

Metconazole	Group	3	Fungicide
Prothioconazole	Group	3	Fungicide



SphaerexTM

Fungicide

For disease control in wheat

Active Ingredients*:

*SphaerexTM fungicide contains 0.939 lb metconazole and 1.565 lbs prothiconazole per gallon.

EPA Reg. No. 7969-473

EPA Est. No.

WARNING/AVISO

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

See full label for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

BASF Corporation 26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID					
If in eyes	 Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes; then continue rinsing. Call a poison control center for treatment advice. 				
If on skin	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. 				
If swallowed	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. DO NOT give anything by mouth to an unconscious person. 				
If 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. 				
HOTLINE NUMBER					

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING. Causes substantial but temporary eye injury. Causes skin irritation. **DO NOT** get in eyes, on skin or on clothing. Wear appropriate protective eyewear (goggles, face shield, or safety glasses). Harmful if swallowed or absorbed through skin. Harmful if inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt and long pants, shoes plus socks and appropriate chemical-resistant/waterproof gloves. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Protective eyewear
- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing/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 pesticide is toxic to birds, mammals, fish, and aquatic invertebrates. Drift or runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

This product may impact surface water quality because of runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater.

Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. Poorly draining soils or soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the user's possession during application.

Read the entire label. Use strictly in accordance with precautionary statements and directions and with applicable state and federal regulations.

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), restricted-entry interval, and notification to workers. 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:

- Protective eyewear
- Coveralls
- Chemical-resistant gloves, made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed.

DO NOT store below 10° F.

Pesticide Disposal

Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture 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 representatives at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) 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.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain 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.

(continued)

STORAGE AND DISPOSAL (continued)

Container Handling (continued)

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

In Case of Emergency

In case of large-scale spill of this product, call:

• CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Sphaerex[™] fungicide is a broad-spectrum fungicide containing the active ingredients metconazole and prothioconazole for use in wheat. For optimum disease control, apply **Sphaerex** in a regularly scheduled protective spray program and use in a rotation program with **non-Group 3** fungicides.

Mode of Action

Metconazole and prothioconazole, the active ingredients in **Sphaerex**, inhibit the demethylation step of sterol biosynthesis (DMI), which disrupts cell membrane synthesis and are classified by the Fungicide Resistance Action Committee (FRAC) as **Group 3** fungicides.

Resistance Management

Sphaerex contains **Group 3** fungicides. Any fungal population may contain individuals naturally resistant to **Sphaerex** and other **Group 3** 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.

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

- Rotate the use of **Sphaerex** or other **Group 3** 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 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 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 treatment area for lack of biological efficacy that might indicate possible resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistancemanagement and/or Integrated Pest Management (IPM) recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, consult your local BASF representative, extension specialist, or certified crop advisor.

Application Instructions

- Sphaerex[™] fungicide can be applied by ground or air, and through field sprinkler irrigation (chemigation) systems.
- Application equipment, including injection systems, must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used before application of **Sphaerex**. Flush system with clean water.

Ground Application

Thorough coverage of foliage and flowers is required for optimum disease control. A nonionic surfactant at the lowest labeled rate may be used to improve spray coverage. Refer to the adjuvant product label for specific use directions. **DO NOT** use adjuvants that contain methylated seed oil, crop oil concentrate, or crop oil with emulsifier properties.

Aerial Application

Select spray nozzles, pumping pressure, and sprayer height to provide medium-to-fine spray droplets that penetrate throughout the crop canopy. Spray calibration must be conducted to confirm spray droplet sizes. Continue to monitor spray application (including weather conditions) to assure proper droplet size and canopy penetration. For all aerial application volumes (gpa), a nonionic surfactant at the lowest labeled rate may be used to improve spray coverage. Refer to the adjuvant product label for specific use directions. **DO NOT** use adjuvants that contain methylated seed oil, crop oil concentrate, or crop oil with emulsifier properties.

Field Sprinkler Irrigation (Chemigation) Application

- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system.
- Add this product to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product-water mixture continuously, applying the labeled rate per acre for that crop. **DO NOT** apply more than 1/2 inch (13,577 gallons) per acre. In stationary or non-continuous moving systems, inject the product-water mixture in the last 15 to 30 minutes of each set, allowing enough time to apply the labeled rate per acre through the sprinkler heads. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Thorough coverage of foliage and flowers is required for optimum disease control. Maintain constant agitation throughout mixing and application.

- If you have questions about calibration, you should contact state extension service specialists, equipment manufacturers, or other experts.
- 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.
- 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.
- 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.

Specific Instructions for Public Water Systems

- 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, backflow 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 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 pump.
- 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.

