

**Fluopyram** 

Group

Fungicide



# ILEVO® HL

## Seed Treatment

Seed treatment for use on soybean for the protection against damage caused by early season plant pathogenic nematodes. Soybean seed treatment provides protection from seedling infections by *Fusarium virguliforme*, the causal agent of sudden death syndrome.

#### **Active Ingredient:**

 fluopyram: N-[2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl] 57.1%

 2-(trifluoromethyl)benzamide
 57.1%

 Other Ingredients:
 42.9%

 Total:
 100.0%

 Contains 720 g fluopyram/liter or 6 lbs ai/gallon

EPA Reg. No. 7969-466

**EPA Est. No.** 

FLOWABLE SUSPENSION

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

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

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

#### **Net Contents:**

#### **FIRST AID**

#### If swallowed

- Call a poison control center or doctor immediately for treatment advice.
- DO NOT induce vomiting unless told to do so by a poison control center or doctor.
- Have person sip a glass of water if able to swallow.
- **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. You may also contact BASF Corporation for medical treatment information: 1-800-832-HELP (4357).

**NOTE TO PHYSICIAN:** Treat symptomatically.

#### **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, using tobacco, or using the toilet.

#### Personal Protective Equipment (PPE)

Workers involved with treating the seed (e.g. connecting and disconnecting hoses and transfer pumps, mixing, equipment calibration, etc.) and others exposed to the concentrate, and cleaners/repairers of seed treatment equipment must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- Waterproof gloves (such as natural rubber, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride, or viton)

#### Baggers and bag sewers must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks

#### **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.

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.

#### **Engineering Controls**

When engineering controls that meet the OSHA requirements as defined in 29 CFR Part 1910.1000 are used the respirator requirement may be waived or modified as specified in 29 CFR Part 1910.1000.

#### **Environmental Hazards**

For terrestrial uses: **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of fluopyram. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

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

Treated seed exposed on soil surface may be hazardous to wildlife. Cover or collect seed spilled during loading.

#### **Directions For Use**

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

Read the entire label and observe all label directions and precautions before use.

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage, disposal or cleaning of equipment.

#### **Pesticide Storage**

Store in original container away from feed and food. Store in cool, dry area. **DO NOT** store in direct sunlight. **DO NOT** allow prolonged storage in temperatures that exceed 86° F (30° C) or in temperatures that fall below 32° F (0° C).

#### **Pesticide Disposal**

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

#### **Container Handling**

## Dilutable Seed Treatment Products in Nonrefillable Plastic Containers

Rigid nonrefillable containers (equal to or less than 5 gallons)

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure 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 or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

(continued)

#### STORAGE AND DISPOSAL (continued)

**Container Handling** (continued)

#### Dilutable Seed Treatment Products in Nonrefillable Plastic Containers (continued) Rigid nonrefillable containers

that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)

**Nonrefillable Container. DO NOT** reuse or refill this container. After emptying product from container, either return container to BASF, or rinse and either recycle or dispose of the container as follows:

### Bottom discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

## Top discharge IBC, drums, kegs (e.g. Snyder 120 Next Gen, Bonar B120, drums, and kegs)

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

#### In Case of Spill

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

• CHEMTREC 1-800-424-9300

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

In case of medical emergency regarding this product, call:

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

#### Steps to take if material is released or spilled:

- Wear Personal Protective Equipment (PPE) and avoid exposure when managing a spill. (See **Precautionary Statements** section of this label for required PPE.)
- Dike and contain the spill with inert, absorbent material (e.g., sand, earth) and transfer liquid and solid diking material to separate containers for disposal. Small-scale spills of this product (that can be cleaned up with a typical spill kit) may be applied to labeled sites.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep spill out of all sewers and open bodies of water.

#### **Product Information**

- ILEVO® HL seed treatment when applied to the seed, aids in protecting the seed and seedling against damage caused by early season plant pathogenic nematodes in soybean.
- The use of **ILEVO HL** can protect against early season infection by *Fusarium virguliforme*, the causal agent of Sudden Death Syndrome, in soybean.
- In areas of high nematode infestation, additional control measures may be warranted.

#### **Use Restrictions**

- For use only in commercial seed treatment equipment.
- Not for use on agricultural establishments in hopper box, planter box, slurry box, or other on-farm seed treatment applications at or immediately before planting.
- DO NOT use this product except as directed on this label or on other BASF supplemental labeling for this product.
- Seeds must not be broadcast planted.
- DO NOT apply more than 0.45 lb ai/A (9.6 fl ozs product) of fluopyram per year (including seed treatment, foliar, in-furrow, or banded applications).
- Refer to the specific use directions and restrictions in the Detailed Use Directions section.
- This product does not contain colorant. 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 21CFR, Part 2.25. Any colorant added to treated seed must be cleared for use under 40CFR, Part 153.155.

