



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

August 17, 2023

Catherine Rice  
Product Registration Manager  
FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

Subject: Label Amendment – Update fairway max. single application rate, etc.  
Product Name: F4291-1 C FUNGICIDE  
EPA Registration Number: 279-9653  
Application Date: April 13, 2022  
Decision Number: 584176

Dear Catherine Rice:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

Page 2 of 2  
EPA Reg. No. 279-9653  
Decision No. 584176

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Thomas Harty at 202-566-0394 or at [harty.thomas@epa.gov](mailto:harty.thomas@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Kristy Crews".

Kristy Crews, Ph.D., Product Manager 22  
Fungicide Branch, Registration Division (7505T)

Enclosure- Stamped Label

NOTE to EPA Product Manager: Text in brackets [ ] is optional.

|                |       |     |           |
|----------------|-------|-----|-----------|
| FLUOXASTROBIN  | GROUP | 11  | FUNGICIDE |
| CHLOROTHALONIL | GROUP | M05 | FUNGICIDE |

# F4291-1<sup>®</sup> C FUNGICIDE

For the control of foliar, stem and root diseases on turf

**ACTIVE INGREDIENT:**

|                                |                |
|--------------------------------|----------------|
| Fluoxastrobin .....            | 2.44%          |
| Chlorothalonil .....           | 38.40%         |
| <b>OTHER INGREDIENTS</b> ..... | <b>59.16%</b>  |
| <b>TOTAL</b> .....             | <b>100.00%</b> |

This product contains 4.0 pounds of chlorothalonil per gallon  
This product contains 0.25 pounds of fluoxastrobin per gallon

EPA Reg. No. 279-9653      EPA EST. No. \_\_\_\_\_

## KEEP OUT OF REACH OF CHILDREN CAUTION

*Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)*

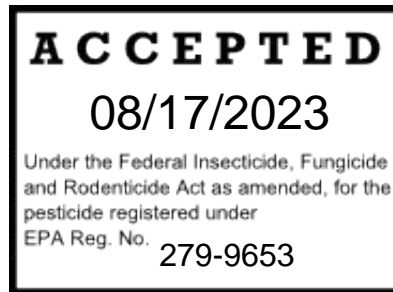
See [other panels] [[inside]booklet] [back][panel] for additional [First Aid,] precautionary [Statements] [information] [and] [Directions for [Use].

[Sale, use, and distribution of this product in Nassau and Suffolk Counties of New York State is prohibited.]

[Sold by:] [Manufactured For:] [Distributed by:]

**FMC**  
FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

NET WEIGHT: \_\_\_\_\_



FMC and FAME are trademarks of FMC Corporation and/or an affiliate. ©2023 FMC Corporation. All rights reserved.

| <b>FIRST AID</b>  |  |
|---|--|
| <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 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>  |
| <b>IF ON SKIN:<br/>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>NOTE TO PHYSICIAN</b>  |  |
| Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids.  |  |
| <b>HOTLINE NUMBER</b>   |  |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact <b>1-(800)-331-3148 for emergency medical treatment information.</b> |  |

For Technical Support or information regarding the use of this product, call 1(800)-321-1FMC(1362).

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material such as barrier laminate; butyl rubber ≥14 mil; nitrile rubber ≥ 14 mil; neoprene rubber ≥ 14 mil; polyvinyl chloride (PVC) ≥ 14 mil; or viton ≥14 mil.

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. Discard clothing and other materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### **ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft 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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- 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.

### **PHYSICAL-CHEMICAL HAZARDS**

Do not mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, wildlife and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. The active ingredients in this product can be persistent for several months or longer. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark, or other sensitive areas that may be exposed to spray drift. Do not contaminate water when disposing of equipment washwater or rinsate. Chlorothalonil is known to leach through soil into groundwater under certain conditions as a result of label use. Use in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface 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 to control diseases in turf on sod farms, golf courses, and lawns around industrial buildings.

Do not spray the product into fish pools, pounds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm rains, water bodies, or aquatic habitat can occur.

Do not make applications during the rain. Avoid making application when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).

Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

Do not allow the product to enter any drain during or after application.

Do not apply or irrigate to the point of runoff.

Do not apply aerially.

[In New York State, this product may not be applied within 100 feet of a coastal marsh or stream that drains directly into a coastal marsh.]

### **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 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**.

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, shoes plus socks, protective eyewear, and chemical resistant gloves.

**Special Eye Irritation Provisions:** This product is a severe eye irritant. Although the restricted entry interval expires after 12 hours, for the next 6.5 days entry is permitted only when the following safety measures are provided:

1. At least one container designed specifically for flushing eyes must be available in operating condition at the WPS required decontamination site intended for workers entering the treated area.
2. Workers must be informed, in a manner they can understand:
  - that residues in the treated area may be highly irritating to their eyes
  - that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes
  - that if they do get residues in their eyes, they should immediately flush their eyes using the eyeflush container that is located at the decontamination site or using other readily available clean water, and how to operate the eyeflush container.

### **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 children or pets to enter the treated areas until spray has dried.

### **PRODUCT INFORMATION**

F4291-1 C FUNGICIDE works by interfering with respiration in plant-pathogenic fungi, and is a potent inhibitor of spore germination and mycelial growth. One of the active ingredients Fluoxastrobin (Group 11 fungicide) in F4291-1<sup>®</sup> C FUNGICIDE is a broad-spectrum fungicide for the control of certain diseases in turf. The other active ingredient Chlorothalonil (Group M05 fungicide) in F4291-1 C FUNGICIDE is a multi-site inhibitor of fungal pathogens.

### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

The combination of fluoxastrobin with chlorothalonil provides a built in resistance management tool that is commonly accepted as a valid resistance management strategy for many fungal pathogens.

For resistance management, please note that F4291-1 C Fungicide contains both a Group 11 and a Group M05 fungicide. Any fungal population may contain individuals naturally resistant to F4291-1 C Fungicide and other Group 11 and Group M05 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of F4291-1 C Fungicide or other Group 11 or Group M05 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally 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 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 pest control advisor for any additional pesticide resistance-management and/or IPM recommendations for specific sites and pathogens.
- For further information or to report suspected resistance, consult your FMC Market Specialist. You can also contact your pesticide distributor or state extension specialist for specific practices or recommendations in your area.

To maintain performance of F4291-1 C Fungicide and other fungicides in the same group, tank mix or rotate with a different fungicide group for appropriate disease resistance management.

## **APPLICATION GUIDELINES**

### **Broadcast Ground Sprayers**

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage provide the most effective disease control, 43–174 gallons per acre (1–4 gal per 1,000 sq ft).

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate the sprayer before use. Use a pump with the capacity to: (1) maintain a minimum of 35 psi at nozzles, and (2) provide sufficient agitation in the tank to keep the mixture in suspension (this requires recirculation of 10% of the tank volume per minute). Use jet agitators or a liquid sparge tube for vigorous agitation. Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh screens at the nozzles. Check nozzle manufacturer's recommendations. For information on spray equipment and calibration, consult sprayer manufacturer's and/or state recommendations. For specific local directions and spray schedules, consult the current state agricultural experiment station recommendations.

### **Mixing Procedures**

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

### **F4291-1 C FUNGICIDE Alone**

Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the **F4291-1 C FUNGICIDE** to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the **F4291-1 C FUNGICIDE** has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

### **F4291-1 C FUNGICIDE + Tank-mix Partners**

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.

Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank-mix partners. In general, tank-mix partners should be added in this order: products packaged in water-soluble packaging (see note below), wettable powders, water dispersible granules, (dry flowables), liquid flowables (such as **F4291-1 C FUNGICIDE**), liquids, and emulsifiable concentrates. Always allow each tank-mix partner to become fully and uniformly dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied. It is the pesticide user's responsibility to ensure that all products are registered for the intended use.



**Note:** When using **F4291-1 C FUNGICIDE** in tank-mixtures, all products in water-soluble packaging should be added to the tank before any other tank-mix partner, including **F4291-1 C FUNGICIDE**. Allow the water-soluble packaging to completely dissolve and the product(s) contained in the water-soluble packages to completely disperse before adding any other tank-mix partner to the tank.

