



# Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 21-Feb-2018

Revision date 21-Feb-2018

Revision Number: 1

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

### Product identifier

**Product Description:** STartUP MANZB Seed Treatment

### Other means of identification

**Item#:** 12U-345

**Registration number(s)** 70506-345

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

**Recommended use** Solution for seed treatment.

**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 - Inhalation (Vapors)	Category 3
Skin sensitization	Category 1
Reproductive Toxicity	Category 1B

### Label elements

#### **EMERGENCY OVERVIEW**

**DANGER**

#### **Hazard Statements**

Toxic if inhaled

May cause an allergic skin reaction

May damage fertility or the unborn child



**Appearance** Yellow Green**Physical state** Liquid**Odor** pungent**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

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

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 %
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	37
Ethylene thiourea	96-45-7	0-0.5

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 and wash contaminated clothing before re-use. Wash off immediately with soap and plenty of water for at least 15 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. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

**Protection of First-aiders**

Use personal protective equipment.

**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**

Carbon dioxide (CO<sub>2</sub>).

Use: Dry chemical. Water spray. alcohol-resistant foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapours.

**Hazardous combustion products** Carbon disulfide, ethylene thiourea (ETU).

**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.

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

**Methods for Clean-Up** Soak up with inert absorbent material. 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****Precautions for safe handling**

**Handling** Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Wear personal protective equipment. Do not breathe vapours or spray mist. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

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

**Storage** Keep containers tightly closed in a cool, well-ventilated place.

**incompatible materials** Strong oxidizing agents.

**8. Exposure Controls/Personal Protection**

<b>Exposure guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Engineering controls</b>	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.
<b><u>Personal protective equipment</u></b>	
<b>Eye/Face Protection</b>	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. Face-shield.
<b>Skin protection</b>	Long sleeved clothing. Chemical resistant gloves. Chemical resistant footwear plus socks.
<b>Respiratory protection</b>	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**

<b>Physical state</b>	Liquid	<b>Odor</b>	pungent
<b>Appearance</b>	Yellow Green		
<b>color</b>	No information available		
<b><u>Property</u></b>	<b><u>VALUES</u></b>	<b><u>Remarks/ • Method</u></b>	
<b>pH</b>	8		
<b>Melting point/freezing point</b>	9 °C / 48 °F		
<b>Boiling Point/Range</b>	No information available		
<b>Flash Point</b>	No information available		
<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>	1.27-1.33		
<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>	No information available		
<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		
<b>Oxidizing properties</b>	No information available		

**OTHER INFORMATION**

<b>Softening point</b>	No information available
<b>molecular weight</b>	No information available

VOC Content No information available  
 density No information available  
 Bulk density 1270 kg/m<sup>3</sup>

## 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.

### Hazardous polymerization

Hazardous polymerisation does not occur.

### Conditions to avoid

No information available.

### Incompatible materials

Strong oxidizing agents.

### Hazardous decomposition products

Carbon oxides.

## 11. Toxicological Information

### Information on Likely Routes of Exposure

#### Product information

STartUP MANZB  
 Acute oral LD50 = >5000 mg/kg  
 Acute dermal LD50 = >5000 mg/kg  
 Acute inhalation LC50 = >2.02 mg/L No deaths

#### Inhalation

Harmful by inhalation.

#### Eye contact

May cause slight irritation.

#### Skin contact

May be harmful if absorbed through the skin.

#### Ingestion

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.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylene thiourea 96-45-7	-	Group 3	Reasonably Anticipated	X

#### Reproductive effects

Not Available.

#### STOT - Single Exposure

No information available.

#### STOT - Repeated Exposure

No information available.

#### Chronic toxicity

Avoid repeated exposure.

#### Aspiration hazard

No information available.

**Numerical Measures of Toxicity - Product information**

LD50 Oral	> 5000 mg/kg (rat)
LD50 Dermal	> 5000 mg/kg (rat)
LC50 Inhalation	> 2.02 mg/l

**12. Ecological Information****ecotoxicity**

Manzate:

96 hr LC50

Rainbow trout = 0.73 mg/L

Fathead minnow = 0.57 mg/L

Bluegill sunfish = 0.84 mg/L

72 hr EC50

Freshwater algae = 0.43 mg/L

**Persistence/Degradability**

No information available.

**Bioaccumulation/ Accumulation**

Bioaccumulative potential.

**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.

**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-No

UN3082

Proper shipping name

Environmentally hazardous substances, liquid, n.o.s Mancozeb

Hazard class

9

Packing group

PG III

Description

Marine pollutant

**IMDG/IMO**

<b>UN-No</b>	UN3082
<b>Proper shipping name</b>	Environmentally hazardous substances, liquid, n.o.s (Mancozeb)
<b>Hazard class</b>	9
<b>Packing group</b>	PG III
<b>Marine Pollutant</b>	Marine Pollutant

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

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 swallowed. Harmful if inhaled or absorbed through skin. Toxic to fish and aquatic organisms.**

**International Inventories**

<b>USINV</b>	Present
<b>DSL/NDSL</b>	Not present
<b>EINECS/ELINCS</b>	Not Present
<b>ENCS</b>	Not Present
<b>China</b>	Present
<b>KECL</b>	Present
<b>PICCS</b>	Present
<b>AICS</b>	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:

**SARA 311/312 Hazardous****Categorization**

<b>Acute health hazard</b>	yes
<b>Chronic health hazard</b>	yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	yes

**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**

Not applicable

Component	CAS-No	CATEGORY	California Prop. 65	Non-additive, corrosive chemical type
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 ( 37 )	8018-01-7	Carcinogen	Carcinogen	
Ethylene thiourea 96-45-7 ( 0-0.5 )	96-45-7	Carcinogen	Carcinogen Developmental	

**State Right-to-Know**

Not applicable

**International regulations****U.S. EPA Label information**

EPA Pesticide registration number 70506-354

**16. Other Information****NFPA** HEALTH 1 flammability 0 Instability 0 Physical hazard -

Preparation Date 21-Feb-2018

Revision date 21-Feb-2018

Revision Summary

Update section 14

**Disclaimer**

United Phosphorus, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of United Phosphorus, Inc. and United Phosphorus Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of SDS