

# ArmorTech®

# Sonnet™

## A Wettable Powder Biofungicide

For use on ornamentals, trees, shrubs, turf, lawns, sod, golf courses (greens, tees, fairways and roughs)

**ACTIVE INGREDIENT:**

QST 713 strain of *Bacillus subtilis*\* ..... 14.60%

**OTHER INGREDIENTS** ..... 85.40%

**TOTAL** ..... 100.00%

\*Contains a minimum of 7.3 x 10<sup>9</sup> cfu/g

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

EPA Reg. No. 69592-11-86064

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS  
CAUTION**

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

**FIRST AID**

<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>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

Distributed by:  
**United Turf Alliance, LLC**  
8014 Cumming Highway  
Suite 403-282  
Canton, GA 30115

LUS0121-001  
AQ4015-001



Can be Used for Organic Production



**United Turf Alliance**

Sonnet is a trademark of United Turf Alliance, LLC  
ArmorTech is a registered trademark of United Turf Alliance, LLC

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**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

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The PPE requirements below apply to both Worker Protection Standard (WPS) uses (in general, agricultural-plant uses are covered by the Worker Protection Standard (40 CFR Part 170)) and Non-WPS uses.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

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**ENGINEERING CONTROLS**

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When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets 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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

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**USER SAFETY RECOMMENDATIONS****Users should:**

- Remove clothing/PPE immediately if pesticides get 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.
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**ENVIRONMENTAL HAZARDS**

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For terrestrial uses: 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. Do not apply when weather conditions favor drift or run-off from treated areas.

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**EMERGENCY INFORMATION**

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For emergencies such as leaks or spills, call 24-hour, toll-free CHEMTREC hotline at 1.800.424.9300.

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**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 State or Tribal agency responsible for pesticide regulation.

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**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.**

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water) is:

- coveralls
  - waterproof gloves
  - shoes plus socks
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**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses 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.

Post-harvest applications:

Post-harvest treatment of harvested agricultural plants does not fall within the scope of the WPS. An agricultural plant is considered harvested when 1) a desirable portion of the agricultural plant (seed, fruit, flower, stem, foliage, or roots) is detached from its parent or 2) a whole agricultural plant is separated from its growth media (soil, water, or other media).

Keep unprotected persons from handling portions of harvested agricultural plants that have been treated until sprays have dried.

Commercial treatment of plants that are in ornamental gardens, parks, golf courses, and public or residential turf and grounds, and that are intended only for aesthetic purposes or climatic modification:

Keep unprotected persons out of treated areas until sprays have dried.

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**BASIC USE INFORMATION**

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ArmorTech® Sonnet™ is a broad spectrum, preventative product for the control or suppression of many important plant diseases. Apply ArmorTech Sonnet as a foliar spray alone, in alternating spray programs or in tank mixes with other registered crop protection products. When conditions are conducive to heavy disease pressure, use ArmorTech Sonnet in a rotational program with other registered fungicides. Apply ArmorTech Sonnet with spray equipment commonly used for making ground or aerial applications and irrigation systems commonly used for chemigation. Heavy rainfall or irrigation shortly after application may require retreatment.

ArmorTech Sonnet is most effectively used in a preventive disease management program. For improved performance, use ArmorTech Sonnet in a tank-mix or rotational program with other registered fungicides. When using ArmorTech Sonnet alone for the first time, use a rate of 2 lb ArmorTech Sonnet per acre. Increase the application rate and/or

decrease spray intervals of ArmorTech Sonnet depending upon disease pressure. To enhance performance, consider adding a surfactant, known to be safe to the target crop, to the spray tank to improve penetration and coverage of above-ground portions of the plant.

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### **INTEGRATED PEST MANAGEMENT (IPM)**

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Integrate ArmorTech Sonnet into an overall disease and pest management strategy whenever fungicide use is necessary. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

Be sure use of this product conforms to resistance management strategies, which may include rotating and/or tank mixing with other products with different modes of action.

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### **USE RATE DETERMINATION**

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Carefully read and follow all label directions, use rates and restrictions. Application of ArmorTech Sonnet prior to or in the early stages of disease development provides the best control or suppression of the targeted plant disease. Use maximum label rates and shortened spray intervals for conditions conducive to threatening or rapid disease development. For proper application, determine the number of acres to be treated, the label use rate and select appropriate gallonage to give good canopy penetration and coverage of plant parts to be protected. Prepare only the amount of spray solution required to treat the measured acreage. Accurate spray equipment calibration is essential prior to use.

