GROUP 4A INSECTICIDE

GROUP 3 4 7 12 FUNGICIDES



## **Cereals**

## A seed treatment product for protection against damage from certain insects and diseases of small grain cereals.

Active Ingredient:	
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Thiamethoxam <sup>1</sup> :	 5.75%
Difenoconazole <sup>2</sup> :	 3.45%
Mefenoxam <sup>3</sup> :	 0.86%
Fludioxonil <sup>4</sup> :	0.72%
Sedaxane <sup>5</sup>	 
Other Ingredients:	 87.78%
Total:	 

<sup>1</sup>CAS No. 153719-23-4 <sup>2</sup>CAS No. 119446-68-3

<sup>3</sup>CAS Nos. 70630-17-0 and 69516-34-3

<sup>4</sup>CAS No. 131341-86-1 <sup>5</sup>CAS No. 874967-67-6

Seed Shield Cereals contains 0.51 lbs. thiamethoxam; 0.31 lbs. difenoconazole; 0.08 lbs. mefenoxam; 0.06 lbs. fludioxonil and 0.13 lbs. sedaxane per gallon.

# KEEP OUT OF REACH OF CHILDREN. CAUTION

See additional precautionary statements and directions for use in booklet.

SCPSR-HEL-1527B-L2 0514 4052274 AD 052914

NET CONTENTS: 15 gallons

EPA Reg. No. 100-1527-5905 EPA Est. No. 100-NE-001

**Manufactured For** 

## **HELENA CHEMICAL COMPANY**

225 SCHILLING BLVD., SUITE 300 • COLLIERVILLE, TENNESSEE 38017

7298-12328 05-13-15 SCP 01-02 (06-03-15) Seed Shield Cereals – 15 gal. booklet/base – Mech/FPL SCP 7298... AGI: 107035

Print size – Booklet: 5.75" wide x 6.75" high Base: 6.75" wide x 6.75" high

4/Color Process No. of pages – 16

#### **FIRST AID**

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

#### **HOT LINE NUMBER**

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),

Call

1-800-424-9300

#### PRECAUTIONARY STATEMENTS

#### Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Shoes plus socks
- Chemical-resistant gloves made of any waterproof material (e.g., polyvinyl chloride [PVC], nitrile rubber or butyl rubber, barrier laminate, neoprene rubber, natural rubber, polyethylene, or Viton<sup>®</sup>)

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

#### **Engineering Control Statements**

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

#### Users should:

- · Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- · Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as
  possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

This product is toxic to wildlife, freshwater and estuarine/marine fish and highly toxic to aquatic invertebrates. Runoff may be hazardous to aquatic organisms in neighboring areas. Exposed treated seed may be hazardous to wildlife. Do not contaminate water when disposing of equipment washwater or rinsate.

#### **Pollinator Precautions**

Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.

If treated seed is spilled outdoors or in areas accessible to birds, promptly clean up or bury to prevent ingestion.

#### **Ground Water Advisory**

Mefenoxam is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.

#### 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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Helena Chemical Company or Seller. To the extent permitted by applicable law, Buyer and User agree to hold HELENA CHEMICAL COMPANY and Seller harmless for any claims relating to such factors.

HELENA CHEMICAL COMPANY 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or HELENA CHEMICAL COMPANY, and (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, HELENA CHEMICAL COMPANY MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall HELENA CHEMICAL COMPANY be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF HELENA CHEMICAL COMPANY 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 HELENA CHEMICAL COMPANY OR SELLER, THE REPLACEMENT OF THE PRODUCT.

HELENA CHEMICAL COMPANY 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 HELENA CHEMICAL COMPANY.

## **DIRECTIONS FOR USE**

For commercial or on-farm 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.

## FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Helena Chemical Company, no claims are made to guarantee the germination of carry-over treated seed.

