



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505T)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

264-1221

Date of Issuance:

10/18/23

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

USH19004

**Name and Address of Registrant (include ZIP Code):**

Bayer CropScience LP  
800 North Lindbergh Blvd.  
St. Louis, MO 63141

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Submit one copy of the final printed label for the record before you release the product for shipment.

*Continues on page 2*

**Signature of Approving Official:**

Mindy Ondish, Product Manager 23  
Herbicide Branch, Registration Division (7505T)

**Date:**

10/18/23

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Please note that the alternate brand name, "**Vios FX Herbicide**" has been added to the product record.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 9/5/2023

If you have any questions, please contact Endia Blunt at 202-566-2505 or at [blunt.endia@epa.gov](mailto:blunt.endia@epa.gov).

Enclosure

**ACCEPTED**  
 10/18/2023  
 Under the Federal Insecticide, Fungicide  
 and Rodenticide Act as amended, for the  
 pesticide registered under  
 EPA Reg. No. 264-1221

<b>THIENCARBAZONE-METHYL</b>	<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>
<b>FLUROXYPYR (1-METHYLHEPTYL ESTER)</b>	<b>GROUP</b>	<b>4</b>	<b>HERBICIDE</b>

# USH19004

**[ABN: Vios FX Herbicide]**

**For: Post-emergence control of certain grasses and broadleaf weeds in winter wheat and spring wheat (including durum)**

**ACTIVE INGREDIENTS:**

Thiencarbazone-methyl (Methyl 4-[[[(4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-3-thiophenecarboxylate)..... **0.46%**  
 Fluroxypyr 1-methylheptyl ester (((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid, 1-methylheptyl ester) .....**15.63%**

**OTHER INGREDIENTS:** .....**83.91%**

**TOTAL:** .....100.00%

Contains Petroleum Distillates  
 Contains thiencarbazone-methyl - 0.0414 pounds per U.S. gallon  
 Contains fluroxypyr ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy) acetic acid - 0.978 pounds acid equivalent U.S. gallon (10.86%)

**EPA Reg. No. 264-1221**

**EPA Est.**

**KEEP OUT OF REACH OF CHILDREN  
 CAUTION**

**For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours a Day 1-800-334-7577  
 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)**

**Please refer to [back panel] [booklet] for additional precautionary statements and directions for use. [Note to reviewer: Location of additional precautionary statements and directions for use will vary between those listed, depending on container type/size.]**

**Net Contents:  
 [Batch Code:]**

**PRODUCED FOR**



Bayer CropScience LP  
 800 N. Lindbergh Blvd  
 St. Louis, MO 63167  
 1-866-99BAYER (1-866-992-2937)

## FIRST AID

<b>If in Eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If Swallowed</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor for treatment advice.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give any liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</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>
<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 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>In case of emergency, call the toll-free Bayer CropScience Emergency Response telephone number: 1-800-334-7577. Have a product container or label with you when calling a poison control center (1-800-222-1222) or doctor, or going for treatment.</b>	
Note to Physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

- Causes moderate eye irritation.
- Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
- Avoid contact with skin, eyes or clothing.
- Harmful if absorbed through the skin.
- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or Viton  $\geq$  14 mils.

### USER SAFETY REQUIREMENTS

Follow 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 remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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.

### ENGINEERING CONTROLS

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 170.607 (d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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## ENVIRONMENTAL HAZARDS

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This pesticide is toxic to fish. Drift or runoff from treated areas may be hazardous to aquatic organisms and non-target plants. 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.

### **Non-Target Organism Advisory**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

### **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 ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks 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 thiencazuron-methyl from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### **Ground Water Advisory**

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

### **Endangered Species Advisory/Protection Requirements**

This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult <http://www.epa.gov/espp/>, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

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## DIRECTIONS FOR USE

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**It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Read the entire label before using this product.**

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.

