



# Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 20-May-2015

Revision date 08-Jul-2015

Revision Number: 1

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

### Product identifier

**Product Description:** Manzate Pro-Stick

### Other means of identification

**Item#:** 12-371CAN  
**UN-No** UN3077  
**Synonyms** Not Available  
**Registration number(s)** PMRA # 28217

### Recommended use of the chemical and restrictions on use

**Recommended use** Fungicide.  
**Uses advised against** Activities contrary to label recommendation

### Details of the Supplier of the Safety Data Sheet

#### Supplier Address

United Phosphorus 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) 527-3887  
Medical: 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
Acute toxicity - Inhalation (Vapors)	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  
HARMFUL IF INHALED



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  
 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  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician

**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 %	Trade secret
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****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**

Remove contaminated clothing and shoes. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice. Remove and wash contaminated clothing before re-use.

**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 poison control center or doctor for further treatment advice.

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

**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**

**Information on basic physical and chemical properties**

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

<u>Property</u>	<u>VALUES</u>	<u>Remarks/ • Method</u>
<b>pH</b>	No information available	
<b>Melting point/freezing point</b>	No information available	
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point</b>		
<b>Evaporation Rate</b>	No information available	
<b>flammability (solid, gas)</b>	No information available	
<b>Flammability limit in air</b>		
<b>Upper Flammability Limit</b>	No information available	
<b>Lower Flammability Limit</b>	No information available	
<b>vapor pressure</b>	No information available	
<b>Vapor Density</b>	No information available	
<b>Specific gravity</b>	No information available	
<b>Water solubility</b>	No information available	
<b>Solubility in Other Solvents</b>	No information available	
<b>Partition coefficient: n-octanol/water</b>	No information available	
<b>Autoignition temperature</b>	205 C / 401 F	
<b>decomposition temperature</b>	No information available	
<b>Viscosity, kinematic</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	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  
**density** No information available  
**Bulk density** 40-45 lb/cu ft

### **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**

Oxides of carbon and nitrogen. 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 information available.

##### **Carcinogenicity**

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

<b>Chemical name</b>	<b>ACGIH</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>
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**

Not Available.

**STOT - Single Exposure** No information available.  
**STOT - repeated exposure** No information 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 information available.

**Bioaccumulation/ Accumulation**

No information available.

**Other Adverse Effects**

No information 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.

**Contaminated packaging**

Refer to product label.

Chemical name  
 Ethylene thiourea

RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
U116	Included in waste streams: K123, K124, K125, K126		U116

**14. Transport Information**

**DOT**

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

**UN-No**  
**Proper shipping name**  
**Hazard class**  
**Packing group**  
**Marine Pollutant**

UN3077  
 Environmentally hazardous substances, solid, n.o.s Mancozeb  
 9  
 PG III  
 Marine Pollutant.

<b><u>TDG</u></b>	When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1
<b>UN-No</b>	UN3077
<b>Proper shipping name</b>	Environmentally hazardous substance, solid, n.o.s. (Mancozeb)
<b>Hazard class</b>	9
<b>Packing group</b>	PG III
<b>Marine Pollutant: Y or N [List Ingredient(s) with %]</b>	This product contains a chemical which is listed as a marine pollutant according to TDG.
<b><u>ICAO</u></b>	
<b>UN-No</b>	UN3077
<b>Proper shipping name</b>	Environmentally hazardous substance, solid, n.o.s Mancozeb
<b>Hazard class</b>	9
<b>Packing group</b>	PG III
<b>Description</b>	Marine Pollutant
<b><u>IATA</u></b>	
<b>UN-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>	Marine Pollutant
<b><u>IMDG/IMO</u></b>	
<b>UN-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>Marine Pollutant</b>	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

## 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. Harmful if absorbed through the skin. Causes moderate eye irritation. Toxic to aquatic organisms.**

### **International Inventories**

<b>USINV</b>	Not determined
<b>DSL/NDSL</b>	Not determined
<b>EINECS/ ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>China</b>	Does not comply
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Does not comply
<b>TSCA</b>	Does not comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDL - 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 40n of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values
Ethylene thiourea - 96-45-7	0.1

#### **SARA 311/312 Hazardous**

##### Categorization

Acute health hazard	yes
Chronic health hazard	yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	yes

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 ( 0-0.1 )	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 ( 0-0.1 )			U116

#### **Pesticide Information**

##### State Regulations

Component	CAS-No	CATEGORY	California Prop. 65	Non-additive, corrosive chemical type
Mancozeb 8018-01-7 ( 75 )	8018-01-7	Carcinogen	Carcinogen	
Ethylene thiourea 96-45-7 ( 0-0.1 )	96-45-7	Carcinogen	Carcinogen Developmental	

##### State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Mancozeb				X	
Ethylene thiourea	X	X	X	X	

##### International regulations

##### U.S. EPA Label information

EPA Pesticide registration number 70506-234

### 16. Other Information



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

**Preparation Date**                      20-May-2015

**Revision date**                      08-Jul-2015

**Revision Summary**

Update to GHS format

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**End of MSDS**