



# FUNGICIDE

# TRANSOM<sup>®</sup> 4.5 F

## Liquid Flowable Systemic Turf and Ornamental Fungicide

For control of a broad spectrum of diseases of bedding, flowering, herbaceous and tropical foliage plants, shrubs, trees and flowers, containerized woody shrubs and trees and turfgrass.

### ACTIVE INGREDIENT:

Thiophanate-methyl (Dimethyl [1,2-phenylene]bis-(iminocarbonothioyl))bis [Carbamate])\* ..... 46.2%

**OTHER INGREDIENTS:** ..... 53.8%

**TOTAL:** ..... 100.0%

\*Also known as Dimethyl 4,4'-o-phenylebis-[3-thioallophanate]

Contains 4.5 pounds thiophanate-methyl per gallon.

TRANSOM<sup>®</sup> 4.5 F contains thiophanate-methyl, the active ingredient used in Cleary 3336<sup>™</sup>.

Manufactured for:  
**PROKōZ, Inc.**

1720 Windward Concourse,  
Suite 150  
Alpharetta, GA 30005

### FIRST AID

**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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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.

### 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 1-800-424-9300 for emergency medical treatment information.

See label booklet for additional Precautionary Statements and Directions for Use.



Net Contents:

# 2.5 Gallon (9.46 liters)

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

EPA Reg. No. 72112-2

EPA Est. No. indicated by the first two letters  
of the batch number on this package.  
(AL) 228-IL-002, (YU) 67545-AZ-001,  
(DA) 84264-IND-3

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**CAUTION/PRECAUCION**

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

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

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

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.

**Engineering Controls**

When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

**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 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 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 requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

For use by individuals/firms licensed or registered by the state to apply ornamental or turf pest control products. Do not apply with fixed wing or rotary aircraft.

**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 instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

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

*(continued)*

## AGRICULTURAL USE REQUIREMENTS *(cont.)*

**Exemption:** If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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,
- Chemical-resistant headgear for overhead exposures

## 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.

Do not enter or allow others to enter treated areas without protective clothing until spray has dried. Keep children and pets out of the treated area until sprays have dried.

## PRODUCT INFORMATION

Not for homeowner use. 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 graze animals on treated turf. Do not feed clippings to livestock or poultry.

Do not apply with fixed wing or rotary aircraft.

Apply TRANSOM® 4.5 F with ground equipment, using sufficient volume of spray to provide thorough coverage. Add required amount of TRANSOM® 4.5 F to partially filled tank agitated by mechanical or hydraulic means and then add remaining required amount of water. Continuous agitation is required to keep the material in suspension. Do not tank mix with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur. No claim of compatibility with other pesticides is implied. Use the higher rates under conditions of severe disease pressure. Also, see local State Extension Service recommendations for application schedules.

**IMPORTANT:** If, after using TRANSOM® 4.5 F as specified in this label, treatment is not effective, a tolerant strain of fungi may be present. Consult your local State Agricultural Experiment Station or your State Agricultural Extension Service for advice on the prompt use of some other suitable fungicide.

**Resistance Management:** To avoid the development of tolerant strains of fungi, TRANSOM® 4.5 F should be used with fungicides of different modes of action. Prokoz, Inc. does not recommend the use of products containing thiabendazole in combination or rotation with TRANSOM® 4.5 F. These utilize similar chemistry and mode of action and can contribute to development of disease tolerance. If, after using TRANSOM® 4.5 F as specified, and the treatment is not effective, a tolerant strain of fungi may be present. Consult your local Prokoz, Inc. representative, your State Agricultural Experiment Station, or your State Cooperative Extension Service for proper disease identification and advice on the prompt use of some other suitable fungicide or disease control strategy. As long as recommended precautions are followed TRANSOM® 4.5 F can remain useful for disease control.