#### 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), notifications to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours. Exception: If the seed is treated with the product and 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, such as plants, soil, or water is:

- Coveralls
- · Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

#### **USE RESTRICTIONS**

- Do not use for feed, food, or oil purposes.
- · Store away from feeds and foodstuffs.
- Wear long-sleeved shirt, long pants and chemical resistant gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Do not allow children, pets, or livestock to have access to treated seed.
- Dispose of all excess treated seed. Leftover treated seed may be doublesown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate water bodies when disposing of planting equipment wash waters.
- Dispose of seed packaging in accordance with local requirements.
- Treated seed must be planted into the soil at a depth greater than 0.5 inch.
- For seed treated with Seed Shield Cereals, do not graze or feed livestock on treated areas for 45 days after planting.
- In the event of a crop failure or harvest of a crop grown from Seed Shield Cereals treated seed, the field may be replanted immediately to canola, soybean, barley, oat, rye, triticale and wheat, sweet corn, and chickpea.
- Alfalfa, Brassica (cole) leafy vegetables, buckwheat, corn (except sweet corn), pearl millet, proso millet, popcorn, rice (dry-seeded), sorghum, teosinte, wild rice, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables (except chickpea), mint (peppermint and spearmint), oil seed crops (black mustard seed, borage seed, crambe seed, field mustard seed, flatian mustard seed, Indian rapeseed seed, peanuts, rapeseed seed, and safflower seed), root vegetables, strawberry, sunflowers, tobacco, and tuberous and corm vegetables may be planted 30 days from the date the Seed Shield Cereals treated seed was planted.
- For any other crop, the minimum plant back interval is 120 days from the date the Seed Shield Cereals treated seed
  was planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement
  may be planted sooner than the 120 day interval; however, the crop may not be grazed or harvested for food or feed.
- Do not make any soil or foliar application of products containing thiamethoxam to crops grown from seed treated with Seed Shield Cereals.
- Do not use at a rate that will result in more than 0.05 lb thiamethoxam per acre (22.7 grams ai/A) per year as a seed treatment application.
- Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in the ethanol by- products that are used in agronomic practice.

#### PRODUCT INFORMATION

Seed Shield Cereals is a seed treatment product containing one insecticide active ingredient (thiamethoxam) and four fungicide active ingredients (difenoconazole, mefenoxam, fludioxonil and sedaxane). Seed Shield Cereals seed treatment protects against damage from certain early-season insects and certain seed- and soil-borne diseases of cereal crops. Difenoconazole provides protection against several seed, seedling and certain foliar disease including bunts and smuts. Mefenoxam protects against damping-off caused by *Pythium*. Fludioxonil provides protection against certain soil-borne and seed-borne diseases and is active against *Fusarium*, *Rhizoctonia*, and weakly pathogenic fungi such as *Aspergillus* and *Penicillium*. Sedaxane protects against *Rhizoctonia* and *loose smuts* (*Ustilago*).

Thiamethoxam is a systemic seed treatment insecticide belonging to the neoticotinoid class of chemistry. Thiamethoxam in Seed Shield Cereals protects against aphids, wireworm and European chafer.

Seed Shield Cereals may be applied in tank mixes, or sequentially with other EPA-registered seed treatment pesticide products. If using Seed Shield Cereals in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix partner label(s). Do not exceed any label dosage and follow the most restrictive label precautions and limitations. This product must not be mixed with any product which prohibits such mixing.

#### MIXING INSTRUCTIONS

Important: Always re-circulate Seed Shield Cereals thoroughly before using.

Apply Seed Shield Cereals as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of insect and disease control.

Consult the manufacturer of the application equipment you plan to employ for suitability for this application and for instructions on operation and calibration of the equipment. Follow the manufacturer application instructions for the seed treatment equipment being used.

Continuous agitation or mixing of the slurry mixture is necessary to prevent settling out of the solution.

Allow seed to dry before bagging.

Follow planter manufacturer specifications for use of talc or other hopper box additives at planting. Seed must be completely dry before adding to planter.

Seed Shield Cereals contains an EPA approved dye/colorant that imparts an unnatural color to the seed as required by the Federal Seed Act.

#### SEED BAG LABEL REQUIREMENTS

The Federal Seed Act requires that bags containing treated seeds shall be labeled with the following statements:

- This seed has been treated with difenoconazole, mefenoxam, fludioxonil and sedaxane fungicides and thiamethoxam insecticide.
- · Do not use for feed, food, or oil purposes.
- User is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seeds treated with Seed Shield Cereals:

Pollinator Precaution:

Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.

· Ground Water Advisory:

Mefenoxam is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.

