U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	**Date of Issuance:**
83529-229	5/15/23

Term of Issuance:
Unconditional

Name of Pesticide Product:
Sharda Thiophanate 46.2% SC

Name and Address of Registrant (include ZIP Code):

Sharda USA, LLC
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Continues page 2

Signature of Approving Official:

Shaja B. Joyner, Product Manager 20
Fungicide-Herbicide Branch
Registration Division 7505T

Date:

5/15/23

2. Make the following label changes before you release the product for shipment:

    - Revise the EPA Registration Number to read, "EPA Reg. No. 83529-229."

3. Submit one copy of the final printed label for the record before you release the product for shipment.

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

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 06/20/2022

If you have any questions, please contact Jennifer Drobish at 202-566-2642 or at Drobish.jennifer@epa.gov.

Enclosure

[MASTER LABEL]

[Master Label consists of:
Sub-Label A: AG
Sub-Label B: Seed Treatment]

THIOPHANATE-METHYL	GROUP	1	FUNGICIDE

Sharda Thiophanate 46.2% SC

ABN: Theme; ABN: Thief; ABN: Rhythm; ABN: Thames

ACTIVE INGREDIENT:	**WT. BY %**
Thiophanate-Methyl (Dimethyl [(1,2-phenylene)bis (iminocarbonothioyl)]bis[Carbamate])*	46.2%
OTHER INGREDIENTS:	53.8%
TOTAL:	**100.0%**

*Also known as Dimethyl 4,4'-o-phenylebis-[3-thioallophanate]
Contains 4.5 pounds thiophanate-methyl per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

FIRST AID	
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for 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.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.	

[Optional referral statements when booklets and container labels are used:]
[See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

Manufactured for:
Sharda USA LLC
7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707

ACCEPTED
05/15/2023
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 83529-229

EPA Reg. No. 83529-XXX
EPA Est. No. XXXXX-XX-XXX

Net Contents: _____ Gals. [L.]

[Sub-Label A: AG]

THIOPHANATE-METHYL	GROUP	1	FUNGICIDE

Sharda Thiophanate 46.2% SC

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OTHER INGREDIENTS:	53.8%
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Contains 4.5 pounds thiophanate-methyl per gallon.

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Manufactured for:
Sharda USA LLC
7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707

EPA Reg. No. 83529-XXX
EPA Est. No. XXXXX-XX-XXX

Net Contents: _____ Gals. [L.]

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Harmful if swallowed. Avoid breathing vapor or spray mist. Wash hands 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 Gloves, Nitrile Rubber Gloves $\geq$ 14 mils, or Viton Gloves $\geq$ 14 mils.

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

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

All other mixers, loaders and applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all mixers and loaders and for application using hand-held equipment
- Chemical-resistant apron for mixers, loaders, and other handlers exposed to concentrate

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

ENGINEERING CONTROLS STATEMENTS

When handlers use enclosed cabs 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 WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE 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

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. **DO NOT** contaminate water when disposing of equipment wash water or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Shake well before using.

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). The REI is 12 hours except as listed in the **CROP SPECIFIC DIRECTIONS** rate tables.

Exemption: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact

with anything that has been treated, including plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposures

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests nurseries, or greenhouses.

DO NOT enter or allow others to enter treated area until sprays have dried. Keep children and pets out of the treated area until sprays have dried.

PRODUCT INFORMATION

Apply **Sharda Thiophanate 46.2% SC** by ground or aerial application equipment using sufficient volume of spray to provide thorough coverage. Normal fungicide usage indicates this product will be applied over the top of the intended crop; it is critical to ensure that the tank and spray equipment has been cleaned of all other pesticides prior to mixing this product. Continuous agitation is required to keep the ingredients in suspension. Application gallonage and directions are given for each crop.

Sharda Thiophanate 46.2% SC may be tank mixed with other fungicides, insecticides and plant growth regulators that have been approved for use by the EPA on the registered crops. Sharda USA LLC does not make any claims of compatibility with other pesticides; always perform a Mixing Jar Test prior to tank mixing. See the **Compatibility Test** section on this label. **DO NOT** tank mix with highly alkaline pesticides, including Bordeaux mixture or lime sulfur.

Most effective disease control is obtained by preventative spray timing as climatic conditions indicate fungal infection or growth is imminent. Always use the higher rates under conditions of severe disease pressure. Also, see local State Extension Service directions for application schedules.

Use on Non-Bearing Apples, Pecans, Cherries, and Peaches: Sharda Thiophanate 46.2% SC may be used for control of the leaf diseases listed on the label for these crops during the non-bearing years of new plantings, and on nursery stock. All use directions and limitations must be followed, except for the pre-harvest interval (PHI), which is not applicable. Begin applications as disease is first observed. Tank mixing with a protectant fungicide is strongly advised for resistance management.

High-Volume Dilute Applications: Use the **Rate per Acre** rate for concentrate spray applications for tree crops (example: no more than 400 gallons on apples). When making dilute ground applications, use the **Rate per 100 Gals.** rate. Follow all crop specific language on this label for application. Dilute sprays must not exceed maximum a.i. per year.

Aerial Applications to Tree Crops: Use a minimum of 10 gallons per acre for aerial application to fruit tree crops. Increased fungicidal activity is related to coverage and timing, increased volumes are required as crop canopy density increases. **Note:** Conifer applications require higher spray volumes, use lower volumes with mist type applicators and highest volumes with conventional types.

Row Crop Applications: Use a minimum of 5 gallons per acre for ground application, however make most ground applications with 10 - 20 gallons per acre as cropping situations dictate. Increased fungicidal activity is related to coverage and timing, increased volumes are required as crop canopy density increases.

Plant-Back Restriction: DO NOT plant any crop not labeled for **Sharda Thiophanate 46.2% SC** use within 30 days of the last application.

Chemigation: See specific directions in this label.

Mode of Action: Sharda Thiophanate 46.2% SC is a tubulin inhibitor fungicide falling into the FRAC Group 1 for Benzimidazoles. Its Mode of Action is the inhibition of microtubule assembly. It has protectant, systemic and curative actions, each of these specific to certain crops, fungi, and climatic conditions.

RESISTANCE MANAGEMENT

For resistance management, **Sharda Thiophanate 46.2% SC** contains a Group 1 fungicide. Any fungal/bacterial population may contain individuals naturally resistant to **Sharda Thiophanate 46.2% SC** and other Group 1 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance management strategies must be followed.

To delay fungicide/bactericide resistance, take the following steps:

- Rotate the use of **Sharda Thiophanate 46.2% SC** or other Group 1 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides 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/bactericide 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/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, contact Sharda USA LLC. You can also contact your pesticide distributor or university extension specialist to report resistance.

It is advised that **Sharda Thiophanate 46.2% SC** be rotated or tank mixed with different modes of action fungicide chemistry. All products containing thiabendazole or thiophanate ethyl fungicides (benzimidazole fungicides) are NOT considered rotation or tank mix partners. These utilize similar chemistry and mode of action and can contribute to development of disease tolerance.

Should **Sharda Thiophanate 46.2% SC** be applied as directed and the treatment is considered not to be effective, you may have encountered a resistant or tolerant fungi strain. **DO NOT** apply this mode of action chemistry again during this growing season, as this may enhance the resistance at this site.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:
- **DO NOT** release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Applications:
- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boom-Less Ground Applications:
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

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

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom
- **Volume -** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure -** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle -** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

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

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

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

WIND
Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-Less Ground Applications:
- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Hand-Held Technology Applications:
- Take precautions to minimize spray drift.

MIXING INSTRUCTIONS

Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application. Prepare a suspension of product. Fill spray tank to half full, start agitation. See **Mixing Order** chart below when any other products are tank mixed with this product. **Be sure to shake product container well** before pouring to measure. Some settling may occur during prolonged periods of non-use. High pH environments cause a shortened tank life for diluted product. The buffering of tank water to pH 6 - 7 prior to the addition of **Sharda Thiophanate 46.2% SC** specified. Slowly pour required product into partially filled spray tank (half the total volume), then finish filling tank with water, all the while maintaining agitation. Use sufficient water to ensure full coverage of foliage. **DO NOT** use an amount of water that could lead to excessive runoff from target plants. The amount of water will vary according to the amount of foliage requiring coverage and type of equipment but 25 - 100 gals. per acre is adequate. If there is any question as to the compatibility of the components, always perform a jar test with proportional amounts of each product, using water from the actual use source.

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.

Tank Mixing Instructions
Sharda Thiophanate 46.2% SC is compatible with most commonly used pesticides. If tank mixing with other materials, add products in the following order: water soluble bags, wettable powders, dry flowables, liquid flowables, emulsifiable concentrates, and soluble materials including fertilizers. No claim of compatibility with other products is implied. **DO NOT tank mix with copper-containing materials or highly alkaline pesticides, including Bordeaux mixture or lime sulfur.** Consult the intended tank mix partner product label for appropriate application rates and use instructions. Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibition against such mixing. Read and observe the most restrictive precautionary statements and other information appearing on product labels used in mixtures. **Sharda Thiophanate 46.2% SC** may be applied in conjunction with chemically neutral liquid fertilizers. Avoid application in conjunction with highly alkaline fertilizers, including aqueous ammonia, as this may cause a degradation of the pesticide, resulting in reduced performance.

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.

Compatibility Test
Before mixing components, always perform a compatibility jar test. For 20 gals. per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature. Add components in the sequence indicated in the below **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of specified label rate per acre. Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution must not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the

ingredients in the same tank.

Mixing Order
As each product is added to the tank, be sure it is completely dispersed before adding any other product to the mix. Maintain agitation throughout mixing and application processes.

