

FLUCARBAZONE-SODIUM

GROUP

2

HERBICIDE

# Vasuvius™

## HERBICIDE

**PEEL HERE**  
for Complete  
Directions for Use  
and Additional  
Precautionary  
Statements

For burndown and early season residual control and postemergence control of wild oat, green foxtail and other listed grass and broadleaf weeds in Spring and Winter wheat.

ACTIVE INGREDIENT:	% BY WT.
Flucarbazone-sodium .....	70%
OTHER INGREDIENTS: .....	30%
TOTAL .....	100%

EPA Reg. No. 2749-611

EPA Est. No. 82778-CHN-001

See inside booklet for First Aid, Precautionary Statements and Directions for Use.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

## KEEP OUT OF REACH OF CHILDREN

# CAUTION

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)

First Aid	
IF IN EYES	<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 eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>Note to Physician:</b> No specific antidote is available. Treat the patient symptomatically. Have the product container or label with you when calling a poison control center or physician, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-3887 (24 Hours per Day, 7 Days per Week).	

FOR CHEMICAL SPILL, LEAK, FIRE, EXPOSURE OR MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-3887 (24 Hours per Day, 7 Days per Week).

**Net Contents: 20 ounces****Manufactured by:** Actylis

4 Tri Harbor Court, Port Washington, NY 11050

JOB 234662

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION:** Cause moderate eye irritations. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wear appropriate eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves made of water-proof material,
- Shoes plus socks,

#### 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.

#### ENGINEERING CONTROL STATEMENTS:

When handlers use closed systems, or 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:

- 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.
- Remove clothing /PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### ENVIRONMENTAL HAZARDS

**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** apply when weather conditions favor drift from areas treated. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

#### NON-TARGET ORGANISM ADVISORY:

Vasuvius™ Herbicide is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimizing spray drift.

#### GROUND WATER ADVISORY:

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

**SURFACE WATER ADVISORY:**

Vasuvius™ Herbicide 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. Vasuvius™ Herbicide is classified as having high potential for reaching surface water via runoff for several months or more after application.

A level, well-maintained vegetative buffer strip between areas to which Vasuvius™ Herbicide is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of Flucarbazone-sodium from runoff water and sediment. Runoff of Vasuvius™ Herbicide will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

**DIRECTIONS FOR USE**

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS, RESTRICTIONS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

This product can only be used in accordance with the Directions for Use on this label.

**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, forest, nurseries and green houses, 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 the label about personal protective equipment (PPE), 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 this 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, including plants, soil or water, is:

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves, made of waterproof materials.

#### **NON-AGRICULTURAL 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, forests, nurseries, or greenhouses.

Keep children and pets out of treated area until spray solution has dried.

#### **Product Information**

Vasuvius™ Herbicide is a selective systemic pre- and post-emergent herbicide for the control of various annual grasses including wild oat, green foxtail, Italian ryegrass, windgrass, cheat, barnyardgrass, Japanese brome and broad leaf weeds including redroot pigweed, wild mustard and shepherd's purse, in spring, durum and winter wheat and turf areas. This product also suppresses additional grass and broadleaf weeds, including yellow foxtail, downy brome, and wild buckwheat.

Vasuvius™ Herbicide is absorbed by foliage and roots of susceptible weeds, which cease growth soon after application. Weed emergence is not necessary for control due to the soil residual activity provided by Vasuvius™ Herbicide. However, maximum weed control may not be seen for one to two weeks, though susceptible weeds will stop growing and will no longer be competitive. For broader spectrum activity, Vasuvius™ Herbicide may be tank mixed with a broadleaf herbicide listed on this label. See TANK MIXES section for recommended products.

The mode of action for sulfonamino-carbonyl-triazoline herbicides is the inhibition of branched chain amino acid biosynthesis in susceptible plants by binding to the acetolactate synthase (ALS) enzyme. Since Vasuvius™ Herbicide is an acetolactate synthase (ALS) inhibitor, and will therefore have activity on weed biotypes which have developed target site resistance to certain classes of herbicides, including ACCase inhibitors, dinitroanilines and triallates. See RESISTANCE MANAGEMENT section for additional information.

#### **Weed Resistance Management**

For resistance management, Vasuvius™ Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Vasuvius™ Herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies must be followed.

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

Rotate the use of Vasuvius™ Herbicide or other Group 2 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.

Users must scout before and 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 for example 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 Vasuvius™ Herbicide, discontinue use of Vasuvius™ Herbicide, 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 lack of performance or suspected resistance, contact your Actylis representative at (516) 627-6000 or [AgroCorrespondence@actylis.com](mailto:AgroCorrespondence@actylis.com).

#### **DIRECTIONS FOR POSTEMERGENCE APPLICATIONS**

Vasuvius™ Herbicide is a selective herbicide for the control of wild oat, green foxtail, Italian ryegrass, windgrass, cheat, barnyardgrass, Japanese brome and numerous broadleaf weeds, including redroot pigweed, wild mustard and shepherd's purse, in spring, durum and winter wheat. Vasuvius™ Herbicide also suppresses additional grass and broadleaf weeds, including yellow foxtail, downy brome, and wild buckwheat.

Vasuvius™ Herbicide is absorbed by foliage and roots of susceptible weeds, which cease growth soon after application. Weed emergence is not necessary for control due to the soil residual activity provided by Vasuvius™ Herbicide. However, maximum weed control may not be seen for one to two weeks, though susceptible weeds will stop growing and will no longer be competitive. For broader spectrum activity, Vasuvius™ Herbicide may be tank mixed with a broadleaf herbicide listed on this label. See TANK MIXES section for recommended products.

