



# Material Safety Data Sheet

**United Phosphorus, Inc.**

| NFPA                                                                              | PPE                                                                               |                                                                                    |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |

Issued Date 07-Feb-2007

Revision Date 02-Jul-2013

Revision Number: 8

## 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

### Contact Information

### Phone Number

### Available Hrs

UPI

Customer Service 1-800-438-6071  
R&D Technical Service 610-223-2180

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

### Product Name

### EPA Reg #

### Recommended Use

### Product Code

TOPSIN® M 70% WP  
73545-11-70506  
fungicide  
12-322

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

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

### CAUTION

**Appearance** Light brown.

**Physical State** Powder.

**Odor** Slight. Rotten egg-like.

### Potential Health Effects

- Inhalation
- Skin contact

**Eyes**

Irritating to eyes.

**Skin**

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

**Inhalation**

Slightly toxic if inhaled.

**Ingestion**

May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients Name

| Chemical Name      | CAS-No     | Weight % | OSHA PEL |
|--------------------|------------|----------|----------|
| Thiophanate-methyl | 23564-05-8 | 72.2     | 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

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#### Flammable Explosive Properties

|                               |                                                                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flash Point                   | Not available                                                                                                                                                                                                                    |
| Autoignition Temperature      | Not available                                                                                                                                                                                                                    |
| Flammability Limits in Air    | Not available                                                                                                                                                                                                                    |
| Extnguishing Media            | Use: Water spray, Carbon dioxide (CO2), Foam 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 skin, eyes and clothing. 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      | Sweep up and shovel into suitable containers for disposal.                                                                                                                                                                                                                                           |

### 7. HANDLING AND STORAGE

|          |                                                                                                                                          |
|----------|------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | Avoid breathing dust. Keep out of reach of children. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. |
| Storage  | Keep containers tightly closed in a dry, cool and well-ventilated place.                                                                 |

## 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>Personal Protective Equipment</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Eye/face Protection</b>            | Avoid contact with eyes. Goggles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Skin Protection</b>                | Rubber gloves. Wear protective gloves/clothing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <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. |
| <b>General Hygiene Considerations</b> | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                            |                   |                            |                                    |
|----------------------------|-------------------|----------------------------|------------------------------------|
| <b>Appearance</b>          | Light brown       | <b>Odor</b>                | Slight Rotten egg-like             |
| <b>Physical State</b>      | Powder            | <b>pH</b>                  | no data available                  |
| <b>Boiling Point/Range</b> | Not available     | <b>Melting Point/Range</b> | Not available                      |
| <b>Specific Gravity</b>    | Not available     | <b>Solubility</b>          | Insoluble                          |
| <b>Evaporation Rate</b>    | Not available     | <b>Vapor pressure</b>      | 7.12 X 10 <sup>-8</sup> mmHg(tech) |
| <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>        | no data available | <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.

### Chronic Toxicity

#### Carcinogenicity

There are no known carcinogenic chemicals in this product.

## 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

Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. TRANSPORT INFORMATION

### DOT

Proper Shipping Name

Hazard Class

UN-No

Packing Group

Reportable Quantity (RQ):

When shipped in packages greater than 15 lbs the following descriptions applies:

Environmentally hazardous substances, solid, n.o.s. (Thiophanate methyl)

9

UN3077

PG III

10 Lbs (Thiophanate methyl)

### ICAO

UN-No UN3077  
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s (Thiophanate methyl)  
Hazard Class 9  
Packing Group PG III

**IATA**

UN-No 3077  
Proper Shipping Name Environmentally hazardous substances, solid, n.o.s. (Thiophanate methyl)  
Hazard Class 9  
Packing Group PG III  
ERG Code 9L

**IMDG/IMO**

Proper Shipping Name Environmentally hazardous substances, solid, n.o.s. (Thiophanate-methyl)  
Hazard Class 9  
UN-No 3077  
Packing Group PG III

**15. REGULATORY INFORMATION**

**International Inventories**

| Chemical Name      | TSCA | DSL | NDSL | EINECS/<br>ELINCS | ENCS | CHINA | KECL     | AICS |
|--------------------|------|-----|------|-------------------|------|-------|----------|------|
| Thiophanate-methyl |      | X   |      | X                 |      | X     | KE-28330 | X    |

**USA**

**Federal Regulations**

**SARA 313**

Y

| Chemical Name      | CAS-No     | Weight % | SARA 313 - Threshold Values |
|--------------------|------------|----------|-----------------------------|
| Thiophanate-methyl | 23564-05-8 | 72.2     | 1.0                         |

**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 does not contain any HAPs.

**CERCLA**

| Component                                 | RQ    |
|-------------------------------------------|-------|
| Thiophanate-methyl<br>23564-05-8 ( 72.2 ) | 10 lb |

#### RCRA

| Component                                 | RCRA - D Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|-------------------------------------------|------------------------|------------------------|------------------------|
| Thiophanate-methyl<br>23564-05-8 ( 72.2 ) |                        |                        | U409                   |

#### Pesticide Information

| Component                                 | FIFRA - Restricted Use | FIFRA - Pesticide Product Other Ingredients | FIFRA - Listing of Pesticide Chemicals | California Pesticides - Restricted Materials |
|-------------------------------------------|------------------------|---------------------------------------------|----------------------------------------|----------------------------------------------|
| Thiophanate-methyl<br>23564-05-8 ( 72.2 ) |                        |                                             | 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    |
|--------------------|------------|----------|------------------------------------------|------------------------------------------|
| Thiophanate-methyl | 23564-05-8 |          | Female Reproductive<br>Male Reproductive | Female Reproductive<br>Male Reproductive |

#### State Right-to-Know

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

#### 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

02-Jul-2013

##### Revision Summary

Update section 1

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**End of MSDS**