If using **F4291-1 C FUNGICIDE** in a tank-mixture, observe all directions for use, sites, use rates, dilution ratios, precautions, and limitations, which appear on the tank-mix partner label. No label dosage rate may be exceeded, and the most restrictive label precautions and limitations must be followed. This product must not be mixed with any product that prohibits such mixing. Tank-mixtures or application of other products referenced on this label are permitted only in those states in which the referenced products are registered.

**F4291-1 C FUNGICIDE** is compatible with most pesticides, plant growth regulators and foliar nutrient products. However, the physical compatibility of **F4291-1 C FUNGICIDE** with tank-mix partners should be tested before use. To determine the physical compatibility of **F4291-1 C FUNGICIDE** with other products, use a jar test, as described below.

**Jar Test Procedure:** Using a quart jar, add the proportionate amounts of the products to ½ qt of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, add the remaining ½ qt of water, shake and let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

**The safety of all potential tank-mixes including additives and other pesticides on turf has not been tested. Before applying any tank-mixture not specifically recommended on this label, the safety to turf should be confirmed. To test for turf safety, apply F4291-1 C FUNGICIDE + tank-mix partners in a small area and in accordance with label instructions. Observe plants over a period of time for the appearance of phytotoxicity symptoms.**

#### **DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS**

Apply this product only through overhead sprinkler irrigation systems including center pivot, microjet, wheel lines, lateral move, side roll, or overhead solid set irrigation systems. Do not apply this product through any other type of irrigation system. Reduced effectiveness in turf can result from non-uniform distribution of the treated irrigation water.

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

#### **SPRAY PREPARATION**

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

#### **APPLICATION INSTRUCTIONS**

First prepare a suspension of **F4291-1 C FUNGICIDE** in a mix tank. Fill tank with 1/2 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of **F4291-1 C FUNGICIDE** and then the remaining volume of water. Then set sprinkler to deliver no more than 0.4 inch of water per acre. Start sprinkler and uniformly inject the suspension of **F4291-1 C FUNGICIDE** into the irrigation water line to deliver the desired rate per acre. The suspension of

**F4291-1 C FUNGICIDE** should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** When treatment with **F4291-1 C FUNGICIDE** has been completed, further field irrigation over the treated area should be avoided for 24 hours to prevent washing the chemical off the turf.

### **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

1. 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. 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.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) 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 flow 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
4. 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 withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

### **DIRECTIONS FOR CHEMIGATION THROUGH SPRINKLER IRRIGATION SYSTEMS**

1. Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension.
2. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time.
3. 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.

4. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
5. 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.
6. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
7. 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.
8. 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.
9. Do not apply when wind speed favors drift beyond the area intended for treatment. If you are unsure of wind conditions, contact your local extension agent.
10. Do not apply when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained. Reduced effectiveness may result from non-uniform distribution of treated water.
11. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
12. Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

#### **MANDATORY SPRAY DRIFT MANAGEMENT**

##### **Ground Boom Applications:**

- Do not release spray at a height greater than 4 feet above the ground or crop canopy.
- Select a nozzle and pressure combination that delivers medium to coarser droplet size (ASAE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

##### **Boomless Ground Applications:**

- Applicators are required to use a medium to coarser droplet size (ASAE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While apply larger droplets will reduce spray drift, the potential for

drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Boomless Ground Applications**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **Handheld Technology Applications**

- Take precautions to minimize spray drift.

### **Controlling Droplet Size – Ground Boom**

Volume: Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow volume.

Pressure: Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

Spray nozzle: Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

**BOOM HEIGHT – Ground Boom:** For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce the effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipated indicates good vertical air mixing. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **SENSITIVE AREAS**

This pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

## USE DIRECTIONS FOR TURFGRASS

**F4291-1 C FUNGICIDE** provides control of many important diseases in turf including but not limited to species of Bentgrass, Kentucky Bluegrass, Annual Bluegrass, Fescue, Ryegrass, Bermudagrass, St. Augustinegrass and Zoysiagrass. **F4291-1 C FUNGICIDE** should be used in conjunction with cultural practices that promote healthy, vigorous turf. These practices include nutrient management, thatch management, water management and judicious use of other pesticides.

