



## NOTICE OF LANDSCAPE APPLICATION

**Date of Application:** July 25, 2024

**Location:** Mesa Park baseball field #2

**Reason for Application:** For the prevention and control of turf diseases.

**Product Manufacturer Name:** Lesco T-Storm 2G Fungicide

-Active ingredients: Thiophanate-methyl

-Precautionary statement: Causes moderate eye irritation. Harmful if swallowed.  
Avoid contact with eyes or clothing.

**\*See attached label and SDS sheet**

**\*Dates are subject to change due to weather**

30.000"

LESCO® T-Storm™ 2G Fungicide

# LESCO®

## T-Storm™ 2G Fungicide

LESCO® T-Storm™ 2G Fungicide contains thiophanate-methyl, the active ingredient used in Cleary 3336™.

### Systemic Fungicide for Turf and Ornamentals

For the prevention and control of turf diseases and the diseases of annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

**ACTIVE INGREDIENT:**

Thiophanate-methyl (dimethyl 4,4'-o-phenylenebis[3-thioallophanate]) . . . . . 2.08%

**OTHER INGREDIENTS** . . . . . 97.92%

**TOTAL** . . . . . 100.00%

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCIÓN**

See the back of this bag for additional PRECAUTIONARY STATEMENTS

**FIRST AID**

**If in eyes:**

- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact (877) 325-1840 for emergency medical treatment information.

For Chemical Spill, Leak, Fire, or Exposure,  
Call CHEMTREC (800) 424-9300.  
For Medical Emergencies Only,  
Call (877) 325-1840.



# #10163032

**NET WEIGHT: 30 Lbs. (13.60 Kg)**

TM

Distributed By: **LESCO, Inc.**  
1385 East 36th Street  
Cleveland, OH 44114-4114

EPA Reg. No. 228-631-10404  
EPA Est. No. 8378-IN-001



**COVERIS** FG.55709.02  
Plant: THOMASVILLE  
Customer: NUFARM  
Brand: LESCO T-STORM 2G  
Date: 10.07.2015

PMS 021  
BLACK

Please Note: This proof is NOT accurate for color





# LESCO® T-Storm™ 2G Fungicide

8  
Thomasville, NC

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION/PRECAUTION

Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemically resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks

#### User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any other requirements specific to your State or Tribe, consult the agency responsible for pesticides.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific statements and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval (REI). The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Turf and Landscape Uses:** Do not enter or allow entry into treated areas until granules and dust have settled unless wearing personal protective equipment listed on this label.

### COMMERCIAL APPLICATIONS

#### GENERAL INFORMATION

This product is a broad-spectrum fungicide for use on a wide variety of turf and ornamental diseases. Apply this product using ground-based, hand-operated (push) or mechanical (power) equipment.

#### USE PRECAUTIONS

- For use only by certified applicators or those under their immediate supervision. Not for use on turf being grown for sale or other commercial use as sod.
- Do not apply this product through any type of irrigation system.
- Do not use on turf being grown for sale or other commercial use as sod.
- Do not apply this product by hand or with hand-held rotary spreader (e.g., bellygrinder)
- Do not graze animals on treated turf.
- Do not feed clippings to livestock or poultry.
- Use only properly calibrated application equipment when applying this product.
- Thoroughly clean all application equipment after each use.
- For application schedules appropriate to your area, contact your local State Extension Service for instructions.

#### RESISTANCE MANAGEMENT

In order to prevent the development of tolerant strains of fungi, use this product with other fungicides that use different modes of action. Do not use this product with products containing the active ingredient thiabendazole because thiabendazole has a similar chemistry and mode of action and can contribute to the development of disease tolerance. This product can remain useful for disease control as long as the specified precautions are followed. A tolerant strain of fungi is most likely present if a treatment of this product is found to be ineffective and you should promptly contact your State Agricultural Experiment Station or State Cooperative Extension Service for disease identification and advice on other suitable fungicide or disease control strategies.

#### MAXIMUM APPLICATION RATES AND MINIMUM RETREATMENT INTERVALS

Refer to the following table for the maximum treatment and seasonal application rates allowed based on the use site being applied to.

Use Site	Maximum Per-Treatment Application Rate	Maximum Per-Season Application Rate	Maximum Per-Season lbs. per 1,000 sq. ft.	Minimum Retreatment Interval
Residential or Public Areas <sup>1</sup>	131 lbs./acre (3 lbs./1,000 sq. ft.)	523 lbs.	12 lbs.	14 days
Golf Course Aprons, Greens and Tees	392 lbs./acre (9 lbs./1,000 sq. ft.)	1,048 lbs.	24 lbs.	
Golf Course Fairways (except Florida)	262 lbs./acre (6 lbs./1,000 sq. ft.)	262 lbs.	6 lbs.	
Golf Course Fairways (Florida only) <sup>2</sup>	131 lbs./acre (3 lbs./1,000 sq. ft.)	131 lbs.	3 lbs.	