**Mixing Instructions:** SHAKE WELL BEFORE USING. Some settling may occur during prolonged periods of non-use. High pH environments cause a shortened tank life for diluted product. The buffering of tank water to pH 6-7 prior to the addition of TRANSOM® 4.5 F is recommended. Add required amount of TRANSOM® 4.5 F to partially filled tank (1/2 total volume), agitate by mechanical or hydraulic means, add tank mix product if used (**Do not tank mix TRANSOM® 4.5 F with copper-containing materials or with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur.**) For

more information, see "Tank Mixing Instructions below, agitate again and then add remaining required amount of water. Maintain continuous agitation to keep the material in proper suspension. For best results, use spray mixture the same day it is prepared.

**Tank Mixing Instructions:** TRANSOM® 4.5 F is compatible with most commonly used pesticides. If tank mixing with other materials, add products in the following order: water soluble bags, wettable powders, dry flowables, liquid flowables, emulsifiable concentrates, and soluble materials such as fertilizers. No claim of compatibility with other products is implied. **Do not tank mix with copper-containing materials or highly alkaline pesticides, such as Bordeaux mixture or lime sulfur.** Consult the intended tank mix partner product label for appropriate application rates and use instructions. Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibition against such mixing. Read and observe the most restrictive precautionary statements and other information appearing on product labels used in mixtures. TRANSOM® 4.5 F may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### **APPLICATION THROUGH IRRIGATION SYSTEMS**

Apply this product only through the following types of sprinkler systems - center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move (or similar); or flood (basin) irrigation system. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **ADDITIONAL APPLICATION INSTRUCTIONS**

Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.

Prepare a suspension of product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water. Use sufficient water to ensure full coverage of foliage. Do not use an amount of water that could lead to excessive runoff from target plants. The amount of water will vary according to the amount of foliage requiring coverage and type of equipment but generally 25 to 100 gallons per acre is adequate.

Maintain a gentle agitation in the mix tank during application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. Use an injection ration of 1:100 for greenhouse systems.

Pesticide application should begin as soon as irrigation pattern is established and stabilized. Irrigation should continue after application of pesticide for a sufficient amount of time for pesticide to be flushed from end of irrigation system.

### **SPECIFIC INFORMATION FOR IRRIGATION SYSTEMS CONNECTED TO A PUBLIC WATER SUPPLY**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer, or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back towards the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being drawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump or equivalent, effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

### **SPECIFIC INFORMATION FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

## **SPECIFIC INFORMATION FOR FLOOD (BASIN), FURROW AND BORDER CHEMIGATION**

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## **COMMERCIAL HORTICULTURAL APPLICATIONS**

**Nursery, Greenhouse, Landscape & Interiorscape**

**Annual and Perennial Flowers, Bedding Plants, Foliage Plants, Ground Covers, plus Deciduous and Evergreen Trees and Shrubs**

Do not use fruit, nuts or sap from treated trees as food or feed.

TRANSOM® 4.5 F is a broad spectrum systemic fungicide which controls a variety of foliar, stem, and root diseases on a wide range of commercially important plants. TRANSOM® 4.5 F is also effective as a pre-plant dip on cuttings and bulbs. For soil drench applications, best crop protection is achieved with preventative treatments repeated every 21-28 days. For foliar applications, begin treatments when disease first appears, or during suspected periods of disease incidence. Apply additional applications every 7-14 days or as otherwise instructed for the prevention or control of the listed diseases. Use of a wetting agent is recommended for plants that have leaves that are difficult to wet properly. Use of a spreader-sticker is recommended to enhance product performance in wet weather conditions or during periods of overhead irrigation. TRANSOM® 4.5 F may be applied as a ground application using hand held, mechanical or motorized spray equipment, or as a chemigation spray or through an applicable sprinkler irrigation system; or as an overhead application where applicable. See specific instructions below. For foliar applications, do not apply more than 3 pounds active ingredient per acre during a single application. For soil drench applications, do not exceed 300 pounds active ingredient per acre per crop season from all thiophanate-methyl containing products.

