III  |
| <b>Description</b>          | IMDG - Marine Pollutant                                       |

**IMDG**

|                              |  |
|------------------------------|--|
| <b>UN/ID no</b>              | UN3077   |
| <b>Proper shipping name</b>  | Environmentally hazardous substances, solid, n.o.s (Mancozeb)                                |
| <b>Hazard class</b>          | 9  |
| <b>Packing group</b>         | PG III   |
| <b>Environmental hazards</b> | This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO |

|                                   |
|-----------------------------------|
| <b>15. Regulatory Information</b> |
|-----------------------------------|

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.

**signal word** WARNING

**Keep out of Reach of Children. Causes moderate eye irritation. May be harmful if inhaled or swallowed. Toxic to fish.**

**International Inventories**

|                           |             |
|---------------------------|-------------|
| <b>USINV</b>              | Not present |
| <b>DSL/NDSL</b>           | Not present |
| <b>EINECS/<br/>ELINCS</b> | Not Present |
| <b>ENCS</b>               | Not Present |
| <b>China</b>              | Not Present |
| <b>KECL</b>               | Not Present |
| <b>PICCS</b>              | Not Present |
| <b>AICS</b>               | Not Present |
| <b>TSCA</b>               | 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 | 10 lb |                | RQ 10 lb final RQ |

|         |  |  |                     |
|---------|--|--|---------------------|
| 96-45-7 |  |  | RQ 4.54 kg final RQ |
|---------|--|--|---------------------|

**CERCLA**

| Component                              | RQ    |
|--|-------|
| Ethylene thiourea<br>96-45-7 ( 0-0.1 ) | 10 lb |

SARA Product RQ 0

**RCRA**

| Component                              | RCRA - D Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|--|------------------------|------------------------|------------------------|
| Ethylene thiourea<br>96-45-7 ( 0-0.1 ) |                        |                        | U116                   |

**Pesticide Information**

| Component                              | FIFRA - Restricted Use | FIFRA - Pesticide Product Other Ingredients | FIFRA - Listing of Pesticide Chemicals | California Pesticides - Restricted Materials |
|--|------------------------|---|--|--|
| Mancozeb<br>8018-01-7 ( 75 )           |                        |   | X                                      |  |
| Ethylene thiourea<br>96-45-7 ( 0-0.1 ) |                        |   | X                                      |  |

**State Regulations**

California Proposition 65 This product contains the following Proposition 65 chemicals:

| Component                              | California Prop. 65         |            |
|--|-----------------------------|------------|
| Mancozeb<br>8018-01-7 ( 75 )           | Carcinogen                  |            |
| Ethylene thiourea<br>96-45-7 ( 0-0.1 ) | Carcinogen<br>Developmental |            |
| Chemical name                          | CAS No                      | CATEGORY   |
| Mancozeb                               | 8018-01-7                   | Carcinogen |
| Ethylene thiourea                      | 96-45-7                     | Carcinogen |

**Prop 65 Pictogram**



**Prop 65 Warning Statement  
California Proposition 65**

WARNING  
This product can expose you to chemicals which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**State Right-to-Know**

| Chemical name               | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------------------------|---------------|------------|--------------|----------|--------------|
| Ethylene thiourea - 96-45-7 | X             | X          | X            | X        |              |

**International regulations**

**U.S. EPA Label information**

EPA Pesticide registration number 28217

**16. Other Information**

**NFPA** HEALTH 2 flammability 1 Instability 0 Physical hazard -

Preparation Date 20-May-2015

Revision date 10-Mar-2022

**Revision Summary**

Update section 1

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**End of SDS**