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### **PREHARVEST INTERVAL**

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A ArmorTech Sonnet can be applied up to and on the day of harvest.

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### **APPLICATION INSTRUCTIONS**

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**SPRAY DRIFT:** Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed.

**GROUND:** This product can be applied by commonly used ground equipment, such as hose-end, pressurized, greenhouse and hand-held sprayers. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration. Maintain agitation during mixing and application to assure uniform product suspension. Thorough coverage of all foliage is essential for effective disease control or suppression. Use the application rate, indicated for the appropriate crop in the Application Rate tables of this label, in sufficient water to achieve thorough coverage. Overall, to achieve good coverage, use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and ground speed.

**AERIAL:** This product can be applied by aerial application. Refer to the Aerial Drift Reduction Information section of this label for additional directions and precautions. Use the application rate indicated for the appropriate crop in the Application Rate tables of this label, in sufficient water to achieve thorough coverage, typically between 3 – 20 gallons of water per acre depending upon the crop. Three gallons of water per acre is the minimum.

**CHEMIGATION:** This product can be applied through sprinkler (center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move) or drip-type irrigation systems. Refer to the Chemigation Directions for Use section of this label for additional directions and precautions. Maintain agitation during mixing and application to assure uniform product suspension. Use the application rate, indicated for the appropriate crop in the Application Rate tables of this label, in sufficient water to achieve thorough coverage.

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### **MIXING INSTRUCTIONS**

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**MIXING:** ArmorTech Sonnet must be diluted with water. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of ArmorTech Sonnet to the tank. Finish filling the tank to the desired volume to obtain the proper spray concentration. It is critical that the spray solution be agitated during mixing and application to assure a uniform suspension. Do not allow spray mixture to stand overnight or for prolonged periods. Maintain a spray solution pH between 4.5 and 8.5.

A ArmorTech Sonnet may be tank mixed with other registered pesticides to enhance plant disease control or suppression. This product cannot be mixed with any product with prohibition against such mixing. When tank mixing ArmorTech Sonnet with other registered pesticides, always read and follow all use directions, restrictions, and precautions of both ArmorTech Sonnet and the tank-mix partner(s). Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. Do not exceed label dosage rates.

**COMPATIBILITY:** Do not combine ArmorTech Sonnet in the spray tank with pesticides, surfactants or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective and non-injurious under your use conditions.

A ArmorTech Sonnet is compatible with many commonly used pesticides, fertilizers, adjuvants and surfactants but has not been fully evaluated with all of these. To ensure compatibility of tank-mix combinations, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

**ADDITIVES:** ArmorTech Sonnet is compatible with a wide range of additives. Since the product is primarily a protectant, thorough coverage of all above-ground plant parts is required for effective product performance. To improve plant surface coverage, add a nonphytotoxic adjuvant to spray tank.

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### **CHEMIGATION DIRECTIONS FOR USE**

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#### **Basic Requirements:**

1. Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move) or drip-type irrigation systems. Do not apply this product through any other type of irrigation system.
2. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
3. Ensure that the irrigation system used is properly calibrated. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. 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.
5. 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 any necessary adjustments should the need arise.

#### **Requirements for Chemigation Systems Connected to Public Water Systems:**

1. Public water supply 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 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to the public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the 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 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause ArmorTech Sonnet to lose effectiveness or strength.
9. Do not combine ArmorTech Sonnet with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. ArmorTech Sonnet has not been fully evaluated for compatibility with all of these. Conduct a spray compatibility test if mixture with other pesticides, surfactants or fertilizers is planned.
10. Maintain agitation in the pesticide supply tank.
11. Apply ArmorTech Sonnet during the last half of the water application.
12. Dilute ArmorTech Sonnet in enough water to be able to draw through system for the last half of the water application.

**Sprinkler Chemigation Requirements:**

1. 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 back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
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.
8. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause ArmorTech Sonnet to lose effectiveness or strength.
9. Do not combine ArmorTech Sonnet with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. ArmorTech Sonnet has not been fully evaluated for compatibility with all of these. Conduct a spray compatibility test if mixture with other pesticides, surfactants or fertilizers is planned.

