# **WARDEN® CEREALS HR**

# SEED PROTECTANT

Active Ingredients: (% by weight)	
ipconazole (CAS No. 125225-28-7)	0.421%*
metalaxyl (CAS No. 57837-19-1)	0.562%**
imidacloprid (CAS No. 138261-41-3)	14.100%***
Other Ingredients:	<u>84.917%</u>
Total:	100.000%

<sup>\*</sup>Contains 0.0384 pounds ipconazole per gallon, or 4.60 grams per liter.

# KEEP OUT OF REACH OF CHILDREN CAUTION

# **FIRST AID**

#### 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.

**NOTE TO PHYSICIAN:** No specific antidote is available. Treat the patient symptomatically.

**EMERGENCY ASSISTANCE**: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

MEDICAL EMERGENCY 800-292-5898 TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300 PRODUCT SAFETY DATA (MSDS) 866-430-2775

For PRODUCT USE INFORMATION: Call 800-243-2850

EPA REG. NO. 400-574-1381

EPA EST. NO.

Net Contents:

Distributed By: Winfield Solutions, LLC P.O. Box 64589 St. Paul, MN 55164-0589

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<sup>\*\*</sup>Contains 0.0513 pounds metalaxyl per gallon, or 6.15 grams per liter.

<sup>\*\*\*</sup>Contains 1.286 pounds imidacloprid per gallon, or 154 grams per liter.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

**Applicators and Other Handlers Must Wear:** Long-sleeved shirt and long pants; chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC) or Viton); and shoes plus socks.

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)], the handler PPE may be reduced or modified as specified in the WPS. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and out 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 **highly toxic to birds and aquatic invertebrates.** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or incorporate spilled treated seeds. Do not contaminate water when disposing of equipment washwater or rinsate or by disposal of wastes.

Groundwater Advisory: Metalaxyl is known to leach through soil into groundwater 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 groundwater contamination.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional office of the EPA.

This compound is highly toxic to bees exposed directly (contact). Ensure that planting equipment is functioning properly in accordance with manufacturing recommendations to minimize seed coat abrasion during planting to reduce dust which can drift to blooming crops or weeds.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all label directions carefully before use.

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

### **Agricultural Use Requirements**

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

After seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted entry interval (REI) of 24 hours.** 

Exception: Once the seeds are planted in soil, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area without restriction if there will be no worker contact with treated seed

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 such as barrier laminate, butyl rubber, nitrile rubber, or Viton; shoes plus socks and protective eyewear.

# **USE INFORMATION**

WARDEN® CEREALS HR Seed Protectant is a systemic and contact broad-spectrum fungicide plus systemic insecticide for seed treatment that protects against a wide variety of listed diseases and insects. WARDEN® CEREALS HR is effective against the diseases *Fusarium*, *Cochliobolus sativus*, *Pythium*, smuts, bunt and leaf stripe. It is also effective against seed rot fungi such as *Aspergillus* and *Penicillium*.

WARDEN® CEREALS HR provides early season protection of seedlings against injury by aphids (including bird cherry-oat, English grain, greenbug, and Russian wheat aphid). This product suppresses early season Hessian fly damage, provides suppression of wireworm activity on seed and young seedlings, and provides early season protection from grasshopper damage. WARDEN® CEREALS HR also provides early season protection to seedlings from damage caused by white grubs (including northern masked chafer, European chafer and Japanese beetle).

Do not use WARDEN® CEREALS HR in combination with other seed treatment products unless compatibility has been verified. Read and follow carefully all label directions of each combination product. When using combinations of products, the most restrictive of label limitations and precautions must be followed.

#### SEED TREATMENT EQUIPMENT

WARDEN® CEREALS HR is formulated both for commercial and for on-farm application. DO NOT apply this product as a planter box or hopper box treatment. Apply WARDEN® CEREALS HR with mechanical, slurry, or mist-type seed treating equipment, provided that the equipment can be calibrated to accurately and uniformly apply the product to seed. Uniform application to seed is necessary to ensure best disease and insect protection and optimum performance. For best activity of this product, seed must be sound and well-cured before treatment. Refer to the APPLICATION INSTRUCTIONS below for label rates.