Spray Drift Management

DO NOT apply when conditions favor drift beyond the intended (target) application area. Drift-reduction measures include:

- 1. **DO NOT** apply if wind speed is 15 mph or more. Use caution when applying if nontarget crops are downwind and wind is present. **DO NOT** apply if winds are gusty.
- Apply only when the potential for drift to adjacent sensitive areas (e.g. bodies of water or nontarget crops) is minimal and when wind is blowing away from sensitive areas.
- 3. Use caution when conditions are favorable for drift (drought, high temperatures, low relative humidity).
- 4. **DO NOT** apply during a temperature inversion. Consult local weather services before applying if conditions are favorable for inversion.

Tank Mixing Other Products and Additives

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.

SphaerexTM fungicide can be tank mixed with other fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives. Always follow the most restrictive label use directions. See **Table 1. Detailed Use Directions** for additional information.

BASF has not tested all varieties and cultivars with all possible tank mix combinations and rates of additives or adjuvants. Local environmental conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or injury may result from mixing **Sphaerex** with other products.

Rotational Crop Intervals

Barley, bushberry subgroup, canola, corn, cotton, dry beans and peas, oats, peanuts, rye, soybeans, sugar beets, triticale, and wheat may be planted as soon as practical after last application.

Brassica leafy vegetables and leafy vegetables, sorghum, sugarcane, sunflower, and tuberous and corm vegetables subgroup (potatoes) must not be planted within 30 days after the last application.

For all other crops, **DO NOT** plant sooner than 120 days after the last application.

Table 1. Detailed Use Directions

Target Disease	Product Use Rate per Application (fl ozs/A)	Maximum Number of Applications per Year	Maximum Product Rate per Year (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Black point (kernel blight or smudge) Alternaria spp., Cochliobolus sativus, Helminthosporium spp.				
Powdery mildew Erysiphe graminis				
Rust Puccinia spp.	4.0 to 5.0 (early season)		14.6	30
Septoria blotch, speckled leaf spot Septoria spp.	5.5 to 7.3	2		
Spot blotch Cochliobolus sativus	(flag leaf)			
Stagonospora blotch Parastagonospora nodorum				
Tan spot (yellow leaf spot) Pyrenophora spp.				
Head scab (head blight) Fusarium spp.	7.3			

Application Directions

- The minimum retreatment interval (RTI) is 14 days after the first application.
- Under certain environmental conditions, when **SphaerexTM fungicide** is applied with emulsifiable concentrate (EC) formulated herbicides, bromoxynil contain products, insecticides, and/or fertilizers, phytotoxicity can occur. The possibility of phytotoxicity increases if applications are made under cool, wet, cloudy conditions that persist for several days following application. Lower gpa applications can increase the risk of phytotoxicity.
- Livestock may graze treated fields.

Foliar Applications

- When conditions favor disease or disease pressure is high, use the higher specified rate. For aerial applications, apply in a minimum of 2 gallons per acre (gpa) total spray volume. For ground applications, apply a minimum of 5 gpa.
- **Early Season:** Apply when conditions favor disease development or disease pressure is high prior to flag leaf emergence. When an early season application is used, a second application may be required to protect the flag leaf. Early season applications will not suppress or control head scab.
- **Flag Leaf:** To maximize yield, it is important to protect the flag leaf. For optimal disease control, begin applications prior to disease development or immediately after flag leaf emergence.

Head Scab Applications

- When head scab is a concern, growers should manage this disease with fungicides that are labeled for and effective in managing this disease, and with cultural practices like crop rotation and plowing to reduce crop residues that serve as an inoculum source. For best results, apply at the beginning of flowering using forward and reverse facing nozzles at higher water volumes to ensure thorough coverage of the heads. For aerial applications, apply in a minimum of 5 gpa total spray volume. For ground applications, apply a minimum of 10 gpa.

Use Restrictions

- **DO NOT** apply **Sphaerex** if the final spray solution contains fertilizer at a concentration more than 20% on a volume-to-volume (v/v) basis.
- DO NOT apply more than 7.3 fl ozs (0.054 lb metconazole plus 0.089 lb prothioconazole) per application per acre.
- DO NOT make more than 2 applications of **Sphaerex** or other **Group 3** fungicides per acre per year.
- DO NOT apply more than 14.6 fl ozs (0.107 lb metconazole plus 0.179 lb prothioconazole) per acre per year.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Sphaerex is a trademark of BASF.

© 2021 BASF Corporation All rights reserved.

007969-00473.20210416.**NVA 2021-04-629-0091**

Based on: NVA 2020-04-629-0128

BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709