- · Store away from feeds and foodstuffs.
- Wear long-sleeved shirt, long pants and chemical resistant gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Do not allow children, pets, or livestock to have access to treated seed.
- Dispose of all excess treated seed. Leftover treated seed may be doublesown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate water bodies when disposing of planting equipment wash waters.
- Dispose of seed packaging in accordance with local requirements.
- Treated seed must be planted into the soil at a depth greater than 0.5 inch.
- For seed treated with Seed Shield Cereals, do not graze or feed livestock on treated areas for 45 days after planting.
- In the event of a crop failure or harvest of a crop grown from Seed Shield Cereals treated seed, the field may be replanted immediately to canola, soybean, barley, oat, rye, triticale and wheat, sweet corn, and chickpea.
- Alfalfa, Brassica (cole) leafy vegetables, buckwheat, corn (except sweet corn), pearl millet, proso millet, popcorn, rice (dry-seeded), sorghum, teosinte, wild rice, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables (except chickpea), mint (peppermint and spearmint), oil seed crops (black mustard seed, borage seed, crambe seed, field mustard seed, Indian mustard seed, Indian rapeseed seed, peanuts, rapeseed seed, and safflower seed), root vegetables, strawberry, sunflowers, tobacco, and tuberous and corm vegetables may be planted 30 days from the date the Seed Shield Cereals treated seed was planted.
- For any other crop, the minimum plant back interval is 120 days from the date the Seed Shield Cereals treated seed
  was planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement
  may be planted sooner than the 120 day interval; however, the crop may not be grazed or harvested for food or
  feed.
- Do not make any soil or foliar application of products containing thiamethoxam to crops grown from seed treated with Seed Shield Cereals.
- Do not use at a rate that will result in more than 0.05 lb thiamethoxam per acre (22.7 grams ai/A) per year as a seed treatment application.
- This seed has been treated with 0.008 mg ai thiamethoxam per seed assuming an average seed size of 12,000 seeds per pound.
- Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in the ethanol by- products that are used in agronomic practice.

#### **CROP USE PRECAUTIONS**

#### **Resistance Management**

Seed Shield Cereals contains sedaxane, a Group 7 fungicide, thiamethoxam, a Group 4A insecticide; mefenoxam, a Group 4 fungicide, fludioxonil, a Group 12 fungicide and difenoconazole, a Group 3 fungicide.

Some disease organisms and insect pests are known to develop resistance to products after repeated use. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area. Helena Chemical Company encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

Mefenoxam, difenconazole, sedaxane and fludioxonil have specific modes of action and could be subject to development of insensitive strains of fungi. Development of insensitivity cannot be predicted. Therefore, Helena Chemical Company cannot assume liability for crop damage resulting from insensitive strains of fungi. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible mefenoxam insensitive strains of fungi which may occur.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

Seed Shield Cereals contains a Group 4A insecticide (thiamethoxam, belonging to the neonicotinoid class of chemistry). Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by thiamethoxam or other Group 4A insecticides.

#### In order to maintain susceptibility to this class of chemistry:

- Avoid using Group 4A insecticides exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, apply Seed Shield Cereals or other Group 4A insecticides using a "treatment window" approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (seed treatment, soil, foliar, unless otherwise stated in the Directions for Use) of the Group 4A insecticides. When using Seed Shield Cereals seed treatment in the first treatment window rotate to effective products with a different mode of action in the subsequent treatment window before making additional applications of Group 4A insecticides.
- A treatment window rotation, along with other IPM practices for the crop and use area, is considered an effective strategy for preventing or delaying a pest's ability to develop resistance to this class of chemistry.
- If resistance is suspected, do not reapply Seed Shield Cereals or any other Group 4A insecticides.

#### Other Insect Resistance Management (IRM) practices include:

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.
- Using tank-mixtures or premixes with insecticides from a different target site of action group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

#### For additional information on Insect Resistance Management:

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: http://www.irac-online.org/.

Consult your local pest control advisor or extension office for additional methods for preventing resistance development. Helena Chemical Company encourages responsible product stewardship to ensure effective long term control of the fungal and insect pests on this label.