In most cases, WARDEN® CEREALS HR is ready to use and may be applied to seed as is; however, dilution with water may be appropriate for some types of treaters and/or when treating under dry and/or hot conditions, to achieve more uniform product to seed coverage. Mix WARDEN® CEREALS HR and water thoroughly into a slurry prior to treating seed. Recalibrate treating equipment to compensate for the addition of water. The amount of dilution water that is most suitable depends on the seed, treater type and temperature. Contact your local Winfield Solutions, LLC representative or supplier for specific recommendations.

# ALWAYS SHAKE OR STIR PRODUCT WELL BEFORE USE APPLICATION INSTRUCTIONS

# **DISEASE CONTROL:**

Crop	WARDEN® CEREALS HR Rate per 100 lbs. of seed	Symptoms Controlled (Disease organism)	Symptoms Suppressed (Disease organism)	Insect Protection
Wheat (Spring and Winter)	5.0 to 8.33 fl.oz.  To deliver 0.0187- 0.0312 mg.ai per seed, apply 0.385 – 0.641 fl. oz. of product per 100,000 seeds (Based on average of 13,000 seeds per lb.)	General seed rots (including those caused by <i>Penicillium</i> and <i>Aspergillus</i> )  Seed rot, damping off and seedling blight (seed- and soilborne <i>Fusarium</i> , <i>Pythium</i> and <i>Cochliobolus sativus</i> )  Loose Smut ( <i>Ustilago tritici</i> )  Common Bunt ( <i>Tilletia caries</i> , <i>T. foetida</i> )  Early Season Root Rot ( <i>Rhizoctonia</i> )	Common root rot (Cochliobolus sativus) Crown and Foot Rot (Fusarium)	Provides early season protection of seedlings against injury by aphids (including bird cherry-oat, English grain, greenbug, and Russian wheat aphid).  Suppresses early season Hessian fly damage.  Provides suppression of wireworm activity on seed and young seedlings.  Also provides early season protection to seedlings from damage caused by white grubs (including northern masked chafer, European chafer and Japanese beetle).  To help minimize early season damage from grasshoppers — Plant treated seed as 50 — 60 foot borders around the perimeter of the field. Use the higher rate to increase time of protection and/or when insect pressure is heavy. Consult your local agricultural extension service for grasshopper control information specific to your area.
Barley	5.0 to 8.33 fl.oz.  To deliver 0.0187- 0.0312 mg.ai per seed, apply 0.385 – 0.641 fl. oz. of product per 100,000 seeds (Based on average of 13,000 seeds per lb.)	General seed rots (including those caused by <i>Penicillium</i> and <i>Aspergillus</i> ) Seed rot, damping off and seedling blight (seed- and soilborne <i>Fusarium</i> , <i>Pythium</i> and <i>Cochliobolus sativus</i> ) True Loose Smut ( <i>Ustilago nuda</i> ) Covered Smut ( <i>U. hordei</i> ) False Loose Smut ( <i>U. nigra</i> ) Early Season Root Rot ( <i>Rhizoctonia</i> )	Common root rot (Cochliobolus sativus) Crown and Foot Rot (Fusarium) Leaf Stripe (Pyrenophora graminea)	
Oats	5.0 to 8.33 fl.oz. To deliver 0.0187- 0.0312 mg.ai per seed, apply 0.385 – 0.641 fl. oz. of product per 100,000 seeds (Based on average of 13,000 seeds per lb.)	General seed rots (including those caused by <i>Penicillium</i> and <i>Aspergillus</i> ) Seed rot, damping off and seedling blight (seed- and soilborne <i>Fusarium, Pythium</i> and <i>Cochliobolus sativus</i> ) Loose Smut ( <i>Ustilago avenae</i> ) Covered Smut ( <i>Ustilago kolleri</i> )	Common root rot (Cochliobolus sativus) Crown and Foot Rot (Fusarium)	
Rye, Triticale	5.0 to 8.33 fl.oz.  To deliver 0.0187- 0.0312 mg.ai per seed, apply 0.385 – 0.641 fl. oz. of product per 100,000 seeds (Based on average of 13,000 seeds per lb.)	General seed rots (including those caused by <i>Penicillium</i> and <i>Aspergillus</i> ) Seed rot, damping off and seedling blight (seed- and soilborne <i>Fusarium</i> , <i>Pythium</i> and <i>Cochliobolus sativus</i> )	Root rot	

Use the higher listed rate when pressure is expected to be high, or when there is a history of high disease levels in the field.