#### **DIRECTIONS FOR BURNDOWN APPLICATIONS**

Vasuvius™ Herbicide is a selective herbicide for use in glyphosate burndown applications for improved burndown control and early season residual control of

green foxtail, wild oat, volunteer canola, cheat, Japanese brome and numerous other grass and broadleaf weeds, including winter annual weeds, in spring and winter wheat. Length of residual activity from Vasuvius™ Herbicide is determined by soil type, moisture, weed species and weed population density.

Vasuvius™ Herbicide is absorbed by foliage and roots of susceptible weeds, which cease growth soon after application. as Vasuvius™ Herbicide is absorbed via roots by susceptible weeds, rainfall is necessary for acceptable performance when applied preplant or pre-emergence. If environmental conditions **DO NOT** favor root uptake by target weeds, a follow-up postemergence application is suggested for improved performance. For broader spectrum activity, Vasuvius™ Herbicide may be tank mixed with a broadleaf herbicide listed on this label. See TANK MIXES FOR BURNDOWN APPLICATIONS section for recommended products. Some weed emergence may be observed during or after planting; scout fields at the 2 to 3 leaf stage of the crop to determine if an additional application of a grass and/or broadleaf herbicide product is necessary.

The use of other ALS inhibitors in combination or sequentially can increase the potential for crop damage or lengthen rotational crop intervals on soils with low organic matter (OM) and high pH.

Not all spring and winter wheat varieties have been tested for tolerance.

Some varieties may be known for sensitivity to ALS-inhibitors. Follow local recommendations for varietal sensitivity.

It is advised that Vasuvius™ Herbicide be tank mixed with an herbicide containing glyphosate when making a burndown application. The tank mix must be used in accordance with the more restrictive label limitations and precautions for all products used.

#### **USE RESTRICTIONS – ALL USE SITES**

- **DO NOT** grazed within 15 days of application.
- **DO NOT** harvest wheat forage or hay until 15 days after last application.
- **DO NOT** harvest wheat grain or straw until 60 days after the last application.
- **DO NOT** mix, load or clean spray equipment within 33 feet of well-heads or aquatic systems, including marshes, ponds, ditches, streams, lakes, etc.
- **DO NOT** apply within 50 feet of well-heads or the above-mentioned aquatic systems.
- **DO NOT** apply postemergence when rain is expected within the next hour.
- **DO NOT** allow this chemical to drift onto other crops.
- **DO NOT** apply Vasuvius™ Herbicide through any type of irrigation system.
- **DO NOT** use flood irrigation to apply or incorporate Vasuvius™ Herbicide.
- For Idaho, use only in the counties of Benewah, Boundary, Bonner, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone. Use in all other counties of Idaho is prohibited.
- **DO NOT** allow sprays to drift onto adjacent desirable plants.
- **DO NOT** apply to gravelly soils or highly eroded soils.
- **DO NOT** apply preplant or pre-emergence to durum wheat.
- **DO NOT** apply preplant or pre-emergence if in-furrow applications of organophosphate insecticides have been made.
- **DO NOT** apply more than 0.6 oz. (0.027 lb. ai)/A of Vasuvius™ Herbicide per year.

- **DO NOT** exceed a combined total of 0.6 oz. (0.027 lb. ai)/A of Vasuvius™ Herbicide per year when using a post-emergence herbicide product containing flucarbazone-sodium.
- **DO NOT** apply to "Chateau" spring wheat.

#### *MIXING INSTRUCTIONS*

Vasuvius™ Herbicide is a water dispersible granule designed to be diluted with water at the rates listed in the specific crop use directions. Fill the spray tank with approximately ½ of the desired volume with water or carrier. With the agitation operating, add the specified amount of the formulation as listed in the targeted crop use directions. Complete the filling process while maintaining agitation. Remove the hose from the mixing tank immediately after filling to avoid siphoning back into the carrier source. Add nonionic surfactant and other spray additives as the last ingredients in the tank. Allow time to fully disperse.

Since Vasuvius™ Herbicide forms a suspension in water, it is important to maintain good agitation during mixing and spraying. If the spray suspension is allowed to settle for a short period of time, be sure to agitate the spray suspension for a minimum 10 minutes. Apply spray suspensions within 24 hours after mixing.

#### **Spray Equipment Cleanout**

The mix tank and spray equipment cleanout are an important stewardship activity to avoid injury to desirable crops. It is important to clean all mixing and spraying equipment immediately after use and before using pesticide products including Vasuvius™ Herbicide.

To clean the spraying equipment, follow the procedure outlined below:

- Completely drain the mix tank and/or sprayer, and then wash thoroughly the tank, sprayer, boom and nozzles with clean water. Drain the system again.
- Fill the mixing or spray tank half full with clean water and add domestic ammonium, normally a 3% v/v solution, at a dilution rate of 1% v/v ammonium or 1 gallon per 100 gallons of rinsate.
- Completely fill the tank(s) with additional clean water. Agitate and recirculate and flush out the boom and hoses. Let the system run for 10 – 15 minutes. Drain the system completely.
- Remove nozzles and screens and dislodge any visible solid material. Then soak them in a 1% v/v ammonium solution. Inspect the nozzles and screen and remove any visual residues.
- Repeat the above procedure for a second time.
- Flush the mix tank and/or sprayer, boom and hoses with clean water. Drain the system again and inspect for any visible residues. If present, repeat the cleaning cycle again.
- If the rinsate cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **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.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed-wing aircraft or 75% or less of the rotor blade 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:**

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

##### **Boom-less Ground Applications:**

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- **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 specified 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.

#### **Controlling Droplet Size – Aircraft**

- Adjust Nozzles - Follow nozzle manufacturer's instructions for setting up nozzles.

Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT – Ground Boom**

- Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **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.

#### **Boom-less Ground applications:**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### **Handheld Technology Applications:**

- Take precautions to minimize spray drift.