<sup>1</sup> Maximum of four (4) applications per year.

<sup>2</sup> Maximum of one (1) application per year.

#### COMMERCIAL TURF APPLICATIONS

Use this product on all cool and warm season grasses such as Bentgrass, Bluegrass, Bermudagrass, Fescue, Ryegrass, St. Augustinegrass, Zoysiagrass, or their mixtures in the following sites:

- Commercial turf
- Residential turf
- Public turf (parks, athletic fields, schools, day care centers, etc.)
- Golf courses (greens, tees, fairways and aprons)

When used in accordance with the instructions in this label, this product is not phytotoxic to any of the above-mentioned grasses.

#### Application Instructions

- Apply under dry or moist leaf/soil conditions.
- For best results, activate the application within 24 hours with irrigation or natural rainfall. If activating by irrigation, apply 0.10 to 0.25 inch of water.
- Treat aprons when treating golf greens.

Refer to the following table for specific rates and timing depending on the disease being treated. When treating under severe disease pressure, use the highest specified rate listed below.

Disease(s)	Disease Specific Instructions	Application Rate (Lbs./1,000 sq. ft.)
<b>Dollar Spot</b> <i>Moellerodiscus, Lanzia, Sclerotinia</i> <b>Large Brown Patch</b> <i>Rhizoctonia solani</i> <b>Ascochyta Leaf Blight</b> <i>Ascochyta</i> spp. <b>Copper Spot</b> <i>Gloeocercospora sorghi</i> <b>Red Thread</b> <i>Laetisaria fuciformis</i> <b>Fusarium Patch</b> <i>Fusarium nivale</i> <b>Zoysia Patch</b> <i>Rhizoctonia solani</i>	For Prevention: Apply prior to the expected development of the disease using the lowest rate listed. For Treatment: Apply when disease first appears and repeat applications every 14 days. <b>NOTE:</b> Rotate with chlorothalonil, iprodione, or mancozeb.	1.5 to 6
<b>Pink Snow Mold</b> <i>Microdochium nivale</i>	Make first application prior to cessation of turf growth activity in middle-late Fall or early Winter, or in Spring during periods of thaw, or when disease symptoms first appear. Throughout the expected disease period, continue making applications at 14-day intervals. For best results, make the first application before the turf is completely dormant.	3 to 6
<b>Anthracnose, foliar</b> <i>Colletotrichum graminicola</i> <b>Anthracnose, basal</b> <i>Colletotrichum graminicola</i>	For Prevention: Once soil temperature reaches 60°F, make two applications at 14-day intervals. For Treatment: Apply at first sign of disease and continue applications at 14-day intervals. <b>NOTE:</b> Rotate with chlorothalonil or triadimefon.	3 to 6 6 to 9

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Disease(s)	Disease Specific Instructions	Application Rate (Lbs./1,000 sq. ft.)
<b>Bermudagrass Decline</b> <i>Gaeumannomyces graminis var. graminis</i> <b>Take-All-Patch</b> <i>Gaeumannomyces graminis var. aavenae</i>	Apply in mid-July or when disease symptoms first appear and repeat at 14-day intervals for suppression. Use higher rates under most severe disease expression. Follow proper agronomic instructions to maintain plant vigor.	6 to 9
<b>Cool Season Brown Patch</b> <i>Rhizoctonia cerealis</i> <b>Necrotic Ring Spot</b> <i>Leptosphaeria korrea</i> <b>Spring Dead Spot</b> <i>Leptosphaeria korrea</i>	For Prevention: Apply in the fall prior to cessation of turf growth. Make a second application in early Spring when disease first appears or when soil temperatures reach 55° to 60°F, whichever occurs first. For Treatment: Apply in early Spring when disease first appears and repeat applications every 14 days.	
<b>Coprinus Snow Mold</b> <i>Coprinus psychromorbidus</i>	Make two treatments at 21-day intervals in late fall to early winter. Make the last application just prior to first permanent snow cover. <b>NOTE:</b> Rotate with PCNB.	
<b>Fusarium Blight</b> <i>Fusarium roseum</i> and <i>F. triticum</i>	Apply when disease first appears. Make repeat applications at 14-day intervals.	
<b>Gray Leaf Spot (Blast)</b> <i>Pyricularia grisea</i>	Make a preventative application prior to the expected onset of disease development. Continue applications at 14-day intervals as needed.	
<b>Leaf Spot</b> <i>Drechslera</i> spp. <b>Leaf, Crown, and Root Diseases</b> <i>Bipolaris, Curvularia, and Exserohilum</i>	Apply when disease first appears and make applications at 14-day intervals as needed. <b>NOTE:</b> For severe cases, use rotations with chlorothalonil, iprodione, or mancozeb.	
<b>Stripe Smut</b> <i>Ustilago striiformis</i>	For Prevention: Apply in spring and fall. For Treatment: Make two applications, the first when the disease first appears and the second 14 days later.	
<b>Summer Patch</b> <i>Magnaporthe poae</i>	For Prevention: Using a 21-day reapplication interval, make three applications starting in late April or early May. For Treatment: Apply at 14-day intervals when disease first appears. Use rotations as part of the three-application program.	
<b>Bentgrass Dead Spot</b> <i>Ophiophaerella agrostis</i>	Apply in early June or when instructed by your local Agricultural Extension Service. Reapply at 14-day intervals as needed. For season-long disease prevention, use rotations and/or tank mix combinations.	

