

**1. IDENTIFICATION**

Product name: **Quali-Pro® TM 4.5 Turf & Ornamental Fungicide**  
 Chemical name of active ingredient(s): Thiophanate-methyl: [Dimethyl (1,2-phenylene) bis (iminocarbonothioyl)] bis [carbamate]  
 Registrant/Manufacturer: Makhteshim Agan of North America, Inc.  
 4515 Falls of Neuse Road, Suite 300  
 Raleigh, NC 27609  
 Phone: 919-256-9300  
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053  
 For medical emergencies and health and safety inquiries, contact Prostar: Phone: 1-877-250-9291

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Thiophanate-methyl NA=Not available	23564-05-8	46.2	NA	NA	NA	NA

**3. HAZARDS IDENTIFICATIONS**

**PHYSICAL PROPERTIES**

Appearance: Off-white liquid  
 Odor: Characteristic odor

**EMERGENCY OVERVIEW:** CAUTION Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**PRIMARY ROUTES OF EXPOSURE:** Skin and eye contact, ingestion and inhalation.

**4. FIRST AID MEASURES**

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of soap and water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact Prostar at 1-877-250-9291 for emergency medical treatment information.	

**5. FIRE FIGHTING MEASURES**

**FLASH POINT:** Not applicable  
**FLAMMABLE LIMITS:** LFL/UFL: Not applicable

**EXTINGUISHING MEDIA:** Water, foam, CO<sub>2</sub>, dry chemical, earth or sand.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Not applicable.

**SPECIAL FIRE-FIGHTING PROCEDURES:** None known.

#### 6. ACCIDENTAL RELEASE MEASURES

If spilled during storage or handling, absorb with sand or other inert material and dispose of absorbent in accordance with the Pesticide Disposal instruction below.

#### 7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING:** Wash thoroughly after handling. Do not get in eyes, on skin or on clothing. Do not breathe dust. Keep container closed. Use only with adequate ventilation.

**PRECAUTIONS TO BE TAKEN IN STORAGE:** Store in the original container in a dry area. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur.

**STORAGE TEMPERATURE (MIN/MAX):** Normal ambient temperatures.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

**EYE PROTECTION:** Not required – Use normal safety precautions.

**SKIN PROTECTION:** Long-sleeved shirt and long pants. Shoes plus socks.

**HAND PROTECTION:** Chemical-resistant gloves made of any waterproof material.

**RESPIRATOR REQUIREMENTS:** Not required – Use normal safety precautions.

**VENTILATION:** Whenever possible, adequate ventilation should be used to minimize the need for personal protective equipment.

**ADDITIONAL PROTECTIVE MEASURES:** Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, 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 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.

**EXPOSURE GUIDELINES:** Refer to Section 2.

**ENGINEERING CONTROLS:** Use adequate ventilation to minimize airborne concentrations of this material.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Off-white liquid

**ODOR:** Characteristic odor

**FLASH POINT:** Not applicable

**pH:** 5-6

**BOILING POINT:** ca. 100°C

**SOLUBILITY IN H<sub>2</sub>O:** Dispersible

**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 1.213 @ 20/21°C

**DENSITY:** 1.21 g/mL (10.12 lbs/gallon)

#### 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal use and storage conditions.

**MATERIALS TO AVOID:** None known.

**HAZARDOUS POLYMERIZATION:** Not applicable.

**INSTABILITY CONDITIONS:** None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.

#### 11. TOXICOLOGICAL INFORMATION

##### ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD <sub>50</sub> (Rat):	Not available
Acute Dermal LD <sub>50</sub> (Rabbit):	Not available
Acute Inhalation LC <sub>50</sub> (Rat):	Not available
Eye Irritation:	Mildly irritating
Dermal Irritation:	Not available
Dermal Sensitization:	Not available

#### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL HAZARDS:** Do not apply directly to water, or to 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 washwaters.

#### 13. DISPOSAL CONSIDERATIONS

**END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.**

**PRODUCT DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If wastes cannot be disposed of according to label instructions, contact your State or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

#### 14. TRANSPORT INFORMATION

##### DOT CLASSIFICATION:

**Packaging < 2.13 gals :** Not regulated

**Packaging = or > 2.13 gals :** UN3082, Environmentally hazardous substances, liquid, N.O.S.  
(Thiophanate-methyl), 9, PGIII, RQ

##### INTERNATIONAL TRANSPORTATION

**IMO (vessel):** Not regulated

**IATA (air):** Not regulated

#### 15. REGULATORY INFORMATION

##### SARA TITLE III CLASSIFICATION:

Section 302:	Not applicable.
Section 311/312:	Acute health hazard (immediate)
Section 313:	Thiophanate-methyl (46.2%) CAS# 23564-05-8

**CA PROPOSITION 65:** This product contains a chemical (thiophanate-methyl) that is known to the State of California to cause female and male reproductive toxicity.

**CERCLA RQ:** Thiophanate-methyl RQ= 10 lbs. (Product= 21.6 lbs/2.13 gals)

**RCRA CLASSIFICATION:** 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.

**TSCA STATUS:** The ingredients of this product are listed on the TSCA inventory or are exempt.

**16. OTHER INFORMATION**

<b>HAZARD RATINGS</b>	<b>NFPA</b>	<b>HMIS</b>	
<b>HEALTH:</b>	1	1	0 MINIMAL
<b>FLAMMABILITY:</b>	0	0	1 SLIGHT
<b>REACTIVITY:</b>	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

**MSDS DATE:** 8-24-09. Supercedes versions dated 3-2-09, 2-20-09 and 9-27-07. Changes made to sections 1, 3, 4, 12 and 13.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.