#### **ENDANGERED SPECIES PROTECTION**

To avoid adverse effects on endangered dicot plant species, the following measures will be required where endangered plant species occur in the counties listed in the table below:

State	County
Idaho	Idaho, Lewis, and Nez Perce
Minnesota	Brown, Cottonwood, Goodhue, Jackson, and Renville
Montana	Flathead, and Lake
Oregon	Benton, Clackamas, Lane, Linn, Marion, Polk, Union, Wallowa, Washington, and Yamhill
Washington	Asotin, Chelan, Cowlitz, Lewis, Lincoln, Spokane, and Whitman
Wyoming	Laramie

**For ground applications, the applicator must:**

- Apply when there is sustained wind away from native plant communities, OR
- Use low-pressure nozzles according to manufacturer's specifications that produce only coarse or very coarse (ASABE S572-1) droplets, OR
- Leave a 50 foot untreated buffer between the treatment and native plant communities

**For aerial applications, the applicator must:**

- Apply only when there is sustained wind away from native plant communities, OR
- Leave a 350 foot untreated buffer between the treatment and native plant communities

**POSTEMERGENCE USE DIRECTIONS – FOR SPRING, DURUM AND WINTER WHEAT**

**APPLICATION PROCEDURES**

Best weed control is observed when environmental conditions support vigorous growth of crop and weeds. Research has demonstrated that optimum wheat yield is obtained by early removal of grassy weeds. Apply Vasuvius™ Herbicide to spring wheat prior to jointing, when the majority of plants have from one leaf to a maximum of 4 leaves on the main stem plus two tillers. For winter wheat, apply either in the fall or spring when the majority of plants have one leaf to full tillering, but prior to jointing.

Vasuvius™ Herbicide must not be applied after jointing begins to avoid the risk of crop injury.

**USE RESTRICTIONS**

**DO NOT** apply more than 0.6 oz. (0.027 lb. ai)/A of Vasuvius™ Herbicide per year.

If Vasuvius™ Herbicide has been applied either preplant or pre-emergence to the crop,

**DO NOT** exceed a combined total of 0.027 lb. flucarbazone-sodium/A of both applications per year (equal to a combined total of 0.6 oz. (0.027 lb. ai)/A of Vasuvius™ Herbicide per year).

**DO NOT** make more than one post emergence application of Vasuvius™ Herbicide per year.

**DO NOT** grazed within 15 days of application.

**DO NOT** harvest wheat forage or hay until 15 days after last application.

**DO NOT** harvest wheat grain or straw until 60 days after the last application.

**DO NOT** apply to "Choteau" spring wheat.

**GROUND APPLICATION**

Apply in a spray volume of 5 to 10 gal/A at 30 to 50 psi to ensure proper weed coverage. Flat fan nozzles of 80 or 110 degrees are advised for optimum coverage. **DO**

**NOT** use floodjet or control droplet application equipment. Nozzles may be oriented 45 degrees forward to enhance crop penetration and to give better weed coverage.

**AERIAL APPLICATION**

Apply in water using a minimum spray volume of 3 gal/A. For best results, use a minimum of 5 gal/A under dry conditions or heavy weed infestations.

**DO NOT** allow spray to drift onto adjacent crops, as injury or loss may occur.

See the **SPRAY DRIFT MANAGEMENT** section of this label for additional information on how to reduce drift during aerial application.

**USE RATES AND TIMING OF APPLICATION**

Timing of Postemergence Application to Wheat	
Crop	Growth Stage
Durum & Spring Wheat	Apply prior to jointing, from 1 leaf to a maximum of 4 leaves on the main stem plus 2 tillers.
Winter Wheat	Fall application: minimum of 1 leaf.
	Spring application: apply as soon as wheat growth resumes, from 1 leaf minimum to full tillering but before jointing begins.

Wheat exposed to water logged or saturated soils or temperature extremes including hot or freezing weather, drought, low fertility or plant disease immediately prior to or after application could result in unacceptable injury symptoms. Weed control may also be reduced by these same conditions.

Specified Rates of Application for Grass & Broadleaf Weeds		
Rate	Target Weeds	Growth Stage & Remarks
0.3 oz/A (0.013 lb. ai)	Green Foxtail ( <i>Setaria viridis</i> )	1 leaf to 6 total leaves <sup>1</sup>
	Redroot Pigweed ( <i>Amaranthus retroflexus</i> )	
	Wild Mustard ( <i>Brassica kaber</i> )	
0.4 oz/A (0.018 lb. ai)	<b>All weeds listed at the 0.3 oz/A rate and the following:</b>	
	Wild Oat ( <i>Avena fatua</i> )	Low to moderate infestations 1 leaf to 6 total leaves <sup>1</sup>
	Volunteer Tame Oat ( <i>Avena sativa</i> )	Low to moderate infestations 1 leaf to 6 total leaves <sup>1</sup>
	Barnyardgrass ( <i>Echinochloa crus-galli</i> )	1 leaf to 6 total leaves <sup>1</sup>
	Windgrass ( <i>Apera spica-venti</i> and <i>Apera interrupta</i> )	1 leaf to 6 total leaves <sup>1</sup>
	Black Mustard ( <i>Brassica nigra</i> )	
	Blue Mustard ( <i>Chorispora tenella</i> )	

(continued)