### COMMERCIAL HORTICULTURAL APPLICATIONS

This product is a broad-spectrum systemic fungicide for control of soilborne diseases affecting bulbs, corms, rhizomes, roots, crowns, and stems caused by:

- *Botrytis*
- *Gliocladium*
- *Ramularia*
- *Thielaviopsis*
- *Cylindrocladium*
- *Myrothecium*
- *Rhizoctonia*
- *Fusarium*
- *Penicillium*
- *Sclerotinia*

Use this product on annual and perennial flowers, bedding plants, foliage plants, ground covers, and deciduous and evergreen trees and shrubs found in Nursery, Greenhouse, Interiorscape, and Landscape sites.

When using this product for commercial horticultural applications, be sure to follow the guidelines in the "General Information" section above.

**NOTE:** Because this product does not control *Pythium* or *Phytophthora*, rotating with mefenoxam, etridiazole, propamocarb, mono and dipotassium salts of phosphorous acid or fosetyl-Al is required to control *Pythium* and *Phytophthora*.

#### USE PRECAUTIONS

- Do not use this product on Swedish Ivy (*Neprolepis exaltata*) and Easter Cactus (*Hatiora gaertnren*).
- Do not apply to home orchards/fruit trees after fruit set.
- Do not use fruit or nuts from treated ornamentals for food or feed.
- For ground and drench applications, do not exceed 300 pounds active ingredient from ALL thiophanate-methyl containing products per acre per crop season.
- For cut flowers, the maximum application rate is 0.5 pound active ingredient per acre per application.
- Because it is impossible to test this product on all species and cultivars, test in a preliminary trial on a small scale before a full treatment is applied to any plant type not shown on this label. When conducting the trial, wait 5 to 7 days after treatment to evaluate results.

#### Application Instructions

Apply this product as a surface, fly-on, broadcast or over-the-top application or media incorporation.

Surface and Broadcast Applications to established plants:

- Apply 6 lbs. of this product/1,000 sq. ft.
- Apply under dry or moist leaf/soil conditions.
- For best results, activate the application within 24 hours with irrigation or natural rainfall. If activating by irrigation, apply 0.10 to 0.25 inch of water.

#### Media Incorporation:

- Mix at a rate of 2 to 3 lbs./cubic yard before seeding or transplanting of desired crop.
- If not activated by the application of moisture, stockpile media incorporated with this product until needed for later use.

#### For Preventive Control:

- Prior to seeding, apply as a media incorporation using the rate listed above.
- After seeding or transplant to propagation beds, containers, pots, or nursery or landscape beds, apply as a broadcast, fly-on, surface or over-the-top application using the "Surface and Broadcast Applications" instructions above.

#### For Treatment:

- When disease first appears after seeding or transplanting, apply using the "Surface and Broadcast Applications" instructions above.
- To maintain protection, make repeat applications every 21 to 28 days.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in the original container in a dry, temperature-controlled area. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, contain/recapture spillage and use in accordance with instructions below or dispose of in accordance with the "Pesticide Disposal Instructions" listed below.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used 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.

**CONTAINER DISPOSAL:** Nonrefillable container. **DO NOT** reuse or refill this container. Completely empty container into application equipment. Then offer for recycling if available, or place empty container in trash.