**For Important crop safety information, refer to the Use Directions section under the specific crop.**

### 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, 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 barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton ≥ 14 mils
- Shoes and socks

### PRODUCT INFORMATION

USH19004:

- is applied as a postemergence foliar spray in winter wheat and spring wheat (including durum) for the control of certain annual grasses and broadleaf weeds.

### SPRAY DRIFT MANAGEMENT

#### MANDATORY SPRAY DRIFT

##### Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572) for all applications.
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

##### Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572). Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### BOOM HEIGHT – Ground Boom

- For ground equipment, the boom should remain level with the crop and have minimal bounce.

### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### RELEASE HEIGHT - Aircraft

- Higher release heights increase the potential for spray drift.

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## USE RESTRICTIONS

- **DO NOT** apply USH19004 to crops undersown with grass or legume species.
- **DO NOT** make more than one application of USH19004 per 365 days.
- **DO NOT** apply more than 13.7 fl oz/A (0.004 pounds thien carbazonone - methyl and 0.105 pounds acid equivalent of fluroxypyr ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy) acetic acid) of USH19004 per 365 days.
- **DO NOT** apply more than 0.04 pounds/A per acre of Thien carbazonone-methyl from all sources per 365 days.
- **DO NOT** apply more than 0.25 pounds/A of fluroxypyr from all sources per 365 days
- **DO NOT** apply in combination with Dicamba containing products as grass control will be reduced.
- **DO NOT** apply USH19004 in tank mixture with tebuconazole
- **DO NOT** apply USH19004 through any type of irrigation system.
- **DO NOT** drain or rinse equipment near desirable vegetation.
- **DO NOT** apply to winter or spring wheat after jointing.
- **DO NOT** harvest or graze wheat forage within 7 days after application.
- **DO NOT** harvest winter wheat or spring wheat (including durum) for hay within 30 days after application.
- **DO NOT** harvest wheat for grain or straw within 60 days after application in Minnesota, Montana, North Dakota, or South Dakota; and within 70 days in all other states.

## USE PRECAUTIONS

- Avoid spray drift from treated areas. Refer to the Spray Drift Management section of this label for additional information.
- USH19004 is rainfast 1 hour after application to most weed species. Rainfall within 1 hour may result in reduced weed control.
- Non-target plants may be adversely affected if the pesticide is allowed to drift from areas of application. To prevent damage to crops and other desirable plants, read and follow all directions and precautions on this label before using.
- Environmental conditions which support vigorous growth of crop and weeds also result in highest herbicidal activity. Following application, symptoms of herbicidal activity may develop within several days. Speed of action depends on environmental conditions and increases with increasing temperature and moisture.
- Applications of USH19004 in winter wheat or spring wheat (including durum) in combination with some EC herbicides may cause crop response (see tankmix section).
- Applications during low temperatures (32°F or lower), high temperatures (90°F or greater), or to a crop under drought stress can cause crop injury.

## APPLICATION INSTRUCTIONS

- Weed infestations should be treated before they become competitive with the crop. Make applications to actively growing weeds. Thorough coverage of weeds is necessary to obtain good weed control. Weed control may be reduced when weeds are under stress due to severe weather conditions, drought, very cold temperatures, etc. Temperature range for optimal herbicidal activity is 55°F to 75°F.
- Properly calibrate ground or aerial (fixed wing or helicopter) application equipment to apply USH19004 postemergence as a foliar spray. Use of nozzles and spray pressure that deliver medium to coarse spray droplets as indicated in the nozzle manufacturer's catalogs and in accordance with ASABE Standard S-572 for optimum spray coverage and canopy penetration.
- Avoid uneven spray distribution, skips, overlaps, and spray drift.

### Aerial Application

Calibrate the spray equipment prior to use. USH19004 should be applied in a minimum of 5 gallons of water per broadcast acre.

### Ground Application

Apply USH19004 broadcast in 10 or more gallons of water per acre.