**Note:** The “Direction For Use” of this product reflect the cumulative inputs from both historical field use and product testing programs. However, it is impossible to test this product on all species and cultivars. A preliminary trial is suggested on a small scale before full treatment is applied to any plant type not shown on this label but found in a similar use site with a listed disease problem. Wait 5-7 days after treatment to evaluate results. This product is not recommended for use on Swedish Ivy (*Plectranthus australis*), Boston Fern (*Nephrolepis exalta*), and Easter Cactus (*Hatiora gaertneri*).

**Application Instructions:** Apply material with properly calibrated, hand held, mechanical or motorized spray equipment or by chemigation through appropriate sprinkler irrigation, flood, or drip systems. Begin applications when disease first appears and repeat at 7-14 day intervals or as needed during the growing season. Use the shortest interval when conditions are unusually favorable for the development of disease. For hand held, mechanical, or motorized applications, mix 8-24 oz of TRANSOM® 4.5 F per 100 gal water (0.5-1.5 teaspoons per gal) and apply as a full coverage spray to drip for the prevention and control of the diseases listed below. Spray volume may range up to 400 gallons of finished spray per acre depending upon plant species and plant growth stage. For applications through irrigations systems, refer to use rates indicated in the foliar application chart. For small volume applications less than 100 gallons, divide specified rate by 16 to get the number of teaspoons of TRANSOM® 4.5 F per gal.

**Special Instructions For Proportional Injectors (e.g. Dosatron, Dosmatic, Anderson, and similar equipment)**

Determine the treatment rate for crop and pathogen from the foliar application table below. Determine the injection ratio for the individual system to be used for application. For systems using a 1:100 ratio, measure and add the exact amount of specified material per 100 gallons to each gallon of water in a stock bucket or tank. For systems using a 1:200 ratio, multiply the specified amount per 100 gallons by 2. For systems using a 1:50 ratio, divide the specified amount per 100 gallons added by 2. For systems using 1:16 ratio, divide the specified amount per 100 gallons by 6. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is recommended for most greenhouse and nursery systems. Do not apply more than 3.0 lbs AI per year.

**FOLIAR APPLICATION\***

Diseases Controlled	Rate of TRANSOM® 4.5 F	Application Instructions
<b>Anthraxnose</b> <i>Colletotrichum</i>	12-20 fl oz/100 gallon	Apply as buds break or at first sign of disease. Repeat at 7-14 day intervals as needed during disease period.
<b>Black Spot of Rose</b> <i>Diplocarpon rosae</i>	12-20 fl. oz/100 gallon	Apply early summer or at first sign of disease. Repeat every 7-14 days as needed during disease period.
<b>Brown Rot and Blight</b> <i>Monilinia, Sclerotinia, Whetzellinia</i>	12-20 fl oz/100 gallon	Apply late Spring or at first sign of disease. Repeat every 7-14 days as needed during disease period.
<b>Fusicladium and Venturia Leaf Scabs on:</b> Crabapple, Hawthorn, Pear, Mountain Ash, Pyracantha, etc.	12-20 fl oz/100 gallon	Apply as buds break. Repeat every 7-14 days during disease period. Effective control requires coverage during leaf expansion. Rotations and/or tank mix combinations with mancozeb (Protect), chlorothalonil or propiconazole can be utilized. Do not use fruit from treated crabapple or pear trees for food purposes.
<b>Leaf Spots and Blights</b> caused by: <i>Ascochyta, Blumeriella, Botrytis, Cercospora, Coccomyces, Corynespora, Curvularia, Didymellina, Entomosporium, Fabraea, Fusarium, Ramularia, Rhizoctonia, Marssonina, Mycosphaerella, Myrothecium, Phoma, Physalospora, Schizothyrium, Septoria, Sphaceloma</i>	12-20 fl oz/100 gallon	Apply when disease symptoms first appear. Repeat every 7-14 days as needed during disease period. Rotations and/or tank mix combinations with mancozeb (Protect) or chlorothalonil can be utilized.