1. **Water.** Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation.** Maintain constant agitation throughout mixing and application.
3. **Inductor.** If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags.** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-dispersible products** (including dry flowables (DF), wettable powders (WP), wettable dry granules (WDG), suspension concentrates (SC), or suspo-emulsions (SE)).
6. **Water-soluble products.**
7. **Emulsifiable concentrates** (including oil concentrate when applicable).
8. **Water-soluble additives** (including AMS or UAN when applicable).
9. **Remaining quantity of water.**

Maintain constant agitation during application.

CHEMIGATION USE INSTRUCTION

CALIFORNIA ALLOWS USE BY CHEMIGATION ONLY FOR CROPS OF BEANS, CUCURBITS (CUCUMBERS, MELONS, PUMPKINS, SQUASH), PEANUTS, SOYBEANS, STRAWBERRIES, [AND TURF].

Application Information
Apply **Sharda Thiophanate 46.2% SC** only through the following types of irrigation systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border or drip (trickle) irrigation systems. **DO NOT** apply this product through any other type of irrigation system.

Note: Any type of irrigation distribution of fungicide allowing untreated lapses or uneven distribution will result in poor control. Continually monitor calibration.

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

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

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.

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.

Specific Information for Irrigation Systems Connected to a Public Water Supply
Public water system means a system for the provision 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.

Chemigation systems connected to 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, discharge the water from the public water system 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.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back towards 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 drawn 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, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
Systems must use a metering pump, including a positive displacement injection pump or equivalent, 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.

Specific Information for Applications Through Sprinkler Irrigation Systems
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.

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, including 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.

Specific Information for Flood (Basin), Furrow, and Border Chemigation
Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity including a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements: The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

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, including 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.

FUNGICIDE DILUTION MIX PREPARATION

Clean all chemical mix tank, induction lines, mixing and induction motors and pumps of any prior use pesticide residues, scale or other foreign matter that may interfere with mixing or transfer of the pesticide dilution into the irrigation system. Flush with clean water.

Start by filling the mix tank at least half full. Begin agitation. Carefully add the required amount of **Sharda Thiophanate 46.2% SC** and then the rest of the water. Allow time to mix completely.

APPLICATION INSTRUCTIONS

Observe ALL requirements in the System Requirements section above. Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

In order to ensure a uniform pesticide suspension and application, be sure to continuously agitate the fungicide tank-mixture during mixing and application.
Inject a greater volume of a more dilute suspension per unit time in order to achieve greater accuracy in distribution and calibration.

[**Note:** An injection ratio of 1:100 is directed for greenhouse systems.]

DO NOT apply more irrigation water per acre than directed, decreased product performance may occur from the over diluted

application. Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.

Prepare a suspension of product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water. Use sufficient water to ensure full coverage of foliage. **DO NOT** use an amount of water that could lead to excessive runoff from target plants. The amount of water will vary according to the amount of foliage requiring coverage and type of equipment but 25 - 100 gals. per acre is adequate.

Chemigation must not be attempted when wind speed favors drift. When system connections or fittings are seen to leak, stop chemigation and repair the component prior to restart. When nozzles are not providing uniform distribution, recalibrate immediately. System must always remain in good repair.

When chemigation is completed, allow sufficient flush time for pesticide to be cleared from all nozzles and lines prior to shutting off the flow of irrigation water.

Fertilizer Co-Mix Instructions:
You may mix and apply this product with other chemically-neutral liquid fertilizers. However, the applicator must be aware that mixing this product with highly alkaline fertilizers (including aqueous ammonia) may cause problematic degradation of this product. Such a mix may prevent optimum control.

Sprinkler Irrigation Instructions:
Observe all System Requirements and Application Instructions above. Always observe local irrigation restrictions or ordinances. Repair overhead irrigation systems to block the spray jets or nozzles nearest the operations control panels as to not allow treated water to contact the operator or operation station.

Calibrate the sprinkler system to deliver 0.1 - 0.25 inch of water per acre. Larger volumes of water may reduce product efficacy. Start sprinkler water flow, then begin injection of the mixed suspension of **Sharda Thiophanate 46.2% SC** into the irrigation water line. Continually monitor calibration to ensure proper application rate per acre. To ensure proper mixing of the suspension of **Sharda Thiophanate 46.2% SC** and the irrigation water, inject with a positive displacement pump into the main line just ahead of a right-angle pipe turn (violent water pressure sheer).

After overhead chemigation treatment with **Sharda Thiophanate 46.2% SC** has been completed, **DO NOT** irrigate treated area again for at least 24 hours to prevent washing the fungicide off the crop leaves and canopy.

Drip Irrigation Instructions (Mini-Micro Sprinklers, Strip Tubing, Trickle):
Observe all System Requirements and Application Instructions above.

CROP SPECIFIC DIRECTIONS

Beans, Dry and Succulent
Including: Asparagus bean, Blackeyed pea, Broad bean, Chickpea, Cowpea, Fava bean, Garbanzo bean, Grain lupine, Kidney bean, Lima bean, Mung bean, Navy bean, Pinto bean, Snap bean, Sweet lupine, Wax bean, White lupine, and White Sweet Lupine

Diseases	Rate per Acre	Application Instructions
Anthracnose (*Colletotrichum* spp.) Gray Mold (*Botrytis* spp.) White Mold (*Sclerotinia* spp.)	30 - 40 fl. oz. (1 - 1.4 lbs. a.i.)	**For 1 Application:** Apply when 100% of plants have at least one open bloom or when conditions are favorable for disease development.
	20 - 30 fl. oz. (0.7 - 1 lb. a.i.)	**For Multiple Applications:** Make first application when 10%-30% of plants have at least one open bloom, and follow with sequential applications on a 4- to 7-day interval. Apply prior to the development of disease for best results.

Restrictions:
- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 1 application at the highest rate (40 fl. oz.) or 4 applications at the lowest rate (20 fl. oz.) per year.
- Minimum Re-Treatment Interval (RTI): 4 days
- Re-Entry Interval (REI): 1 day for all succulent beans and 3 days for dry beans.
- Pre-Harvest Interval (PHI): For California - 14 days for succulent beans and 28 days for lima beans and dry beans. For all other states - 14 days for succulent and lima beans and 28 days for dry beans.

Cucurbits
Including: Cantaloupes, Casaba, Cucumbers, Melons, Pumpkins, Summer Squash and Winter Squash, and Watermelons

Diseases	Rate per Acre	Application Instructions
Acremonium/Cephalosporium Hypocotyl Rot	10 fl. oz. (0.35 lb. a.i.)	Apply in-furrow, on top of the seeds at-planting using at least 10 gals. of water per acre.
Anthracnose* (*Colletotrichum* spp.) Gummy Stem Blight* (*Didymella* spp.) Powdery Mildew (*Erysiphe* spp.) Target Spot* (*Corynespora* spp.)		Scout fields as weather and conditions indicate infection could be present. Start treatments as plants begin to run or when disease is found. Repeat treatments at 7- to 14-day intervals. Make Target Spot treatments at 7-day intervals as needed.

Diseases	Rate Per Acre	Application Instructions
Belly Rots* (*Rhizoctonia* spp. and *Fusarium* spp.)	10 fl. oz. (0.35 lb. a.i.)	Ensure application volume is sufficient to allow complete coverage to run or drip off plant into soil. This product is not effective in controlling *Phytophthora* spp. or *Pythium* spp.
Suppression: Vine Decline (*Monosporascus cannonballus*) Charcoal Rot (*Macrophomina* spp.)		Make applications for suppression of these diseases through buried drip irrigation lines (see the **CHEMIGATION** section of this label) so to apply directly to the root zone. Start applications at emergence and continue at 14-day intervals until harvest. Weekly or biweekly applications, beginning 4 - 6 weeks prior to harvest will offer some suppression, but will not be as effective as a season-long program.

This product can be tank mixed with mancozeb or chlorothalonil for additional disease control and resistance management.

Restrictions:
- **DO NOT** apply more than 10 fl. oz. (0.35 lb. a.i.) per acre per application.
- **DO NOT** apply more than 60 fl. oz. (2.1 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 6 applications per year.
- Minimum Re-Treatment Interval (RTI): 14 days
- Re-Entry Interval (REI): 1 day for all cucurbits.
- Pre-Harvest Interval (PHI): 1 day for all cucurbits.
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

*Not for this use in California.

Garlic
(Treatment for garlic cloves prior to planting)

Diseases	Rate per Acre	Application Instructions
Penicillium Clove Rot	Make a Suspension of 20 fl. oz. (0.7 lb. a.i.) per 100 gals. of water.	Continuously agitate solution tank mixture to ensure proper treatment suspension ratio. **Treatment:** Immerse garlic cloves in this suspension for no less than 5 minutes. Remove cloves from solution and allow to drain and dry. Once dry, cloves are ready for planting.

Restrictions:
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per 100 gals. of water per application.
- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 14 days
- Pre-Harvest Interval (PHI): 0 days

Onions* and Garlic
(In Furrow)

Diseases	Rate per Acre	Application Instructions
White Rot* (*Sclerotinia* spp.)	1 fl. oz. (0.035 lb. a.i.) per 1,000 row feet (with 12 inch row spacing) OR 40 fl. oz. (1.4 lbs. a.i.) per acre Broadcast	Spray product solution directly into the open planting furrow at the time of planting seed, sets or bulbs.

Restrictions:
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 1 application per year.
- Re-Entry Interval (REI): 3 days for garlic in furrow.
- Pre-Harvest Interval (PHI): 0 days

*Not for this use in California.

Peanuts

Diseases	Rate per Acre	Application Instructions
Early Leaf Spot (*Cercospora* spp.) Late Leaf Spot (*Cercospora* spp.) Leaf Spot (*Cercospora* spp.) Limb Rot (*Rhizoctonia* spp.) Rust (*Puccinia* spp.) Web Blotch (*Ascochyta* spp.)	10 fl. oz. (0.35 lb. a.i.)	Start treatments when disease is verified or 35 days after planting. Repeat as needed at 14-day intervals. Use this product in conjunction with another non-benzimidazole fungicide.