Specified Rates of Application for Grass & Broadleaf Weeds (continued)		
Rate	Target Weeds	Growth Stage & Remarks
0.4 oz/A (0.018 lb. ai)	Curly Dock ( <i>Rumex crispus</i> )	
	Field Pennycress ( <i>Thlaspi arvense</i> )	
	Ladysthumb ( <i>Polygonum persicaria</i> )	
	Pennsylvania Smartweed ( <i>Polygonum pensylvanicum</i> )	
	Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )	
	Tansy Mustard ( <i>Descurania pinnata</i> )	
	Tumble Mustard ( <i>Sisymbrium altissimum</i> )	
	Volunteer Canola (conventional) ( <i>Brassica rapa</i> ssp. <i>Canola</i> )	
	Wild Turnip ( <i>Brassica rapa</i> ssp. <i>Slyvestris</i> )	
0.6 oz/A (0.027 lb. ai)	<b>All weeds listed at the 0.3 oz/A and 0.4 oz/A rates and the following:</b>	
	Wild Oat ( <i>Avena fatua</i> )	High infestations or when tank mixed with dicamba <sup>2</sup> 1 leaf to 6 total leaves <sup>1</sup>
	Cheat (True Cheat) ( <i>Bromus secalinus</i> )	Apply when actively growing Fall Application: Control Spring Application: Control <sup>3</sup> or Suppression
	Japanese Brome ( <i>Bromus japonicus</i> )	Apply when actively growing Fall Application: Control Spring Application: Control <sup>3</sup> or Suppression
	Downy Brome ( <i>Bromus tectorum</i> )	Suppression <sup>4</sup> Apply when actively growing
	Italian Ryegrass ( <i>Lolium multiflorum</i> )	Control <sup>3</sup> or Suppression <sup>1</sup> 1 leaf to tillering <sup>5</sup>
	Persian Darnel ( <i>Lolium persicum</i> )	Suppression 1 leaf to 6 total leaves <sup>1</sup>
	Foxtail Barley ( <i>Hordeum jubatum</i> )	Suppression 1 leaf to 6 total leaves <sup>1</sup>
	Yellow Foxtail ( <i>Setaria glauca</i> )	Suppression 1 leaf to 6 total leaves <sup>1</sup>

(continued)

Specified Rates of Application for Grass & Broadleaf Weeds (continued)		
Rate	Target Weeds	Growth Stage & Remarks
0.6 oz/A (0.027 lb. ai)	Flixweed ( <i>Descurania sophia</i> )	
	Small Seeded False Flax ( <i>Camelina microcarpa</i> )	
	Burr Buttercup ( <i>Ranunculus testiculatus</i> )	Suppression
	Common Waterhemp ( <i>Amaranthus tamariscinus</i> )	Suppression
	Tall Wormseed Wildflower ( <i>Erysimum cheiranthoides</i> )	Suppression
	Wild Buckwheat ( <i>Polygonum convolvulus</i> )	Suppression

<sup>1</sup> 1 leaf to 4 leaves on main stem plus 2 tillers

<sup>2</sup> If Vasuvius™ Herbicide is applied in a tank mix combination with a dicamba-containing broadleaf herbicide, wild oat control may be reduced.

<sup>3</sup> Control is achieved by using 1 qt of non-ionic surfactant per 100 gal of spray solution (0.25 %v/v) + either liquid nitrogen fertilizer (2 qt/A and up to 50% of spray solution volume) OR ammonium sulfate fertilizer (nitrogen rate equivalent to 1.5 lb./A). Applications of liquid nitrogen fertilizer may result in temporary leaf burn or discoloration.

<sup>4</sup> Suppression is achieved by using 1 qt of non-ionic surfactant per 100 gal of spray solution (0.25 %v/v) + either liquid nitrogen fertilizer (2 qt/A and up to 50% of spray solution volume) OR ammonium sulfate fertilizer (nitrogen rate equivalent to 1.5 lb./A). Applications of liquid nitrogen fertilizer may result in temporary leaf burn or discoloration.

<sup>5</sup> 1 leaf to 4 leaves on main stem until end of tillering.

#### ADJUVANT USE RATES

Vasuvius™ Herbicide as a standalone or tank mix treatment may be mixed with adjuvants according to the following recommendations. When an adjuvant is to be used with Vasuvius™ Herbicide, Actylis recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

Specified Adjuvant Use Rates	
Vasuvius™ Herbicide tank mixed with glyphosate	<ul style="list-style-type: none"> <li>Follow the recommendations on the glyphosate label</li> </ul>
Vasuvius™ Herbicide alone	<ul style="list-style-type: none"> <li>Use 1 qt of non-ionic surfactant per 100 gallons (0.25% v/v)</li> <li>Spray-Grade ammonium sulfate fertilizer at 0.75-1.5 lb./A can be used in addition to the non-ionic surfactant.</li> </ul>
Vasuvius™ Herbicide with liquid nitrogen fertilizer	<ul style="list-style-type: none"> <li>Always pre-slurry Vasuvius™ Herbicide in clean water and agitate continuously.</li> <li>Add up to 50% v/v of 28-32% UAN.</li> </ul>

Specified Adjuvant Use Rates for Turf	
Vasuvius™ Herbicide alone or with amine water soluble herbicides	<ul style="list-style-type: none"> <li>• Use 1 qt of non-ionic surfactant per 100 gal (0.25% v/v) OR</li> <li>• A high quality basic blend at 2 qt per 100 gal (0.5% v/v) OR</li> <li>• A methylated seed oil (MSO) at 1.5 pt./A + ammonium sulfate fertilizer (AMS) at 1.5 lb./A</li> </ul>
Vasuvius™ Herbicide with ester or EC base herbicides	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> add surfactant</li> </ul>
Vasuvius™ Herbicide with sulfonylurea herbicides + 2,4-D or dicamba <sup>1</sup>	<ul style="list-style-type: none"> <li>• Use 1 pint of non-ionic surfactant per 100 gal (0.125% v/v)</li> <li>• <b>DO NOT</b> add surfactant if mixing with an ester or EC base 2,4-D</li> </ul>
<sup>1</sup> For Vasuvius™ Herbicide applicants applied in a tank mix combination with dicamba-containing broadleaf herbicide, wild oat control may be reduced.	