(continued)

Diseases Controlled	Rate of TRANSOM® 4.5 F	Application Instructions
<b>Ovulinia Blight</b>	8-16 fl oz/100 gallon	Apply as flowers open. Repeat every 7-14 days during disease period.
<b>Powdery Mildews</b> <i>Erysiphe, Microsphaera, Phyllactinia, Podosphaera, Oidium, Sphaerotheca</i>	12-20 fl oz/100 gallon	Apply when disease first appears and repeat every 7-14 days during disease period. Rotations and/or tank mix combinations with mancozeb (Protect) or triadimefon can be utilized.
<b>Rust Diseases</b> caused by: <i>Puccinia, Gymnosporangium, Uromyces</i>	12-16 fl oz/100 gallon	Apply late Spring or when symptoms first appear. Repeat every 7-14 days as needed during disease period. Rotations and/or tank mix combinations with mancozeb (Protect) or chlorothalonil are recommended.
<b>Tip Blight</b> of Pine <i>Sphaeropsis sapinea, Diplodia pinea</i>	16-20 fl oz/100 gallon	Begin application in spring when new growth starts. Make a second application just before needles emerge from the sheath and a third application 14 days later. Thorough coverage is essential for optimal disease control.
<b>Twig Blights, Cankers, and Diebacks</b> <i>Diaporthe, Kabatina, Phoma, Phomopsis</i>	16-20 fl oz/100 gallon	Apply when symptoms first appear. Repeat every 7-14 days as needed during disease period.

\*For Cut Flowers do not exceed 0.5 lbs ai/acre/application.

**Adjuvants:** Where rainfall and/or overhead irrigation is the norm, use of a compatible spreader/sticker is suggested. Where wetting of foliage is difficult, use a compatible wetting agent. Follow the phytotoxicity precautions described in the "COMMERCIAL HORTICULTURAL APPLICATIONS" section of this label.

### Backyard Fruit and Nut Trees

Certified applicators:

If this product is used on a tree producing fruits or nuts which will be used for food or feed:

- Do not apply to home orchards/backyard fruit or nut trees after fruit or nut set.
- Do not apply to fruit or nut trees other than almond, apple, pear, pecan, pistachio, apricot, cherry, nectarine, peach, plum or prune.
- For bearing fruit and nut trees, use the following application rates. (For a list of diseases controlled see the table above under Foliar Application).

Crop	Application Rate Fluid Ounces product/Acre	Annual Maximum Fluid Ounces product/Acre
Almond, Apple, Pear, Pecan, Apricot, Cherry, Nectarine, Peach, Plum or Prune	19.5 (0.7 lb a.i./A)	59 (2.1 lbs. a.i./A)
Pistachio	19.5 (0.7 lb a.i./A)	39 (1.4 lbs. a.i./A)



**VEGETABLE TRANSPLANTS (Greenhouse and Nursery Use Only):**

Not intended for field vegetable production

Vegetable Transplants	Diseases Controlled	Rate of TRANSOM® 4.5 F	Application Instructions
<b>Beans, dry and succulent</b> including: Lima bean, Snap bean, Kidney bean, Mung bean, Navy bean, Pinto bean, Wax bean, Broad bean, Fava bean, Asparagus bean, Blackeyed pea, Cowpea, Sweet lupine, White lupine, White sweet lupine, Grain lupine, Chick pea, Garbanzo bean	<b>Anthracnose</b> <i>Colletotrichum</i>  <b>Gray Mold</b> <i>Botrytis</i>  <b>White Mold</b> <i>Sclerotinia</i>	29-39 fl. oz./Acre <sup>1</sup>  or  19-29 fl. oz./Acre <sup>2</sup>	For one application: Apply when 100% of plants have at least one open bloom or when conditions are favorable for disease development.  or  For multiple applications: Make the first application when 10% to 30% of plants have at least one open bloom and follow with sequential applications on a 4 to 7 day interval. Apply prior to the development of disease for best results.  <b>RESTRICTIONS:</b> Do not apply more than 79 fl. oz. of product (2.8 lbs a.i.)/A/season.  Pre-harvest interval: <b>California only</b> , 14 days for succulent beans, 28 days for dry beans and lima beans.  Pre-harvest interval: <b>all other states</b> , 14 days for succulent beans and lima beans, 28 days for dry beans.
<b>CUCURBITS</b> (Cantaloupe, Casaba, Cucumbers, Melons, Pumpkins, Summer and Winter Squash, and Watermelons)	Follow resistance management guidelines under Directions for Use.		
<b>RESTRICTION:</b> Do not apply more than 59 fl. oz. of product (2.1 lbs a.i.)/A/season from any combination of application timings.			
<b>Anthracnose*</b> <i>Colletotrichum</i>  <b>Gummy Stem Blight*</b> <i>Didymella</i>  <b>Powdery Mildew*</b> <i>Erysiphe</i> , <i>Sphaerotheca</i> , <i>Podosphaera</i>  <b>Target Spot*</b> <i>Corynespora</i>		10 fl. oz. /Acre <sup>3</sup>	Begin applications when plants begin to run or when disease first appears, and repeat at 7 to 14 day intervals.  For Target Spot use at 7 day intervals.
<b>Belly Rots*</b> <i>Rhizoctonia</i> , <i>Fusarium</i>		10 fl. oz./Acre <sup>3</sup>	Apply in sufficient volume to allow runoff to the soil. Will not control <i>Pythium</i> or <i>Phytophthora</i> .