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully and completely. It is impossible to eliminate all risks inherently associated with the use of this product. To the extent consistent with applicable law, Buyer and/or User assume all risks of ineffectiveness or other unintended consequences or damages that may result from conditions outside or beyond the control of LESCO, Inc. including but not limited to, such factors as manner of use or application, weather or weather conditions outside the range considered normal at the application site or for the time period in which the product is applied, the presence of other materials, incompatible products, or other influencing factors which are beyond the control of LESCO, Inc.. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and/or User, and Buyer and/or User agrees to hold LESCO, Inc. harmless for any claims relating to such factors.

LESCO, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with the Directions for Use under normal use conditions. To the extent consistent with applicable law, this warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of LESCO, Inc. and Buyer and/or User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LESCO, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER AND/OR USER AND THE EXCLUSIVE LIABILITY OF LESCO, INC. FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF LESCO, INC. REPLACEMENT OF THE PRODUCT, OR IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL LESCO, Inc., BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.**

LESCO, Inc. offers this product, and Buyer and/or User accepts it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of LESCO, Inc.

(RV051414)

LESCO® T-Storm™ 2G Fungicide is not manufactured or distributed by Cleary Chemical Corporation, seller of Cleary 3336™. Cleary 3336™ is a trademark of Cleary Chemical Corporation. LESCO® is a registered trademark and T-Storm™ is a trademark of LESCO Technologies, LLC.

**COVERS**  
FG.55709.02  
Plant: THOMASVILLE  
Customer: NUFARM  
Brand: LESCO T-STORM 2G  
Date: 10.07.2015

PMS 021  
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Please Note: This proof is NOT accurate for color

Surface Print





## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** LESCO T-Storm 2G Fungicide  
**EPA Reg. No.:** 228-631-10404  
**Product Type:** Fungicide

**Company Name:** LESCO, Inc.  
 1385 East 36<sup>th</sup> Street  
 Cleveland, OH 44114  
 1-800-347-4272

**Telephone Numbers:** For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,  
 Call CHEMTREC Day or Night: 1-800-424-9300  
 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

## 2. HAZARDS IDENTIFICATION

### HEALTH HAZARDS:

Eye irritation	Category 2B
Acute toxicity, inhalation	Category 4
Specific target organ toxicity – Repeated exposure	Category 2

### ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute	Category 2
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### SIGNAL WORD:

WARNING

### HAZARD STATEMENTS:

Causes eye irritation. Harmful if inhaled. May cause damage to organs (liver, thyroid) through prolonged or repeated exposure. Toxic to aquatic life.



### PRECAUTIONARY STATEMENTS

Wash thoroughly after handling. Wear chemical goggles or shielded safety glasses. If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Avoid breathing dust. Use only outdoors or in a well-ventilated area. If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Do not breathe dust. Get medical advice/attention if you feel unwell.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

COMPONENT	CAS NO.	% BY WEIGHT
Thiophanate-methyl	23564-05-8	2.08
Other Ingredients		97.92

**Synonyms:** T-Methyl; Thiophanate-methyl (dimethyl 4,4'-o-phenylenebis[3-thioallophanate])

**4. FIRST AID MEASURES**

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on Skin:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**5. FIRE FIGHTING MEASURES**

**Extinguishing Media:** Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

**Hazardous Decomposition Materials (Under Fire Conditions):** May produce oxides of carbon, nitrogen and sulfur.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

**7. HANDLING AND STORAGE****HANDLING:**

Avoid contact with eyes or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Keep people and pets out of the area during application. Do not enter or allow others to enter the treated areas until dusts have settled.

**STORAGE:**

Store in the original container in a dry, temperature controlled area. Do not store in a manner where cross-contamination with other pesticides, fertilizer, food or feed could occur. If spilled during storage or handling, contain/re-capture spillage and use in accordance with instructions on label or dispose of in accordance with Pesticide Disposal instructions on the label. Do not contaminate water, food, or feed by storage or disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

**Personal Protective Equipment:**

**Eye/Face Protection:** Not normally required. To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin, wear long pants, long-sleeved shirt, shoes plus socks, and chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber. An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**General Hygiene Considerations:** Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

**Exposure Guidelines:**

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Thiophanate methyl	NE	NE	NE	NE	

NE = Not Established

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Off-white colored granules
<b>Odor:</b>	No data available
<b>Odor threshold:</b>	No data available
<b>pH:</b>	5-6 (1% solution)
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative density:</b>	0.489 g/ml (tapped)
<b>Solubility(ies):</b>	Negligible
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Autoignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Conditions to Avoid:** Excessive heat. Do not store near heat or flame.

