

April 24, 2019

New York State Department
of Environmental Conservation
Division of Materials Management
Pesticide Product Registration

Doc id: 561379

Cavalier™ F

TURF AND ORNAMENTAL SYSTEMIC FUNGICIDE

Intended for Professional Applicators Only.**For the prevention and control of turf diseases and the diseases of annual and perennial flowers, bedding plants, foliage plants, ground covers, deciduous and evergreen trees and shrubs, and conifer nurseries.****ACTIVE INGREDIENT:**

Thiophanate-methyl (dimethyl 4,4'-o-phenylenebis[3-thioallophanate])..... 41.25%

OTHER INGREDIENTS: 58.75%**TOTAL:** 100.00%

This product contains 4.0 lb thiophanate-methyl per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

SEE CLASSIFIED LABEL FOR PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE

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

FIRST AID

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

HOTLINE NUMBER

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

EPA Reg. No. 1001-69

EPA Est. No. indicated by the first two letters of the batch
number on this package: (AL) 228-IL-002, (VL) 70815-GA-001Manufactured for
Cleary Chemicals LLC
11901 S. Austin Avenue
Alsip, IL 60803**Net Contents**
2.5 Gal.
(9.46 L)**Nufarm**
Grow a better tomorrow

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers mixing, loading and applying the product as a dip must wear:

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant apron.

All other mixers and loaders and applicators must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves
- Chemical-resistant apron for mixers, loaders and other handlers exposed to concentrate.

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/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

User 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 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 washwater or rinsate.

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.

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), and restricted-entry interval. The requirements in this box only 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.

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
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposures.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box only 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.

Keep children and pets out of treated areas until sprays have dried.

COMMERCIAL TURF AND ORNAMENTALS

PRODUCT INFORMATION

Cavalier F is a broad spectrum fungicide exhibiting preventative, curative and systemic properties. It is useful on a wide variety of turf and ornamental disease problems. Apply Cavalier F with ground or overhead equipment, using sufficient volume of spray to provide thorough coverage.

Resistance Management.

For resistance management, Cavalier F contains the active ingredient thiophanate-methyl, a Group 1 fungicide. Any fungal population may contain individuals naturally resistant to this product and other Group 1 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. The following steps may delay the development of fungicide resistance:

- Rotate the use of Cavalier F or other Group 1 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

Note: Products containing thiabendazole or other products containing thiophanate-methyl are not appropriate for rotation or use in tank mixtures with this product as they are of similar chemistry and will contribute to the development of resistance.

Mixing Instructions: SHAKE WELL BEFORE USING. Some settling may occur during prolonged periods of non-use. High pH environments can cause thiophanate-methyl, the active ingredient in Cavalier F, to break down and result in loss of efficacy. Buffer the tank water to pH 6-7 prior to the addition of Cavalier F for optimum product performance. Add required amount of Cavalier 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 Cavalier 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 constant agitation in the spray tank to keep the material in proper suspension. For best results, use spray mixture the same day it is prepared.

Tank Mixing Instructions: It is the pesticide user's responsibility to ensure that all products included in the tank mix 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.

Cavalier 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 with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur.** Cavalier F may be applied in conjunction with chemically neutral liquid fertilizers. Avoid application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, as they may lead to the degradation of the pesticide, resulting in reduced performance.

CHEMIGATION

For Ornamental Use Only

- Apply this product only through pressurized drench (flood), sprinkler, or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation systems.
- Do not connect chemigation system to a public water system.
- Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact your State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect any 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.
- Should the need arise, 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.

Pressurized Drench (Flood) System

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, 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 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.
- 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 back flow if water flow stops.

Sprinkler and Drip (Trickle) Chemigation

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

TURF APPLICATIONS

Cavalier F may be used on all fine turf applications (home lawns, parks, athletic fields, schools, and day care centers), and Golf Courses (greens, tees, fairways, and aprons) of cool and warm season grasses: Bentgrass, Bluegrass, Bermudagrass, Fescue, Ryegrass, St. Augustinegrass, Zoysiagrass, or their mixtures. Cavalier F is not phytotoxic to any of the above mentioned grasses when used in accordance with the label.

Cavalier F is to be used for the prevention and control of the diseases shown in Table 3. It has both preventative and curative activity.

Restrictions

Not for homeowner use.

For use only by certified applicators or those under their immediate supervision.

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.

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 higher specified rate under conditions of severe disease pressure. For best results, apply after mowing or avoid mowing for twelve hours after application. For root pathogens, lightly water the treated 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, allow applications to dry on leaf surfaces. Normal watering may proceed after sprays have dried.