**\*Not for this use in California**

1. Apply, for example in 50-200 gallons of water per acre. In volumes of water below 50 gallons, use a minimum of 2.1 pounds per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 2.8 pounds per acre. For example, if 200 gallons of water are required, use 1.4 pounds per 100 gallons.

2. Apply, for example, in 50-200 gallons of water per acre. In volumes of water below 50 gallons, use a minimum of 1.4 pounds per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 2.1 pounds per acre. For example, if 200 gallons of water are required, use 1.05 pounds per 100 gallons.
3. Apply, for example, in 50-200 gallons of water per acre. In volumes of water below 50 gallons, use a minimum of 0.7 pounds per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 0.7 pounds per acre. For example, if 200 gallons of water are required, use 0.35 pounds per 100 gallons.

## SOIL DRENCH APPLICATION

Diseases Controlled	Rate of TRANSOM® 4.5 F	Application Instructions
<p><b>Stem, Crown, and Root Rots</b> caused by:  <i>Botrytis</i>, <i>Cylindrocladium</i>, <i>Fusarium</i>, <i>Gliocladium</i>, <i>Myrothecium</i>, <i>Penicillium</i>, <i>Ramularia</i>, <i>Rhizoctonia</i>, <i>Sclerotinia</i></p> <p><b>Black Root Rot</b>  <i>Thielaviopsis</i></p>	<p>12-20 fl oz/100 gal</p>	<p>Apply as a drench or directed spray using hand held, mechanical, or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler irrigation systems, after seeding or sticking of cuttings (8 fl oz) or after transplanting (12-16 fl oz) to propagation beds, containers, pots, trays, or nursery or landscape beds at a rate to thoroughly soak the growing media through the root zone. A general guide is 0.25-3.0 pints of finished mixture per sq ft depending on the media type and depth (about 4 fl oz per 4 inch pot or 8 fl oz per 6 inch pot). Repeat every 21-28 days for adequate crop protection.</p> <p><b>Note:</b> TRANSOM® 4.5 F does not control <i>Pythium</i> or <i>Phytophthora</i>. Tank mix combinations with metalaxyl, mefenoxam, etridiazole, fosetyl-Al, or mono and dipotassium salts of phosphorous acid or propamocarb are required for the control of <i>Pythium</i> and <i>Phytophthora</i>.</p>

