



We create chemistry

# Stamina® F4 Cereals

## Fungicide Seed Treatment

**ACCEPTED**

Oct 16, 2017

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 7969-399

### For commercial and on-farm use

**A liquid flowable for control of seedborne and seedling diseases in barley, oats, rye, triticale, and wheat**

#### Active Ingredient\*:

fluxapyroxad: 1 <i>H</i> -Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)- . . . . .	0.78%
pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1 <i>H</i> -pyrazol-3-yl]oxy]methyl]phenyl]methoxy-, methyl ester). . . . .	1.57%
triticonazole: 5-[[4-chlorophenyl)methylene]-2,2-dimethyl-1-(1 <i>H</i> -1,2,4-triazol-1-ylmethyl)cyclopentanol . . . . .	1.57%
metalaxyl: <i>N</i> -(2,6-dimethylphenyl)- <i>N</i> -(methoxyacetyl) alanine methyl ester . . . . .	0.94%
<b>Other Ingredients:</b> . . . . .	<u>95.14%</u>
<b>Total:</b> . . . . .	100.00%

\*Contains 0.071 lb of fluxapyroxad, 0.14 lb of pyraclostrobin, 0.14 lb of triticonazole, and 0.081 lb of metalaxyl per U.S. gallon.

**EPA Reg. No. 7969-**

**EPA Est. No.**

### 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 this label, find someone to explain it to you in detail.)

See inside 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:

BASF Corporation  
26 Davis Drive, Research Triangle Park, NC 27709

## FIRST AID

<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li><li>• <b>DO NOT</b> give anything to an unconscious person.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

## HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of medical emergency involving this product, call BASF Corporation at 1-800-832-HELP (4357) or dial 911.

## Precautionary Statements

### Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if swallowed.

### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber\*  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$  14 mils
- Shoes plus socks

\*Includes natural rubber blends and laminates

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, 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/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

This product is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **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 the regional office of the EPA. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

## Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater.

## Groundwater Advisory

Metalaxyl and Fluxapuroxad, these chemicals are known to leach through soil into groundwater under certain conditions as a result of label use. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

## Physical or Chemical Hazards

**DO NOT** mix or allow coming in contact with oxidizing and reducing agents. Hazardous chemical reaction may occur.

## Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in possession of the user at the time of fungicide application.

**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 requirements specific to your state or tribe, consult the agency responsible for pesticide regulation. Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions, and **Conditions of Sale and Warranty** are to be followed.

### 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 the restricted-entry intervals. 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 **24 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 permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Socks and shoes
- Chemical-resistant gloves

## STORAGE AND DISPOSAL

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

### Pesticide Storage

Store in original container only. Keep container closed when not in use. **DO NOT** store near food or feed.

### Pesticide Disposal

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

### Container Handling

**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**Triple rinse containers small enough to shake (capacity ≤ 5 gallons) 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.

**Triple rinse containers too large to shake (capacity > 5 gallons) 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 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.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or 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.

(continued)

## STORAGE AND DISPOSAL *(continued)*

### Container Handling *(continued)*

**Refillable Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Triple rinse as follows:** 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 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

### In Case of Emergency

In case of a 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 be taken if this material is released into the environment 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

**Stamina® F4 Cereals fungicide seed treatment** is a broad-spectrum liquid fungicide that protects seed and seedlings from certain seed and soilborne diseases resulting in improved plant health. **Stamina F4 Cereals** increases emergence and plant stands by controlling or suppressing these diseases. See **Stamina® F4 Cereals fungicide seed treatment Crop-specific Use Directions** for crop uses and diseases controlled or suppressed by **Stamina F4 Cereals**. Disease symptoms such as seed rot, seedling rot, seedling blight, root rot, and damping-off (preemergence or postemergence) can be associated with the actions of various fungal pathogens. These symptoms are referred to in **Stamina® F4 Cereals fungicide seed treatment Crop-specific Use Directions** as "seed and seedling disease".

Seed treatment applications with **Stamina F4 Cereals** have been associated with more rapid and increased emergence of seedlings under certain cold conditions.

Use the higher specified or labeled rates of **Stamina F4 Cereals** when disease pressure is expected to be high.

**Stamina F4 Cereals** contains an EPA-approved dye that imparts an unnatural color to the treated seed to prevent its accidental use as a food or feed for animals. Refer to 21 CFR, Part 2.25.

### Mode of Action

**Stamina F4 Cereals** contains four active ingredients from different fungicide groups that have distinct modes of action.