## WEED RESISTANCE MANAGEMENT

For resistance management, USH19004 is a Group 2 (thiencarbazone-methyl) and Group 4 (fluroxypyr-methylheptyl) herbicide. Any weed population may contain or develop plants naturally resistant to USH19004 and other Group 2 and Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

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

- Rotate the use of USH19004 or other Group 2 and Group 4 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance contact Bayer CropScience at 1-866-99BAYER (1-866-992-2937). You can also contact your pesticide distributor or university extension specialist to report resistance.



## COMPATIBILITY TESTING AND TANK MIX PARTNERS

### Compatibility

If USH19004 is to be tank mixed with liquid fertilizers or other pesticides, compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 qt) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5-15 minutes after mixing. Read and follow all parts of the label of each tank-mix product.

### Tank Mix Instructions

For control of weeds not listed on this label, USH19004 may be mixed with other herbicides with the exception of dicamba containing products. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Read and follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

<b>Broadleaf Herbicides</b>
2,4 D <sup>1,3</sup>
Bronate <sup>®</sup> Herbicide (EPA Reg No. 264-438, bromoxynil, MCPA) <sup>2,3,4</sup>
Buctril <sup>®</sup> Herbicide (EPA Reg No. 264-437, bromoxynil) <sup>2,3</sup>
Clopyralid <sup>3</sup>
Fluroxypyr <sup>5</sup>
Florasulam <sup>3</sup>
Huskie <sup>®</sup> FX Herbicide (EPA Reg No. 264-1208, bromoxynil, fluroxypyr, pyrasulfotole) <sup>3</sup>
HUSKIE <sup>®</sup> Herbicide (EPA Reg No. 264-1023, bromoxynil, pyrasulfotole) <sup>3</sup>
MCPA Ester <sup>3,6</sup>
Tribenuron-methyl
Thifensulfuron
<sup>1</sup> <b>DO NOT</b> apply more than 0.2495 lb/A of 2,4-D in tank mix.
<sup>2</sup> Equivalent bromoxynil based products may be substituted in a tank mix for these products.
<sup>3</sup> Applications of USH19004 in winter wheat or spring wheat (including durum) in combination with these EC tankmix partners or equivalents may cause crop response.
<sup>4</sup> <b>DO NOT</b> apply more than 16 fl oz/A of Bronate <sup>™</sup> in tank mix.
<sup>5</sup> Equivalent fluroxypyr product may be substituted.
<sup>6</sup> MCPA Ester may be added alone but not as a component of a premix.

<b>Grass Herbicides</b>
Osprey <sup>®</sup> Herbicide (EPA Reg No. 264-802, mesosulfuron-methyl)
Olympus <sup>®</sup> (EPA Reg No. 264-809, propoxycarbazone-sodium)

### Tank Mixtures for Disease Control

USH19004 may be applied in combination with Stratego<sup>®</sup> (EPA Reg No. 264-779, propiconazole & trifloxystrobin), pyraclostrobin, azoxystrobin, propiconazole, azoxystrobin, propiconazole\* or thiophanate-methyl fungicides for weed and disease control. Do not apply USH19004 in tank mixture with tebuconazole. Tank mix applications of herbicides with fungicides may cause temporary yellowing, leaf burn, and or height reduction of the crop. Refer to the specific fungicide label for use directions, application rates, restrictions and a list of diseases controlled.

\*Propiconazole products are limited to a maximum of 0.0513 lb ai/A

### Tank Mixtures for Insect Control

USH19004 may be applied with Baythroid<sup>®</sup>XL (EPA Reg No. 264-840,  $\beta$ -cyfluthrin), zeta-cypermethrin or Lambda-cyhalothrin insecticides. Refer to the specific insecticide label for use directions, application rates, restrictions and a list of insects controlled.

## Order of Mixing

USH19004 must be applied with clean and properly calibrated equipment. Prior to adding USH19004 to the spray tank, ensure that the spray tank, filters and nozzles have been thoroughly cleaned. In-line strainers and nozzle screens should be 50 mesh or coarser.

