Obvius®
Fungicide Seed Treatment

For commercial and on-farm use

A suspension concentrate for control of various seedborne diseases in dried shelled pea and bean (crop subgroup 6C), including but not limited to lentils, field pea, chickpeas and dry beans; rapeseed (crop subgroup 20A), including but not limited to canola, *Brassica juncea*, and canola oil quality mustards and flax

**Active Ingredients:**
fluxapyroxad*: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'- trifluoro[1,1'-biphenyl]-2-yl) - 1.58%
pyraclostrobin**: (carbamic acid, [2-[[1-(4-chlorophenyl)-1H-pyrazol-3-yloxy] methyl]phenyl][methoxy- methyl ester] - 1.58%
metalaxyl***: N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester - 1.26%

**Other Ingredients:** 95.58%

**Total:** 100.00%

* Contains 0.139 lb of the active ingredient fluxapyroxad per U.S. gallon
** Contains 0.139 lb of the active ingredient pyraclostrobin per U.S. gallon
*** Contains 0.111 lb of the active ingredient metalaxyl per U.S. gallon

EPA Reg. No. 7969-371
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 booklet 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
**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

**CAUTION.** Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid breathing spray mist or contact with skin, eyes, or clothing.

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

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

* Includes natural rubber blends and laminates

Follow the 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.

**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 pesticide is toxic to fish and aquatic invertebrates. **DO NOT** apply directly to water, or to areas where surface water is present, or intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

**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 the possession of the user at the time of fungicide seed treatment application. **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.

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

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 made of any waterproof material

### STORAGE AND DISPOSAL

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

**Pesticide Storage**

Store in original container. Keep container closed and in a secure place. Store in an area that is out of reach of children and animals, away from food, feedstuffs, fertilizers and seed. Protect from frost and freezing.

**Pesticide Disposal**

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

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**STORAGE AND DISPOSAL (continued)**

**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.

**Refillable Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. For final disposal, 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 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.
Container Handling (continued)

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 rinseate into application equipment or rinseate 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 Spill

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 take 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.

Use Restrictions

- DO NOT use treated seed for food, feed or oil processing.
- DO NOT store Obvius® 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 Obvius-treated seed unless permitted according to the seed labeling note.
- DO NOT use the same auger or other seed treatment equipment for treating seed that will handle commercial or feed grains unless these have been thoroughly cleaned.
- DO NOT store leftover treated seed where it could be mixed with untreated seed. Store treated seed in cool, dry conditions.

Seed treated with this product that is then packaged or bagged for future use must contain the following labeling on the outside of the seed package or bag.

“This seed has been treated with Obvius® fungicide seed treatment containing pyraclostrobin, fluxapyroxad, and metalaxyl. DO NOT use treated seed for food, feed or oil purposes. 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 specified 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 enter or allow worker entry into areas with treated seeds during the restricted entry interval of 24 hours, with the exception that workers may enter if they will have no contact with the soil/media subsurface. 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 peas and beans (dried shelled), flax seed, rapeseed, soybean, or any other crop for which tolerances for pyraclostrobin, fluxapyroxad, 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.”
**Product Information**

**Obvius fungicide seed treatment** is a liquid broad spectrum fungicide seed treatment that provides preventive seed and seedling protection from several seed-borne and soil-borne diseases.

**Obvius** 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.

Refer to the **Diseases Controlled by Obvius fungicide seed treatment** table for approved crops and associated diseases controlled by **Obvius**.

**Resistance-Management Recommendations**

**Mode of Action**

**Obvius** contains three 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.
- Metalaxyl is classified as a Target Site of Action **Group 4** fungicide.

Due to the minimal amount of **Obvius** 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 **Obvius** 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**

**Obvius** contains three active ingredients with three distinct modes of action. Any fungal population may contain individuals naturally resistant to **Obvius**, and other **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. Follow appropriate resistant management strategies.

To delay the development of fungicide resistance:

1. **Applications** - Adhere to the label use directions regarding the consecutive use of **Obvius** or other target site of action **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 **Obvius** 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. **Obvius** may be used in Agricultural Extension advisory (disease forecasting) programs, which direct application timing based on environmental factors favorable for disease development.

3. **Monitor** - 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 4**, **Group 7**, and/or **Group 11** target site fungicide, such as **Obvius**, 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.

**Application Method**

Seed must be well conditioned and free of chaff before treating with **Obvius**. Uniform seed coverage and proper application equipment calibration is essential for good disease control. Weather conditions (hot or cold), seed type and surface, and equipment used all have a bearing on the uniformity of coverage.

When applied at the indicated rate(s), dilution with water is not necessary unless directed by the manufacturer of the seed treatment application equipment. Consult a seed treatment specialist for calibration and operation procedures of the seed treatment equipment being used.