Restrictions:
- **DO NOT** apply more than 10 fl. oz. (0.35 lb. a.i.) per acre per application.
- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per year.

- **DO NOT** apply more than 4 applications per year.
- Minimum Re-Treatment Interval (RTI): 14 days
- Re-Entry Interval (REI): 1 day
- Pre-Harvest Interval (PHI): 14 days
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Potatoes

Diseases	Rate per Acre	Application Instructions
White Mold (*Sclerotinia sclerotiorum* sp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.)	Treatments are most efficacious when made prior to disease development. Start treatments just around time of row closure to full bloom of the primary flower clusters (prior to petal drop). Spray must cover all susceptible plant parts, branches, flowers, and stems for adequate control. Scout and reapply at 7- to 14-day intervals or as conditions occur for disease development. **Early/Late Blight Control:** This product can be tank mixed with other blight-control fungicides. Sharda USA LLC does not advise aerial application for control of this disease on this crop.

Restrictions:
- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at the highest rate (30 fl. oz.) or 4 applications at the lowest rate (20 fl. oz.) per year.
- Minimum Re-Treatment Interval (RTI): 7 days
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 21 days

Soybeans

Diseases	Rate per Acre	Application Instructions
Anthracnose (*Colletotrichum* spp.) Brown Spot (*Septoria* spp.) Frogeye Leaf Spot (*Cercospora* spp.) Pod and Stem Blight (*Diaporthe* spp. and the imperfect stage, *Phomopsis* spp.) Purple Seed Stain (*Cercospora* spp.)	10 - 20 fl. oz. (0.35 - 0.7 lb. a.i.) Use higher rate as higher density canopy develops.	Make first application at full bloom up until the pods are between 1/8" and 1/4" in length, followed by a second application 14 - 21 days thereafter. The second application must be made less than 14 days following bean formation or before average pod length is 1/4". When beans are under severe disease pressure, utilize the higher application rates. **For Seed Beans Only:** A single high-rate application may be made at the time of bean formation to improve seed quality.
White Mold (*Sclerotinia* spp.)	15 - 20 fl. oz. (0.525 - 0.7 lb. a.i.)	Make first application at early bloom (R-1 to R- 2 stage). A second application may be made 14 days later as conditions dictate. Spray must cover all susceptible plant parts, branches, flowers, and stems for adequate control. **Aerial Application:** Use at least 5 gals. water.
Aerial Blight (Suppression) Soybean Rust (*Phakopsora pachyrhiza*)	20 fl. oz. (0.7 lb. a.i.)	First application must be made prior to infection, monitor climatic conditions and sentinel plots in your area. Reapply 14 - 21 days later if needed. It is highly advised that a DMI/Triazole fungicide, including tebuconazole be tank mixed for Soybean Rust. First application must be made at R-1 with the tank mix for control. Reapply as conditions warrant. **DO NOT** make more than 2 applications per year.

Restrictions:
- **DO NOT** graze or feed treated vines or hay to livestock.
- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application.
- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications per year.
- Applications later than 14 days after pods average 0.25 inch in length are prohibited.
- Minimum Re-Treatment Interval (RTI): 14 days
- Re-Entry Interval (REI): 1 day
- Pre-Harvest Interval (PHI): 21 days

Strawberries

Diseases	Rate per Acre	Application Instructions
Fruit Rot (*Botrytis* spp.) Leaf Blight (*Dendrophoma* spp.) Leaf Scorch (*Diplocarpon* spp.) Powdery Mildew (*Sphaerotheca* spp.)	15 - 20 fl. oz. (0.525 - 0.7 lb. a.i.) Use highest rate under severe conditions.	Start treatments as blooming begins, repeat at 7- to 10-day intervals. Use higher rates when severe disease pressure appears.
Suppression Only: Crown Rot* (*Colletotrichum* spp.)	15 - 20 fl. oz. (0.525 - 0.7 lb. a.i.)	Begin applications after establishment of the transplants and continue through first bloom at 10- to 14-day intervals. Use the higher rate if the fields have a history of *Colletotrichum* crown rot and/or conditions are favorable for development of the disease. Will not control *Phytophthora* species.

Restrictions:
- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications at the highest rate (20 fl. oz.) or 5 applications at the lowest rate (15 fl. oz.) per year.
- Minimum Re-Treatment Interval (RTI): 7 days
- Re-Entry Interval (REI): 1 day
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

*Not registered for use in California.

Sugarbeets

Diseases	Rate per Acre	Application Instructions
Cercospora Leaf Spot (*Cercospora* spp.)	10 - 20 fl. oz. (0.35 - 0.7 lb. a.i.) In CA, use 10 fl. oz. (0.35 lb. a.i.) rate.	Make first application **prior** to disease emergence, when environmental conditions are favorable for disease development. As required, a second application may be made with a non-benzimidazole fungicide within 14 days. If tolerant or resistant strains are known to be in the area, a tank mix with a protectant type fungicide is advised. **For Areas East of the Rocky Mountains: DO NOT** apply this product more than once per year for *Cercospora* spp.
Powdery Mildew (*Erysiphe* spp.)	10 - 20 fl. oz. In CA, use 10 fl. oz. (0.35 lb. a.i.) rate.	Start treatments immediately, as disease is verified, follow with a non-benzimidazole fungicide as needed or within 14 days after. Tank mixes are advised for this disease.

Restrictions:
- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application, except for California. In California, **DO NOT** apply more than 10 fl. oz. (0.35 lb. a.i.) per acre per application.
- **DO NOT** apply more than 60 fl. oz. (2.1 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 3 applications at the highest rate (20 fl. oz.) or 6 applications at the lowest rate (10 fl. oz.) per year. In California, **DO NOT** apply more than 6 applications per year.
- Minimum Re-Treatment Interval (RTI): 14 days
- Re-Entry Interval (REI): 1 day
- Pre-Harvest Interval (PHI): 21 days
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

TRITICALE AND FALL SEEDED WHEAT APPLICATIONS

Idaho, Oregon, and Washington Only

Diseases	Rate per Acre	Application Instructions
Eye Spot Foot Rot Strawbreaker (*Pseudocercosporella* spp.)	20 fl. oz. (0.7 lb. a.i.)	Make applications after tillering but before stem elongation begins. Apply by ground or aerial means.

Restrictions:
- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per year.
- **DO NOT** apply more than 1 application per year.
- **DO NOT** cut hay within 90 days of application or allow livestock to graze in treated area prior to harvest.
- Re-Entry Interval (REI): 1 day
- Pre-Harvest Interval (PHI): 90 days

TREE CROP APPLICATIONS

Almonds

Diseases	Rate per Acre	Application Instructions
Brown Rot Blossom Blight (*Monilinia* spp.) Jacket Rot (*Monilinia*, *Sclerotinia*, *Botrytis*) Leaf Blight (*Seimatosporium*) Scab (*Cladosporium* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.)	Initiate applications at pink bud and continue through petal fall. Pink Bud applications can be made alone for Brown Rot.

		However, tank mix with labeled contact type, multi-site fungicides for later applications for broad spectrum control and resistance management.

Restrictions:
- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 60 fl. oz. (2.1 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at the highest rate (30 fl. oz.) or 3 applications at the lowest rate (20 fl. oz.) per year.
- Minimum Re-Treatment Interval (RTI): 10 days
- Re-Entry Interval (REI): 3 days
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Apples

Diseases	Rate per Acre	Rate per 100 Gals.	Application Instructions
Apple Scab (*Venturia* spp.) Black Pox* (*Helminthosporium papulosum*) Black Rot (*Botryosphaeria* spp.) Brooks Fruit Spot (*Mycosphaerella* spp.) Flyspeck (*Zygophiala* spp.) Powdery Mildew (*Podosphaera* spp.) Sooty Blotch (*Gloeodes* spp.) White Rot* (*Botryosphaeria* spp.)	15 - 20 fl. oz. (0.525 - 0.7 lb. a.i.) In CA, use 30 fl. oz. (1 lb. a.i.) only.	3.75 - 5 fl. oz. In CA, use 7.5 fl. oz. only.	Initiate applications at green tip and continue at 5- to 10-day intervals continuing through petal fall. Continue cover sprays at 7- to 14-day intervals as needed.
Pre-Harvest Use to Control Post-Harvest Diseases on Apples			
Storage Rot Blue Mold (*Penicillium expansum*) Gray Mold (*Botrytis cinerea*) Bulls-Eye Rot (*Neofabraea* spp.)	1 fl. oz. (0.035 lb. a.i.)	3.75 - 5 fl. oz.	Apply as a pre-harvest spray within 2 weeks to 3 days of harvest. Application closer to harvest provides better efficacy. Application of a non-benzimidazole post- harvest fungicide including Pentobec® (Pyrimethanil) or Schlor® (Fludioxonil]) will provide additional protection from post-harvest diseases.

Restrictions:
- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application, except CA. In California, **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year total including both applications beginning at petal fall and pre-harvest applications to control post-harvest diseases.
- **DO NOT** apply more than 4 applications at the highest rate (20 fl. oz.) or 5 applications at the lowest rate (15 fl. oz.) per year. In California, **DO NOT** apply more than 2 applications per year.
- **DO NOT** use benzimidazole fungicide such as Mertect post-harvest following a pre-harvest application of this product.
- Minimum Re-Treatment Interval (RTI): For green tip through petal fall is 5 days. RTI for after petal fall is 7 days.
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

*Not for this use in California.