## PLANT DIP APPLICATION

Diseases Controlled	Rate of TRANSOM® 4.5 F	Application Instructions
<p><b>Plant or Cutting Diseases</b> caused by:  <i>Botrytis</i>, <i>Cylindrocladium</i>, <i>Fusarium</i>, <i>Gliocladium</i>, <i>Myrothecium</i>, <i>Penicillium</i>, <i>Ramularia</i>, <i>Rhizoctonia</i>, <i>Sclerotinia</i>, <i>Thielaviopsis</i></p>	<p>16-20 fl oz/100 gal</p>	<p>Immerse plants or cuttings for 10-15 min. Remove and allow to drain. <b>Note:</b> Follow accepted hygiene practices to minimize the introduction and spread of water borne bacterial and water mold fungal diseases.</p>
<p><b>Bulb, Corm, and Rhizome Rots</b> caused by:  <i>Botrytis</i>, <i>Cylindrocladium</i>, <i>Fusarium</i>, <i>Gliocladium</i>, <i>Myrothecium</i>, <i>Penicillium</i>, <i>Ramularia</i>, <i>Rhizoctonia</i>, <i>Sclerotinia</i>, <i>Thielaviopsis</i></p>	<p>16-20 fl oz/100 gal</p>	<p>Soak cleaned bulbs for 15-30 min in warm solution (80-85°F). For storage disease prevention, treat bulbs preferably within 48 hours after digging. After treatment, dry well before storing. If bulbs are for forcing, treat bulbs that have been heat-cured.</p> <p><b>Note:</b> Follow accepted hygiene practices to minimize the introduction and spread of water born bacterial and water mold fungal diseases.</p>

## TURF APPLICATIONS

For use on all fine turf applications such as Bentgrasses, Bermuda grasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia or their mixtures. TRANSOM® 4.5 F is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. TRANSOM® 4.5 F is to be used for the prevention and control of the diseases listed below.

For best results use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated sprayer. Apply after mowing or avoid mowing twelve hours after application. Apply specified amounts in sufficient water to obtain thorough coverage, (2-4 gallons per 1,000 square feet suggested). When treating golf greens, always treat aprons.

**Application Instructions:** Apply material with properly calibrated hand held, mechanical or motorized spray equipment or by chemigation through appropriate sprinkler irrigation systems. Spray uniformly over the area to be treated. Apply specified amounts in sufficient water to obtain thorough coverage of treatment area (2-4 gal per 1,000 sq ft is suggested). When treating golf greens, always treat aprons. Use the highest labeled rate under conditions of severe disease pressure. For best results, apply after mowing or avoid mowing twelve hours after application. For root pathogens, lightly water the treatment area to move the fungicide into the active root zone with one to two tenths inch of water. Excessive irrigation may move application below active root zone and reduce application effectiveness. Green design and drainage will influence irrigation practices. When tank mixing with contact action fungicides for foliar diseases, applications should be allowed to dry on leaf surfaces. Normal watering may proceed after sprays have dried.

### Maximum Individual Application Rates and Minimum Re-Treatment Intervals

Do not exceed the amounts per acre or reduce the re-treatment interval indicated below.

Use Site	Maximum Application rate of TRANSOM® 4.5 F	Minimum Re-Treatment Interval	Comments
Residential or Public Areas	1 ¾ fl. oz. / 1,000 sq. ft.	14 days	
Golf Course Tees, Greens, Aprons	5 1/3 fl. oz. / 1,000 sq. ft.	14 days	
Golf Course Fairways – except Florida	3 ½ fl. oz. / 1,000 sq. ft.	14 days	Excludes Florida
Golf Course Fairways – Florida Only	1 ¾ fl. oz. / 1,000 sq. ft.	14 days	Florida Only.

### Maximum Yearly Application Rates

Do not exceed the following amounts of product per Acre per year.