1. Fill the spray tank 1/4 to 1/2 full with clean water and begin agitation or bypass.
2. Add a listed tank mix partner, if desired. Please check Tank Mix section for optimum mixing suggestions
3. Add the specified rate of USH19004 directly to the spray tank. Maintain sufficient agitation during both mixing and application. DO NOT pre-slurry by adding any quantity of USH19004 to a small amount of water.
4. Fill the spray tank with balance of water needed.
5. Continue agitation during USH19004 application to ensure uniform spray coverage.

**NOTE:** USH19004 may settle if left standing without agitation. If the spray solution is allowed to stand for one hour or more, re-agitate the spray solution for a minimum of 10 minutes before application.

## Equipment Cleanup Procedures

1. Drain the tank completely, and then wash out tank, boom and hoses with clean water. Drain again.
2. Half fill the tank with clean water and add ammonia (i.e., 3% domestic ammonia solution) at a dilution rate of 1% (i.e., 1 gallon of domestic ammonia for every 100 gallons of rinsate). Complete filling of the tank with water. Agitate/recirculate and flush through boom and hoses. Leave agitation on for 10 minutes. Drain tank completely.
3. Repeat step 2.
4. Remove nozzles and screens and soak them in a 1% ammonia solution. Inspect nozzles and screens and remove visible residues.
5. Flush tank, boom, and hoses with clean water.
6. Inspect tank for visible residues. If present, repeat step 2.

## ROTATIONAL CROPS

In areas where a crop is not specified, conduct a field bioassay as described in the **FIELD BIOASSAY** section.

Crop	Rotational Interval		Crop	Rotational Interval
Wheat	3 Months		Lentils	9 Months
Soybean	4 Months		Mustard	
Alfalfa	9 Months		Oats, spring	
Barley			Peas	
Canola			Safflower	
Canaryseed			Sorghum (grain)	
Chickpeas			Sugarbeets	
Corn – Conventional			Sunflowers	
Dry Beans			Timothy	
Flax		Potatoes	18 Months	

## Cover Crops

Use of cover crops as a means of soil improvement, erosion control, weed and/or insect suppression, etc., following harvest in the fall is increasing. Planting of cover crops in fields treated with USH19004 is allowed as long as these cover crops are not grazed by livestock nor harvested for food. Cover crops are to be tilled under or chemically controlled with burndown herbicides in the spring. Many cover crops can be planted within 90-120 days after application of USH19004. However, all potential cover crops have not been evaluated for tolerance to USH19004 and significant injury may occur. Prior to seeding a cover crop, complete a successful field/ small scale bioassay to provide an indication of the level of tolerance to the prior USH19004 application. Refer to the "Field/Small Scale Bioassay" section.

## Field/Small Scale Bioassay

A field/ small scale bioassay must be completed before rotating to a cover crop other than those specified in the "Rotational Crop Restrictions" section of this label. To conduct an effective **field bioassay**, grow strips of the crop(s) you intend to grow the following season in a field previously treated with USH19004. The test strip should be placed in a controlled area and should include low areas and knolls, and include variations in soil such as type and pH. Crop response to the bioassay will determine if the crop(s) grown in the test strips can be grown safely in the areas previously treated with USH19004.

For an effective **small scale bioassay**, collect uniform samples of all soil types from the USH19004- treated field and place the soil into a sturdy container. Plant the desired cover crop into the soil, apply water and place the container in a warm, sunny area to allow germination and growth of the crop. Monitor growth of the cover crop over a three to four week period. If the cover crop emerges and grows normally, the risk to establish and grow the cover crop in the USH19004-treated field should be tolerable.

## WEEDS CONTROLLED & PARTIALLY CONTROLLED

USH19004 effectively controls the following weeds when applied at the application timings recommended and when weeds are actively growing. Best control is achieved when grass weeds are treated between the 1-leaf to 1-tiller stage of growth and broadleaf weeds are between the 1-6 leaf stage of growth, unless otherwise indicated. USH19004 will have an effect on weeds that are larger than the recommended leaf stage; however the speed of activity and level of control may be reduced.

