

SPECIMEN

Group 7 Fungicide

# Xzemplar™ fungicide

## For disease control on turfgrass

**Active Ingredient:**

fluxapyroxad\*: 1*H*-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)- ..... 26.55%

**Other Ingredients:** ..... 73.45%

**Total:** ..... 100.00%

\* Equivalent to 2.47 pounds of active ingredient per gallon

EPA Reg No. 7969-349

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

See inside for **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.
- Have a 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.

## 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 emergency medical treatment information: 1-800-832-HELP (4357).

## Precautionary Statements

### Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if swallowed.

### Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical-resistant category selection chart.

#### Applicators and other handlers must wear:

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

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.

### Engineering Controls Statement

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

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if 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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

**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 washwaters or rinsate.

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.

### Surface Water Advisory

This product is classified as having high potential for reaching aquatic sediment via runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. 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 this active ingredient or its degradates from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

### Groundwater Advisory

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.

## Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

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

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

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

## NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, nurseries, or greenhouses.

**DO NOT enter or allow others to enter treated areas until sprays have dried.**

## STORAGE AND DISPOSAL

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

### Pesticide Storage

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

### Pesticide Disposal

Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

### 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.

## STORAGE AND DISPOSAL *(continued)*

### Container Handling *(continued)*

#### **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. 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.

*(continued)*

## In Case of Emergency

In case of large-scale spillage regarding 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 in case material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

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## Product Information

**Xzemplar™ fungicide** is a suspension concentrate (SC). The active ingredient in **Xzemplar**, fluxapyroxad, belongs to the succinate-dehydrogenase (SDHI) inhibitor class of fungicides. To maximize disease control, apply **Xzemplar** in a regularly scheduled protection spray program and use in a rotation program with other fungicides. Because of its high specific activity, **Xzemplar** has good residual activity against target fungi.

### Mode of Action

Fluxapyroxad, the active ingredient in **Xzemplar**, belongs to the group of respiration inhibitors classified by the US EPA and Canada PMRA as a target site of action **Group 7** fungicide.

### Resistance Management

**Xzemplar** contains fluxapyroxad, a **Group 7** fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of target site **Group 7**, such as the dicarboximides, sterol inhibitors, benzimidazoles or phenylamides. Fungal isolates resistant to **Group 7** fungicides may eventually dominate the fungal population if **Group 7** fungicides are used predominantly and repeatedly in the same turfgrass area in successive years as the primary method of control for the targeted pathogen species. This may result in reduction of disease control by **Xzemplar**.

To maintain the performance of **Xzemplar** in turfgrass, **DO NOT** exceed the total number of sequential applications of **Xzemplar**. Adhere to the label instructions regarding the sequential use of **Xzemplar** or other target

site of action **Group 7** fungicide which have a similar site of action on the same pathogens.

## Resistance Management Advisory

The following recommendations may be considered to delay the development of fungicide resistance:

1. **Tank mixtures** - Use tank mixtures with fungicides from different target site of action groups that are registered/permitted for the same use and that are effective against the pathogens of concern. BASF recommends using at least the minimum labeled rates of each fungicide in the tank mix.
2. **Integrated Pest Management (IPM)** - Integrate **Xzemplar** into an overall disease and pest management program. Follow cultural practices known to reduce disease development. **Xzemplar** can be used in advisory (disease forecasting) programs that 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. If **Xzemplar** appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative or local turfgrass expert for further investigation.

For control of turfgrass diseases not listed on this label, **Xzemplar** can be tank mixed with labeled rates of other fungicides. Follow label directions of any tank mix product and apply at the specified rate based on target disease.

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## Restrictions and Limitations

- **Maximum seasonal use rate** - **DO NOT** apply more than a total of 41 fl ozs of **Xzemplar** per acre per year (0.94 fl oz/1,000 sq ft/year).
- **DO NOT** apply more than two (2) sequential applications of **Xzemplar**. Following a sequential application of **Xzemplar**, **DO NOT** reapply until another effective fungicide has been used.
- For use on turfgrass only.
- After application, allow foliage to dry prior to mowing.
- **DO NOT** apply through any type of irrigation equipment.
- This product cannot be used to formulate or reformulate any other pesticide product.
- Aerial application is permitted on sod farms only.
- **For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).**

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## Tank Mixing with Other Products and Additives

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### Tank Mix Partners/Components

**Xzemplar™ fungicide** can be tank mixed with most recommended fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives.

