



Peel back book here ▶

GROUP 3 FUNGICIDE

For Control and/or Suppression of the listed diseases in Sugarbeet.

**ACTIVE INGREDIENT:**

Tetraconazole {1-[2-(2,4-dichlorophenyl)-3-(1,1,2,2-tetrafluoroethoxy) propyl]-1H-1,2,4-triazole}..... 11.6%

**OTHER INGREDIENTS:** ..... 88.4%

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

Contains 1 lb. active ingredient (tetraconazole) per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

### FIRST AID

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</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.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>Emergency phone numbers</b>	(800) 424-9300 CHEMTREC (transportation and spills) (800) 858-7378 NPIC (human and animal health)

See additional precautionary statements and directions for use inside booklet.

Net Contents 2.5 gallons (9.46 L)

Manufactured for:  
SIPCAM AGRO USA, INC.  
2525 Meridian Parkway, Suite 350  
Durham, NC 27713

# 2.5G

EPA Registration No. 60063-12

EPA Est. No. 72344-MO-001 (Lot No. begins with TR)

EPA Est. No. 60063-GA-001 (Lot No. begins with VL)

EPA Est. No. 86555-MO-001 (Lot No. begins with AF)

9500765-000-20170516 (7/17)

**READ THE LABEL  
CAREFULLY  
BEFORE OPENING  
THE CONTAINER**

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

**CAUTION.** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

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

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, and viton  $\geq 14$  mils.

#### **Applicators and other handlers must wear:**

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves: barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, and viton  $\geq 14$  mils.

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

### **ENGINEERING CONTROLS**

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

### **ENVIRONMENTAL HAZARDS**

This product may be toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff from treated areas may be hazardous to aquatic organisms adjacent to treatment areas. Exercise care when making applications of this product, and do not apply when atmospheric conditions favor drift or runoff. Do not contaminate water when disposing of equipment washwaters or rinsate.

In order to mitigate concern for reproductive effects to endangered bird and mammal species which may occur incidentally in sugarbeet growing areas, you are required to ascertain through the state Department of Agriculture, or Cooperative Extension Service, whether the treatment area may contain habitat of federally listed bird and mammal species; if so, treatment must be avoided in these areas.

### **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 instruction 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 for all activities. 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, wear:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

## **PRODUCT USE INFORMATION:**

Apply Minerva Fungicide in water carrier by spraying onto specified crop surfaces that are to be protected from disease. To obtain adequate coverage of typical agricultural crops, total spray volume usually will range from 20 to 150 gallons per acre (200 to 1400 liters per hectare) for dilute sprays, and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application may be used.

Minerva Fungicide should be added to the spray tank while filling with water. Keep the agitator running when filling spray tank and during spray operations. When tank mixing this product with other pesticides, observe the more restrictive label limitations and precautions. Do not exceed any label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Combination in the spray tank with other pesticides, fertilizers or surfactants is not recommended unless prior use has shown the combination to be physically compatible, effective and non-injurious under your conditions of use. When an adjuvant is to be used with this product, Sipcarn Agro USA recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

## **RESISTANCE MANAGEMENT GUIDANCE**

Minerva Fungicide contains a Group 3 fungicide. Fungal isolates with acquired resistance to Group 3 may eventually dominate the fungal population if Group 3 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 3 fungicides.

To delay fungicide/bactericide resistance consider:

- Avoiding the consecutive use of this product or other target site of action Group 3 fungicides that have a similar target site of action, on the same pathogens.
- Using tank-mixtures or premixes with fungicide/bactericides from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern.
- Basing fungicide use on a comprehensive IPM program.
- Monitoring treated fungal populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or Sipcarn representative for fungicide resistance management and/or IPM recommendations for specific crops and resistant pathogens.

## **SPRAY DRIFT MANAGEMENT**

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

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. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  (75%) the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

## **AERIAL DRIFT ADVISORY INFORMATION**

### **INFORMATION ON DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly, or under unfavorable conditions (see Wind section, Temperature and Humidity section).

### **CONTROLLING DROPLET SIZE**

- Volume- Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure- Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles- Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation- Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle type- Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

### BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 (75%) of the wingspan or rotor length may further reduce drift without reducing swath width.

### APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, small drops, etc.).

### WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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 dissipates indicates good vertical air mixing.

## **CHEMIGATION INSTRUCTIONS**

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation system. Do not apply this product through any other type of irrigation system.

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

For specific information about calibration, contact State Extension Service specialists, equipment manufacturers, or other irrigation experts.

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.

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

### **To prevent the movement of Minerva Fungicide into the soil:**

- Minimize pesticide contact with the soil surface by chemigating above the crop canopy.
- Stop chemigation when pesticide mixture is observed running off crop surfaces or after 0.25 inches of water has been applied, whichever occurs first.
- Allow for sufficient time after chemigation for crop surfaces to dry prior to expected rainfall or to irrigation applied above the crop canopy.

### **Sprinkler 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 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.

When mixing, fill nurse tank half full with water. Add Minerva Fungicide slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Stickers, spreaders, etc., should be added last. If compatibility is in question, use the compatibility jar test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all cautions and limitations on the label of all products used in mixtures.

Minerva Fungicide should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation is recommended.

### ROTATIONAL CROP RESTRICTIONS

Refer to the table below for the minimum time intervals required between the last application of Minerva Fungicide and a new crop planting.

Crop	Rotational Interval (in days)
Corn	0
Grains, small (barley, buckwheat, millet, oats, rice, rye, triticale and wheat) following a sugarbeet application	40
Grape	0
Peanut	0
Pecan	0
Bearberry, Bilberry, Lowbush Blueberry, Cloudberry, Cranberry, Ligonberry, Muntries, Partridgeberry, Amur River Grape, Gooseberry, Hardy Kiwifruit, Maypop, Schisandra Berry	0
Soybean	0
Strawberry	0
Sugarbeet	0
Sugarcane	45
All other crops – after application to Subgroups 13-07F and 13-07G	15
All other crops – after application to sugarbeet	120
All other crops	120

### AGRICULTURAL CROPS:

SUGARBEETS		
DISEASES CONTROLLED	RATE PER ACRE	APPLICATION DIRECTIONS
Cercospora leafspot Powdery Mildew Ramularia	13 fl. oz. (0.102 lb a.i.)	Apply this product when conditions are favorable for Cercospora leafspot or powdery mildew. To obtain adequate coverage of typical agricultural crops, total spray volume ranges from 20-150 gallons per acre for dilute sprays, and 5-10 gallons per acre for concentrated ground sprays and aircraft applications. Include Minerva Fungicide in an IPM program, alternating fungicides with different modes of action. Do not make more than one application of Minerva before alternating with fungicides with a mode of action other than DMI Group 3.
<b>RESTRICTIONS/LIMITATIONS:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 0.203 lb of tetraconazole a.i. per acre per year (26.0 fl. oz. product per acre per year).</li> <li>Do not reapply within 21 days (retreatment interval) of the initial application.</li> <li>Do not make more than two (2) applications of this product per year.</li> <li>Pre Harvest interval: 14 days</li> <li>Restricted entry interval (REI): 12 hours</li> </ul>		

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a dry, temperature-controlled, secure place.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container 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  $\frac{1}{4}$  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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**THIS CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

## WARRANTY AND LIMITATION OF DAMAGES

Conditions of sale: To the extent consistent with applicable law, Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc. SIPCAM AGRO USA, INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. To the extent consistent with applicable law, SIPCAM AGRO USA, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SIPCAM AGRO USA, INC.'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. SIPCAM AGRO USA, INC. DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.

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Minerva Fungicide (05-19-2017)