Apricots

Diseases	Rate per Acre	Rate per 100 Gals.	Application Instructions
Brown Rot (*Monilinia* spp.) Blossom Blight (*Monilinia* spp.) Fruit Brown Rot (*Monilinia* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Make first application at early bloom (red bud), followed by a second application at full bloom. Under severe disease pressure, make additional applications at 10- to 14-day intervals beginning at full bloom, through final pre-harvest sprays.

Restrictions:
- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at the highest rate (30 fl. oz.) or 4 applications at the lowest rate (20 fl. oz.) per year. In California, **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 10 days
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Cherries, Sweet and Sour

Diseases	Rate per Acre	Rate per 100 Gals.	Application Instructions
Brown Rot (*Monilinia* spp.) Blossom Blight (*Monilinia* spp.) Fruit Brown Rot (*Monilinia* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Make first application at early bloom (popcorn stage), followed by a second application at full bloom. Under severe disease pressure, make additional applications at 10- to 14-day intervals beginning at full bloom, through final pre-harvest sprays.
Cherry Leaf Spot (*Coccomyces* spp.)	22.5 - 30 fl. oz. (0.8 - 1.05 lbs. a.i.)	7.5 - 10 fl. oz.	Initiate applications as leaves begin to unfold, near petal fall or before. Continue at first, second and third cover sprays at 10- to 14-day intervals.
Powdery Mildew (*Podosphaera* spp. and *Sphaerotheca* spp.	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only. **PLUS** 22.5 - 30 fl. oz. (0.79 - 1.05 lbs. a.i.)	6.7 - 10 fl. oz. **PLUS** 7.5 - 10 fl. oz.	Make first application at early bloom (popcorn stage), followed by a second application at full bloom. **PLUS** Also make applications of this product at shuck fall and first cover.

Restrictions:
- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at the highest application rate (30 fl. oz.), 3 applications at 22.5 fl. oz. or 4 applications at the lowest application rate (20 fl. oz.) per year. In California, **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 10 days
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Nectarines

Diseases	Rate per Acre	Rate per 100 Gals.	Application Instructions
Brown Rot (*Monilinia* spp.) Blossom Blight (*Monilinia* spp.) Fruit Brown Rot (*Monilinia* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Make first application at early bloom (pink bud), followed by a second application at full bloom. Under severe disease pressure, make additional applications at 10- to 14-day intervals beginning at full bloom, through final pre-harvest sprays.

Restrictions:
- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at the highest rate (30 fl. oz.) or 4 applications at the lowest rate (20 fl. oz.) per year. In California, **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 10 days
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Peaches

Diseases	Rate per Acre	Rate per 100 Gals.	Application Instructions
Brown Rot (*Monilinia* spp.) Blossom Blight (*Monilinia* spp.) Fruit Brown Rot (*Monilinia* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Make first application at early bloom (pink bud), followed by a second application at full bloom. Under severe disease pressure, make additional applications at 10- to 14-day intervals beginning at full bloom, through final pre-harvest sprays.
Peach Scab (*Cladosporium* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only. **PLUS** 22.5 - 30 fl. oz. (0.79 - 1.05 lbs. a.i.)	6.7 - 10 fl. oz. **PLUS** 7.5 - 10 fl. oz.	Make first application at early bloom (pink bud), followed by a second application at full bloom. **PLUS** Apply at shuck split and at first cover sprays.

Restrictions:
- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.

- **DO NOT** apply more than 2 applications at the highest rate (30 fl. oz.) or 4 applications at the lowest rate (20 fl. oz.) per year. In California, **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 10 days
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 1 day
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Pecans

Diseases	Rate per Acre	Application Instructions
Brown Spot (*Cercospora* spp.) Downy Spot (*Mycosphaerella* spp.) Liver Spot (*Gnomonia* spp.) Powdery Mildew (*Mycosphaerella* spp.) Scab (*Fusicladium* spp.) Stem End Blight (*Botryosphaeria* spp.) Zonate Leaf Spot (*Cristulariella* spp.)	20 fl. oz. (0.7 lb. a.i.)	Make first application as leaves begin to show. Minimum retreatment interval of 21 days until shuck split. Use highest rates for aerial applications in AR, GA, LA, MS, OK, TX.

Restrictions:

- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application.
- **DO NOT** apply more than 60 fl. oz. (2.1 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 3 applications per year.
- Minimum Re-Treatment Interval (RTI): 21 days
- Re-Entry Interval (REI): 3 days
- Pre-Harvest Interval (PHI): 1 day
- **DO NOT** apply after shuck split.
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Pistachios

Diseases	Rate per Acre	Application Instructions
Shoot Blight (*Botrytis* spp., *Botryosphaeria* spp.)	30 - 40 fl. oz. (1.05 - 1.4 lbs. a.i.)	Make application at bloom. **Ground Application:** Apply at least 100 gals. per acre. **Aerial Application:** Apply at least 20 gals. per acre and fly directly over every row of trees.

Restrictions:

- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per application.
- **DO NOT** apply more than 40 fl. oz. (1.4 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 1 application per year.
- Re-Entry Interval (REI): 3 days
- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

Plums / Prunes

Diseases	Rate per Acre	Rate per 100 Gals.	Application Instructions
Brown Rot (*Monilinia* spp.) Blossom Blight (*Monilinia* spp.) Fruit Brown Rot (*Monilinia* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Initiate application at early bloom (green tip), followed by a second application at full bloom. Under severe disease pressure, make additional applications at 10- to 14-day intervals beginning at full bloom, through final pre-harvest sprays.
Black Knot (*Dibothryon* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Initiate applications before bloom, then at petal fall and first 3 cover sprays at 10- to 14-day intervals.
Leaf Spot (*Coccomyces* spp.)	20 - 30 fl. oz. (0.7 - 1.05 lbs. a.i.) In CA, use 30 fl. oz. (1.05 lbs. a.i.) only.	6.7 - 10 fl. oz.	Initiate applications as leaves begin to unfold, near petal fall or before. Continue at first, second and third cover sprays at 10- to 14-day intervals.

Restrictions:

- **DO NOT** apply more than 30 fl. oz. (1.05 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at the highest rate (30 fl. oz.) or 4 applications at the lowest rate (20 fl. oz.) per year. In California, **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 10 days
- Re-Entry Interval (REI): 2 days
- Pre-Harvest Interval (PHI): 1 day
- **DO NOT** apply after shuck split.

- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

CONIFER APPLICATIONS

Tree Crops - Conifer spp.	Diseases	Minimum Rate per Acre and Gallonage per Application	Application Instructions
Pines[*] Austrian Pine Christmas Trees Red Pine Scots Pine	Tip Blight (*Diplodia* spp.)	20 fl. oz. (0.7 lb. a.i.) product/acre applied in at least 100 gals./acre.	Make first application at bud break, followed by a second application shortly prior to needle emergence, usually 10- to 14-days after bud break. A third application may be made approximately 2 weeks following needle emergence. Coverage may improve by adding a spreader/sticker.
	Restrictions: • **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application. • **DO NOT** apply more than 60 fl. oz. (2.1 lbs. a.i.) per acre per year. • **DO NOT** apply more than 3 applications per year. • **DO NOT** allow livestock to graze treated area. • Minimum Re-Treatment Interval (RTI): 4 days • Re-Entry Interval (REI): 12 hours [*Not registered for use in California.]		
Fir[*] Douglas	Rhabdocline Needle Cast Swiss Needle Cast (*Phaeocryptopus* spp.)	20 fl. oz. (0.7 lb. a.i.) product/acre applied in at least 50 gals./acre.	Make first application near the beginning of May, followed by applications every 4 weeks. Coverage may improve by adding a spreader/sticker. When using mist-blower types of sprayers, use minimum gallonage while using higher gallonage with conventional sprayers.
	Restrictions: • **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre pre application. • **DO NOT** apply more than 100 fl. oz. (3.5 lbs. a.i.) per acre per year. • **DO NOT** apply more than 5 applications per year. • **DO NOT** graze treated area. • Minimum Re-Treatment Interval (RTI): 4 weeks • Re-Entry Interval (REI): 12 hours [*Not registered for use in California.]		

SEEDLING TREATMENT APPLICATIONS

Seedling Treatment	Diseases	Mix Ratio	Application Instructions
Longleaf Pine	Brown Needle Blight (*Scirrhia* spp.)	1.25 fl. oz. (0.04375 lb. a.i.) product to 9.5 oz. dry Kaolinite clay for seedling roots	Prior to application, immerse the roots of the seedlings in clean water. The roots may then be treated with a mixture of Kaolinite and this product. **Note:** This product is not effective in controlling *Phytophthora* spp. or *Pythium* spp.
Loblolly Pine **Longleaf Pine** **Slash Pine**	*Fusarium* spp. and Rhizoctonia Root Rot	2.5 fl. oz. (0.0875 lb. a.i.) product to 50 oz. Kaolinite clay, add enough water to make a slurry	
Restrictions: • **DO NOT** apply more than 1.25 fl. oz. (0.04375 lb. a.i.) per 9.5 oz. of dry Kaolinite clay for application to Longleaf Pine seedlings. • **DO NOT** apply more than 2.5 fl. oz. (0.0875 lb. a.i.) per 50 oz. Kaolinite clay for application to Loblolly Pine, Longleaf Pine, and Slash Pine seedlings. • **DO NOT** make more than 1 application per year. • **DO NOT** apply to seedling foliage. • **DO NOT** ALLOW EXCESSIVE DRYING OF ROOTS or exposure to freezing temperatures or temperatures greater than 90°F.			

