



# Material Safety Data Sheet

## United Phosphorus, Inc.

NFPA	PPE		
			

Issued Date 07-May-2013

Revision Date 07-May-2013

Revision Number: 1

### 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)

<u>Company Information</u>	<u>Contact Information</u>	<u>Phone Number</u>	<u>Available Hrs</u>
UPI	Customer Service R&D Technical Service	1-800-438-6071 610-878-6100	8:00 am to 5:00 pm EST 8:00 am - 5:00 pm (EST)

**Product Name** Phoenix WingMan  
**EPA Reg #** 70506-269  
**Recommended Use** fungicide  
**Product Code** 12-394D

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

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

#### CAUTION

**Appearance** Grey, Yellow, Brown.

**Physical State** Free flowing  
microgranules.

**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**

Harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	75	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

If breathing is irregular or stopped, administer artificial respiration  
May cause allergic respiratory reaction  
Call a poison control center or doctor for further treatment advice.

#### Ingestion

Call a physician or poison control center immediately  
May produce an allergic reaction  
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**  
**Autoignition Temperature**  
159  
°C

Not available

**Flammability Limits in Air**

Not available

**Extnguishing Media**

Use: Water spray, Carbon dioxide (CO2), 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**

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 the skin and the eyes. Ensure adequate ventilation.

**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 breathing dust. Keep out of reach of children. Avoid contact with skin, eyes and clothing. 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. 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

Avoid contact with eyes. Goggles.

##### Skin Protection

Long sleeved clothing. Long pants. Coveralls. Chemical resistant gloves. waterproof gloves. 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

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Grey Yellow Brown	<b>Odor</b>	Slight Rotten egg-like
<b>Physical State</b>	Free flowing microgranules	<b>pH</b>	(1% solution) 6.9
<b>Boiling Point/Range</b>	Not available	<b>Melting Point/Range</b>	Decomposes before melting
<b>Specific Gravity</b>	Not available	<b>Solubility</b>	Dispersible in water
<b>Evaporation Rate</b>	Not available	<b>Vapor pressure</b>	Not available
<b>Vapor Density</b>	Not available	<b>VOC Content</b>	Not available
<b>Viscosity</b>	Not available	<b>Molecular Weight</b>	no data available
<b>Bulk Density</b>	0.63 g/ml	<b>Percent Solids</b>	Not available
<b>Percent Volatiles</b>	Not available		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
<b>Conditions to Avoid</b>	Protect from water
<b>Incompatible Materials</b>	Strong acids Strong oxidizing agents Water quaternary ammonium salts EDBC sequestering agents
<b>Hazardous Decomposition Products</b>	Oxides of carbon and nitrogen
<b>Possibility of Hazardous Polymerization</b>	Hazardous polymerisation does not occur

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### 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

### 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		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.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

No information available. Mancozeb:

Aquatic toxicity:

96 hour LC50 = rainbow trout 0.73 mg/L

96 hour LC50 = fathead minnows 0.57 mg/L

96 hour LC50 = Bluegill sunfish 0.84 mg/L

72 hour EC50 = freshwater algae = 0.43 mg/L.

## 13. DISPOSAL CONSIDERATIONS

#### 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

Non refillable container. Do not reuse this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 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

**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**

Chemical Name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	CHINA	KECL	AICS
Zinc manganese ethylenebis dithiocarbamate					(2)-2127 (2)-1841	X	KE-13636	X
Ethylene thiourea	Present	X		X	(5)-423	X	KE-20941	X

**USA**

**Federal Regulations**

**SARA 313**

Y

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Ethylene thiourea	96-45-7	0-0.5	0.1

**SARA 311/312 Hazardous Categorization**

**Chronic Health Hazard** No  
**Acute Health Hazard** Yes  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

**Clean Water Act**

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:

12-394D  
Phoenix WingMan

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	75				
Ethylene thiourea	96-45-7	0-0.5				

**CERCLA**

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

**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**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 75 )			X	
Ethylene thiourea 96-45-7 ( 0-0.5 )			X	

**State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	California Prop. 65	Non-additive, corrosive chemical type
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	Carcinogen	Carcinogen	
Ethylene thiourea	96-45-7	Carcinogen	Carcinogen Developmental	

**State Right-to-Know**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Zinc manganese ethylenebis dithiocarbamate				X	
Ethylene thiourea	X	X	X	X	

**International Regulations**

**Mexico - Grade**

Not available

Component	Category	Carcinogen Status	Exposure Limits
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 75 )	Carcinogen		
Ethylene thiourea 96-45-7 ( 0-0.5 )	Carcinogen		

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**  
WHMIS Hazard Class

Chemical Name	NPRI
Ethylene thiourea	X

**16. OTHER INFORMATION**

**Revision Date** 07-May-2013

**Revision Summary**  
Add to system

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**End of MSDS**