## **CROP USE DIRECTIONS**

Crop	Protection Against the following Insects	Use Rate Fluid Ounces per 100 lb seed
Barley	Aphids <sup>1</sup> European Chafer Wireworms <sup>1</sup>	5 fluid oz
Crop	Protection Against the Following Diseases	Use Rate Fluid Ounces per 100 lb seed
Barley	General Seed Rots <sup>2</sup> Seedling Blight, Root Rot, and Damping-Off caused by seed- and soil-borne <i>Fusarium</i> or <i>Rhizoctonia</i> Seedling Blight, Root Rot, and Damping-Off caused by soil-borne <i>Pythium</i> Seed-borne <i>Septoria</i> Covered Smut False Loose Smut True Loose Smut	5 fluid oz
Crop	Diseases Suppressed <sup>3</sup>	Use Rate Fluid Ounces per 100 lb seed
Barley	Common Root Rot (Cochliobolus) Fusarium Crown and Foot Rot Take-All	5 fluid oz
Crop	Protection Against the following Insects	Use Rate Fluid Ounces per 100 lb seed
Oats	Aphids <sup>1</sup> European Chafer Wireworms <sup>1</sup>	5 fluid oz
Crop	Protection Against the Following Diseases	Use Rate Fluid Ounces per 100 lb seed
Oats	General Seed Rots <sup>2</sup> Seedling Blight, Root Rot, and Damping-Off caused by seed- and soil-borne <i>Fusarium</i> or <i>Rhizoctonia</i> Seedling Blight, Root Rot, and Damping-Off caused by soil-borne <i>Pythium</i> Seed-borne <i>Septoria</i> Covered Smut Loose Smut	5 fluid oz

Crop	Diseases Suppressed <sup>3</sup>	Use Rate Fluid Ounces per 100 lb seed
Oats	Common Root Rot (Cochliobolus)	5 fluid oz
Crop	Protection Against the following Insects	Use Rate Fluid Ounces per 100 lb seed
Rye	Aphids <sup>1</sup> European Chafer Wireworms <sup>1</sup>	5 fluid oz
Crop	Protection Against the Following Diseases	Use Rate Fluid Ounces per 100 lb seed
Rye	General Seed Rots <sup>2</sup> Seedling Blight, Root Rot, and Damping-Off caused by seed- and soil-borne <i>Fusarium</i> or <i>Rhizoctonia</i> Seedling Blight, Root Rot, and Damping-Off caused by soil-borne <i>Pythium</i> Seed-borne <i>Septoria</i> Common Bunt <sup>4</sup> Dwarf Bunt <sup>4</sup>	5 fluid oz
Crop	Diseases Suppressed <sup>3</sup>	Use Rate Fluid Ounces per 100 lb seed
Rye	Common Root Rot (Cochliobolus) Fusarium Crown and Foot Rot Take-All	5 fluid oz
Crop	Protection Against the following Insects	Use Rate Fluid Ounces per 100 lb seed
Winter Wheat	Aphids <sup>1</sup> European Chafer Wireworms <sup>1</sup>	5 fluid oz

Crop	Protection Against the Following Diseases	Use Rate Fluid Ounces per 100 lb seed
Winter Wheat and Triticale	General Seed Rots <sup>2</sup> Seedling Blight, Root Rot, and Damping-Off caused by seed- and soil-borne Fusarium or Rhizoctonia Seedling Blight, Root Rot, and Damping-Off caused by soil-borne Pythium Seed-borne Septoria Septoria Leaf Blotch <sup>5</sup> Common Bunt <sup>4</sup> Flag Smut Fusarium Seed Scab Dwarf Bunt <sup>4</sup> Karnal Bunt Loose Smut Pythium Damping Off	5 fluid oz
Crop	Diseases Supressed <sup>3</sup>	Use Rate Fluid Ounces per 100 lb seed
Winter Wheat and Triticale	Common Root Rot (Cochliobolus) Fusarium Crown and Foot and Root Rot Take-All	5 fluid oz
Crop	Protection Against the following Insects	Use Rate Fluid Ounces per 100 lb seed
Spring Wheat	Aphids <sup>1</sup> European Chafer Wireworms <sup>1</sup>	5 fluid oz
Crop	Protection Against the Following Diseases	Use Rate Fluid Ounces per 100 lb seed
Spring Wheat	General Seed Rots <sup>2</sup> Seedling Blight, Root Rot, and Damping-Off caused by seed- and soil-borne Fusarium or Rhizoctonia Seedling Blight, Root Rot, and Damping-Off caused by soil-borne Pythium Seed-borne Septoria Fusarium Seed Scab Common Bunt <sup>4</sup> Karnal Bunt Loose Smut Pythium Damping Off	5 fluid oz

Crop	Diseases Supressed <sup>3</sup>	Use Rate Fluid Ounces per 100 lb seed
Spring Wheat	Common Root Rot (Cochliobolus ) Fusarium Crown and Foot and Root Rot Take-All	5 fluid oz

<sup>&</sup>lt;sup>1</sup>The 5 fluid oz/100 lbs rate of Seed Shield Cereals provides suppression of wireworm activity, aphids and aphid vectored barley yellow dwarf virus. If pressure is moderate or high or control is required, apply up to 0.8 fl. oz. additional Cruiser 5FS.