- Pyraclostrobin is classified as a Target Site of Action **Group 11** fungicide.
- Fluxapyroxad is classified as a Target Site of Action **Group 7** fungicide.
- Triticonazole is classified as a Target Site of Action **Group 3** fungicide.
- Metalaxyl is classified as a Target Site of Action **Group 4** fungicide.

Due to the minimal amount of **Stamina F4 Cereals** applied to the seed that relocates to the upper parts of the plant and the multiple modes of action, the potential for development of resistance is extremely low. Seed treatments of **Stamina F4 Cereals** can therefore be followed by foliar use and resistance management guidelines of foliar use fungicides containing the same modes of action as specified on the respective labels.

### Resistance Management Recommendations

**Stamina F4 Cereals** contains four active ingredients with three distinct modes of action. Any fungal population may contain individuals naturally resistant to **Stamina F4 Cereals**, and other **Group 3**, **Group 4**, **Group 7**, and **Group 11** fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual

chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay the development of fungicide resistance:

1. **Applications** - Adhere to the label use directions regarding the consecutive use of **Stamina® F4 Cereals fungicide seed treatment** or other target site of action **Group 3, Group 4, Group 7**, and/or **Group 11** fungicides that have a similar site of action on the same pathogens.
2. **Integrated Pest Management (IPM)** - Integrate **Stamina F4 Cereals** into an overall disease and pest management program. Follow cultural practices known to reduce disease development. Consult your local extension specialist, certified crop advisor and/or BASF Corporation for additional IPM strategies established for your area. **Stamina F4 Cereals** may be used in Agricultural Extension advisory (disease forecasting) programs, which recommend application timing based on environmental factors favorable for disease development.
3. **Monitoring** - Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development.
4. **Reporting** - If a **Group 3, Group 4, Group 7**, and/or **Group 11** target site fungicide, such as **Stamina F4 Cereals**, appears to be less or no longer effective against a pathogen that it previously controlled or suppressed, contact a BASF-representative, local extension specialist, or certified crop advisor to assist in determining the cause of reduced performance.

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## Application Instructions

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**Stamina F4 Cereals** can be used in commercial seed treatment facilities and on-farm systems. **DO NOT** apply directly into planter box. For use with commercial or professional seed treatment application equipment only.

Seed must be of a good quality, well conditioned, and free of chaff before treatment.

Prepare no more mixture of **Stamina F4 Cereals** than is needed for immediate application to seed. Refer to the **Tank Mixing Information** section of this label. Apply **Stamina F4 Cereals** at the rates listed in **Stamina® F4 Cereals fungicide seed treatment Crop-specific Use Directions** as a water-based mixture using standard slurry or mist-type seed treatment application equipment. The exact amount of water needed to provide the mixture or slurry rate for uniform and complete coverage of the seed surface is difficult to predict because weather conditions, seed type and surface, and equipment used all have a bearing on coverage. Thorough seed coverage and proper application equipment calibration are essential for good disease control. Consult a seed treatment specialist regarding slurry rates for the crop seed to be treated with **Stamina F4 Cereals** and for calibration and operation procedures of the seed treatment equipment.

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## Tank Mixing Information

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### Tank Mix Partners

When using **Stamina F4 Cereals** in a tank mixture with other seed treatment products, follow all directions for use, crops/sites, use rates, dilution ratios, precautions, restrictions, and limitations on the tank mix partner label.

**DO NOT** exceed label dosage or application rate. The most restrictive label precautions, restrictions, and limitations must be followed. **Stamina F4 Cereals** must not be mixed with any product that prohibits such mixing.

### Compatibility Test for Tank Mix Components

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.

When tank mixing **Stamina F4 Cereals**, always test compatibility before use by performing a jar test as follows:

1. Add all intended seed treatment products and the appropriate amount of water in a clear glass jar.
2. Mix well and allow to sit for one hour.
3. Remix and observe for physical incompatibility.

Also test with the seed to ensure the combination of tank mix products does not have detrimental effects on the seed.

### Mixing Order

For containers 5 gallons or less, shake well before use. For containers greater than 5 gallons, recirculate before use.

1. **Water** - Add 3/4 of the required volume of water to the mix tank and turn on agitation.
2. **Agitation** - Mechanical agitation is required for proper mixing of **Stamina F4 Cereals**.
3. **Dye or colorant**
4. **Wettable powders**
5. **Soluble powders**
6. **Flowable formulations** (such as **Stamina F4 Cereals**)
7. **Emulsifiable concentrates**
8. **Water** - Remaining 1/4 of required water volume is added last and can be used as rinsate for the chemical container or to adjust the total slurry to compensate for water displacement by powdered products.