Physical incompatibility, reduced disease control, or turfgrass injury may result from mixing **Xzemplar** with other products. Therefore, before using any tank mix (fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives), test the combination on a small portion of the area to be treated to ensure that a phytotoxic response will not occur as a result of application.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Consult a BASF representative or local agricultural authority for more information concerning additives.

If tank mixtures are used, adhere to restrictions due to rates, label instructions and precautions on all labels.

### Additives

Due to the large number of additives or adjuvants that may be used, neither the manufacturer nor the seller has determined whether **Xzemplar** can be used safely with all additives.

### Compatibility Test for Tank Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

1. **Water** - For 87 gallons per acre (2 gallons per 1,000 square feet) spray volume, use 14.4 cups (3.5 liters) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
2. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) - Cap the jar and invert 10 cycles.
3. **Water-soluble products** - Cap the jar and invert 10 cycles.
4. **Emulsifiable concentrates** (oil concentrate or methylated seed oil when applicable) - Cap the jar and invert 10 cycles.
5. **Water-soluble additives** - Cap the jar and invert 10 cycles.
6. Let the solution stand for 15 minutes.
7. **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

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## Mixing Order

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1. **Water** - Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation** - Maintain constant agitation throughout mixing and application.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates including **Xzemplar**, or suspo-emulsions) - **For containers 5 gallons or less, shake well prior to use. For containers greater than 5 gallons, recirculate prior to use.** Consult BASF Representatives for additional information regarding agitation and recirculation.
6. **Water-soluble products**
7. **Emulsifiable concentrates** (such as oil concentrates when applicable)
8. **Water-soluble additives** (such as ammonium sulfate [AMS] or urea ammonium nitrate [UAN] when applicable)
9. **Remaining quantity of water**

Make sure that each component is thoroughly mixed and suspended before adding tank mix partners. Maintain constant agitation during application.

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## Application Instructions

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### Use Sites

#### Turfgrass

Use **Xzemplar** for disease control in the following turf use sites:

- **Golf courses**
- **Residential, institutional, commercial, and municipal lawns**
- **Parks**
- **Recreational areas including sports and athletic fields**
- **Cemeteries**
- **Sod farms**

**Xzemplar** controls a range of diseases. See **Application Rates and Intervals for Xzemplar™ fungicide on Turfgrass** table for specific use instructions.

### Application Use Rates

Apply **Xzemplar** prior to disease development or in the early stages of development. Calibrate sprayer prior to use. Apply **Xzemplar** at the rates indicated in the **Application Rates and Intervals for Xzemplar™ fungicide on Turfgrass** table in 1 to 4 gallons of water per 1,000 square feet (44 to 174 gallons per acre). For maximum efficacy under heavy disease pressure or on higher cuts of turf, apply 2 to 4 gallons of water per 1,000 square feet. Use

the shorter specified application interval and/or the higher specified rate when prolonged favorable disease conditions exist. Repeat applications at the specified interval, as necessary. **DO NOT** exceed the specified application rate or fail to follow the use restrictions listed in the **Resistance Management** and **Restrictions and Limitations** sections. All applications must be made according to the use directions. Failure to follow directions and precautions on this label may result in turfgrass injury and/or inferior disease control.

**For containers 5 gallons or less, shake well prior to use. For containers greater than 5 gallons, recirculate prior to use.** Consult BASF Representatives for additional information regarding agitation and recirculation.

## Ground Application

Apply **Xzemplar™ fungicide** using sufficient water volume and pressure for adequate coverage of the turf foliage. Apply **Xzemplar** at the rates indicated in the **Application Use Rates** section.

## Aerial Application

**Aerial application is permitted on sod farms only.**

Apply **Xzemplar** at the rates indicated in the **Application Use Rates** section in no less than 10 gallons of spray solution per acre. Repeat applications at the specified interval as necessary. **DO NOT** apply when conditions favor drift from target area.