## **Storage and Disposal**

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

#### **Pesticide Storage**

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

#### **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 disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### Container Handling [less than 5 gallons]

Non-refillable 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 <sup>1</sup>/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow beings to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities

#### Container Handling [greater than 5 gallons]

Non-refillable 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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several ties. 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. 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.

<sup>&</sup>lt;sup>2</sup>Protection against general seed rots. This includes rots caused by *Fusarium*, *Pythium*, *Rhizoctonia*, *Penicillium* and *Aspergillus*.

<sup>&</sup>lt;sup>3</sup>Suppression means consistent protection at a level which is not optimal but is still of commercial benefit.

<sup>&</sup>lt;sup>4</sup>Protects against both seed- and soil-borne bunts (common, dwarf).

<sup>&</sup>lt;sup>5</sup>Early season foliar disease protection for first 4 weeks after planting. For full season protection, apply a foliar fungicide according to label directions.

## Storage and Disposal (continued)

#### Container Handling [greater than 5 gallons]

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 refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent 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.

Seed Shield® is a Trademark of Helena Chemical Company. Viton® trademark of E. I. du Pont de Nemours and Company ©2015

Manufactured for: Helena Chemical Company 225 Schilling Blvd., Suite 300 Collierville, TN 38017

SCPSR-HEL-1527B-L2 0514 4052274 AD 052914

GROUP 3 4 7 12 FUNGICIDES



#### A seed treatment product for protection against damage from certain insects and diseases of small grain cereals.

Active Ingredient:

Thiamethoxam <sup>1</sup> :	5.75%
Difenoconazole <sup>2</sup> :	3.45%
Mefenoxam <sup>3</sup> :	0.86%
Fludioxonil <sup>4</sup> :	0.72%
Sedaxane <sup>5</sup> :	1.44%
Other Ingredients:	87.78%
Total:	100 00%

<sup>1</sup>CAS No. 153719-23-4 2CAS No. 119446-68-3

3CAS Nos. 70630-17-0 and 69516-34-3

<sup>4</sup>CAS No. 131341-86-1 5CAS No. 874967-67-6

Seed Shield Cereals contains 0.51 lbs. thiamethoxam; 0.31 lbs. difenoconazole; 0.08 lbs. mefenoxam; 0.06 lbs. fludioxonil and 0.13 lbs. sedaxane per gallon.

See additional precautionary statements and directions for use in booklet.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170, Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

#### PRECAUTIONARY STATEMENTS

Environmental Hazards: This product is toxic to wildlife, freshwater and estuarine/ marine fish and highly toxic to aquatic invertebrates. Runoff may be hazardous to aquatic organisms in neighboring areas. Exposed treated seed may be hazardous to wildlife. Do not contaminate water when disposing of equipment washwater or rinsate.

Pollinator Precautions: Contains thiamethoxam which is highly toxic to bees exposed directly to dust from treated seed.

If treated seed is spilled outdoors or in areas accessible to birds, promptly clean up or bury to prevent ingestion.

Ground Water Advisory: Mefenoxam is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.

NET CONTENTS: 15 gallons

## **KEEP OUT OF REACH OF CHILDREN. CAUTION**

#### **FIRST AID**

Have the product container with you when calling a poison control center or doctor, or going

#### HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),

1-800-424-9300

### STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used

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 disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling (less than 5 gallons): Non-refillable 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow beings to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Container Handling [greater than 5 gallons]: Non-refillable 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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds, Stand the container on its end and tip it back and forth several ties. 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. 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 Handling [greater than 5 gallons]: 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 refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent 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.

SCPSR-HEL-1527B-L2 0514 4052274 AD 052914

EPA Reg. No. 100-1527-5905 EPA Est. No. 100-NE-001

**Manufactured For** 

## **HELENA CHEMICAL COMPANY**

225 SCHILLING BLVD., SUITE 300 • COLLIERVILLE, TENNESSEE 38017