Table 1: Maximum Individual Application Rates and Minimum Retreatment Intervals

Use Site	Maximum Application Rate of Cavalier F	Minimum Retreatment Interval	Restrictions
Residential or Public Areas	0.68 Gallon/Acre (2 fl oz / 1,000 sq ft)	14 days	
Golf Course Tees, Greens, Aprons	2.04 Gallons/Acre (6 fl oz / 1,000 sq ft)	14 days	
Golf Course Fairways –except Florida	1.36 Gallons/Acre (4 fl oz / 1,000 sq ft)	14 days	Excludes Florida
Golf Course Fairways – Florida Only	0.68 Gallon/Acre (2 fl oz / 1,000 sq ft)	14 days	Florida only

Table 2: Maximum Annual Application Rates

Use Site	Maximum Gallons Cavalier F per Acre per Year	Fluid Ounces Cavalier F per 1,000 sq ft	Restrictions
Residential or Public Areas	2.72 (10.9 lb a.i.)	8	4 Applications per year
Golf Course Tees, Greens, Aprons	5.44 (21.8 lb a.i.)	16	
Golf Course Fairways –except Florida	1.36 (5.5 lb a.i.)	4	Excludes Florida
Golf Course Fairways – Florida Only	0.68 (2.7 lb a.i.)	2	Florida only

Table 3: Turf Disease Control

Disease(s) Controlled	Rate of Cavalier F fl oz/1,000 sq ft	Application Instructions
Anthracnose, basal <i>Colletotrichum cereale</i>	4-6	For prevention in historic areas of disease pressure, apply twice at 14 day interval when soil temperature reaches 60°F.
Anthracnose, foliar <i>Colletotrichum cereale</i>	2-4	For curative control, apply when disease first appears and continue at 14 day intervals. Rotations and/or tank mix combinations with chlorothalonil or triadimefon can be utilized.
Bermudagrass Decline <i>Gaeumannomyces graminis</i> var. <i>graminis</i>	4-6	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 practices to maintain plant vigor.
Take-All Patch <i>Gaeumannomyces graminis</i> var. <i>avenae</i>		
Cool Season Brown Patch <i>Rhizoctonia cerealis</i>	4-6	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.
Necrotic Ring Spot <i>Leptosphaeria korrea</i>		For curative action, apply when disease first appears in early spring and continue at 14 day intervals. Water treatment into active root zone.
Spring Dead Spot <i>Leptosphaeria korrea</i>		
Coprinus Snow Mold <i>Coprinus psychromorbidus</i>	4-6	Apply 2 treatments at 21 day interval 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.

(continued)

Table 3: Turf Disease Control (continued)

Disease(s) Controlled	Rate of Cavalier F fl oz/1,000 sq ft	Application Instructions
Dollar Spot <i>Moellerodiscus, Lanzia, Sclerotinia</i>	2-4	Apply when disease first appears and continue at 14 day intervals. Rotations and/or tank mix combinations with chlorothalonil, iprodione, or mancozeb (Protect™) can be utilized.
Large Brown Patch <i>Rhizoctonia solani</i>		
Ascochyta Leaf Blight <i>Ascochyta</i>		
Copper Spot <i>Gloeocercospora sorghi</i>		
Fusarium Patch <i>Fusarium nivale</i>		
Red Thread <i>Laetisaria fuciformis</i>		
Zoysia Patch <i>Rhizoctonia solani</i>		
Fusarium Blight <i>Fusarium roseum,</i> <i>F. triticum</i>	4-6	Apply when disease first appears at 14 day intervals.
Gray Leaf Spot (Blast) <i>Pyricularia grisea</i>	4-6	Apply preventative application before expected period of disease development. Continue applications at 14 day intervals.
Leaf Spot <i>Drechslera</i>	4-6	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 specified under severe conditions.
Leaf, Crown, and Root Diseases <i>Bipolaris, Curvularia, Exserohilum</i>		
Pink Snow Mold <i>Microdochium nivale</i>	2-4	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.
Rusts <i>Puccinia, Uromyces</i>	4-6	Apply at 14 day intervals when disease first appears. Rotations and/or tank mix combinations with chlorothalonil or mancozeb (Protect) are specified.
Stripe Smut <i>Ustilago striiformis</i>	4-6	Apply at 14 day intervals when disease first appears. For prevention, apply in spring and fall.
Summer Patch <i>Magnaporthe poae</i>	4-6	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.
Bentgrass Dead Spot <i>Ophiosphaerella agrostis</i>	4-6	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.