**Obvius** may be applied using standard commercial seed treatment equipment (such as, but not limited to, slurry or mist-type equipment) or on-farm seed treatment equipment. **Obvius** may also be used in on-the-go type air seeder treatment systems. **DO NOT** apply directly into a planter box.

**Tank Mixing Information**

**Tank Mix Partners**

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. When using **Obvius** in a tank mixture with other seed treatment products, read and follow all directions for use, crops/sites, application restrictions, dilution ratios, precautions, and limitations on the tank mix partner label. **DO NOT** exceed label dosage or application rate. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. **DO NOT** combine with any product that prohibits mixing.
Compatibility Test for Tank Mix Components

When tank mixing Obvius® fungicide seed treatment, 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 Obvius.
3. Dye or colorant
4. Wettable powders
5. Soluble powders
6. Flowable formulations (such as Obvius)
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.
<table>
<thead>
<tr>
<th>Crop</th>
<th>Target Disease</th>
<th>Use Rate</th>
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</thead>
</table>
| Dried Shelled Pea and Bean (except soybean) | • Anthracnose caused by seed-borne *Colletotrichum* spp.  
• Root rot, seed rot, and seedling blight caused by soil-borne *Fusarium* spp.  
• Root rot, seed rot, and seedling blight caused by soil-borne *Pythium* spp.  
• Root rot, seed rot, and seedling blight caused by soil-borne *Rhizoctonia solani*  
• Seed rot and seedling blight caused by seed-borne *Botrytis cinerea*  
• Seedling blight caused by seed-borne *Ascochyta* spp. | 4.6 (0.018) |
| **Cicer arietinum** (Chickpea/Garbanzo bean) |                                                                                 |          |
| **Cyamopsis tetragonoloba** (Guar)         |                                                                                 |          |
| **Lablab purpureus** (Lablab/Hyacinth bean) |                                                                                 |          |
| **Lens esculenta** (Lentil)                |                                                                                 |          |
| **Lupinus spp.** (Grain lupin, Sweet lupin, White lupin, White sweet lupin) |                                                                                 |          |
| **Phaseolus spp.** (Field bean, Kidney bean, Lima bean, Navy bean, Pinto bean, Tepary bean) |                                                                                 |          |
| **Pisum spp.** (Field pea, Pigeon pea)     |                                                                                 |          |
| **Vicia faba** (Broad/Fava bean)           |                                                                                 |          |
| **Vigna spp.** (Adzuki bean, Black-eyed pea, Catjang, Cowpea, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean) |                                                                                 |          |
| **Flax Seed** *(Linum usitatissimum)* | • Root rot, seed rot, and seedling blight caused by soil-borne *Fusarium* spp.  
• Root rot, seed rot, and seedling blight caused by soil-borne *Rhizoctonia solani* | 4.6 (0.018) |
Diseases Controlled by Obvius® fungicide seed treatment (continued)

<table>
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<tr>
<th>Crop</th>
<th>Target Disease</th>
<th>Use Rate</th>
</tr>
</thead>
</table>
| **Rapeseed** (except flax seed) | • Root rot, seed rot, and seedling blight caused by soil-borne *Fusarium* spp.  
• Root rot, seed rot, and seedling blight caused by soil-borne *Leptosphaeria maculans* (i.e., blackleg)  
• Root rot, seed rot, and seedling blight caused by soil-borne *Pythium* spp.  
• Root rot, seed rot, and seedling blight caused by soil-borne *Rhizoctonia solani*  
• Seedling blight and root rot caused by soil-borne *Alternaria brassicae* | 9.2 (0.036) |
| **Cultivars, varieties, and/or hybrids of:** | | |
| *Borago officinalis* | Borage | |
| *Crambe hispanica/C. abyssinica* | Crambe | |
| *Cuphea hyssopifolia* | Cuphea | |
| *Echium plantagineum* | Echium | |
| *Camelina sativa* | Gold of Pleasure | |
| *Conringia orientalis* | Hare’s ear mustard | |
| *Lesquerella recurvata* | Lesquerella | |
| *Lunaria annua* | Lunaria | |
| *Limnanthes alba* | Meadowfoam | |
| *Asclepias spp.* | Milkweed | |
| *Brassica hirta spp.* | Mustard seed | |
| *Raphanus sativus var. oleiformis* | Oil radish | |
| *Papaver somniferum L. subsp. somniferum* | Poppy seed | |
| *Brassica spp./Brassica napus L.* | Rapeseed | |
| *Sesamum indicum/S. radiatum* | Sesame | |
| *Hesperis matronalis* | Sweet rocket | |
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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We create chemistry