## Fungicide Resistance Management (FRAC) Recommendations

For resistance management, **ILEVO HL** contains a **Group 7** fungicide. Any fungal population may contain individuals naturally resistant to **ILEVO HL** and other **Group 7** fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of ILEVO HL or other Group 7 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological, and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistancemanagement and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, contact your BASF representative, pesticide distributor, or university extension specialist.

#### **Application Instructions**

Use **ILEVO HL** in commercial seed treatment facilities with commercial or professional seed treatment application equipment only.

- Use good quality, well-conditioned seed free of chaff.
- Thorough and uniform seed coverage is required for optimum performance.
- Apply at specified rates with either seed treatment equipment that has "direct inject" or dedicated pump capabilities or in a water-based mixture using standard slurry seed treatment application equipment. Consult a seed treatment specialist about crop-specific slurry rates and seed treatment calibration and operation procedures. If applying in a water-based mixture, mix only as much product as is needed for immediate application to seed.

#### **Tank Mixing Other Products**

- ILEVO® HL seed treatment can be used in combination with other registered BASF seed treatment fungicides and insecticides. Pretest for compatibility with other seed treatment products.
- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, precautions 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.

- In a clean quart jar containing 1/2 the intended amount of water for a final slurry application rate, add the labeled rate of ILEVO HL and follow with all intended tank mix components.
- Add remaining balance of water. Total slurry volume depends on seed size and complete, uniform coverage of the seed, as well as the commercial seed treating application equipment used.
- 3. Mix well and allow to sit for one hour.
- 4. **Evaluate DO NOT** use mixtures that curdle, precipitate, or gel.

#### **Mixing Instructions**

When applied with seed treatment application equipment designed to treat seed utilizing a treatment slurry mixture:

- Add approximately 1/2 to 2/3 of the required water to the treatment slurry tank followed by the accompanying seed treatment products and ILEVO HL.
- The order of product addition depends on the accompanying seed treatment products and application equipment used.
- Allow each slurry component to disperse completely prior to the next addition until a uniform suspension is obtained.
- After all slurry components have been added and dispersed completely, add the remaining 1/2 to 1/3 of required water for proper slurry volume and mix until uniform.
- **DO NOT** store mixed slurries for greater than 72 hours.
- Maintain adequate agitation until treatment slurry is applied.
- For additional instructions for use, slurry component mixing order, and other application suggestions, contact your BASF representative.

#### **Detailed Use Directions**

#### **All Crops**

- For use only in commercial seed treatment equipment.
- Not for use in hopper box, planter box, slurry box, or other on-farm seed treatment applications.
- Apply with seed treatment equipment that has "direct inject" or dedicated pump capabilities or standard slurry-type.
- All seed treated with this product must be colored with an EPA-approved dye or colorant that imparts an unnatural color to the seed to help prevent the inadvertent use of treated seed for food, feed, or oil purposes.
- Treated seed must be labeled in accordance with the requirements of the Federal Seed Act.
- Seeds must not be broadcast planted.
- **DO NOT** apply more than 0.45 lb ai/A of fluopyram per year (including seed treatment, foliar, in-furrow, or banded applications).

#### Soybean

**Soilborne Nematodes:** lance (Hoplolaimus spp.), reniform (Rotylenchulus reniformis), root lesion (Pratylenchus spp.), southern root-knot (Meloidogyne incognita), soybean cyst (Heterodera glycines)

#### ILEVO® HL seed treatment Rate

# seeds/kg (# seeds/lb)	ml/100 kg seed (fl ozs/100 lbs seed)	<b>ml/140,000 seeds</b> <sup>1</sup> (fl ozs/140,000 seeds)	mg ai/seed <sup>1,3</sup>	<b>g/A²</b> (lb/A)
5,662	58.6 to 195.2	14.6 to 48.6	0.075 to 0.25	18.75 to 62.5
(2,550)	(0.9 to 3)	(0.49 to 1.64)		(0.04 to 0.14)

#### **Crop-specific Restrictions:**

**DO NOT** exceed 3.0 fl ozs/100 lbs seed (0.25 mg ai/seed).

**DO NOT** exceed 0.45 lb ai/A (9.6 fl ozs product) per year, including seed treatment, foliar, in-furrow or banded applications.

DO NOT graze or feed soybean forage and hay to livestock after treating with ILEVO HL.

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<sup>&</sup>lt;sup>1</sup> Rate is calculated based on number of seeds/kg average of soybean (5,662).

<sup>&</sup>lt;sup>2</sup> Based on seeding rate of 250,000 seeds/acre [(250,000 seeds/A) x (mg ai/seed) x (g/1,000 mg)]

<sup>&</sup>lt;sup>3</sup> Additional seed treatment products containing fluopyram can be applied to achieve a total of 0.15 mg fluopyram per seed to provide protection against sudden death syndrome.