#### TANK MIX PARTNERS

For broader spectrum control of broadleaf weeds, Vasuvius™ Herbicide may be mixed with the broadleaf herbicides listed in the following table. Depending on the tank mix partner, an adjuvant may be included in the spray solution. See **ADJUVANT USE RATES** section.

**It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.**

If Vasuvius™ Herbicide is to be tank mixed with other herbicides, conduct a compatibility test prior to mixing. Use a small container and mix all components in a small amount, usually 0.5 to 1 quart of spray. Combine all products in the same ratio and order of addition as in the proposed spray mixture. Observe the mixture for indication of incompatibility which usual occurs in 10 to 30 minutes after mixing. If incompatibility is observed, try changing the order of addition of the components. The guideline on tank mixture partners is driven by formulation type. Start with wettable powders (WP's) including water soluble bags (WSB's), water dispersible granules (WDG's), suspension concentrated (SC's) or flowable (F's), all with very good agitation. Next follow with water miscible concentrates and emulsifiable concentrates (EC's) before adding drift control additives, nonionic surfactants (NIS's). After vigorous agitation, there must be a homogeneous suspension. Let the final tank mixture stand and observe for any rapid settling or floating of components. If any indications of physical incompatibility develop, **DO NOT** use this mixture for spraying.

<b>Vasuvius™ Herbicide Tank Mix Partners<sup>1</sup></b>
2,4-D Amine (4 lb./gal)
2,4-D Lo Volatile Ester (4 lb./gal)
2,4-D Lo Volatile Ester (6 lb./gal)
Aim® (EPA Reg. No. 279-3241, carfentrazone-ethyl)
Bromoxynil (2 lb./gal)
Bromoxynil + MCPA (2 + 2 lb./gal)
Bronate Advanced™ (EPA Reg. No.264-690, MCPA, bromoxynil)
Curtail® (EPA Reg. No.62719-48, clopyralid, 2,4-D)
Curtail M (EPA Reg. No. 62719-86, clopyralid, MCPA)

If one of the sulfonylurea herbicides in the following table is included with Vasuvius™ Herbicide for broadleaf control, 2,4-D or dicamba<sup>2</sup> is required in spring and durum wheat at the rate range listed in the table below. The addition of 2,4-D or dicamba<sup>2</sup> is not required in winter wheat. For adjuvant recommendations, see **ADJUVANT USE RATES** section.

Sulfonylurea Tank Mix Partner <sup>1</sup>	In Spring and Durum Wheat, Add 2,4-D or Dicamba <sup>1</sup> At the Following Rate Per Acre
Audit® 1:1 (EPA Reg. no. 66330-418, thifensulfuron, tribenuron-methyl)	<p>2,4-D Amine or LV Ester (in 4 lb.ai/gal formulation): Use 0.25–0.75 pt.</p> <p>2,4-D LV Ester (In 6 lb. ai/gal formulation): Use 0.17–0.5 pt.</p> <p>Dicamba<sup>2</sup> (In 4 lb. ai/gal formulation): Use 2–4 fl oz</p>
Audit® 4:1 (EPA Reg. no. 66330-418, thifensulfuron, tribenuron-methyl)	
Supremacy® (EPA Reg. No. 66330-406, fluroxypyr, thifensulfuron, tribenuron-methyl)	
Affinity® (EPA Reg. No. 279-9599, thifensulfuron, tribenuron-methyl)	
Affinity BroadSpec (EPA Reg. No. 279-9601, thifensulfuron, tribenuron-methyl)	
Ally® XP (EPA Reg. No. 279-9575, metsulfuron-methyl)	
Ally Extra (EPA Reg. No. 279-9603, thifensulfuron, tribenuron, metsulfuron-methyl)	
Amber® (EPA Reg. No. 100-768, trisulfuron)	
Express® (EPA Reg. No.279-9578, tribenuron-methyl)	
Finesse® (EPA Reg. No.279-9610, chloresulfuron, metsulfuron-methyl)	
Harmony® Extra (EPA Reg. No. 279-9602, thifensulfuron, tribenuron-methyl)	
Harmony GT (EPA Reg. No. 279-9577, thifensulfuron)	
Peak (EPA Reg. No. 100-763, prosulfuron)	

<sup>1</sup> For tank mix partner rate recommendations follow the label of the tank mix partner.

<sup>2</sup> If Vasuvius™ Herbicide is applied in a tank mix combination with a dicamba-containing broadleaf herbicide, wild oat control may be reduced.

**USE DIRECTIONS FOR BURNDOWN APPLICATIONS IN SPRING AND WINTER WHEAT**

**APPLICATION PROCEDURES**

**GROUND APPLICATION**

Apply in a spray volume of 5 to 10 gal/A

**AERIAL APPLICATION**

Apply in water using a minimum spray volume of 3 gal/A. For best results, use a minimum of 5 gal/A.

See the ***SPRAY DRIFT MANAGEMNT*** section of this label for additional information on how to reduce drift during aerial application.

***USE RATES AND TIMING OF APPLICATION***

**PREPLANT OR PRE-EMERGENCE APPLICATIONS ONLY**

Apply Vasuvius™ Herbicide at burndown (preplant or pre-emergence to the crop), preferably with a herbicide containing glyphosate. Refer to the glyphosate product label for use directions and application recommendations.

Vasuvius™ Herbicide removes early flushes of grass and small seeded broadleaf weeds and can enhance the burndown control of weeds when in combination with glyphosate. For season long control a sequential application of a grass or broadleaf herbicide is required.