HORTICULTURAL APPLICATIONS

GREENHOUSE, NURSERY, LANDSCAPE, AND INTERIORSCAPE,ANNUAL AND PERENNIAL FLOWERS, BEDDING PLANTS, FOLIAGE

PLANTS, GROUND COVERS, PLUS DECIDUOUS AND EVERGREEN TREES AND SHRUBS

Sharda Thiophanate 46.2% SC provides broad-spectrum control of many foliar, stem, and below-ground diseases on a wide range of horticultural plants and commercially important plants grown or maintained under a variety of conditions. **Sharda Thiophanate 46.2% SC** is also effective as a pre-plant dip on cuttings and bulbs. For foliar applications, begin treatments when disease first appears or during suspected periods of disease incidence. Use 7- to 14-day spray intervals with 14 days being for preventive treatments and the 7-day interval for times when conditions are conducive to disease development. Add an acceptable wetting agent to the spray tank to increase product efficacy for hard-to-wet foliage. Use a spreader-sticker when excessive and repeated foliar wetting occurs. **Sharda Thiophanate 46.2% SC** may be applied as a ground application using handheld, mechanical or motorized spray equipment, or as a chemigation spray or through an applicable sprinkler irrigation system; or as an overhead application where applicable. Use **Sharda Thiophanate 46.2% SC** to control listed diseases on non-commercial fruit and nut trees.

Note: Sharda Thiophanate 46.2% SC has been determined to be safe for use on the plant types listed in these directions for use based on cumulative data derived from research trials and historical field use. As all species and cultivars have not been tested, perform trial applications if a user wishes to make an application to a plant type not listed on the label but found on a similar use site and for disease that is listed on the label. To conduct a trial application, apply at least 2 applications to at least 25 trial plants at the highest concentration, 7 days apart. Evaluate 7 days after the last application before initiating full-scale application.

Precaution:

- This product may be phytotoxic to Swedish Ivy *(Nephrolepis exaltata)*, Boston Fern *(Plectranthus australis)*, and Easter Cactus *(Hatiora gaertneri).*

Restrictions:

- **DO NOT** apply more than 24 fl. oz. (0.84 lb. a.i.) per 100 gal. water per application.
- **DO NOT** apply more than 85.3 fl. oz. (3 lbs. a.i.) per acre per year.
- Re-Entry Interval (REI): 12 hours
- **DO NOT** use fruit, nuts or sap from trees treated with this product as food or feed.
- **DO NOT** apply to home orchards or backyard fruit trees after fruit set.
- Not for homeowner use. For use only by certified applicators or those under their immediate supervision.

Application Instructions

Apply material with properly calibrated, hand-held, mechanical or motorized spray equipment or by chemigation through appropriate sprinkler irrigation, flood, or drip systems. Begin applications when disease first appears and repeat at 7- to 14-day intervals or as needed during the growing season. Use the shortest interval when conditions are unusually favorable for the development of disease. For hand-held, mechanical, or motorized applications, mix 8 - 24 fl. oz. (0.3 - 0.84 lb. a.i.) of **Sharda Thiophanate 46.2% SC** per 100 gals. water (0.5 - 1.5 teaspoons per gal.) and apply as a full coverage spray to drip for the prevention and control of the diseases listed below. Spray volume may range up to 400 gals. of finished spray per acre depending upon plant species and plant growth stage. For applications through irrigations systems, refer to use rates indicated in the foliar application chart. For small volume applications less than 100 gals., divide directed rate by 16 to get the number of teaspoons of **Sharda Thiophanate 46.2% SC** per gal.

Plant Type	Including But Not Limited To:
Herbaceous Bedding	Ageratum, Begonia, Canna, Coleus, Dahlia, Dusty Miller, Foxglove, Fuchsia, Geranium, Impatiens, Lavender, Marigold, Pansy, Petunia, Pinks, Primrose, Salvia, Statice, Strawflower, Tickseed, Verbena
Flowering	Chrysanthemum, Hydrangea, Hollyhock, Iris, Lily, Poinsettia
Tropical Foliage	Dieffenbachia, Dracaena, English Ivy, Philodendron, Pothos
Woody Ornamentals	Azalea, Hibiscus, Holly, Ligustrum, Rhododendron, Rose, Pyracantha
Evergreen Trees	Douglas Fir, Fir, Larch, Pine, Spruce
Deciduous Trees*	Ash, London Plane, Maple, Oak, Sycamore, Walnut
Flowering Trees*	Cherry, Crabapple, Hawthorn, Mountain Ash, Pear
***RESTRICTION: DO NOT** use fruit or nuts from treated trees as food or feed.	

FOLIAR SPRAY - PLANT TYPES AND DISEASES CONTROLLED

Diseases	Plant Types
Anthracnose	Woody ornamentals, shade trees*
Ascochyta Blight	Herbaceous ornamentals
Black spot	Roses
Botrytis (Gray Mold)	Woody and herbaceous ornamentals
Brown Rot	Woody and herbaceous ornamentals
Colletotrichum	Woody and herbaceous ornamentals
Cercospora Leaf Spot	Woody and herbaceous ornamentals
Corynespora Leaf Spot	Ligustrum
Didymella Leaf Spot	Iris
Diplodia Tip Blight (*Diplodia pinea*)	Shade and ornamental trees
Ovulinia	Azalea, rhododendron**
Entomosporium Leaf Spot	Woody and herbaceous ornamentals
Fusicladium Leaf Scab	Woody and herbaceous ornamentals
Phomopsis Blight	Woody and herbaceous ornamentals

Pine Tip Blights	Woody ornamentals
Powdery Mildew	Woody and herbaceous ornamentals, ornamental nut and fruit trees
Rust Diseases	Ornamental nut and fruit trees
Ramularia Leaf Spot	Herbaceous ornamentals
Scab	Pyracantha, flowering crab, ornamental fruit and nut trees
Septoria Leaf Spot	Woody and herbaceous ornamentals
Venturia Leaf Scab	Woody and herbaceous ornamentals

*Begin at bud and make 2 or 3 additional applications at 10- to 14-day intervals.
**Begin treatment as flowers open. Addition of a spray surfactant to the spray mixture improves distribution of the spray on hard-to-wet plants including roses.

Hydraulic Application Mixing Instructions
Add the required amount of **Sharda Thiophanate 46.2% SC** to a partially filled spray tank agitated by mechanical or hydraulic means and then add the remaining volume of water. Maintain continuous agitation to keep the material in suspension and apply with properly calibrated spray equipment.

Application Concentrations (Mechanical or Hand-Held)
Use the labeled amount of **Sharda Thiophanate 46.2% SC** per 100 gals. of water for the prevention and control of the diseases shown below.

Special Instructions for Proportional Injectors (e.g., Dosatron, DosMatic, Anderson, and similar equipment)
Determine the treatment rate for crop and pathogen from the foliar application table below. Determine the injection ratio for the individual system to be used for application. For systems using a 1:100 ratio, measure and add the exact amount of directed material per 100 gals. to each gallon of water in a stock bucket or tank. For systems using a 1:200 ratio, multiply the directed amount per 100 gals. by 2. For systems using a 1:50 ratio, divide the directed amount per 100 gals. added by 2. For systems using 1:16 ratio, divide the directed amount per 100 gals. by 6. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is directed for most greenhouse and nursery systems.

Adjuvants
Where rainfall and/or overhead irrigation is the norm, use of a compatible spreader/sticker is suggested. Where wetting of foliage is difficult, use a compatible wetting agent. Follow the phytotoxicity precautions described in the **HORTICULTURAL APPLICATIONS** section of this label.

FOLIAR DISEASES

Diseases Controlled	Concentration of Sharda Thiophanate 46.2% SC per 100 Gals.	Application Instructions
Anthracnose *(Colletotrichum)*	10.75 - 20 fl. oz. (0.376 - 0.7 lb. a.i.)	Apply as buds break or at first sign of disease. Repeat application at 7- to 14- day intervals as needed during disease period.
Black Spot of Rose *(Diplocarpon rosae)*	10.75 - 20 fl. oz. (0.376 - 0.7 lb. a.i.)	Apply early summer or at first sign of disease. Repeat application every 7 - 14 days as needed during disease period.
Brown Rot and Blight (*Monilinia, Sclerotinia, Whetzellinia*)	10.75 - 20 fl. oz. (0.376 - 0.7 lb. a.i.)	Apply late spring or at first sign of disease. Repeat application every 7 - 14 days as needed during the disease period.
Fusicladium and Venturia Leaf Scabs on: Crabapple, Hawthorn, Pear, Mountain Ash, Pyracantha, etc.	10.75 - 20 fl. oz. (0.376 - 0.7 lb. a.i.)	Apply as buds break. Repeat application every 7 - 14 days during disease period. Effective control requires coverage during expansion. Rotations with chlorothalonil or propiconazole can be utilized. **DO NOT** use fruit from treated crabapple or pear trees for food purposes.
Leaf Spots and Blights (caused by: *Ascochyta, Blumeriella, Botrytis, Cercospora, Coccomyces, Corynespora, Curvularia, Didymella, Entomosporium, Fabraea, Fusarium, Ramularia, Rhizoctonia, Marssonina, Mycosphaerella, Myrothecium, Phoma, Physalospora, Schizothyrium, Septoria, Sphaceloma*)	10.75 - 20 fl. oz. (0.376 - 0.7 lb. a.i.) (CA Only: 10 - 14.5 fl. oz. (0.35 - 0.51 lb. a.i.))	Make applications when disease symptoms first appear. Repeat every 7 - 14 days during disease period. Rotations and/or tank mix combinations with chlorothalonil or mancozeb can be used.
Ovulinia Blight	7.25 - 20 fl. oz. (0.25375 - 0.7 lb. a.i.)	Apply as flowers open. Repeat every 7 - 14 days during disease period.
Powdery Mildews (*Erysiphe, Microsphaera, Phyllactinia, Podosphaera, Oidium, Sphaerotheca*)	10 - 20 fl. oz. (0.35 - 0.7 lb. a.i.)	Apply when disease first appears and repeat application every 7 - 14 days. Rotations with other effective products can be used. Tank mix combinations with mancozeb or triadimefon can be utilized.
Rust Diseases (caused by: *Puccinia, Gymnosporangium, Uromyces*)	10.75 - 20 fl. oz. (0.376 - 0.7 lb. a.i.)	Apply late spring or when symptoms first appear. Repeat applications every 7 - 14 days during disease period. Rotations with other effective products can be used.