Maintain agitation until the entire slurry mixture has been used.

Ensure seed is dry before bagging.

## Use Restrictions

- **DO NOT** use treated seed for food, feed, or oil processing.
- **DO NOT** store **Stamina® F4 Cereals fungicide seed treatment** near feed or foodstuffs.
- **DO NOT** contaminate feed or foodstuffs.
- **DO NOT** contaminate domestic or irrigation waters.
- **DO NOT** plant crops within 12 months after planting **Stamina F4 Cereals**-treated seed unless permitted according to the seed container labeling requirements section.
- **DO NOT** use the same auger for treating seed that will handle commercial or feed grains.
- **DO NOT** store leftover treated seed where there is a chance of it becoming mixed with untreated seed. Store treated seed in cool, dry conditions.

## SEED CONTAINER LABEL REQUIREMENTS

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

**“This seed has been treated with Stamina® F4 Cereals fungicide seed treatment containing pyraclostrobin, fluxapyroxad, triticonazole, and metalaxyl. DO NOT use treated seed for food, feed or oil purposes.**

The U.S. Environmental Protection Agency requires the following statements on containers containing seed treated with pyraclostrobin, fluxapyroxad, triticonazole, and metalaxyl:

**Store treated seed away from food and feedstuffs. DO NOT allow children, pets or livestock to have access to treated seed. Wear long pants, long-sleeved shirt, shoes and socks, and chemical resistant gloves made of any waterproof material when opening this bag or handling (e.g., loading, pouring) treated seed or seed pieces.**

**Treated seed exposed on soil surfaces may be hazardous to wildlife. Plant treated seed into the soil to the recommended minimum depth or greater to minimize exposure. Cover or collect treated seed spilled during loading and planting, in particular at row ends and field corners.**

**Dispose of all excess treated seed by burying seed away from bodies of water. DO NOT contaminate bodies of water when disposing of planting equipment washwater. Dispose of seed packaging or containers in accordance with local requirements. 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.**

**In the event of crop failure or harvest of a crop grown from this seed, the field may be replanted immediately with barley, oats, rye, triticale and wheat or any other crop for which tolerances for pyraclostrobin, fluxapyroxad, triticonazole, and metalaxyl exist. For all other crops, the minimum plant back interval is 12 months from the date this seed was planted. A cover crop without these tolerances may be planted for purposes of erosion control or soil improvement; however, the crop may not be grazed or harvested for food or feed.”**

**Stamina® F4 Cereals fungicide seed treatment Crop-specific Use Directions**

<b>Crop</b>	<b>Target Disease</b>	<b>Product Use Rate</b> ml/100 kg seed (grams total ai/100 kg seed)	<b>Product Use Rate</b> fl ozs/100 lbs seed (lbs total ai/100 lbs seed)
<p><b>Cereals</b> (Barley, Oats, Rye, Triticale and Wheat)</p>	<p><b>Control of:</b> Common bunt <i>Tilletia caries</i>  Common root rot <i>Cochliobolus</i> spp.  Covered smut <i>Ustilago hordei</i>  Dry seed decay <i>Penicillium</i> spp.  False loose smut <i>Ustilago nigra</i>  Flag smut <i>Urocystis agropyri</i>  Fusarium seed rot <i>Fusarium</i> spp.  Fusarium seedling blight <i>Fusarium</i> spp.  Loose smut <i>Ustilago avenae</i>  Pythium damping off <i>Pythium</i> spp.  Rhizoctonia root rot <i>Rhizoctonia solani</i>  True loose smut <i>Ustilago nuda</i>  <b>Suppression of:</b> Fusarium crown rot <i>Fusarium</i> spp.  Fusarium root rot <i>Fusarium</i> spp.</p>	<p>300 (15.45)*</p>	<p>4.6 (0.01545)**</p>

\* Containing 2.55 grams fluxapyroxad, 5.00 grams pyraclostrobin, 5.00 grams triticonazole, and 2.91 grams metalaxyl

\*\* Containing 0.00255 lb fluxapyroxad, 0.00500 lb pyraclostrobin, 0.00500 lb triticonazole, and 0.00291 lb metalaxyl

## 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.

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BASF Corporation  
26 Davis Drive  
Research Triangle Park, NC 27709

 **BASF**  
We create chemistry