#### **INSECT CONTROL:**

At the application rates shown in the Disease Control table, WARDEN® CEREALS HR Seed Protectant provides early season protection of seedlings against injury by aphids (including bird cherry-oat, English grain, greenbug, and Russian wheat aphid). This product also suppresses early season Hessian fly damage, and provides suppression of wireworm activity on seed and young seedlings.

WARDEN® CEREALS HR also provides early season protection to seedlings from damage caused by white grubs (including northern masked chafer, European chafer and Japanese beetle).

WARDEN® CEREALS HR provides early season protection from grasshopper damage. To reduce early season damage caused by grasshoppers, WARDEN® CEREALS HR treated seed may be planted as a 50 to 60 foot border around the edges of the field. Consult your local university extension entomologist for details regarding grasshopper control in your area.

Use the higher listed rate when heavy pressure from insects is expected, to increase length of protection, and to reduce the potential spread of barley yellow dwarf virus by aphid vectors.

#### **USE RESTRICTIONS**

Do not use treated seed for food, feed or oil purposes.

Care must be exercised in the handling of treated seed. Augers used for handling treated seed must not be used to move seed for feed, food or oil processing.

Do not re-use bags from treated seed to handle food or feed products.

Wheat, Barley, Oats, Rye, Triticale: Do not graze or feed livestock on treated areas for 45 days after planting.

## **SEED BAG LABELING REQUIREMENTS**

Seed commercially treated with this product must be labeled in accordance with all applicable requirements of the Federal Seed Act. The user of this product is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

NOTIFICATION of the crop rotational restriction must be conveyed to the grower by appropriate seed tag labeling of bag printing on all seed units.

NOTE: If not already dyed, the purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals. Refer to 21 CFR, Part 2.25. Any dye or colorant added to treated seed must be cleared for use under 40 CFR, Part 153.155(a).

Federal regulations have established official tolerances for certain pesticide residues. In order that residues on food and forage crops will not exceed established tolerances, use only at specified rates.

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

- This seed has been treated with Warden Cereals HR which contains imidacloprid, ipconazole and metalaxyl.
- DO NOT use treated seed for feed, food or oil purposes.

# In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seed treated with Warden Cereals HR:

- Pollinator Precautions: Imidacloprid is highly toxic to bees. Ensure that planting equipment is functioning
  properly in accordance with manufacturer specifications to minimize seed coat brasion during planting to
  reduce dust which can drift to blooming crops or weeds.
- Store away from feeds and foodstuffs.
- Wear long sleeved shirt, long pants, and chemical resistant gloves when handling treated seed.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Exposed treated seed may be hazardous to birds. Cover or incorporate spilled treated seeds. Excess or leftover seed may be double sown around the headland or buried away from bodies of water in accordance with local requirements.
- Dispose of seed packaging in accordance with local requirements.
- DO NOT contaminate water bodies when disposing of planting equipment washwater.
- DO NOT allow children, pets or livestock to have access to treated seed.
- In the event of a crop failure or harvest of a crop grown from Warden Cereals HR treated seed, the field may be:
  - Replanted immediately to barley, brassica (cole) leafy vegetables, canola, corn (field or sweet), cotton, cucurbits, leafy vegetables, legume vegetables (succulent or dried), mustard seed, oats, popcorn, potato, rapeseed, rye, safflower, sorghum, soybeans, sugarbeet, triticale, root and tuber

- vegetables, and wheat
- For buckwheat and millet the minimum plant bank interval is 30 days from the date Warden Cereals HR treated seed was planted.
- Cover crops for soil building or erosion control may be planted at any time but do not graze or harvest for food or feed. Exception: Wheat, Barley, Oats, Rye, and Triticale treated areas may be grazed on or feed to livestock 45 days after planting.
- For all other crops not listed on an imidacloprid label or for crops for which no tolerance for the active ingredient has been established a 12 month plant back interval must be observed.
- The maximum application rate (including seed treatment foliar application and soil application) per acre per year for imidacloprid is 0.5 lb.
- This seed has been treated with\_\_\_\_lbs imidacloprid per\_\_\_\_lbs of seed [ or\_\_\_\_mg imidacloprid per seed].
- 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 pesticides remain in the ethanol by products that are used in agronomic practice.