**Center Pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment (Use only with electric or oil hydraulic drive systems that provide a uniform water distribution):**

- Determine size of area to be treated.
- Determine the time required to apply no more than 1/4 inch of water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures specified by the equipment manufacturer. Run system at 80 to 95% of manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of ArmorTech Sonnet fungicide required to treat area.
- Add required amount of ArmorTech Sonnet fungicide and sufficient water to meet the injection time requirements of the solution tank.
- Maintain constant solution tank agitation during the injection period.
- Stop injection equipment after treatment is completed. Continue to operate the system until ArmorTech Sonnet fungicide solution has cleared the sprinkler head.

**Solid Set, Side (Wheel) Roll, and Hand Move Irrigation Equipment:**

- Determine acreage covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval.
- Determine the amount of ArmorTech Sonnet fungicide required to treat area.
- Add the required amount of ArmorTech Sonnet fungicide into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures specified by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject ArmorTech Sonnet fungicide at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until ArmorTech Sonnet fungicide solution has cleared the last sprinkler head.

**Drip Chemigation Requirements:**

1. 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 back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
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. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause ArmorTech Sonnet to lose effectiveness or strength.
8. Do not combine ArmorTech Sonnet with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. ArmorTech Sonnet has not been fully evaluated for compatibility with all of these. Conduct a spray compatibility test if mixture with other pesticides, surfactants or fertilizers is planned.
9. Maintain agitation in the pesticide supply tank.
10. Apply ArmorTech Sonnet during the last half of the water application.
11. Dilute ArmorTech Sonnet in enough water to be able to draw through system for the last half of the water application.

**AERIAL DRIFT REDUCTION INFORMATION**

**BASIC:** Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed.

**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 will reduce drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

**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 specified pressures. For many nozzle types, lower pressure produces larger droplets. When high 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 that are oriented straight back produce the largest droplets and the lowest drift. Use medium or coarser spray according to the ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

**BOOM WIDTH:** For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade.

**APPLICATION HEIGHT:** Do not release spray at a height greater than 10 feet above the top of the ground or the crop canopy 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. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or the crop canopy.

**SWATH ADJUSTMENT:** Use upwind swath displacement. When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind 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, smaller drops, etc.).

**WIND:** Apply only when wind speed is 3 - 10 miles per hour (mph) as measured by an anemometer. Drift potential is lowest between wind speeds of 3 - 10 mph. Many factors, however, including droplet size and equipment type, determine drift potential at any given speed. 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:** Do not apply 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.

**SENSITIVE AREAS:** The pesticide should only be applied when the potential for drift to adjacent, sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, and land planted with non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

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**FOR USE ON ORNAMENTALS, TREES, SHRUBS, FLOWERS, TURF, LAWNS, SOD, GOLF COURSES (GREENS, TEES, FAIRWAYS AND ROUGHS) -Agricultural Use, Commerical, Residential Use**

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ArmorTech Sonnet has a 0-Day PreHarvest Interval for all crops contained on this label.

Under moderate to severe disease pressure, for improved performance, increase rates and reduce spray intervals or use ArmorTech Sonnet in a tank-mix or rotational program with other registered fungicides.

ArmorTech Sonnet is a protectant fungicide for use outdoors for control of certain foliar diseases in the field, interiorscapes, residential and commercial landscapes, golf courses (greens, tees, fairways, and roughs).

ArmorTech Sonnet can be applied to ornamentals, trees, shrubs, flowers, turf, lawns, sod, and golf courses (greens, tees, fairways, and roughs).

**PLANTS EVALUATED FOR PHYTOTOXICITY**

ArmorTech Sonnet has been tested for phytotoxicity on the ornamental species listed below. Since it is impossible to test all of the species and cultivars listed on this label under all conditions, conduct a small-scale, preliminary trial to check for sensitivity before using this product on a large number of plants.

**TABLE OF PLANTS EVALUATED FOR PHYTOTOXICITY**

**Annual and Perennial Flowering Plants:**

Alyssum	Asters	Azalea	Begonia	Calla Lily	Chrysanthemum
Cyclamen	Dianthus	Dwarf Bee-Balm	Easter Lily	Garden Phlox	Geraniums
Gerbera	Golden Star	Hydrangea	Impatiens	Kalanchoe	
Linaria	Lisianthus	Lobelia	Marigolds	Orchids	Pansies
Petunia	Poinsettia	Portulaca	Ranunculus	Roses	Salvia spp.
Snapdragons	Stock	Verbena spp.	Vinca	Violas	Zinnias

**Tropical Foliage:**

Aglaonema	Dieffenbachia	Dracaena spp.	English Ivy
Hibiscus	Leatherleaf Fern	Spathiphyllum	