COMMERCIAL HORTICULTURAL APPLICATIONS

Nursery, Greenhouse, Landscape & Interiorscape

Annual and Perennial Flowers, Bedding Plants, Foliage Plants, Ground Covers, Deciduous and Evergreen Trees and Shrubs, and Conifer Nurseries

Restriction

Except as instructed below under "Backyard Fruit and Nut Trees", do not use fruits, nuts or sap from treated trees as food or feed.

Product Information: Cavalier 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. Cavalier F is also effective as a pre-plant dip on cuttings and bulbs.

Note: The "Directions 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 a 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 may be phytotoxic to Swedish Ivy (*Plectranthus australis*), Boston Fern (*Nephrolepis exaltata*), 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, or as an overhead application where applicable.

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 when conditions are favorable for disease development and repeat at 7-14 day intervals or as needed during the growing season. Use the higher specified rate and the shorter retreatment interval when disease pressure is high. For hand held, mechanical, or motorized applications, mix 8-24 fl oz of Cavalier 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 irrigation 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 Cavalier F per gallon.

Adjuvants: Where rainfall and/or overhead irrigation is the norm, use of a compatible spreader/sticker may enhance product performance. Where wetting of foliage is difficult, use a compatible wetting agent. Refer to the Tank Mixing Instructions section of this label for more information on tank mixing and compatibility.

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 specified amount of product 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 a 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 preferred for most greenhouse and nursery systems.

FOLIAR APPLICATION

Restrictions

For all ornamentals except cut flowers, do not exceed a maximum single application rate of 96 fl oz product/acre (3.0 lb a.i./acre).

For cut flowers, do not exceed a maximum single application rate of 16 fl oz product/acre (0.5 lb a.i./acre).

For all foliar applications to ornamentals, do not apply more than 75 gallons product/acre per year (300 lb a.i./acre/year).

Diseases Controlled	Rate of Cavalier F Fluid Ounces/100 Gallons	Application Instructions
Anthraxnose <i>Colletotrichum</i>	12-16	Apply as buds break or at first sign of disease. Repeat at 7-14 day intervals as needed during disease period.
Black Spot of Rose <i>Diplocarpon rosae</i>	12-16	Apply early summer or at first sign of disease. Repeat every 7-14 days as needed during disease period.
Brown Rot and Blight <i>Monilinia</i> , <i>Sclerotinia</i> , <i>Whetzelinia</i>	12-16	Apply late spring or at first sign of disease. Repeat every 7-14 days as needed during disease period.
Fusicladium and Venturia Leaf Scabs on: Crabapple, Hawthorn, Pear, Mountain Ash, Pyracantha, etc.	12-16	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. Restriction: Do not use fruit from treated crabapple or pear trees for food purposes.

Diseases Controlled	Rate of Cavalier F Fluid Ounces/100 Gallons	Application Instructions
Leaf Spots and Blights 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>	12-16	Apply when disease symptoms first appear. Repeat every 7-14 days during disease period. Rotations and/or tank mix combinations with mancozeb (Protect) or chlorothalonil can be utilized.
Ovulinia Blight	8-16	Apply as flowers open. Repeat every 7-14 days during disease period.
Powdery Mildews <i>Erysiphe, Microsphaera, Phyllactinia, Podosphaera, Oidium, Sphaerotheca</i>	12-24	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.
Rust Diseases caused by: <i>Puccinia, Gymnosporangium, Uromyces</i>	12-16	Apply late spring or when symptoms first appear. Repeat every 7-14 days during disease period. Rotations and/or tank mix combinations with mancozeb (Protect) or chlorothalonil can be utilized.
Tip Blight of Pine <i>Sphaeropsis sapinea, Diplodia pinea</i>	16-24	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.
Twig Blights, Cankers, and Diebacks <i>Diaporthe, Kabatina, Phoma, Phomopsis</i>	16-24	Apply when symptoms first appear. Repeat every 7-14 days during disease period.

Backyard Fruit and Nut Trees (Not for use in California)

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 for Foliar Application).