<b>BROADLEAF WEEDS</b>	
<b>Controlled</b>	<b>Partial Control*</b>
<b>Common Name</b>	<b>Common Name</b>
Canola (volunteer)	Buckwheat, wild
Catchweed bedstraw (4 whorls)	Lambsquarters, common
Chickweed, common	Pennsylvania smartweed
Field Pennycress	Russian thistle (4" ht)
Hempnettle	Bindweed, field
Mustard, wild	Devilsclaw
Redroot pigweed	Field horsetail
Cocklebur	Horseweed (marestail)
Coffeeweed	Knotweed
Flax (volunteer)	Mallow, common
Grape species	Marshelder
Hemp dogbane	Nightshade species
Kochia	Potato (volunteer)
Mallow, Venice	Stork's-bill
Morningglory	
Prickly lettuce	
Puncturevine	
Purslane, common	
Ragweed, common	
Ragweed, giant	
Sunflower	
Velvetleaf	
Shepherd's purse	

\*Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas but performance will not be commercially acceptable. The degree of weed control will vary with weed size, density, coverage and growing conditions.

<b>GRASSES</b>	
<b>Controlled</b>	<b>Partial Control *</b>
<b>Common Name</b>	<b>Common Name</b>
Barnyardgrass	Japanese Brome
Green foxtail	Persian darnel
Wild oat	
Yellow Foxtail	

\*Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas but performance will not be commercially acceptable. The degree of weed control will vary with weed size, density, coverage and growing conditions.

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# SPECIFIC USE DIRECTIONS

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## WINTER WHEAT AND SPRING WHEAT (INCLUDING DURUM)

### APPLICATION RATE

Unless otherwise specified by Bayer CropScience, do not use less than 13.7 fl oz/A of USH19004. Do not exceed 13.7 fl oz/A in a single application and limit to one application per year.

### APPLICATION TIMING

USH19004 may be applied to wheat starting from the 2 leaf stage but prior to jointing (presence of first node).

### USE RESTRICTIONS

DO NOT harvest or graze wheat forage within 7 days after application.

DO NOT harvest winter wheat or spring wheat (including durum) for hay within 30 days after application.

DO NOT harvest wheat for grain or straw within 60 days after application in Minnesota, Montana, North Dakota, or South Dakota; and within 70 days in all other states.

### PRECAUTIONS

Applications of USH19004 in winter wheat or spring wheat (including durum) in combination with some EC herbicides may cause crop response (see tankmix section).

## STORAGE AND DISPOSAL

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

### 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 105°F (40°C) or in temperatures that fall below 14°F (-10°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

#### Rigid, Non-refillable containers (equal to or less than 5 gallons)

Non-refillable 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 or by incineration.

[OR]

#### Rigid Non-refillable containers (greater than 5 gallons)

##### **Non-refillable Containers**

Non-refillable containers - Do not reuse or refill this container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information 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, 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]

**Refillable Containers**

Refillable container – Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows. Refill this container with pesticide only. Do not reuse this container for any other purpose. Contact your Ag retailer or Bayer CropScience for container return, disposal and recycling information.

**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. Cleaning before refilling is the responsibility of the refiller. 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, Kegs)**

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. To triple rinse the containers 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.

End users are authorized to remove tamper evident cables as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. If this is the case, end users are not authorized to remove tamper evident cables, one way valves or clean container.

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## CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

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Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks 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 the manner of use or application, all of which are beyond the control of Bayer CropScience. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. NO AGENT OF BAYER CROPSCIENCE IS AUTHORIZED TO MAKE ANY WARRANTIES BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

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**USH19004 (Pending) 01/24/2022, 02/08/2022, 02/17/2023, 02/22/2023, 02/27/2023, 09/06/2023, 09/11/2023, 09/12/2023, 09/13/2023, 09/27/2023, 09/28/2023, 10/13/2023, 10/16/2023, 10/17/2023**