**Trees and Shrubs:**

Azalea	Boxwood	Crape Myrtle	Dogwood
Gumpo Azalea	Indian (India) Hawthorn	Japanese Maple	Ligustrum japonicum
Lilac	Loropetalum	Photinia	Rhododendron
Rosaceae spp.	Soft Touch Holly	Spirea	

**Foliar Application Use on Ornamentals, Trees, Shrubs, Flowers:**

**APPLICATION INSTRUCTIONS:** Mix 1 to 3 lb of ArmorTech Sonnet in 100 – 300 gallons of water. Apply dilute spray mix as a foliar treatment to the point of run-off. For each treatment, apply no more than 3 lb of ArmorTech Sonnet per acre; equivalent to 1 oz of ArmorTech Sonnet per 1000 square feet. Make applications on a 3- to 10-day schedule. Begin applications when conditions favor disease development prior to the onset of disease.

Under normal conditions, apply 2 lb of ArmorTech Sonnet per 100 – 300 gallons of water per acre on a 7-day schedule. When conditions favor severe disease development, shorten the spray interval or use a higher rate. Thorough coverage is essential for effective disease control.

See application rate tables for more detailed application instructions.

Application Rates of ArmorTech Sonnet When Used as a Foliar Spray on Ornamentals, Trees, Shrubs and Flowering Plants			
Crops	Disease	Rate (lb/100 – 300 gal spray mix)	Application Instructions
<b>Ornamentals</b> <b>Trees</b> <b>Shrubs</b> <b>Flowering Plants</b> Including: <b>Annuals</b> <b>Perennials</b> <b>Foliage Plants</b> <b>Deciduous Trees</b> <b>Deciduous</b> <b>Shrubs</b>	<b>Anthracnose</b> <i>Colletotrichum</i> spp. <b>Bacteria</b> <i>Erwinia</i> spp. <i>Pseudomonas</i> spp. <i>Xanthomonas</i> spp. <b>Black Spot of Rose</b> <i>Diplocarpon rosea</i> <b>Botrytis</b> <i>Botrytis cinerea</i> <b>Downy Mildew</b> <i>Peronospora</i> spp. <b>Leaf Spots</b> <i>Alternaria</i> spp. <i>Cercospora</i> spp. <i>Entomosporium</i> spp. <i>Helminthosporium</i> spp. <i>Myrothecium</i> spp. <b>Powdery Mildew</b> <i>Erysiphe</i> spp. <i>Oidium</i> spp. <i>Podosphaera</i> spp. <i>Sphaerotheca</i> spp. <b>Phytophthora</b> spp. <b>Rust</b> <i>Puccinia</i> spp. <b>Scab</b> <i>Venturia</i> spp. <b>Septoria</b> spp.	1 - 3	Plants in Fields: Mix 1 - 3 lb of ArmorTech Sonnet in 100 – 300 gallons of water. Apply dilute spray mix as a foliar treatment to the point of run-off. For each treatment, apply no more than 3 lb of ArmorTech Sonnet per acre; equivalent to 1 oz of ArmorTech Sonnet per 1000 ft <sup>2</sup> . Make applications on a 3- to 10-day schedule. Begin applications when conditions favor disease development prior to the onset of disease. Under normal conditions, apply 2 lb of ArmorTech Sonnet per 100 – 300 gallons of water per acre on a 7-day schedule. When conditions favor severe disease development, shorten the spray interval or use a higher rate. Thorough coverage is essential for effective disease control.

**Soil Drench Applications on Ornamentals, Trees, Shrubs, Flowers: Agricultural, Commercial, Residential Use, Outdoors**

ArmorTech Sonnet is a broad spectrum biofungicide for the prevention, suppression and control of soil borne diseases on a wide range of foliage plants, deciduous trees and shrubs, grown in outdoor environments. ArmorTech Sonnet enhances germination and plant growth by suppressing diseases caused by *Rhizoctonia*, *Pythium*, *Fusarium*, and *Phytophthora*.

**APPLICATION INSTRUCTIONS:** Mix 1 lb to 3 lb of ArmorTech Sonnet with 100 - 300 gallons of water. Use higher application rates under conditions of heavy disease pressure. Apply finished mixture, at a rate to thoroughly soak the growing media through the root zone, as a drench or directed spray using hand-held, mechanical or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler irrigation systems. Begin applications during or after seeding. Optimal performance is obtained with preventative treatments repeated every 21 to 28 days throughout the growing cycle. ArmorTech Sonnet can be mixed with chemical fungicides registered for soil applications.

