



# Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 10-May-2015

Revision date 10-May-2015

Revision Number: 1

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

### Product identifier

Product Description: TOPSIN® 4.5 FL

### Other means of identification

Item#: 12-405FLOW  
UN-No UN3082  
Synonyms Not Available  
Registration number(s) 8033-122-70506

### 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

UPI  
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 (Gases)	Category 2
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2

### Label elements

#### EMERGENCY OVERVIEW

#### **DANGER**

#### **hazard statements**

Harmful in contact with skin  
Fatal if inhaled  
May cause an allergic skin reaction  
Suspected of causing genetic defects

**appearance** light red**Physical state** liquid**Odor** No information available**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 breathe dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 In case of inadequate ventilation wear respiratory protection  
 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  
 Immediately 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 with long lasting effects
- Very toxic to aquatic life
- May be harmful in contact with skin

### 3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
Thiophanate-methyl	23564-05-8	45	

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**

Wash off immediately with plenty of water for at least 15 minutes. Call poison control center or doctor for treatment advice.

<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapors or decomposition products. If symptoms persist, call a physician. Immediate medical attention is required. Call a physician or poison control center immediately. Toxic by inhalation.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician. Clean mouth with water and drink afterwards plenty of water afterwards.
<b>Protection of First-aiders</b>	Use personal protective equipment.
<b><u>Most Important Symptoms and Effects, Both Acute and Delayed</u></b>	
<b>Most Important Symptoms and Effects</b>	No information available.
<b><u>Indication of Any Immediate Medical Attention and Special Treatment Needed</u></b>	
<b>Notes to physician</b>	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** No information available.

### **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 the skin and the eyes. Wear protective gloves/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 (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** Wear personal protective equipment. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Keep out of reach of children. Wash thoroughly after

handling.

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

<b>Storage</b>	Keep out of the reach of children. Keep in a dry, cool and well-ventilated place.
<b>incompatible materials</b>	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.
<b>Skin protection</b>	Wear protective gloves/clothing. Socks and footwear.
<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. 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>	No information available
<b>appearance</b>	light red		
<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>	6		
<b>Melting point/freezing point</b>	7 °C / 45 °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>			
Upper Flammability Limit	No information available		
Lower Flammability Limit	No information available		
<b>vapor pressure</b>	No information available		
<b>Vapor Density</b>	No information available		
<b>Specific gravity</b>	1.1974		
<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
<b>VOC Content</b>	No information available
<b>density</b>	No information available
<b>Bulk density</b>	9.974 lb/gal

## 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.

<b>Hazardous polymerization</b>	Hazardous polymerisation does not occur.
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**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**

Single exposure studies indicate:

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

Dermal: No more than slightly toxic to rabbits (LD50 &gt;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.

<b>Inhalation</b>	HARMFUL IF INHALED.
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<b>Eye contact</b>	May cause irritation.
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<b>Skin contact</b>	May be harmful if absorbed through the skin.
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<b>Ingestion</b>	MAY BE HARMFUL IF SWALLOWED.
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Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Thiophanate-methyl 23564-05-8	-	-	= 1700 mg/m <sup>3</sup> ( Rat ) 4 h

**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** There are no known carcinogenic chemicals in this product.  
**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** > 2000 mg/kg (rat)  
**LC50 Inhalation:** LC50/inhalation/4h/rat = 1.8 mg/l

## 12. Ecological Information

**ecotoxicity**

Thiophanate methyl methyl  
 Carp 96 hr LC50 = >100 mg/L  
 Fiddler crab 96 hr LC50 = >560 mg/L  
 Bluegill 96 hr LC50 = 15.8 mg/L  
 Daphnid 48 hr EC50 = 15.6 mg/L  
 Shrimp 96 hr LC50 = 25.1 mg/L  
 Trout 96 hr LC50 = 2.2 mg/L  
 Oyster 96 hr LC50 = 4.6 ppm  
 Highly toxic to catfish

**Persistence/Degradability**

No information available.

**Bioaccumulation/ Accumulation**

Does not bioaccumulate.

**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	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Thiophanate-methyl	U409			U409

## 14. Transport Information

**DOT**

<b>UN-No</b>	UN3082
<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s (Thiophanate methyl)
<b>Hazard class</b>	9
<b>Packing group</b>	PG III
<b>Reportable Quantity (RQ):</b>	10 lbs (Thiophanate methyl)

**ICAO**

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

**IATA**

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

**IMDG/IMO**

<b>UN-No</b>	UN3082
<b>Proper shipping name</b>	Environmentally hazardous substances, liquid, n.o.s (Thiophanate-methyl)
<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.

**Harmful if inhaled or absorbed through skin.**

**International Inventories**

<b>USINV</b>	Not determined
<b>DSL/NDL</b>	Not determined
<b>EINECS/</b>	Does not comply
<b>ELINCS</b>	
<b>ENCS</b>	Does not comply
<b>China</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies
<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
Thiophanate-methyl - 23564-05-8	1.0

**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
Thiophanate-methyl 23564-05-8	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

**CERCLA**

Component	RQ
Thiophanate-methyl 23564-05-8 ( 45 )	10 lb

**SARA Product RQ** 0**RCRA**

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Thiophanate-methyl 23564-05-8 ( 45 )			U409

**Pesticide Information**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Thiophanate-methyl 23564-05-8 ( 45 )			X	

**State Regulations**

Component	CAS-No	CATEGORY	California Prop. 65	Non-additive, corrosive chemical type
Thiophanate-methyl 23564-05-8 ( 45 )	23564-05-8		Female Reproductive Male Reproductive	Female Reproductive Male Reproductive

**State Right-to-Know**

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Thiophanate-methyl		X			

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

EPA Pesticide registration number 8033-122-70506

**16. Other Information****NFPA****HEALTH** 1

flammability 0

Instability 0

**Physical hazard** -



Preparation Date 10-May-2015  
Revision date 10-May-2015  
Revision Summary  
Update to GHS format

**End of MSDS**