Research has shown that removal of early weed competition in combination with good agronomic practices maximizes wheat yield potential. Vasuvius™ Herbicide works best when used in combination with good fertility and uniform wheat stands. Residual performance may be reduced if applied more than 10 days prior to seeding or if activating rainfall is not received within 10 days of application.

Vasuvius™ Herbicide is not affected by normal plant residue associated with no-till practices. Extremely heavy residue situations may delay Vasuvius™ Herbicide's contact with the soil and result in reduced performance.

***USE RESTRICTIONS***

**DO NOT** apply more than 0.6 oz. (0.027 lb. ai)/A of Vasuvius™ Herbicide per year. If Vasuvius™ Herbicide has been applied either preplant or pre-emergence to the crop, **DO NOT** exceed a combined total of 0.027 lb. flucarbazone-sodium/A of both applications per year (equal to a combined total of 0.6 oz. (0.027 lb. ai)/A of Vasuvius™ Herbicide per year).

**DO NOT** make more than one post emergence application of Vasuvius™ Herbicide per year.

**DO NOT** apply preplant or pre-emergence to durum wheat.

**DO NOT** apply preplant or pre-emergence if in-furrow applications of organophosphate insecticides have been made.

**DO NOT** apply to "Choteau" spring wheat.



**Winter Wheat Use Rates**

For winter wheat apply Vasuvius™ Herbicide on soils with organic matter greater than 1.0% and pH less than 8.0.

Application Rate for Winter Wheat Based on Soil pH and Soil Organic Matter (OM)			
Soil pH	OM 1.0-1.4%	OM 1.5-2.0%	OM > 2.0%
pH 7.5-8.0	0.2 oz/A (0.009 lb. ai)/A	0.25 oz/A (0.011 lb. ai)/A	0.3 oz/A (0.013 lb. ai)/A
pH < 7.5	0.3 oz/A (0.013 lb. ai)/A	0.3 oz/A (0.013 lb. ai)/A	0.3 oz/A (0.013 lb. ai)/A

**Spring Wheat Use Rates**

For spring wheat apply Vasuvius™ Herbicide on soils with organic matter greater than 1.5% and pH less than 7.8.

Application Rate for Spring Wheat Based on Soil pH and Soil Organic Matter (OM)			
Soil pH	OM 1.5-2.0%	OM 2.1-2.5%	OM > 2.5%
pH 7.5-7.8	0.15-0.2 oz/A (0.007-0.009 lb. ai)/A	0.2-0.25 oz/A (0.009-0.011 lb. ai)/A	0.25-0.3 oz/A (0.011-0.013 lb. ai)/A
pH 7.0-7.4	0.2-0.25 oz/A (0.009-0.011 lb. ai)/A	0.25-0.3 oz/A (0.011-0.013 lb. ai)/A	0.3 oz/A (0.013 lb. ai)/A
pH < 7.0	0.3 oz/A (0.013 lb. ai)/A	0.3 oz/A (0.013 lb. ai)/A	0.3 oz/A (0.013 lb. ai)/A

Early Season Residual Control and Control of Emerged Weeds with Thus Product <sup>1</sup>	
Target Weeds	Remarks
Green Foxtail <sup>2</sup> ( <i>Setaria viridis</i> )	Vasuvius™ Herbicide provides season long control.
Wild Oat ( <i>Avena fatua</i> )	Vasuvius™ Herbicide controls early flushes. Moderate to heavy infestations require a sequential treatment with a labeled grass herbicide.
Cheat (True Cheat) ( <i>Bromus secalinus</i> )	Vasuvius™ Herbicide controls early flushes. Season long control requires a sequential treatment with a labeled grass herbicide.
Japanese Brome ( <i>Bromus japonicus</i> )	
Downy Brome ( <i>Bromus tectorum</i> )	Vasuvius™ Herbicide suppresses early flushes. Season long control requires a sequential treatment with a labeled grass herbicide.
Rescuegrass ( <i>Bromus catharticus</i> )	
Italian Ryegrass ( <i>Lolium multiflorum</i> )	

Early Season Residual Control and Control of Emerged Weeds with Vasuvius™ Herbicide <sup>1</sup>	
Target Weeds	Remarks
Yellow Foxtail ( <i>Setaria glauca</i> )	
Persian Darnel ( <i>Lolium persicum</i> )	
Barnyardgrass ( <i>Echinochloa crus-galli</i> )	
Foxtail Barley ( <i>Hordeum jubatum</i> )	
Redroot Pigweed ( <i>Amaranthus retroflexus</i> )	Vasuvius™ Herbicide will provide control of 2 to 3 inch emerged broadleaf weeds and provide residual control of early flushes.
Wild Mustard ( <i>Brassica kaber</i> )	
Black Mustard ( <i>Brassica nigra</i> )	
Blue Mustard ( <i>Chorispora tenella</i> )	
Field Pennygrass ( <i>Thlaspi arvense</i> )	
Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )	
Tansy Mustard ( <i>Descurania pinnata</i> )	
Flixweed ( <i>Descurania sophia</i> )	
Tumble Mustard ( <i>Sisymbrium altissimum</i> )	
Volunteer Canola <sup>2</sup> (conventional & Roundup Ready) ( <i>Brassica rapa</i> ssp. <i>Canola</i> )	
Wild Turnip ( <i>Brassica rapa</i> ssp. <i>Sylvestris</i> )	

Early Season Residual Control and Control of Emerged Weeds with Vasuvius™ Herbicide <sup>1</sup>	
Target Weeds	Remarks
Henbit ( <i>Lamium amplexicaule</i> )	Vasuvius™ Herbicide will provide suppression of 2 to 3 inch emerged wild buckwheat and provide residual suppression of early flushes.
Wild Buckwheat ( <i>Polygonum convolvulus</i> )	
<sup>1</sup> Vasuvius™ Herbicide used at rates below 0.3 oz. (0.013 lb. ai)/A may have less burndown control or residual suppression of weeds listed above. <sup>2</sup> If heavy rainfall is received after application residual control of green foxtail and volunteer canola may be reduced.	