Tip Blight of Pine (*Sphaeropsis sapinea, Diplodia pinea*)	14.5 - 20 fl. oz. (0.51 - 0.7 lb. a.i.)	Begin applications in the spring when new growth starts. Make a second application just prior to needle emergence from the sheath and a third application 14 days later. Ensure thorough coverage.
Twig Blights, Cankers, and Diebacks (*Diaporthe, Kabatina, Phoma, Phomopsis*)	14.5 - 20 fl. oz. (0.51 - 0.7 lb. a.i.)	Apply when symptoms first appear. Repeat applications every 7 - 14 days during disease period.

Restrictions for Foliar Spray Applications:

- **Maximum Single Application Rates:**
  - **Ornamentals: DO NOT** exceed the maximum single application rate of 85.3 fl. oz. (3 lbs. a.i.) of **Sharda Thiophanate 46.2% SC** per acre per year.
  - **Cut Flowers: DO NOT** exceed the maximum single application rate of 14.2 fl. oz. (0.5 lb. a.i.) of **Sharda Thiophanate 46.2% SC** per acre per year.
- **Yearly Maximum Application:**
  - **All Ornamentals: DO NOT** apply more than 66.6 gals. (8,533 fl. oz.) (300 lbs. a.i.) of **Sharda Thiophanate 46.2% SC** per acre per year.

SOIL DRENCH APPLICATIONS

Mixing Instructions
Add required amount of **Sharda Thiophanate 46.2% SC** to a partially filled tank agitated by mechanical or hydraulic means. Add the remaining required amount of water. Maintain continuous agitation throughout application to keep the material in suspension.

Application Concentrations/Rates and Timing for Disease Control
Create a drench solution by mixing 7.5 - 20 fl. oz. (0.26 - 0.7 lb. a.i.) of **Sharda Thiophanate 46.2% SC** per 100 gals. of water. Apply as a drench or directed spray using hand-held, mechanical, or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler irrigation systems, after seeding or sticking of cuttings (8 fl. oz.; 0.28 lb. a.i.) or after transplanting (12 - 16 fl. oz.; 0.42 - 0.56 lb. a.i.) to propagation beds, containers, pots, trays, or nursery or landscape beds at a rate to thoroughly soak the growing media through the root zone. A guide is 0.25 - 3.0 pints of finished mixture per sq. ft. depending on the media type and depth (about 4 fl. oz. (0.1 lb. a.i.) per 4 inch pot or 8 fl. oz. (0.28 lb. a.i.) per 6 inch pot). Make repeat applications at 21- to 28-day intervals depending on disease presence and conditions for disease development.

Restrictions:

- **DO NOT** apply more than 20 fl. oz. (0.7 lb. a.i.) per acre per application.
- **DO NOT** exceed 66.6 gal. (8,533 fl. oz.; 300 lbs. a.i.) per acre per year from all thiophanate-methyl containing products.
- **DO NOT** apply to plug trays or seedling flats at time of seeding.

Plant Types
Containerized woody shrubs, trees, herbaceous/bedding, flowering, and tropical foliage plants and flowers and bedding plants in the landscape.

Soil Diseases Controlled
Stem, Crown, and Root Rots caused by *Botrytis, Cylindrocladium, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia,* and Black Root Rot *Thielaviopsis*.

Note: *Pythium, Phytophthora* and *Cylindrocladium spathiphylli* are not controlled by **Sharda Thiophanate 46.2% SC**. Tank mix combinations with metalaxyl, mefenoxam, etridiazole, fosetyl-Al, or mono and dipotassium salts of phosphorous acid or propamocarb are required for the control of *Pythium* and *Phytophthora*.

PLANT DIP TREATMENT

Mixing Instructions
Mix as described in the **FOLIAR DISEASES** and **SOIL DRENCH APPLICATIONS** sections of this label. Maintain continuous agitation during application.

Note: Follow accepted hygiene practices to minimize the introduction and spread of water borne bacterial and water mold fungal diseases.

Application Concentration and Dipping Time
Plants or Cuttings: Use 14.5 - 20 fl. oz. (0.51 - 0.7 lb. a.i.) of **Sharda Thiophanate 46.2% SC** per 100 gals. of water. Immerse plants or cuttings for 10 - 15 minutes, remove, and allow to drain and dry.

Note: The **PERSONAL PROTECTIVE EQUIPMENT** section of this label included protective clothing for dip treatment.

Bulbs, Corms, Tubers, and Rhizomes
Use 14.5 - 20 fl. oz. (0.51 - 0.7 lb. a.i.) of **Sharda Thiophanate 46.2% SC** per 100 gals. of water or 2 teaspoons of **Sharda Thiophanate 46.2% SC** per gallon of water. Soak cleaned bulbs for 15 - 30 minutes in warm dip (80 - 85°F) within 48 hours of digging. Dry bulbs after treatment. If bulbs are for forcing, treat bulbs that have been cured.

Plant Types

Plants, cuttings, cane sections of woody herbaceous, flowering and tropical foliage plants. Bulbs, corms, tubers, and rhizomes of plants including but not limited to Caladium, Easter Lily, Tulip, Gladiolus, Daffodil, Iris.

Diseases Controlled
Botrytis, Cylindrocladium, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia, and *Thielaviopsis*.

BACKYARD FRUIT AND NUT TREES[*]

Restrictions:
- [*Not registered for use in California.]
- **DO NOT** apply more than 19.5 fl. oz. (0.7 lb. a.i.) per acre per application.
- **DO NOT** apply more than 59 fl. oz. (2.07 lbs. a.i.) per acre per year, except pistachios. For pistachios, **DO NOT** apply more than 39 fl. oz. (1.37 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 3 applications per year, expect pistachios. For pistachios, **DO NOT** apply more than 2 applications per year.
- Minimum Re-Treatment Interval (RTI): 14 days
- Not for use by homeowners.

Certified Applicators
If this product is used on a tree producing fruits or nuts which will be used for food or feed:
- **DO NOT** apply to home orchards/backyard fruit or nut trees after fruit or nut set.
- **DO NOT** apply to fruit or nut trees other than almond, apple, pear, pecan, pistachio, apricot, cherry, nectarine, peach, plum or prune.
- For bearing fruit and nut trees, use the following application rates. For a list of diseases controlled, see the table above under **FOLIAR SPRAY**.

Crop	Rate per Acre	Maximum Rate per Acre per Year
Almond, Apple, Pear, Pecan, Apricot, Cherry, Nectarine, Peach, Plum or Prune	19.5 fl. oz. (0.7 lb. a.i.)	59 fl. oz. (2.1 lbs. a.i.)
Pistachio	19.5 fl. oz. (0.7 lb. a.i.)	39 fl. oz. (1.4 lbs. a.i.)

VEGETABLE TRANSPLANTS (Greenhouse and Nursery Use Only)[*]

Vegetable Transplants	Diseases Controlled	Rate per Acre	Application Instructions
Beans, dry and succulent including: Lima bean, Snap bean, Kidney bean, Mung bean, Navy bean, Pinto bean, Wax bean, Broad bean, Fava bean, Asparagus bean, Blackeyed pea, Cowpea, Sweet lupine, White lupine, White sweet lupine, Grain lupine, Chick pea, Garbanzo bean	Anthracnose (*Colletotrichum* spp.) Gray Mold (*Botrytis* spp.) White Mold (*Sclerotinia* spp.)	29 - 39 fl. oz.[1] (1 - 1.37 lbs. a.i.) or 19 - 29 fl. oz.[2] (0.67 - 1 lb. a.i.)	**For 1 Application:** Apply when 100% of plants have at least one open bloom or when conditions are favorable for disease development. or **For Multiple Applications:** Make the first application when 10% to 30% of plants have at least one open bloom and follow with sequential applications on a 4- to 7-day interval. Apply prior to the development of disease for best results.
Restrictions for use on Beans, Dry and Succulent: • **DO NOT** apply more than 39 fl. oz. (1.37 lbs. a.i.) per acre per application. • **DO NOT** apply more than 80 fl. oz. (2.8 lbs. a.i.) per acre per year. • **DO NOT** apply more than 2 applications at the highest rate (39 fl. oz.) or 4 applications at the lowest rate (19 fl. oz.) per year. • Minimum Re-Treatment Interval (RTI): 4 days • Pre-Harvest Interval (PHI): For California - 14 days for succulent beans and 28 days for lima beans and dry beans. For all other states - 14 days for succulent and lima beans and 28 days for dry beans. • Not intended for field vegetable production.			
Cucurbits Cantaloupe, Casaba, Cucumbers, Melons, Pumpkins, Summer and Winter Squash, and Watermelons	Anthracnose[*] (*Colletotrichum* spp.) Gummy Stem Blight[*] (*Didymella* spp.) Powdery Mildew[*] (*Erysiphe* spp., *Sphaerotheca* spp., *Podosphaera* spp.) Target Spot[*] (*Corynespora* spp.)	10 fl. oz.[3] (0.35 lb. a.i.)	Begin applications when plants begin to run or when disease first appears, and repeat at 7- to 14-day intervals. For Target Spot, use at 7-day intervals.
	Belly Rots[*] (*Rhizoctonia* spp., *Fusarium* spp.)	10 fl. oz.[3] (0.35 lb. a.i.)	Apply in sufficient volume to allow runoff to the soil. Will not control *Pythium* or *Phytophthora*.
Restrictions for use on Cucurbits: • **DO NOT** apply more than 10 fl. oz. (0.35 lb. a.i.) per acre per application. • **DO NOT** apply more than 60 fl. oz. (2.1 lbs. a.i.) per acre per year from any combination of application timings. • **DO NOT** apply more than 6 applications per year. • Minimum Re-Treatment Interval (RTI): 7 days • Not intended for field vegetable production.			