See application rate tables for more detailed application instructions.

Application Rates of ArmorTech Sonnet When Used as a Soil Drench in Field			
Crops	Disease	Rate (lb/100 – 300 gal spray mix)	Application Instructions
<b>Ornamentals</b> <b>Trees</b> <b>Shrubs</b> <b>Annuals</b> <b>Perennials</b> Including: <b>Flowering Plants</b> <b>Foliage Plants</b> <b>Deciduous Trees</b> <b>Deciduous Shrubs</b>	<i>Rhizoctonia</i> spp. <i>Pythium</i> spp. <i>Fusarium</i> spp. <i>Phytophthora</i> spp.	1 - 3	<b>Soil Drench Uses: Field</b> Mix 1 lb to 3 lb of ArmorTech Sonnet with 100 - 300 gallons of water. Use higher application rates under conditions of heavy disease pressure. Apply finished mixture, at a rate to thoroughly soak the growing media through the root zone, as a drench or directed spray using hand-held, mechanical or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler irrigation systems. Begin applications during or after seeding. Optimal performance is obtained with preventative treatments repeated every 21 to 28 days throughout the growing cycle. ArmorTech Sonnet can be mixed with chemical fungicides registered for soil applications.

**Turf, Lawns, Sod, Golf Courses (Greens, Tees, Fairways, and Roughs), and Ornamental Turf Use: Agricultural, Commercial, Residential Use**

ArmorTech Sonnet is a broad spectrum biofungicide for use in the prevention, suppression and aiding in control of turf and lawn diseases.

**APPLICATION INSTRUCTIONS:** Apply 0.5 - 2.5 oz of ArmorTech Sonnet per 1000 sq ft of surface area. Apply in sufficient water to provide thorough coverage, depending on the application equipment. Two gallons of water per 1000 sq ft of surface area is commonly used.

See application rate tables for more detailed application instructions.

**Application Rates of ArmorTech Sonnet for Turf, Lawns, Sod, Golf Courses (Greens, Tees, Fairways and Roughs), and Ornamental Turf**

Crops	Disease	Rate (oz/1000 sq ft of surface area)	Application Instructions
<b>Turf Sod</b> <b>Lawns</b> <b>Golf Courses (Fairways, Roughs, Greens, Tees)</b> <b>Seed Production</b> <b>Grasses</b> Bluegrass Bentgrass Bermudagrass Dichondra Fescue Orchardgrass Poa Annua St. Augustine Ryegrass Zoysia Mixtures and other grasses or ornamental turf	<b>Anthracnose</b> <i>Colletotrichum graminicola</i> <b>Brown Patch</b> <i>Rhizoctonia solani</i> <b>Dollar Spot</b> <i>Lanzia spp.</i> <i>Moellerodiscus spp.</i> <i>Sclerotinia homeocarpa</i> <b>Gray Leaf Spot</b> <i>Pyricularia grisea</i> <b>Powdery Mildew</b> <i>Erysiphe Graminis</i> <b>Rust</b> <i>Puccinia spp.</i>	0.5 - 2.5	Apply 0.5 to 2.5 oz of ArmorTech Sonnet per 1000 sq ft of surface area. Apply in sufficient water to provide thorough coverage, depending on the application equipment. Two gallons of water per 1000 sq ft of surface is commonly used. Begin applications when conditions are conducive to disease development. Continue applications on 7- to 10-day intervals or as needed. Under moderate to severe disease pressure, for improved performance, increase rates and reduce spray intervals or use ArmorTech Sonnet in a tank-mix or rotational program with other registered fungicides. Aids in control of: Anthracnose, Brown Patch, Dollar Spot, Gray Leaf Spot, Powdery Mildew and Rust.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a dry area inaccessible to children. Store in original container only. Keep container closed when not in use.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

### CONDITIONS FOR SALE AND WARRANTY

United Turf Alliance, LLC warrants to those persons lawfully purchasing this product that, at the time of the first sale of this product by Seller, this product conformed to its description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions. Buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. Except to the extent prohibited by applicable law, United Turf Alliance, LLC offers this product with the following conditions: 1) buyers and users of this product assume the risk of any storage, handling or use contrary to United Turf Alliance, LLC's label and directions and 2) United Turf Alliance, LLC's liability shall in no case exceed the purchase price of the applicable United Turf Alliance, LLC product.

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