#### **TANK MIXES FOR BURNDOWN APPLICATIONS**

It is advised that Vasuvius™ Herbicide be tank mixed with glyphosate for broad spectrum activity when making a burndown application. With all tank mix partners, read and follow the use directions, rates, precautions, timing, recropping restrictions, grazing interval restrictions and recommendations on broadleaf herbicide and surfactant labels. The tank mix must be used in accordance with the more restrictive label limitations and precautions for all pesticides used.

<b>Tank Mix Partners For Enhanced Burndown</b>	
2,4-D Amine (4 lb./gal)	
2,4-D Ester	
Affinity Tankmix (EPA Reg. No. 279-9599, thifensulfuron, tribenuron-methyl)	
Affinity BroadSpec (EPA Reg. No. 279-9601, thifensulfuron, tribenuron-methyl)	
Aim (EPA Reg. No. 279-3241, carfentrazone-ethyl)	
Ally XP (Winter wheat only) (EPA Reg. No. 279-9575, metsulfuron-methyl)	
Audit 1:1 (EPA Reg. No. 66330-418, thifensulfuron, tribenuron-methyl)	
Audit 4:1 (EPA Reg. No. 66330-419, thifensulfuron, tribenuron-methyl)	
Dicamba <sup>1</sup>	
Finesse (Winter wheat only) (EPA reg. No. 279-9610, chlorsulfuron, metsulfuron-methyl)	
Glyphosate	
Sharpen <sup>®</sup> (EPA Reg. No. 62719-577, safufenacil)	
<sup>1</sup> If Vasuvius™ Herbicide is applied in a tank mix combination with a dicamba-containing broadleaf herbicide, wild oat control may be reduced.	

<b>Tank Mix Partners for Enhanced Residual Control in Winter Wheat</b>	
Outrider <sup>®</sup> (EPA Reg. No. 59639-223, sulfosulfuron)	Add Outrider at 0.2-0.33 oz. (0.0014 – 0.0155 lb. ai)/A to increase residual activity on brome species. Follow the restrictions on the Outrider label when using this tank mixture.

#### **Crop Rotation Restrictions**

As Vasuvius™ Herbicide is degraded by soil microbes, environmental conditions that decrease microbial activity must be considered when making rotational cropping decisions. These environmental conditions include less than the 10 year average precipitation, cold temperatures within and following the cropping season, as well as soils with both low Organic Matter (OM) and high pH. If these conditions exist, or for crops not listed on **CROP ROTATION RESTRICTIONS** for the states listed in the three Tables below a soil bioassay may be necessary to ensure rotational crop safety. Previous herbicide history must be known prior to planting the crops listed below. Long-residual ALS inhibitors can remain for several years after application and increase the chance of rotational crop injury.

#### **Field Bioassay**

To conduct an effective field bioassay, plant strips of the crop you plan to grow the following season in fields previously treated with Vasuvius™ Herbicide. Crop response will determine if the crop(s) planted in the test strips can be adequately grown in these areas.

**CROP ROTATION RESTRICTIONS**  
*for the states of North Dakota, Minnesota, Montana and South Dakota*

Crops	Interval for soils with a pH < 8	Intervals for soils with a pH at or > 8
Spring and Winter Wheat	0 days	0 days
Durum Wheat	4 months	4 months
Sunflower	4 months	4 months
STSoybeans	6 months	6 months
Barley	9 months	9 months
Canola	9 months	9 months
Dry Edible Beans	9 months	9 months
Flax	9 months	9 months
Potatoes <sup>1</sup>	9 months	9 months
Safflower	9 months	9 months
Soybeans	9 months	9 months
Sugarbeets <sup>1</sup>	9 months	9 months
Alfalfa	11 months <sup>2</sup>	18 months
Corn	11 months	11 months
Field peas	11 months <sup>2</sup>	18 months
Garbanzo bean (Chickpea)	11 months <sup>2</sup>	18 months
Clearfield Lentils	18 months	18 months
Lentils	18 months	24 months
Oat	18 months	24 months
Sorghum or forage millet	18 months	18 months
Mustard	24 months	24 months

<sup>1</sup>Due to lower organic matter, seasonal moisture and irrigation practices, potatoes and sugarbeet grown in western North Dakota or South Dakota (west of highway 281) or Montana must not be planted until 24 months after application.

<sup>2</sup>For the intervals specified for these crops precipitation must be equal to or above 10 year average (minimum 4 inch within 60 days of application in year of application). If not an 18 month interval must be followed.

**CROP ROTATION RESTRICTIONS**  
*for the states of Idaho, Oregon, and Washington*

Crops	Interval for soils with a pH at or < 5.5	Intervals for soils with pH 5.6-7.5 <sup>1</sup>
Spring and Winter Wheat	0 days	0 days
Durum Wheat	4 months	4 months
Sunflower	4 months	4 months
STS Soybeans	6 months	6 months
Barley	9 months	9 months
Canola	9 months	9 months
Dry Edible Beans	9 months	9 months
Flax	9 months	9 months
Safflower	9 months	9 months
Soybeans	9 months	9 months
Timothy	9 months	18 months
Alfalfa	11 months	18 months
Corn	11 months	18 months
Field peas	10 months	18 months
Garbanzo bean (Chickpea)	10 months	18 months
Clearfield Lentils	10 months	18 months
Lentils	18 months	24 months
Oat	18 months	24 months
Sorghum or forage millet	18 months	24 months
Mustard	24 months	24 months

<sup>1</sup>For soils with a pH greater than 7.5 rotate to wheat the following season then conduct a bioassay prior to other crops.

