



United Phosphorus, Inc.

NFPA	PPE		

Issued Date 22-May-2012

Revision Date 19-Jun-2012

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 Manzate Max Fungicide
EPA Reg # 70506-194
Recommended Use fungicide
Product Code 12-394X

2. HAZARDS IDENTIFICATION

Emergency Overview Mild eye irritation Harmful by inhalation, in contact with skin and if swallowed		
CAUTION		
Appearance Yellow, Green.	Physical State Liquid.	Odor Pungent.

Potential Health Effects

- Inhalation
 - Skin contact
- | | |
|-------------------|------------------------------|
| Eyes | Irritating to eyes. |
| Skin | Irritating to skin. |
| Inhalation | Slightly toxic if inhaled. |
| Ingestion | May be harmful if swallowed. |

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with the skin and the eyes. Use personal protective equipment.
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	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Keep out of reach of children.
Storage	Keep tightly closed in a dry and cool place. Keep in properly labelled containers.

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	Avoid contact with eyes. Goggles.
Skin Protection	Coveralls. Long sleeved clothing. Long pants. 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	Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

12-394X
Manzate Max Fungicide

Appearance	Yellow Green	Odor	Pungent
Physical State	Liquid	pH	8
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	1.27-1.33	Solubility	Dispersible in water
Evaporation Rate	Not available	Vapor pressure	Not available
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	no data available
Bulk Density	1270 kg/m ³	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Conditions to Avoid	No information available
Incompatible Materials	Strong oxidizing agents Strong acids quaternary ammonium salts EDBC sequestering agents
Hazardous Decomposition Products	Oxides of carbon and nitrogen Oxides of sulfur
Possibility of Hazardous Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	Manzate Max= Acute oral LD50 = >5,000 mg/kg Acute dermal LD50 = >5,000 mg/kg Acute inhalation LC50 = >2.02 mg/L Eye irritation = Slight Dermal irritation = Slight Skin sensitizer = Not a sensitizer
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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

12. ECOLOGICAL INFORMATION

Ecotoxicity

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. Triple rinse (or equivalent) promptly after emptying. 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. When shipped in bulk, by vessel, or internationally use the following shipping description:

ICAO

UN-No	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (Mancozeb)
Hazard Class	9
Packing Group	PG III

IATA

UN-No	UN3082
Proper Shipping Name	Environmentally hazardous substances, liquid, n.o.s. (Mancozeb)
Hazard Class	9
Packing Group	PG III
ERG Code	9L

IMDG/IMO

Proper Shipping Name	Environmentally hazardous substances, liquid, n.o.s. (Mancozeb)
Hazard Class	9
UN-No	UN3082
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

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Manzate Max Fungicide

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
Napthalenesulfonic acid, sodium salt, polymer with...	XU	X			(4)-557 (7)-1133	X	KE-25576	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:

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	37				
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

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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 (37)			X	
Ethylene thiourea 96-45-7 (0-0.5)			X	
Napthalenesulfonic acid, sodium salt, polymer with... 9008-63-3 (1.47)		List 3 - Unknown Toxicity	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 (37)	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

Not determined

Chemical Name	NPRI
Ethylene thiourea	X

16. OTHER INFORMATION

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Manzate Max Fungicide

Revision Date 19-Jun-2012

Revision Summary

Add to system

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End of MSDS