### **For use in the establishment of turfgrass from seed or in overseeding of dormant turfgrass:**

**F4291-1 C FUNGICIDE** may be used for control of certain turfgrass diseases associated with turfgrass establishment from seed. **F4291-1 C FUNGICIDE** may also be used during overseeding of dormant turfgrass and to established overseeded stands of turf.

**F4291-1 C FUNGICIDE** may be safely applied before or after seeding or at seedling germination and emergence to ryegrass, bentgrass, bluegrass, fescue, and other turfgrasses. Optimum application timing for control of seedling diseases is just prior to, during or just after seeding.

**Rate Ranges and Spray Volumes:** Use the shorter specified application interval and/or the higher specified rate when prolonged favorable disease conditions exist. For ground application equipment, 43 – 174 gal/A (1– 4 gal/1000 sq ft).

## RESTRICTIONS

- Use of this product on home lawns is prohibited.
- Do not apply this product by air.
- **Agricultural Use Sites Only:** This product must not be applied within or 25 feet (for ground applications) of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.
- Do not use on home lawns and turf sites associated with apartment buildings, day-care centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e., elementary, middle and high schools), campgrounds, churches, and theme parks.
- Do not combine **F4291-1 C FUNGICIDE** in the spray tank with pesticides, surfactants or fertilizers, unless prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. Do not combine **F4291-1 C FUNGICIDE** with products that contain *Bacillus thuringiensis* or Latron B-1956® as phytotoxicity may result from the combination when applied to some species.

## PRECAUTIONS

The required amount of **F4291-1 C FUNGICIDE** must be added slowly into the spray tank during filling.

| Use Conversion Table       |                              |                            |                           |
|----------------------------|------------------------------|----------------------------|---------------------------|
| Pint (pt) product/<br>acre | fl oz product/<br>1000 sq ft | lb chlorothalonil/<br>acre | lb fluoxastrobin/<br>acre |
| 4                          | 1.5                          | 2                          | 0.13                      |
| 8                          | 3                            | 4                          | 0.25                      |
| 12                         | 4.5                          | 6                          | 0.38                      |
| 14.6                       | 5.4                          | 7.3                        | 0.46                      |
| 16                         | 5.9                          | 8                          | 0.50                      |

### TURF GROUP A RESTRICTIONS:

#### For Golf Course Fairways, Sod Farms, Lawns around Industrial buildings

Apply **F4291-1 C FUNGICIDE** in 43.5 -174 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below.

For control of foliar diseases **DO NOT** mow or water after treatment until spray deposited on turfgrass is thoroughly dry. For control root diseases water in with enough water to move the fungicide into the thatch/root zone.

Because **F4291-1 C FUNGICIDE** contains the active ingredient chlorothalonil, the following restrictions apply to the use of **F4291-1 C FUNGICIDE**.

| Application Rate           |                           | Minimum Application Interval | Restrictions |
|----------------------------|---------------------------|------------------------------|--------------|
| pt product/acre            | fl oz product/1000 sq ft  |                              |              |
| Less than or equal to 14.6 | Less than or equal to 5.4 | 7 days                       | See below    |
| Greater than 14.6          | Greater than 5.4          | 14 days*                     | See below    |

\*Do not make more than one application per year at rates greater than 14.6 pt/acre (5.4 fl oz/1000 sq ft).

#### For Golf Course Fairways:

- The maximum single application rate is 16 pt/A (5.9 fl oz/1,000 sq ft) product.
- **DO NOT** apply more than 52.0 pt/A (19.1 fl oz/1,000 sq ft) product per year. This is equivalent to 26 lb chlorothalonil and 1.63 lb fluoxastrobin per acre.

#### For Lawns around Industrial Buildings:

- The maximum single application rate is 16 pt/A (5.9 fl oz/1,000 sq ft) product.
- **DO NOT** apply more than 52.0 pt/A (19.1 fl oz/1,000 sq ft) product per year. This is equivalent to 26 lb chlorothalonil and 1.63 lb fluoxastrobin per acre.