Use Site	Maximum Gallons TRANSOM® 4.5 F per Acre per Season	Fluid Ounces TRANSOM® 4.5 F per 1,000 sq. ft	Comments
Residential or Public Areas	2.4 Gallons	7 fl. oz.	4 Applications per year
Golf Course Tees, Greens, Aprons	4.8 Gallons	14 1/4 fl. oz.	
Golf Course Fairways – except Florida	1.2 Gallons	3 1/2 fl. oz.	Excludes Florida
Golf Course Fairways – Florida Only	0.6 Gallons	1 3/4 fl. oz.	Florida Only

## Turf Disease Control

Disease(s) Controlled	Rate of TRANSM® 4.5 F fl oz/1,000 sq ft	Application Instructions*
<b>Anthraxnose, basal</b> <i>Colletotrichum cereale</i> <b>Anthraxnose, foliar</b> <i>Colletotrichum cereale</i>	3 ½ - 5 1/3  2-3 ½	For prevention in historic areas of disease pressure, apply twice at 14 day intervals when soil temperature reaches 60°F. For curative control, apply when disease first appears and continue at 14 day intervals. Rotations and/or tank mix combinations with chlorothalinalol or triadimefon can be utilized.
<b>Bermudagrass Decline</b> <i>Gaeumannomyces graminis</i> var. <i>graminis</i> <b>Take-All-Patch</b> <i>Gaeumannomyces graminis</i> var. <i>avenae</i>	3 ½ - 5 1/3	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. Water treatment into active root zone. Follow proper agronomic recommendations to maintain plant vigor.
<b>Cool Season Brown Patch</b> <i>Rhizoctonia cerealis</i> <b>Necrotic Ring Spot</b> <i>Leptosphaeria korrae</i> <b>Spring Dead Spot</b> <i>Leptosphaeria korrae</i>	3 ½ - 5 1/3	For prevention, apply in Fall before turf has stopped all growth activity. Apply second application in early Spring when soil temperatures reach 55-60°F or when disease first appears. For curative action, apply when disease first appears in early Spring and continue at 14 day intervals. Water treatment into active root zone.
<b>Coprinus Snow Mold</b> <i>Coprinus psychromorbidus</i>	3 ½ - 5 1/3	Apply 2 treatments at 21 day intervals in late Fall to early Winter, with the last application made just prior to first permanent snow cover. Rotations and/or tank mix combinations with PCNB can be utilized.
<b>Dollar Spot</b> <i>Moellerodiscus</i> , <i>Lanzia</i> , <i>Sclerotinia</i> <b>Large Brown Patch</b> <i>Rhizoctonia solani</i> <b>Ascochyta Leaf Blight</b> <i>Ascochyta</i> <b>Copper Spot</b> <i>Gloeocercospora sorghi</i> <b>Fusarium Patch</b> <i>Fusarium nivale</i> <b>Red Thread</b> <i>Laetisaria fuciformis</i> <b>Zoysia Patch</b> <i>Rhizoctonia solani</i>	2-3 ½	Apply when disease first appears and continue at 14 day intervals. Rotations and/or tank mix combinations with chlorothalonalil, iprodione, or mancozeb (Protect™) can be utilized.
<b>Fusarium Blight</b> <i>Fusarium roseum</i> , <i>F. triticum</i>	3 ½ - 5 1/3	Apply when disease first appears at 14 day intervals.

(continued)

Disease(s) Controlled	Rate of TRANSM® 4.5 F fl oz/1,000 sq ft	Application Instructions*
<b>Gray Leaf Spot (Blast)</b> <i>Pyricularia grisea</i>	3 ½ - 5 1/3	Apply preventative application before expected period of disease development. Continue applications at 14 day intervals.
<b>Leaf Spot</b> <i>Drechslera</i> <b>Leaf, Crown, and Root Diseases</b> <i>Bipolaris, Curvularia, Exserohilum</i>	3 ½ - 5 1/3	Apply when disease first appears and make applications at 14 day intervals as needed. Rotations and/or tank mix combinations with chlorothalonil, iprodione, or mancozeb (Protect) are recommended under severe conditions.
<b>Pink Snow Mold</b> <i>Microdochium nivale</i>	3 ½ - 5 1/3	Apply in late Fall to early Winter before turf has stopped all growth activity. A second application may be used in combination with chlorothalonil, PCNB, or thiram (Spotrete™) at specified rates before snow cover or during Spring thaw.
<b>Rusts</b> <i>Puccinia, Uromyces</i>	3 ½ - 5 1/3	Apply at 14 day intervals when disease first appears. Rotations and/or tank mix combinations with chlorothalonil or mancozeb (Protect) are recommended.
<b>Stripe Smut</b> <i>Ustilago striiformis</i>	3 ½ - 5 1/3	Apply at 14 day intervals when disease first appears. For prevention, apply in spring and fall.
<b>Summer Patch</b> <i>Magnaporthe poae</i>	3 ½ - 5 1/3	For prevention, apply 3 applications starting late April or early May using 21 day intervals. Rotations and/or tank mix combinations may be used as part of the three application program. For suppression, apply at 14 day intervals when disease first appears. Water treatment into active root zone.
<b>Bentgrass Dead Spot</b> <i>Ophiophaerella agrostis</i>	3 ½ - 5 1/3	For prevention, apply in early June or based upon local Extension Service recommendations. Apply at 14 day intervals. Rotations and/or tank mix combinations may be used for season long disease prevention.