**CROP ROTATION RESTRICTIONS**  
*for all other states where Vasuvius™ Herbicide is registered for use:*

Crops	Interval for soils with a pH at or < 6.5	Intervals for soils with a pH 6.5-7.5	Intervals for soils with a pH 7.5-8.0
Spring and Winter Wheat	0 days	0 days	0 days
Durum Wheat	4 months	4 months	4 months
Sunflower	4 months	4 months	9 months
STS Soybeans	4 months	6 months	6 months
Barley	9 months	11 months	18 months
Canola	9 months	9 months	11 months
Dry Edible Beans	9 months	11 months	18 months
Flax	9 months	9 months	12 months
Soybeans	6 months	9 months	12 months
Cotton	6 months	9 months	12 months
Alfalfa	9 months	18 months	24 months
Corn	9 months	15 months	18 months
Garbanzo bean (Chickpea)	9 months	15 months	18 months
Oat	9 months	18 months	18 months
Grain Sorghum	9 months	15 months	18 months
Millet or forage sorghum	9 months	15 months	24 months

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a dry and secure location.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

[Plastic bottle packaging:]

**CONTAINER HANDLING:** Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. 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. 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 triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or pick up for recycling. To find the nearest site, contact your chemical dealer or manufacturer. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances.

[Fiber Drums with Liners:]

**CONTAINER HANDLING:** Nonrefillable container. **DO NOT** reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into the handling or application equipment. Then offer for recycling if available, or dispose of liner in a sanitary landfill, or by incineration, or by burning, if allowed by state and local authorities. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

## WARRANTY DISCLAIMER AND NOTICE

### IMPORTANT: READ BEFORE USE

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 Actylis. 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, ACTYLIS 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 Actylis is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ACTYLIS DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT ACTYLIS'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Made in China & packaged in USA.



FLUCARBAZONE-SODIUM GROUP 2 HERBICIDE

# VASUVIUS™ HERBICIDE

**For burndown and early season residual control and postemergence control of wild oat, green foxtail and other listed grass and broadleaf weeds in Spring and Winter wheat.**

ACTIVE INGREDIENT: % BY WT.  
Flucarbazone-sodium ..... 70%  
OTHER INGREDIENTS: ..... 30%  
TOTAL ..... 100%  
See inside booklet for additional Precautionary Statements and Directions for Use.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

## KEEP OUT OF REACH OF CHILDREN CAUTION

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)

EPA Reg. No. 2749-611 EPA Est. No. 82778-CHN-001

### First Aid

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**Note to Physician:** No specific antidote is available. Treat the patient symptomatically. Have the product container or label with you when calling a poison control center or physician, or going for treatment. **FOR MEDICAL EMERGENCIES INVOLVING VASUVIUS™ HERBICIDE, CALL CHEMTREC TOLL FREE 1-800-424-9300 or 1-703-527-3887 (24 hours per day, 7 days per week).**

**FOR CHEMICAL SPILL, LEAK, FIRE, EXPOSURE OR MEDICAL EMERGENCY INVOLVING VASUVIUS™ HERBICIDE CALL CHEMTREC TOLL FREE 1-800-424-9300 or 1-703-527-3887 (24 hours per day, 7 days per week).**

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION:** Cause moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wear appropriate protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### ENVIRONMENTAL HAZARDS

**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** apply when weather conditions favor drift from areas treated. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal. **PESTICIDE STORAGE:** Store in a dry and secure location. **PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. (Plastic bottle packaging) **CONTAINER HANDLING:** Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:**

Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. 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. 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 triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or pick up for recycling. To find the nearest site, contact your chemical dealer or manufacturer. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances. (Fiber Drums with Liners) **CONTAINER HANDLING:** Nonrefillable container. **DO NOT** reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into the handling or application equipment. Then offer for recycling if available, or dispose of liner in a sanitary landfill, or by incineration, or by burning, if allowed by state and local authorities. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

### Manufactured by:

Actylis  
4 Tri Harbor Court  
Port Washington, NY 11050 **Net Contents: 20 ounces**  
Made in China & packaged in USA.

PF 234662

# PROOF

## THIS PROOF IS TO BE CHECKED FOR ACCURACY

Please review and approve **Text, Spelling, Copy Placement, Size, Shape, Colors** and **Dieline**.

**Authorized signature** accepts responsibility for accuracy of all copy, color break and artwork. Cimarron Label is not liable for any discrepancies subsequently identified.

**PLEASE NOTE:** Due to color variance between printers/monitors, the colors represented by this proof cannot be deemed accurate. Please refer to a color matching system such as the Pantone Matching System for a truer representation of spot colors.

**THIS PROOF IS NOT ACCURATE FOR COLOR-MATCH.**

*Dieline does not print.*







## Cimarron Label

an inovor company

4201 North Westport Ave. • Sioux Falls, SD 57107

Phone: (605) 978-0451 • Fax: (605) 978-0463

DATE	JOB NUMBER	CUSTOMER
06-03-2024	234662	Aceto Life Science, LLC
LABEL SIZE	BOOKLET SIZE	
5.375" x 3.1875"	5.375" x 2.5625"	
LABEL COLORS	BOOKLET OUTSIDE COLORS	BOOKLET INSIDE COLORS
 BLK	 BLK  7733	 BLK
PATTERN VARNISH: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		

Form: CS 006B - 3/29/2017

☐ **ARTWORK IS APPROVED**

☐ **REVISED PROOF NEEDED**

**WE CANNOT PROCESS  
THIS ORDER WITHOUT AN  
AUTHORIZED SIGNATURE**

**Signed** \_\_\_\_\_ **Date** \_\_\_\_\_