Crop	Application Rate of Cavalier F Fluid Ounces /Acre	Annual Maximum Rate of Cavalier F Fluid Ounces /Acre
Almond, Apple, Pear, Pecan, Apricot, Cherry, Nectarine, Peach, Plum or Prune	22.5 (0.7 lb a.i./A)	67 (2.1 lb a.i./A)
Pistachio	22.5 (0.7 lb a.i./A)	45 (1.4 lb a.i./A)

Vegetable Transplants (Greenhouse and Nursery Use Only):

Not intended for field vegetable production

Vegetable Transplants	Diseases Controlled	Rate of Cavalier F Fluid Ounces/Acre	Application Instructions
Beans, dry and succulent 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	Anthraxnose <i>Colletotrichum</i> Gray Mold <i>Botrytis</i> White Mold <i>Sclerotinia</i>	33-44 ¹	For one application: Apply when 100% of plants have at least one open bloom or when conditions are favorable for disease development.
	<ul style="list-style-type: none"> • Do not apply more than 90 fl oz of product (2.8 lb a.i.)/A/year. • Pre-harvest interval: California only, 14 days for succulent beans, 28 days for dry beans and lima beans. • Pre-harvest interval: all other states, 14 days for succulent beans and lima beans, 28 days for dry beans. 	22-33 ²	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.
CUCURBITS (Cantaloupe, Casaba, Cucumbers, Melons, Pumpkins, Summer and Winter Squash, and Watermelons)	Anthraxnose* <i>Colletotrichum</i> Gummy Stem Blight* <i>Didymella</i> Powdery Mildew <i>Erysiphe</i> , <i>Sphaerotheca</i> , <i>Podospaera</i> Target Spot* <i>Corynespora</i>	12 ³	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.
	Belly Rots* <i>Rhizoctonia</i> , <i>Fusarium</i>	12 ³	Apply in sufficient volume to allow runoff to the soil. Will not control <i>Pythium</i> or <i>Phytophthora</i> .
	<ul style="list-style-type: none"> • Do not apply more than 67 fl oz of product (2.1 lb a.i.)/A/year from any combination of application timings. • Follow resistance management guidelines under Directions for Use. 		

* 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 33 fl oz per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 44 fl oz per acre. For example, if 200 gallons of water are required, use 22 fl oz 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 22 fl oz per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 33 fl oz per acre. For example, if 200 gallons of water are required, use 16.5 fl oz 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 12 fl oz per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 12 fl oz per acre. For example, if 200 gallons of water are required, use 6 fl oz per 100 gallons.

SOIL DRENCH APPLICATION

Restriction

Do not apply more than 75 gallons product/acre per year (300 lb a.i./acre/year).

Diseases Controlled	Rate of Cavalier F Fluid Ounces/100 Gallons	Application Instructions
Stem, Crown, and Root Rots caused by: <i>Botrytis, Cylinrocladium, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia</i>	8-16	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.
Black Root Rot <i>Thielaviopsis</i>		Note: Cavalier F does not control <i>Pythium</i> or <i>Phytophthora</i> . Tank mix combinations with metalaxyl, mefenoxam, etridiazole, propamocarb, fosetyl-Al or mono- and dipotassium salts of phosphorous acid are required for the control of <i>Pythium</i> and <i>Phytophthora</i> .

PLANT DIP APPLICATION

Diseases Controlled	Rate of Cavalier F Fluid Ounces/100 Gallons	Application Instructions
Plant or Cutting Diseases caused by: <i>Botrytis, Cylinrocladium, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia, Thielaviopsis</i>	16-24	Immerse plants or cuttings for 10-15 min. Remove and allow to drain. Note: Follow accepted hygiene practices to minimize the introduction and spread of water borne bacterial and water mold fungal diseases.
Bulb, Corm, and Rhizome Rots caused by: <i>Botrytis, Cylinrocladium, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia, Thielaviopsis</i>	16-24	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. Note: Follow accepted hygiene practices to minimize the introduction and spread of water borne bacterial and water mold fungal diseases.

STORAGE AND DISPOSAL

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

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/re-capture spillage and 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 Handling

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.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations of liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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NOTES

Cavalier™ F

TURF AND ORNAMENTAL SYSTEMIC FUNGICIDE

Intended for Professional Applicators Only.

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

ACTIVE INGREDIENT:

Thiophanate-methyl (dimethyl 4,4'-o-phenylenebis[3-thioallophanate])..... 41.25%

OTHER INGREDIENTS: 58.75%

TOTAL: 100.00%

This product contains 4.0 lb thiophanate-methyl per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

SEE BOOKLET LABEL FOR PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE

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

FIRST AID

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

HOTLINE NUMBER

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

STORAGE AND DISPOSAL

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EPA Reg. No. 1001-69

EPA Est. No. indicated by the first two letters of the batch number on this package
(AL) 228-IL-002, (VL) 70815-GA-001

Net Contents: 2.5 Gal. (9.46 L)

Manufactured for
Cleary Chemicals LLC
11901 S. Austin Avenue
Alsip, IL 60803

14605000

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PULL HERE TO OPEN