#### For Sod Farms:

Sod farm turf treated with **F4291-1 C FUNGICIDE** less than seven days prior to harvest must be mechanically cut, rolled and harvested.

- The maximum single application rate is 16 pt/A (5.9 fl oz/1,000 sq ft) product.
- **DO NOT** apply more than 26 pt/A (9.5 fl oz/1,000 sq ft) of product per year. This is equivalent to 13 lb chlorothalonil and 0.82 lb fluoxastrobin per acre.

**TURF GROUP B RESTRICTIONS:  
For Golf Course Tees and Greens**

Apply **F4291-1 C FUNGICIDE** in 43.5 - 174 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below.

For control of foliar diseases **DO NOT** mow or water after treatment until spray deposited on turfgrass is thoroughly dry. For control root diseases water in with enough water to move the fungicide into the thatch/root zone.

Because **F4291-1 C FUNGICIDE** contains the active ingredient chlorothalonil, the following restrictions apply to the use of **F4291-1 C FUNGICIDE**.

| Application Rate           |                           | Minimum Application Interval | Restrictions |
|----------------------------|---------------------------|------------------------------|--------------|
| pt product/acre            | fl oz product/1000 sq ft  |                              |              |
| Less than or equal to 14.6 | Less than or equal to 5.4 | 7 days                       | See below    |
| Greater than 14.6          | Greater than 5.4          | 14 days*                     | See below    |

\*Do not make more than two applications per year at rates greater than 14.6 pt/acre (5.4 fl oz/1000 sq ft).

- The maximum single application rate is 16 pt/A (5.9 fl oz/1,000 sq ft) product.
- **DO NOT** apply more than 68 pt/A (25 fl oz/1,000 sq ft) product per year. This is equivalent to 34 lb chlorothalonil and 2.13 lb fluoxastrobin per acre.

**DIRECTIONS FOR APPLICATION TO TURF (Group A and B)**

Use of this product on home lawns is prohibited.

|  | Disease Control  | Use Rate (pt product/acre) | Use Rate (fl oz product/1,000 sq ft) | Application Interval (days) |
|--|--|----------------------------|--------------------------------------|-----------------------------|
| Use preventively. Begin applications when conditions are favorable for disease development.  | <b>Anthracnose</b> (Foliar Infection Phase) ( <i>Colletotrichum cereale</i> )                  | 8 - 16                     | 3 - 5.9                              | 14 - 28                     |
|  | Tank-mix with another fungicide labeled for control of Anthracnose.                            |                            |                                      |                             |
|  | <b>Anthracnose</b> (Crown Rot Phase) ( <i>Colletotrichum cereale</i> )                         | 8 - 16                     | 3 - 5.9                              | 14 - 21                     |
|  | Tank-mix with another fungicide labeled for control of Anthracnose.                            |                            |                                      |                             |
|  | <b>Brown Patch</b> ( <i>Rhizoctonia solani</i> )   | 4 - 16                     | 1.5 - 5.9                            | 14 - 28                     |
|  | <b>Brown Ring Patch/Waitea Patch</b> ( <i>Waitea circinata</i> var. <i>circinata</i> )         | 8 - 16                     | 3 - 5.9                              | 14 - 28                     |
|  | <b>[Not approved for use in California to control this disease.]</b>                           |                            |                                      |                             |
|  | <b>Copper Spot</b> ( <i>Gloeocercospora sorghii</i> )  | 16                         | 5.9                                  | 14                          |
|  | <b>Dicondra Leaf Spot</b> ( <i>Dichondra repens</i> )  | 16                         | 5.9                                  | 14                          |
|  | <b>Dollar Spot</b> ( <i>Clarireedia</i> sp. formally known as <i>Sclerotinia homoeocarpa</i> ) | 8 - 16                     | 3 - 5.9                              | 14 - 21                     |
| Under heavy dollar spot pressure or where dollar spot is the only targeted disease use a DMI fungicide labeled for control of Dollar Spot in tank-mix or in alternation with F4291-1 C applications. |  |                            |                                      |                             |