#### **ROTATIONAL PLANT-BACK INTERVALS**

Treated areas may be replanted with any crop specified on this product label, or any crop for which a tolerance exists for the active ingredients, as soon as practical following the last application. The following plant-back intervals must be observed for listed crops:

**Immediate Plant Back:** Barley; Brassica (cole) leafy vegetables; Canola; Corn, Sweet; Corn, Field; Cotton; Cucurbits; Leafy vegetables; Legume vegetables (succulent or dried); Mustard Seed; Oats; Popcorn; Potato; Rapeseed; Root and Tuber Vegetables; Rye; Safflower; Sorghum; Soybeans; Sugarbeet; Triticale; Wheat

30-Day Plant-Back: Buckwheat, Millet

**12-Month Plant Back:** For all other crops not listed on this product label, or for crops for which no tolerance for the active ingredients in this product has been established, a 12-month plant-back interval must be observed.

Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

**Exception:** Wheat, Barley, Oats, Rye, and Triticale treated areas may be grazed on or feed to livestock 45 days after planting.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container only. After partial use, replace lid and close tightly. Store in a secure place that is temperate, dry and out of direct sunlight. Avoid excess heat. Do not freeze. ALWAYS SHAKE OR STIR WELL BEFORE USE.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Cover or incorporate spilled treated seeds.

**EQUIPMENT CLEANING:** Following applications, all seed treatment equipment should be thoroughly rinsed with water. Do not contaminate water by disposal of equipment washwater or rinsate.

#### **CONTAINER DISPOSAL: Nonrefillable container**

**Plastic Containers:** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Then offer container for recycling if available, reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Triple rinse** as follows: For containers with capacity equal to or less than 5 gallons: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Add water - at least 2% of the container volume, and up to 1/3 of the volume of water needed to make the proper slurry composition, with a maximum of 1/4 of the container volume - and recap. Shake for 30 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. If used in application equipment, adjust the slurry volume application rate to account for any added rinsate water.

For containers with capacities greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Add water - at least 2% of the container volume, and up to 1/3 of the volume of water needed to make the proper slurry composition, with a maximum of 1/4 of the container volume. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 60 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over on 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. If used in application equipment, adjust the slurry volume application rate to account for any added rinsate water.

# 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 into application equipment or mix tank. Add water - at least 2% of the container volume, up to 1/3 of the volume of water needed to make the proper slurry composition, with a maximum of up to 1/4 of the container volume. Replace and tighten closure. Agitate vigorously or recirculate the rinsate with a pump for at least 2 minutes, ensuring that the rinsate rinses the walls of the container. Empty the rinsate into application equipment or rinsate collection system, for later use or disposal. Repeat this procedure two more times. If used in application equipment, adjust the slurry volume application rate to account for any added rinsate water.

**Recycling**: Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact the Ag Container Recycling Council (ACRC) at 1-877-952-2272 (toll free) or www.acrecycle.org.

**IMPORTANT NOTICE -** Seller warrants that this product conforms to the chemical description and is reasonable fit for the purposes stated on the label only when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product, contrary to label instructions, or under conditions not reasonably foreseeable to seller, and, to the extent consistent with applicable law, the buyer assumes the risk of any such use.

Treatment of highly mechanically 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 and conduct germination tests on a small test sample of seed before treating commercial quantities with a selected chemical treatment. Due to seed quality and seed storage conditions

beyond the control of Winfield Solutions, LLC, Winfield Solutions, LLC makes no claims or guarantees as to germination of carry-over seed.

Warden® is a registered trademark of Winfield Solutions, LLC.