



# Material Safety Data Sheet

## United Phosphorus, Inc.

<b>NFPA</b>	<b>PPE</b>		

Issued Date 08-Feb-2007

Revision Date 04-Jan-2011

Revision Number: 11

### 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)

Company Information  
 UPI

Contact Information  
 Customer Service  
 R&D Technical Service

Phone Number  
 1-800-438-6071  
 610-878-6100

Available Hrs  
 8:00 am to 5:00 pm EST  
 8:00 am - 5:00 pm (EST)

**Product Name** TOPSIN® 4.5 FL  
**EPA Reg #** 73545-13-70506  
**Recommended Use** fungicide  
**Product Code** 12-405FLOW

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

May cause thyroid and liver damage based on animal data.  
 May cause allergic skin reaction  
 Harmful by inhalation, in contact with skin and if swallowed  
 Irritating to eyes  
 May cause lung damage after repeated exposure based on animal data.

### CAUTION

**Appearance** White, Light red.

**Physical State** Liquid.

**Odor** Not available

### Potential Health Effects

- Inhalation
- Skin contact
- Repeated or long term exposure may cause adverse effects on the liver or thyroid.

**Eyes**

Irritating to eyes.

**Skin**

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**Inhalation**

Slightly toxic if inhaled.

**Ingestion**

Harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Thiophanate-methyl	23564-05-8	45	N/A
Propylene Glycol	57-55-6	<20	N/A
Polyglycol	9003-11-6	<15	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

Move person to fresh air.  
 If person is not breathing, call 911 or an ambulance, then give artificial respiration.  
 Call a poison control center or doctor for further treatment advice.

### Ingestion

Call a physician or Poison Control Center immediately  
 Have person sip a glass of water if able to swallow  
 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

Not available

Autoignition Temperature

Not available

Flammability Limits in Air

Not available

Extinguishing Media

Use: Water spray, Foam, Carbon dioxide (CO<sub>2</sub>), 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

No information available.

**NFPA**

**Health 1**

**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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal.

## 7. HANDLING AND STORAGE

Handling

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Keep out of reach of children. Do not eat, drink or smoke when using this product.

Storage

Keep container tightly closed in a dry and well-ventilated place.

## 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

Goggles. Avoid contact with eyes.

#### Skin Protection

Chemical resistant gloves. Chemical resistant apron. Long sleeved clothing. Long pants. 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>	White Light red	<b>Odor</b>	Not available
<b>Physical State</b>	Liquid	<b>pH</b>	approx.6
<b>Boiling Point/Range</b>	Not available	<b>Melting Point/Range</b>	Not available
<b>Specific Gravity</b>	1.1974	<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>	9.974 lb/gal	<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>	No information available.
<b>Incompatible Materials</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	No information available.
<b>Possibility of Hazardous Polymerization</b>	Hazardous polymerisation does not occur

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Product Information

Single exposure studies indicate:

Oral: Practically non-toxic to rats (LD50 >5,000 mg/kg)

Dermal: No more than slightly toxic to rabbits (LD50 >2,000 mg/kg)

Inhalation: Slightly toxic to rats (4 hr LC50 1.8 mg/l)

Skin Irritation: Non-irritating to rabbits

Eye Irritation: Non-irritating to rabbits

Skin allergy was observed in guinea pigs following repeated exposure. Repeated or long-term oral administration produced effects on the thyroid, liver or kidneys in rats, mice and dogs. An increased incidence of liver tumors was observed in mice and thyroid tumors were observed in male rats following long-term oral exposure.

No effects were seen on the ability of male or female rats to reproduce when exposed orally for 2 successive generations. No birth defects were observed in the offspring of rats exposed orally during pregnancy. In rabbits, developmental effects were noted only at maternally toxic doses. No genetic changes were observed in tests using animal cells. Polyglycol

Repeated exposure of rats to aerosol of some block polymers produced an inflammatory response and slight fibrosis in the lung. Long-term dietary administration of a block polymer to dogs produced no adverse effects. Some block polymers have produced genetic changes in tests using bacteria or animal cells.

Single exposure studies indicate that this material is practically non-toxic if swallowed (mouse LD50 >15,000 mg/kg) or absorbed through skin (rabbit LD50 2,000 mg/kg) moderately toxic if inhaled (rat 4 hr LC50 0.1-0.34 mg/l) and practically non irritating to rabbit eyes (10% aqueous solution).

### Chronic Toxicity

There are no known carcinogenic chemicals in this product

### Carcinogenicity

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

This material is practically non-toxic to carp (96 hr LC50 >100 mg/l), and fiddler crab (96 hr LC50 >560 mg/l). It is slightly toxic to bluegill (96 hr LC50 15.8 mg/l), Daphnid (48 hr EC50 15.6 mg/l) and shrimp (96 hr LC50 25.1 mg/l). It is moderately toxic to trout (96 hr LC50 2.2 mg/l) and oysters (96 hr LC50 2.2 mg/l) and oysters (96 hr LC50 4.6 ppm) and highly toxic to catfish..

Chem Fate: No information available.

## 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. .

(For containers less than 5 gallons) . Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. The offer for recycling if available or puncture and dipose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. .

(For containers larger than 5 gallons). Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repet this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanotary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. .

**14. TRANSPORT INFORMATION**

**DOT**

**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s (Thiophanate methyl)  
**Hazard Class** 9  
**UN-No** UN3082  
**Packing Group** PG III  
**Reportable Quantity (RQ):** 10 lbs (Thiophanate methyl)

**ICAO**

**UN-No** UN3082  
**Proper Shipping Name** Envionmentally hazardous substances, liquid, n.o.s. (Thiophanate methyl)  
**Hazard Class** 9  
**Packing Group** PG III

**IATA**

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

**IMDG/IMO**

**Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s. (Thiophanate-methyl)  
**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

International Inventories

Thiophanate-methyl	
DSL	Listed
EINECS/ELINCS	Listed
CHINA	Listed
KECL	Listed
Propylene Glycol	
DSL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed
Polyglycol	
DSL	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Thiophanate-methyl	23564-05-8	45

**SARA 311/312 Hazardous Categorization**

Chronic Health Hazard	Yes
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
Propylene Glycol	57-55-6	<20		Listed.		

CERCLA

Chemical Name	RQ
Thiophanate-methyl	Listed.

RCRA

12-405FLOW - TOPSIN® 4.5 FL

<b>Chemical Name</b>	<b>RCRA - D Series Wastes</b>	<b>RCRA - P Series Wastes</b>	<b>RCRA - U Series Wastes</b>
Thiophanate-methyl			U409

**Pesticide Information**

**State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	California Prop. 65
Thiophanate-methyl	23564-05-8		Listed. Listed: May 18, 1999 Female reproductive toxin. Listed: May 18, 1999 Male reproductive toxin. 600 ug/day Oral

**State Right-to-Know**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Thiophanate-methyl		Substance no. 2211 Listed. Substance no. 2212 Listed. Substance no. 2210 Listed. Substance no. 2213 Listed.		Listed.	
Propylene Glycol			Listed.		Listed.

**International Regulations**

**Mexico - Grade** Not available

**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

**16. OTHER INFORMATION**

**Revision Date** 04-Jan-2011

**Revision Summary**  
Update section 13



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**End of MSDS**