#### Soybean

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**Diseases:** sudden death syndrome (SDS) caused by *Fusarium virguliforme*, early season Septoria brown spot (Septoria glycines)

**Soilborne Nematodes:** lance (Hoplolaimus spp.), reniform (Rotylenchulus reniformis), root lesion (Pratylenchus spp.), southern root-knot (Meloidogyne incognita), soybean cyst (Heterodera glycines)

#### ILEVO® HL seed treatment Rate

# seeds/kg (# seeds/lb)	ml/100 kg seed (fl ozs/100 lbs seed)	<b>ml/140,000 seeds</b> <sup>1</sup> (fl ozs/140,000 seeds)	mg ai/seed¹	<b>g/A²</b> (lb/A)
5,662	117.1 to 195.2	29.2 to 48.6	0.15 to 0.25	37.5 to 62.5
(2,550)	(1.8 to 3)	(0.99 to 1.64)		(0.08 to 0.14)

#### **Crop-specific Restrictions:**

**DO NOT** exceed 3.0 fl ozs/100 lbs seed (0.25 mg ai/seed).

**DO NOT** exceed 0.45 lb ai/A (9.6 fl ozs product) per year, including seed treatment, foliar, in-furrow or banded applications.

DO NOT graze or feed soybean forage and hay to livestock after treating with ILEVO HL.

<sup>&</sup>lt;sup>1</sup> Rate is calculated based on number of seeds/kg average of soybean (5,662).

<sup>&</sup>lt;sup>2</sup> Based on seeding rate of 250,000 seeds/acre [(250,000 seeds/A) x (mg ai/seed) x (g/1,000 mg)]

#### **SEED BAG TAG**

The Federal Seed Act requires that the container of seed treated with **ILEVO® HL seed treatment** must be labeled with the following statements:

- This seed has been treated with ILEVO® HL seed treatment, which contains 57.1% fluopyram.
- DO NOT use treated seed for food, feed, or oil purposes.

User is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

- Store treated seeds away from food and feedstuffs.
- **DO NOT** allow children, pets, or livestock to have access to treated seed.
- Wear long-sleeved shirt, long pants and chemicalresistant gloves when handling treated 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 pesticide remain in ethanol by-products that are used in agronomic practice.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Dispose of all excess treated seed. Leftover treated seed may be buried away from water sources in accordance with local requirements.
- **DO NOT** contaminate water bodies when disposing of planting equipment washwaters.
- Treated seed must be adequately covered with soil at planting.
- Dispose of seed packaging or containers in accordance with local requirements. DO NOT use empty seed bags for any other purpose.
- To reduce seed dust which can drift onto blooming crops or weeds, ensure that planting equipment is functioning properly in accordance with manufacturer's specifications. Surplus seed or empty seed containers should be stored or disposed according to local federal regulations.
- Treat at label specified rate.

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#### **SEED BAG TAG** (continued)

#### • Restrictions:

 DO NOT graze or feed soybean forage and hay to livestock after treating with ILEVO® HL seed treatment.

#### • Rotational Crops Plant-back Restrictions:

- The following crops can be replanted immediately following the last application of fluopyram: artichoke (globe): Brassica (cole) leafy vegetables (group 5); bulb vegetables (subgroup 3-07A and 3-07B); carrot; cereals (group 15) [which include: barley, buckwheat, field corn, popcorn, sweet corn, millet (pearl and proso), oats, rice; rye, sorghum, teosinte, triticale, and wheat]; citrus (group 10-10); cotton (subgroup 20C); cucurbits (group 9); dill seed; fruiting vegetables (group 8-10); ginseng; grapes and small vines (except fuzzy kiwifruit) (subgroup 13-07F); herb (subgroup 19A); hop; leafy vegetables (except watercress) (group 4); legume vegetables (except soybean, cowpea and dry peas); peanut; pome fruit (group 11-10); potato and other root, tuberous and corm vegetables (except sugar beet) (subgroup 1B and 1C); rapeseed (subgroup 20A); small berries (caneberries and bushberries) (subgroup 13-07A and 13-07B); soybean; stone fruits (group 12-12); strawberry and other low-growing berries, except cranberry (subgroup 13-07G); sugar beet; sunflower (subgroup 20B); tobacco; tree nut (group 14-12).
- Alfalfa can be planted after 14 days and sugarcane can be planted after 14 days in Region 3: Florida and boot of Alabama.
- DO NOT rotate to crops other than those listed above.

#### **Conditions of Sale and Warranty**

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

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

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

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

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

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

**ILEVO® HL seed treatment** is specially formulated and sold by BASF for the control of various pathogens according to the directions on this label. The purchase price of **ILEVO HL** includes a prepaid license under which purchaser agrees to employ the purchased quantity of **ILEVO HL** only for the above-specified uses and to provide notice of the terms and conditions of this license to any subsequent purchaser. Uses of **ILEVO HL** other than those specified on this label are not licensed through the purchase of this product.

ILEVO is a registered trademark of BASF.

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