|                                | Disease Control  | Use Rate<br>(pt product/<br>acre) | Use Rate<br>(fl oz product/<br>1,000 sq ft)             | Application<br>Interval<br>(days) |
|--------------------------------|--|-----------------------------------|---|-----------------------------------|
|                                | <b>Gray Leaf Spot</b> ( <i>Pyricularia grisea</i> )  | 8 – 16                            | 3 – 5.9   | 14 – 28                           |
|                                | Under heavy disease pressure, tank-mix with another product labeled for control of Gray Leaf Spot.   |                                   |   |                                   |
|                                | <b>Leaf Spot</b> ( <i>Bipolaris sorokiniana</i> )  | 8 – 16                            | 3 – 5.9   | 14 – 21                           |
|                                | <b>Melting Out</b> ( <i>Drechslera poae</i> )  | 8 – 16                            | 3 – 5.9   | 14 – 21                           |
|                                | <b>Necrotic Ring Spot</b><br>( <i>Ophiosphaerella korrae</i> )   | 12 – 16                           | 4.5 – 5.9<br>(In California<br>use 5.9 oz rate<br>only) | 14 – 28                           |
|                                | <b>Pink Patch</b> ( <i>Limonomyces roseipellis</i> )   | 8 – 16                            | 3 – 5.9   | 14 – 28                           |
|                                | <b>Pythium Blight</b> ( <i>Pythium aphanidermatum</i> )  | 8 – 16                            | 3 – 5.9   | 7 – 14                            |
|                                | When conditions are favorable for heavy Pythium Blight pressure use in combination with another product registered for Pythium Blight control.   |                                   |   |                                   |
|                                | <b>Pythium Damping Off</b> ( <i>Pythium</i> spp.)  | 8 - 16                            | 3 – 5.9   | 7 – 10                            |
|                                | Apply uniformly to the seed bed before, during or just after seeding. Lightly irrigate after application. Repeat application if conditions remain favorable for disease.   |                                   |   |                                   |
|                                | <b>Pythium Root Rot</b> ( <i>Pythium</i> spp.)   | 8 – 16                            | 3 – 5.9   | 7 – 10                            |
|                                | Begin applications when conditions are favorable for disease infection, prior to disease symptom development.  |                                   |   |                                   |
|                                | <b>Pythium Root Dysfunction</b><br>( <i>Pythium volutum</i> )  | 12 – 16                           | 4.5 – 5.9   | 14 – 28                           |
|                                | Apply in spring or fall when conditions are favorable for disease development (when daily soil temperatures are between 50°F and 75°F.   |                                   |   |                                   |
|                                | <b>Red Thread</b> ( <i>Laetisaria fuciformis</i> )   | 8 – 16                            | 3 – 5.9   | 14 – 28                           |
|                                | <b>Southern Blight</b> ( <i>Sclerotium rolfsii</i> )   | 8 – 16                            | 3 – 5.9   | 14 – 28                           |
|                                | <b>Snow Mold, Pink</b> ( <i>Microdochium nivale</i> )  | 8 - 16                            | 3 – 5.9   | 28                                |
|                                | Apply 1 to 2 applications prior to permanent snow cover.   |                                   |   |                                   |
|                                | <b>Snow Mold, Gray</b> ( <i>Typhula incarnata</i> )  | 8 - 16                            | 3 – 5.9   | 28                                |
|                                | Apply 1 to 2 applications prior to permanent snow cover.   |                                   |   |                                   |
|                                | <b>Spring Dead Spot</b> ( <i>Ophiosphaerella korrae</i> ), ( <i>O. herpotricha</i> )   | 16                                | 5.9   | 14 – 28                           |
|                                | Apply 1 or 2 applications approximately one month prior to bermudagrass dormancy. Initial application should be applied when soil temperatures at 2" depth drop below 70 °F. Apply 1/8" to 1/4" of irrigation after application. |                                   |   |                                   |
|                                | <b>Summer Patch</b> ( <i>Magnaporthe poae</i> )  | 8 – 16                            | 3 – 5.9   | 14 – 28                           |
|                                | Start applications in the spring when soil temperatures at 2" depth reach 60 – 65° F or as prescribed by local turf specialists.   |                                   |   |                                   |
|                                | <b>Take-All Patch</b> ( <i>Gaeumannomyces graminis</i> var. <i>avenae</i> )  | 16                                | 5.9   | 28                                |
|                                | Begin applications before disease is present and continue applications while conditions are favorable for disease development. Make two applications in the spring and two applications in the fall.                             |                                   |   |                                   |
| <b>Preventive and Curative</b> | <b>Cool Weather Brown Patch</b><br><b>Yellow Patch</b> ( <i>Rhizoctonia cerealis</i> )   | 8 - 16                            | 3 – 5.9   | 14 - 28                           |
|                                | Make one or two applications in spring or fall when conditions are favorable for disease development. Curative application may be made in the spring if disease appears.   |                                   |   |                                   |
|                                | <b>Rust</b> ( <i>Puccinia</i> spp.)  | 8 - 16                            | 3 – 5.9   | 14 – 28                           |
|                                | Apply at the first sign of infection or when conditions are favorable for disease development. Repeat as necessary.  |                                   |   |                                   |