- Follow **RESISTANCE MANAGEMENT** under the **DIRECTIONS FOR USE** section.

[*Not registered for use in California.]
[1]Apply, for example, in 50 - 200 gals. of water per acre. In volumes of water below 50 gals., use a minimum of 2.1 lbs. a.i. per acre. If more than 200 gals. of water per acre are required for good plant coverage, apply a maximum rate of 2.8 lbs. a.i. per acre. For example, if 200 gals. of water are required, use 1.4 lbs. a.i. per 100 gals.
[2]Apply, for example, in 50 - 200 gals. of water per acre. In volumes of water below 50 gals., use a minimum of 1.4 lbs. a.i. per acre. If more than 200 gals. of water per acre are required for good plant coverage, apply a maximum rate of 2.1 lbs. a.i. per acre. For example, if 200 gals. of water are required, use 1.05 lbs. a.i. per 100 gals.
[3]Apply, for example, in 50 - 200 gals. of water per acre. In volumes of water below 50 gals., use a minimum of 0.7 lb. a.i. per acre. If more than 200 gals. of water per acre are required for good plant coverage, apply a maximum rate of 0.7 lb. a.i. per acre. For example, if 200 gals. of water are required, use 0.35 lb. a.i. per 100 gals.

TURF APPLICATIONS

Use **Sharda Thiophanate 46.2% SC** against certain foliar and soil diseases for use on all turf types including golf course greens, tees and fairways, athletic fields, cemeteries, parks, and commercial and home lawns. Use **Sharda Thiophanate 46.2% SC** both preventatively and curatively; it is not phytotoxic on turfgrass.

For best results, use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated sprayer. Apply after mowing or avoid mowing twelve hours after application. Apply specified amounts in sufficient water to obtain thorough coverage, (2 - 4 gals. per 1,000 sq. ft. suggested). When treating golf greens, always treat aprons.

Application Instructions
Apply material with properly calibrated hand-held, mechanical or motorized spray equipment or by chemigation through appropriate sprinkler irrigation systems. Spray uniformly over the area to be treated. Apply directed amounts in sufficient water to obtain thorough coverage of treatment area (2 - 4 gals. per 1,000 sq. ft. is suggested). When treating golf greens, always treat aprons. Use the highest directed rate under conditions of severe disease pressure. For best results, apply after mowing or avoid mowing twelve hours after application. For root pathogens, lightly water the treatment area to move the fungicide into the active root zone with 0.1 - 0.2 inch of water. Excessive irrigation may move application below active root zone and reduce application effectiveness. Green design and drainage will influence irrigation practices. When tank mixing with contact action fungicides for foliar diseases, allow applications to dry on leaf surfaces. Normal watering may proceed after sprays have dried.

Mixing Instructions
Add the required amount of **Sharda Thiophanate 46.2% SC** to a partially filled tank agitated by mechanical or hydraulic means. Add the remaining required amount of water. Maintain continuous agitation to keep the material in suspension. For best results, use spray mixture the same day it is prepared.

Turf Types
All cool season and warm season grasses (such as but not limited to Bentgrasses, Bermudagrasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia grasses) or their mixtures.

Restrictions:
- **DO NOT** use **Sharda Thiophanate 46.2% SC** on turf being grown for sale or other commercial uses including sod.
- Not for homeowner use.
- For use only by certified applicators and those under their direct supervision.
- **DO NOT** apply with fixed wing or rotary aircraft.
- **DO NOT** graze animals on treated turf.
- **DO NOT** feed clippings to livestock or poultry.
- **DO NOT** exceed the amounts per acre or reduce the re-treatment interval (RTI) indicated in the table below.
- **DO NOT** exceed the rates per acre per year indicated in the table below.

Maximum Individual Application Rates and Minimum Re-Treatment Intervals

Use Site	Maximum Application Rate of Sharda Thiophanate 46.2% SC per 1,000 Sq. Ft.	Minimum Re-Treatment Interval (RTI)	Restrictions/ Limitations
Residential or Public Areas	1.75 fl. oz. (0.06125 lb. a.i.)	14 days	
Golf Course Tees, Greens, Aprons	5.5 fl. oz. (0.186 lb. a.i.)	14 days	
Golf Course Fairways – except Florida	3.5 fl. oz. (0.122 lb. a.i.)	14 days	Excludes Florida
Golf Course Fairways – Florida Only	1.75 fl. oz. (0.06125 lb. a.i.)	14 days	Florida Only.

Maximum Yearly Application Rates

Use Site	Maximum Gals. of Sharda Thiophanate 46.2% SC per Acre per Year	Fl. Oz. of Sharda Thiophanate 46.2% SC per 1,000 sq. ft.	Restrictions/ Limitations
Residential or Public Areas	2.42 gals. (10.9 lbs. a.i.)	7 fl. oz. (0.245 lb. a.i.)	4 Applications per year

Golf Course Tees, Greens, Aprons	4.84 gals. (21.8 lbs. a.i.)	14.25 fl. oz. (0.499 lb. a.i.)	4 Applications per year
Golf Course Fairways – except Florida	1.21 gals. (5.4 lbs. a.i.)	3.5 fl. oz. (0.122 lb. a.i.)	•Excludes Florida •4 Applications per year
Golf Course Fairways – Florida Only	0.60 gal. (2.7 lbs. a.i.)	1.75 fl. oz. (0.06125 lb. a.i.)	•Florida Only •4 Applications per year

Diseases Controlled	**Rate of Sharda Thiophanate 46.2% SC Fl. Oz./1,000 Sq. Ft.***	**Application Instructions**
Anthracnose *(Colletotrichum graminicola)*	2 - 3.5 (0.07 - 0.122 lb. a.i.) (3.5 - 5.3)** (0.122 - 0.186 lb. a.i.)	For prevention in historic areas of disease pressure, apply twice at 14-day intervals when soil temperature reaches 60°F. For curative control, apply when disease first appears. Make additional applications at 14-day intervals as needed. Rotations and/or tank mix combinations with chlorothalonil or triadimefon can be utilized.
Bermudagrass Decline *(Gaeumannomyces graminis* var. *graminis)* Take-All-Patch *(Gaeumannomyces graminis* var. *avenae)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply in mid-July or when disease symptoms first appear and repeat at 14-day intervals for suppression. Use higher rates under most severe disease expression. Water treatment into active root zone. Follow proper agronomic directions to maintain plant vigor.
Coprinus Snow Mold *(Coprinus psychromorbida)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply 2 treatments at 21-day intervals in late Fall to early Winter, with the last application made just prior to first permanent snow cover. Rotations and/or tank mix combinations with PCNB can be utilized.
Dollar Spot *(Moellerodiscus, Lanzia, Sclerotinia homoeocarpa)* Copper Spot *(Gloeocercospora sorghi)* Large Brown Patch and Zoysia Patch *(Rhizoctonia solani)* Ascochyta Leaf Blight *(Ascochyta)* Fusarium Patch *(Fusarium nivale)* Red Thread *(Laetisaria fuciformis)*	2 - 3.5 (0.07 - 0.122 lb. a.i.)	Apply when disease first appears. Make additional applications at 14-day intervals as needed. Rotations an/or tank mix combinations with chlorothalonil, iprodione, or mancozeb can be utilized.
Pink Snow Mold *(Microdochium nivale)*	2 - 5.3 (0.07 - 0.186 lb. a.i.)	Apply **Sharda Thiophanate 46.2% SC** in late Fall to early Winter before turf has stopped all growth activity. A second application may be used in combination with chlorothalonil, PCNB, or thiram at specified rates before snow cover or during Spring thaw.
Rusts *(Puccinia, Uromyces)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply at 14-day intervals when disease first appears. Rotations and/or tank mix combinations with chlorothalonil or mancozeb are specified.
Gray Leaf Spot *(Pyricularia grisea)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply preventative application before expected period of disease development. Continue at 14-day intervals.
Summer Patch *(Magnaporthe poae)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	For preventative treatment, make 3 applications at 21-day intervals beginning in late April or early May. Rotations and/or tank mix combinations may be used as part of the 3 application program. Water product into the root zone thoroughly after application. For suppression, apply at 14-day intervals, beginning applications when the disease first appears.
Bentgrass Dead Spot *(Ophiosphaerella agrostis)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	For prevention, apply in early June or based upon local Extension Service directions. Apply at 14-day intervals. Rotations and/or tank mix combinations may be used for season long disease prevention.
Fusarium Blight *(Fusarium roseum, F. Triticum)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply when disease first appears at 14-day intervals.
Cool Season Brown Patch *(Rhizoctonia cerealis)* Necrotic Ring Spot and Spring Dead Spot *(Leptosphaeria korrae)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	For prevention, apply in Fall before turf has stopped all growth activity. Apply second application in early Spring when soil temperatures reach 55 - 60°F or when disease first appears. For curative action, apply when disease first appears in early Spring and continue at 14-day intervals. Water treatment into active root zone.
Leaf Spot *(Drechslera)* Leaf, Crown, and Root Diseases *(Bipolaris, Curvularia, Exserohilum)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply when disease first appears and make applications at 14-day intervals as needed. Rotate and/or tank mix combinations with chlorothalonil, iprodione, or mancozeb under severe conditions.
Stripe Smut *(Ustilago striiformis)*	3.5 - 5.3 (0.122 - 0.186 lb. a.i.)	Apply at 14-day intervals when disease first appears. For prevention, apply in the spring and in the fall.
*Refer to the use sites and maximum application rates table to determine allowable rates for each application.		