\*Observe the maximum individual application rates and maximal annual applications limits listed on this label.

### TURF RESTRICTIONS:

Not for homeowner use.

Do not apply with fixed wing or rotary aircraft.

Not for use on turf being grown for sale or other commercial use as sod.

Do not graze animals on treated turf. Do not feed clippings to livestock or poultry.

Minimum 14-day Retreatment Interval

**Shake well before using.**

## STORAGE AND DISPOSAL

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

**PESTICIDE 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. If spilled during storage or handling, absorb with sand or other inert material and dispose of absorbent 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 disposed of 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:

#### Nonrefillable Containers 5 Gallons or Less:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) 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 the 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. Then offer for recycling or reconditioning, or puncture and dispose 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 **PRODUCT USE** Information Call 1-800-345-3330.

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-424-9300.

### CONDITION 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 should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of PROKōZ, INC. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold PROKōZ, INC. and Seller harmless for any claims relating to such factors.

PROKōZ, 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 directions under normal use conditions. 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 Seller or PROKōZ, INC., and Buyer and User assume the risk of any such use. PROKōZ, 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 permitted by law, neither PROKōZ, INC. nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF PROKōZ, INC. AND SELLER 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 PROKōZ, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

PROK6Z, INC. and Seller offer this product, and Buyer and User accept 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 PROK6Z, INC.

TRANSOM® is a registered trademark of PROK6Z, INC.

TRANSOM® 4.5 F is not manufactured or distributed by Cleary Chemicals, LLC, seller of Cleary 3336™.

Cleary 3336™ is a trademark of Nufarm Americas Inc.

EPA 20170508

# TRANSOM® 4.5 F

Liquid Flowable Systemic Turf and Ornamental Fungicide  
For control of a broad spectrum of diseases of bedding, flowering, herbaceous and tropical foliage plants, shrubs, trees and flowers, containerized woody shrubs and trees and turfgrass.

## ACTIVE INGREDIENT:

Thiophanate-methyl (Dimethyl [1,2-phenylene]bis-(iminocarbonothioyl)) bis [Carbamate]*.....	46.2%
OTHER INGREDIENTS: .....	53.8%
<b>TOTAL:</b> .....	<b>100.0%</b>

\*Also known as Dimethyl 4,4'-o-phenylenebis-[3-thioallophanate]

Contains 4.5 pounds thiophanate-methyl per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

### 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 a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</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>
<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 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 by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

### 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 1-800-424-9300 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

## STORAGE AND DISPOSAL

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See label booklet for additional Precautionary Statements and Directions for Use.

EPA Reg. No. 72112-2      EPA Est. No. indicated by the first two letters of the batch number on this package.  
(AL) 228-IL-002, (YU) 67545-AZ-001, (DA) 84264-IND-3

### Manufactured for:

**PROKōZ, Inc.**  
1720 Windward Concourse,  
Suite 150  
Alpharetta, GA 30005

TRANSOM® 4.5 F contains thiophanate-methyl, the active ingredient used in Cleary 3336™.

Net Contents:

# 2.5 Gallon (9.46 liters)

PEEL HERE TO OPEN

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