**Incompatible Materials:** Strong oxidizing agents: bases and acids.

**Hazardous Decomposition Products:** Under fire conditions may produce oxides of carbon, nitrogen and sulfur.

**Hazardous Reactions:** Hazardous polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Potential Health Effects:

**Likely Routes of Exposure:** Inhalation, ingestion, eye and skin contact.

**Eye Contact:** Mildly irritating based on toxicity studies.

**Skin Contact:** Minimally toxic and slightly irritating based on toxicity studies.

**Ingestion:** Slightly toxic if ingested based on toxicity studies.

**Inhalation:** Low inhalation toxicity based on toxicity studies.

**Medical Conditions Aggravated by Exposure:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

### Toxicological Data:

Data from laboratory studies on this product are summarized below:

**Oral:** Rat LD<sub>50</sub>: >5,000 mg/kg (female)

**Dermal:** Rat LD<sub>50</sub>: >5,000 mg/kg

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >2.11 mg/L

**Eye Irritation:** Rabbit: Mildly irritating

**Skin Irritation:** Rabbit: Non irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure to thiophanate methyl may cause mild anemia and affect the liver and thyroid.

**Carcinogenicity / Chronic Health Effects:** Prolonged overexposure to thiophanate methyl may affect the liver and thyroid. Thiophanate methyl produced dose-dependent increases in benign liver tumors in mice and thyroid tumors in rats.

**Reproductive Toxicity:** Thiophanate methyl did not cause reproductive toxicity in multi-generation studies in rats.

**Developmental Toxicity:** In a rabbit study with thiophanate methyl, slight skeletal variations and decreased fetal weights were observed at doses that were also toxic to mother animals.

**Genotoxicity:** There have been some positive and some negative studies, but the weight of evidence is that thiophanate methyl is not mutagenic.

**Assessment Carcinogenicity:** None listed with ACGIH, IARC, NTP or OSHA.

## 12. ECOLOGICAL INFORMATION

### Environmental Hazards:

Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

### Ecotoxicity:

Data on Thiophanate Methyl Technical:

96-hour LC <sub>50</sub> Bluegill:	>41 ppm	Bobwhite Quail 8-day Dietary LC <sub>50</sub> :	>10,000 ppm
96-hour LC <sub>50</sub> Rainbow Trout:	8.3 ppm	Mallard Duck Oral LD <sub>50</sub> :	4,640 mg/kg
48-hour EC <sub>50</sub> Daphnia:	5.4 ppm	48-hour Honey Bee Contact LD <sub>50</sub> :	>100 µg/bee
96-hour LC <sub>50</sub> Mysid:	1.1 ppm		

### Environmental Fate:

Thiophanate methyl degrades primarily to MBC whether on foliage, in soil or in water in a matter of days. Both photolysis and hydrolysis are important routes of degradation. MBC is microbially degraded, but stable to aqueous photodegradation, stable to hydrolysis at pH values ranging from 5 to 7 and stable to soil photolysis. Metabolism under aerobic and anaerobic conditions in both soil and water proceeds at a slow rate. Under application conditions, average half-lives are about 20 to 50 days, but may be as short as a few days with repeated use.

**13. DISPOSAL CONSIDERATIONS****Waste Disposal Method:**

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be used 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.

**Container Handling and Disposal:****Homeowner**

If empty: Do not reuse this container. Place in trash or offer for recycling if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**Commercial**

Nonrefillable container. **DO NOT** reuse or refill this container. Completely empty container into application equipment. Then offer for recycling if available, or place empty container in trash.

**14. TRANSPORTATION INFORMATION**

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

**DOT****< 480 pounds per completed package**

Non Regulated

**≥ 480 pounds but < 882 pounds per completed package**

UN 3077, Environmentally hazardous substances, solid n.o.s., 9, III, (thiophanate-methyl), RQ

**≥ 882 pounds per completed package**

UN 3077, Environmentally hazardous substances, solid, n.o.s., 9, III, (thiophanate-methyl), Marine Pollutant, RQ

**IMDG**

UN 3077, Environmentally hazardous substances, solid, n.o.s., 9, III, (thiophanate-methyl), Marine Pollutant

**IATA**

Non Regulated

**15. REGULATORY INFORMATION****EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION. Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing.

**U.S. FEDERAL REGULATIONS**

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SARA Hazard Notification/Reporting:****Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370.66):**

Immediate

**Section 313 Toxic Chemical(s):**

Thiophanate Methyl (CAS No. 23564-05-8) - 2.08% by weight in product.

**Reportable Quantity (RQ) under U.S. CERCLA:**

Thiophanate Methyl (CAS No. 23564-05-8) - 10 pounds



**RCRA Waste Code:**

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

**State Information:**

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** WARNING. This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.]

**16. OTHER INFORMATION****National Fire Protection Association (NFPA) Hazard Rating:**

**Rating for this product: Health: 3 Flammability: 1 Reactivity: 0**

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

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