**Use the 3.5 - 5.3 fl. oz. (0.122 - 0.186 lb. a.i.) rate for curative response to Basal Stem Anthracnose.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store this product in a cool, dry place in its original container only. **DO NOT** store this product near fertilizers, seeds, or other pesticides. If this product is spilled, sweep up the spillage and dispose pursuant to the below Pesticide Disposal instructions.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:
[Less Than or Equal to 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.]

[Greater Than 5 Gallons] [Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. 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 two minutes. Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times.

[Greater Than 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.]

[For Bulk and Mini-Bulk Containers] [Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.]

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT,**

STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

[All trademarks are the property of their respective owners.]

[OPTIONAL MARKETING LANGUAGE]

1	[www.shardausa.com] [ ]
2	[Handle with Care]
3	[This side Up]
4	{The below graphic to be added to box if formulated in the United States} Proudly Formulated & Packaged In The U.S.A. [ ]

[Sub-Label B: Seed Treatment]

THIOPHANATE-METHYL	GROUP	1	FUNGICIDE

Sharda Thiophanate 46.2% SC

ABN: Theme; ABN: Thief; ABN: Rhythm; ABN: Thames

ACTIVE INGREDIENT:	**WT. BY %**
Thiophanate-Methyl (Dimethyl [(1,2-phenylene)bis (iminocarbonothioyl)]bis[Carbamate])*	46.2%
OTHER INGREDIENTS:	53.8%
TOTAL:	**100.0%**

*Also known as Dimethyl 4,4'-o-phenylebis-[3-thioallophanate]
Contains 4.5 pounds thiophanate-methyl per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

FIRST AID	
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for 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.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.	

[Optional referral statements when booklets and container labels are used:]
[See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

Manufactured for:
Sharda USA LLC
7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707

EPA Reg. No. 83529-XXX
EPA Est. No. XXXXX-XX-XXX

Net Contents: _____ Gals. [L.]

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Harmful if swallowed. Avoid breathing vapor or spray mist. Wash hands 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 Gloves, Nitrile Rubber Gloves $\geq$ 14 mils, or Viton Gloves $\geq$ 14 mils.

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

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

All other mixers, loaders and applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all mixers and loaders and for application using hand-held equipment
- Chemical-resistant apron for mixers, loaders, and other handlers exposed to concentrate

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE 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

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. **DO NOT** contaminate water when disposing of equipment wash water or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Shake well before using.

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.

Sharda Thiophanate 46.2% SC is for commercial seed treatment use on listed crops. It is to be used with slurry or misting (liquid) seed treatment equipment. It is not to be used by agricultural companies before (or at) planting.

Make sure that **Sharda Thiophanate 46.2% SC** container is well shaken or otherwise mixed before use, particularly if entire contents are not used at one time. If tank mixing this seed treatment product with other products, carry out a compatibility test before mixing and applying. When tank mixing, read and follow the label of each tank mix product used for precautionary statements, directions for use, rates and timings, and other restrictions.

Seed treated with this product must be treated with an authorized colored dye (for dyes approved for use in pesticide products, and any use rate restrictions, see 40 CFR Part 180.900) to prevent unintended use as a food or feed. Per 21 CFR Part 2.25, product user is responsible for ensuring seeds are properly dyed. Per the Federal Seed Act, treated seed must bear appropriate labeling, as indicated below.

Restriction:

- **DO NOT** use seed treated with this product to process for oil, use as food or feed, or mix with food or feed.

SEED LABELING

THE FEDERAL SEED ACT REQUIRES THAT BAGS CONTAINING TREATED SEED BE LABELED WITH THE FOLLOWING INFORMATION:

- *"This seed has been treated with **Sharda Thiophanate 46.2% SC** (thiophanate-methyl) seed treatment. **DO NOT** use for food, feed, or oil processing. Store away from feeds and other foodstuffs."*

LABELS FOR COMMERCIALLY TREATED SEED MUST INCLUDE THE FOLLOWING ADDITION TO THE ENVIRONMENTAL HAZARDS STATEMENTS:

- *"Exposed treated seed may be hazardous to birds and wildlife. Dispose of all excess treated seed and seed packaging or containers by burial away from bodies of water in accordance with any local requirements. Cover, incorporate, or collect treated seeds spilled during loading and planting. **DO NOT** contaminate bodies of water when disposing of planting equipment wash water."*

THE U.S. ENVIRONMENTAL PROTECTION AGENCY REQUIRES THE FOLLOWING STATEMENTS ON CONTAINERS CONTAINING TREATED SEED:

- *"**DO NOT** allow children, pets or livestock to have access to treated seeds."*
- *"**DO NOT** graze or feed livestock on treated areas for 45 days after planting."*
- *"Wear long pants, long-sleeved shirt, shoes, socks, and chemical-resistant gloves when opening this bag or loading/pouring the treated seed."*
- *"After the seeds have been planted, **DO NOT** enter or allow worker entry into treated areas during the **restricted-entry interval** (REI) of **12 hours**. Exception: If the treated seed 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, including plants, soil or water is: coveralls, chemical-resistant gloves made of any waterproof material, and chemical-resistant footwear."*

PRODUCT INFORMATION

Sharda Thiophanate 46.2% SC can be applied to the following well cured, healthy seeds, to provide protection to the seed or seedlings from listed diseases. Use of this product in combination with other fungicides having efficacy against listed diseases can enhance performance if disease pressure is elevated, and will augment protection of the seed. Dilute product in enough water for application to seeds via seed treatment equipment for misting or slurry. For application questions regarding a particular seed type, consult a seed treatment specialist.

PEANUTS

For use on PEANUT seeds for suppression of seedling blight (*Fusarium* spp. and *Rhizoctonia* spp.) and seed decay (including *Aspergillus* spp.), use 0.14 - 0.28 fl. oz. product (0.005 - 0.01 lb. a.i.) per 100 lbs. of seed. For control against seed borne *Sclerotinia* spp, use 0.94 - 1.12 fl. oz. product (0.033 - 0.039 lb. a.i./A) per 100 lbs. of seed.

SOYBEANS

For use on SOYBEAN seeds for suppression of seedling blight (soilborne *Fusarium* spp. and *Rhizoctonia* spp.), use 0.14 - 0.28 fl. oz. product (0.005 - 0.01 lb. a.i.) per 100 lbs. of seed, based on typical seed weight of 3,000 seeds per pound, or 150,000 seeds per 50 pounds. If seed rate per pound is different, adjust amount of product used accordingly. For other weights/concentrations:

1 seed	0.008 - 0.015 mg. a.i.*
1,000 seeds	0.0005 - 0.0010 fl. oz. product
140,000 seeds	0.065 - 0.0130 fl. oz. product

*This product contains 15,970 mg. a.i. per 1 fluid ounce.

NOTE: To maintain mg a.i./seed, adjust fluid ounces/100 lbs. in proportion to the to the actual seeds/lb. compared to the standard number of seeds/lb. for that crop; fluid ounces per number of seeds (i.e., 1,000; 140,000) does not need to be adjusted. For example, if there are 2,800 soybean seeds/lb. and the targeted rate is 0.0075 mg a.i./seed at a non-adjusted rate of 0.14 fl. oz./100 lbs. of seed, use: 2,800 ÷ 3,000) x 0.14 = 0.13 fl. oz./100 lbs. of seed.

DRY BEANS, SNAP BEANS

For use on DRY BEAN and SNAP BEAN seeds against seedling blight (soilborne *Fusarium* spp. and *Rhizoctonia* spp.) and seed decay (including *Phomopsis* spp. and *Fusarium* spp.), use 0.14 - 0.28 fl. oz. product (0.005 - 0.01 lb. a.i.) per 100 lbs. of seed.

WHEAT

For use on WHEAT seeds against seedling blight (soilborne *Fusarium* spp. and *Rhizoctonia* spp.) and seed decay (including *Fusarium* spp.), use 0.14 - 0.28 fl. oz. product (0.005 - 0.010 lb. a.i.) per 100 lbs. of seed.

POTATO SEED PIECE TREATMENT

For use on cut POTATO SEED PIECES for suppression of diseases caused by Silver Scurf (*Helminthosporium solani*), Black Scurf and Stem Canker (*Rhizoctonia solani*) and dry rot (*Fusarium* spp.), use 0.5 - 0.7 fl. oz. product (0.018 - 0.025 lb. a.i.) per 100 lbs. of seed pieces. For adequate control, cut seed pieces must be completely covered with solution. Before cutting and planting seed pieces, make certain

that all equipment is completely cleaned and sanitized (including tables, trays, knives, cutting machines, barrels, planters, trucks, and any other equipment).

This product will not protect against systemic seed piece diseases, or airborne inoculum, and if used alone (not in combination with another fungicide), will not deliver consistent efficacy. Use of this product in combination with another fungicide having efficacy against listed diseases that arise from exterior infestations of seed pieces can enhance and provide more consistent performance. Additionally, follow application with a treatment that absorbs liquids from the seed pieces. For application questions regarding control of Silver Scurf in your area, consult a seed treatment or local extension specialist.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store this product in a cool, dry place in its original container only. **DO NOT** store this product near fertilizers, seeds, or other pesticides. If this product is spilled, sweep up the spillage and dispose pursuant to the below Pesticide Disposal instructions.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:
[Less Than or Equal to 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.]

[Greater Than 5 Gallons] [Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. 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 two minutes. Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times.

[Greater Than 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.]

[For Bulk and Mini-Bulk Containers] [Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.]

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CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To

the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

[All trademarks are the property of their respective owners.]

[OPTIONAL MARKETING LANGUAGE]

1	[www.shardausa.com] [ ]
2	[Handle with Care]
3	[This side Up]
4	{The below graphic to be added to box if formulated in the United States} Proudly Formulated & Packaged In The U.S.A. [ ]