|  | Disease Control   | Use Rate<br>(pt product/<br>acre) | Use Rate<br>(fl oz product/<br>1,000 sq ft) | Application<br>Interval<br>(days) |
|--|---|-----------------------------------|---|-----------------------------------|
|  | <b>Large Patch</b> ( <i>Rhizoctonia solani</i><br>and/or <i>aeumannomyces</i> spp.)   | 8 - 16                            | 3 – 5.9                                     | 14 – 28                           |
|  | Make 2 applications in the fall before dormancy when soil temperatures at 2" depth are 55 - 60 °F. In areas where disease pressure is severe, a spring application can be made when soil temperatures are between 50 – 55 °F. Consult with local turfgrass experts for optimum timing in your area. |                                   |   |                                   |
| <b>Curative</b>  | <b>Algae*</b>   | 8.2 – 14.6                        | 3.0 – 5.4                                   | 7 - 14                            |
|  | Under severe conditions use the 14.6 pt/A (5.4 fl oz/1,000 sq ft) rate and apply on a 7-day interval.<br><b><u>When algae is well established, every attempt should be made to dry out the afflicted area.</u></b>  |                                   |   |                                   |
|  | <b>Fairy Ring</b> ( <i>Basidiomycete fungi</i> )  | 12 - 16                           | 4.5 – 5.9                                   | 21 – 28                           |
|  | Apply as soon as symptoms develop. Apply in 4 gallons of water per 1,000 sq ft or irrigate after application with ¼ inch water. A wetting agent may facilitate penetration.   |                                   |   |                                   |
|  | <b>Powdery Mildew</b> ( <i>Erysiphe graminis</i> )  | 8 - 16                            | 3 – 5.9                                     | 14 – 28                           |
| Apply at first sign of infection. Repeat as necessary. |   |                                   |   |                                   |

\* See **RESISTANCE MANAGEMENT** section when using **F4291-1 C FUNGICIDE** for control of these diseases.

### STORAGE AND DISPOSAL

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

#### PESTICIDE STORAGE

Store in original container and keep tightly closed. Store in a cool dry place. Protect from excessive heat. For help with any spill, leak, fire or explosion involving this material call CHEMTREC day or night at 1-800-424-9300.

#### PESTICIDE DISPOSAL

Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use 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. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

[For containers less than 5 gallons] 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 ¼ 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 if available or puncture and dispose of in a sanitary landfill or by incineration.

[For containers more than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. The offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. The offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

#### **Conditions of Sale and Limitation of Warranty and Liability:**

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Plant injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or conditions beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

**Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.**

To the extent allowed by law, FMC or seller shall not 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 FMC AND SELLER FOR ANY AND ALL 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 FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

**[Alternate Brand Name]**

[Fame +C]

[Fame +C Fungicide]

[Fame +C SC Fungicide]