**For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).**

## Uses and Turfgrass Tolerance

**For use on turfgrass only.** Due to variability within turfgrass species, application techniques and possible tank mixes, neither the manufacturer nor the seller has determined whether or not all turfgrasses are tolerant to **Xzemplar** under all conditions. Therefore, apply the labeled use rate of **Xzemplar** on a small test area under conditions expected to be encountered and monitor for any adverse effects before applying **Xzemplar** to the targeted area.

## Cleaning Spray Equipment

Spray equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure turfgrass was used prior to **Xzemplar**.

**Application Rates and Intervals for Xzemplar™ fungicide on Turfgrass**

<b>Disease Pathogen</b>	<b>Use Rate</b> (fl oz product/ 1,000 sq ft)	<b>Use Rate</b> (fl ozs product/A)	<b>Application Interval</b> (days)	<b>Application Information*</b>
<b>Brown patch</b> <i>Rhizoctonia solani</i>	0.21	9.2	14 to 21	Begin applications prior to disease development. Use a shorter application interval when prolonged favorable disease conditions exist.
	0.26	11.4	14 to 21	
<b>Dollar spot</b> <i>Sclerotinia homoeocarpa</i>	0.16	7.0	14	Make applications prior to infection or in the early stages of disease development. Use the shorter specified application interval and/or the higher specified rate when prolonged favorable disease conditions exist.
	0.21	9.2	14 to 21	
	0.26	11.4	14 to 28	
<b>Large patch</b> Brown patch of warm season turfgrasses, including Zoysia patch <i>Rhizoctonia solani</i>	0.21	9.2	14 to 21	Apply prior to or directly at initial signs of infection in fall and make at least 2 sequential applications until turfgrass goes into dormancy. Reapplication in spring at time of greenup can be made if necessary. For optimum control, tank mix <b>Xzemplar</b> with <b>Insignia® fungicide</b> , <b>Insignia® SC Intrinsic™ brand fungicide</b> , and/or <b>Trinity® fungicide</b> or another effective product.
	0.26	11.4	14 to 28	
<b>Snow molds</b> <i>Typhula</i> spp. or <i>Microdochium nivale</i> or <i>Monographaella</i> spp.	0.26	11.4	14 to 28	For disease suppression; make 2 applications, 14 to 28 days apart in late fall just prior to snow cover. For optimum control before extended periods of snow cover, tank mix <b>Xzemplar</b> with <b>Insignia</b> , <b>Insignia SC Intrinsic brand</b> , and/or <b>Trinity</b> or another effective snow mold product.
<b>Summer patch</b> <i>Magnaporthe poae</i>	0.26	11.4	14 to 28	For disease suppression and to reduce symptoms, initiate applications in spring when soil temperatures reach 60 to 65°F at a 2-inch soil depth, or as dictated by local recommendations. For optimum control, tank mix <b>Xzemplar</b> with <b>Insignia</b> , <b>Insignia SC Intrinsic brand</b> , and/or <b>Trinity</b> or another effective product.

<b>Additional Turfgrass Uses</b>	<b>Use Rate</b> (fl oz product/ 1,000 sq ft)	<b>Use Rate</b> (fl ozs product/A)	<b>Application Interval</b> (days)	<b>Application Information*</b>
<b>Algae</b>	0.21	9.2	14 to 28	Use of this product results in a reduction in algae population due to healthier and denser turf. Apply in disease control program and dry out turf area if conditions are wet. To promote recovery verticutting or spiking between applications may be helpful. For control of algae apply with another labeled algae product.
	0.26	11.4	14 to 28	

\* **DO NOT** apply more than 2 sequential applications of **Xzemplar**, then alternate to another effective fungicide before reapplying **Xzemplar**.

## 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, 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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**Xzemplar™ fungicide** is specially formulated and sold by BASF for the control of pests according to the directions on this label. The purchase price of **Xzemplar** includes a royalty whereby the purchaser acquires a prepaid license under U.S. Patent No. 5,438,070 and (pending No. 2008/0153707 A1) under which purchaser agrees to employ the purchased quantity of **Xzemplar** only for the above-specified uses under BASF's United States patent rights and to provide notice of the terms and conditions of this license to any subsequent purchaser. Uses of **Xzemplar** other than those specified on this label are not licensed through the purchase of this product and the use of this product for other purposes may violate this license and patent rights of BASF.

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