

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

June 18, 2020

Dave Bolin VP, Regulatory Affairs Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513

Subject: PRIA Label and CSF Amendment – Revise label to add physical or chemical

hazards statement and Revise Basic CSF

Product Name: A374.01

EPA Registration Number: 91234-119

Application Date: 01/14/2020 Decision Number: 559364

Dear Mr. Bolin:

The amended label and CSF referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Please note that the record for this product currently contains the following CSF:

## Basic CSF dated 11/04/2019

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 the Federal Insecticide Fungicide and Rodenticide Act 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) list 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

Page 2 of 2 EPA Reg. No. 91234-119 Decision No. 559364

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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Marc Sheahin by phone at 703-347-8639, or via email at sheahin.marc@epa.gov.

Sincerely,

Erik Kraft, Product Manager 24 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Ein Mal

Enclosure

[Note to reviewer: [Text] in brackets denotes optional or explanatory language [Note to reviewer: {Text} in braces denotes where in the final label text will appear

## **{BOOKLET FRONT PANEL LANGUAGE}**



SULFOSULFURON GROUP 2 HERBICIDE

A374.01 [TM]

[Alternate Brand Name: Cryder]

Contains sulfosulfuron, the active ingredient used in Outrider®.

A374.01 is a selective herbicide for the control of certain annual and perennial grasses and broadleaf weeds in select pasture grasses and rangelands, non-crop areas and in winter and spring wheat.

# 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.)

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

[A374.01™] is not manufactured, or distributed by Valent USA Corporation seller of Outrider®.

EPA Reg. No.: 91234-119

**EPA Est. No.:** 

**Net Weight:** 

20190912a

Manufactured for:
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

## **{LANGUAGE INSIDE BOOKLET}**

	FIRST AID				
If in eyes:	<ul> <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 eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
	HOT LINE NUMBER				
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.					

For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

## PRECAUTIONARY STATEMENTS

# Hazards to Humans and Domestic Animals CAUTION!

CAUSES MODERATE EYE IRRITATION. Avoid contact with eyes or clothing.

## Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, shoes plus socks, protective eyewear, and chemical-resistant gloves, including nitrile rubber, neoprene rubber or polyethylene. 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.

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

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

### **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 area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift section of this label.

#### Windblown Soil Particles Advisory

WINDBLOWN SOIL PARTICLES: **A374.01** has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affects the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying **A374.01** if prevailing local conditions may be expected to result in off-site movement.

#### **Groundwater 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**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly raining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of sulfosulfuron from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal Laws.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. 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, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and 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, including plants, soil, or water, is coveralls, shoes plus socks, chemical-resistant gloves, including nitrile rubber, neoprene rubber or polyethylene.

## **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 (40 CFR Part 170) for agricultural pesticides. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

#### PRODUCT INFORMATION

**Product Description: A374.01** is a selective, systemic herbicide, formulated as a water dispersible granule (WDG) for control of many annual and perennial weeds in non-crop sites, pastures and rangeland, and for control of certain grasses and broadleaf weeds in winter and spring wheat.

Time to Symptoms: This product fs absorbed through the roots and foliage of plants. Soon after application, growth of susceptible weeds is inhibited and in cropping situations susceptible weeds are no longer competitive with the crop. Following growth inhibition, affected plants may appear dark green and stunted, affected leaves will turn yellow and/or red, and the growing point of the plant may turn reddish-purple. These visible effects of control may not be observed for 1 to 3 weeks after application. Within 6 weeks after application the growing points die. Warm and moist conditions following application will accelerate herbicidal activity. Cool, dry conditions will delay herbicidal activity. Weeds stressed by drought are less susceptible to this product.

**Rainfastness:** Heavy rainfall soon after application (less than 2 hours) may wash this product off of the foliage and a repeat application may be required for adequate control.

#### RESISTANCE MANAGEMENT

For resistance management, **A374.01** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **A374.01** 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 should be followed.

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

- Rotate the use of **A374.01** 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.
- 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 including 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 resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Atticus, LLC at (984) 465-4754.

#### MIXING

Thoroughly clean mixing and application equipment prior to mixing spray solution.

Eliminate any risk of siphoning the contents of the spray or mixing tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by State or local regulations.

Apply spray solutions within 24 hours after mixing.

#### **Water Carrier**

This product mixes readily with water. Mix spray solutions of this product as follows. Fill the spray tank with three-fourths of the desired final volume. Add the appropriate amount of this product to achieve the desired application rate as defined on this label (see the appropriate section of this label for application rates). Continue the filling process while maintaining agitation. When using a nonionic surfactant in non-crop uses or in postemergence applications in wheat, add the nonionic surfactant near the end of the filling process.

### **Surfactant and Adjuvants**

A nonionic surfactant is required for all postemergence applications of this product and is the only adjuvant required to be added to the spray solution. For in-crop applications, use only nonionic surfactants that are approved by EPA for use on food crops. Use only non ionic surfactants that contain at least 90 percent [optional: 80 percent] active ingredient. Add nonionic surfactants to a concentration of 0.25 to 0.5 percent by volume (1 to 2 quarts per 100 gallons of spray solution), unless otherwise directed. **DO NOT USE NON IONIC SURFACTANTS OR OTHER ADDITIVES THAT ALTER THE pH OF THE SPRAY SOLUTION BELOW pH 5.** 

**DO NOT** mix oil-based adjuvants or adjuvant containing oils when this herbicide is tank-mixed with emulsifiable concentrate pesticide formulations.

**DO NOT** use low rates of liquid fertilizer as a substitute for surfactant.

## pH Adjustment

Spray solutions of between pH 6.0 and 8.0 are required for optimal performance of this product. Failure to adjust the pH of the spray solution may result in reduced weed control. Follow the mixing procedure described on this label and adjust the pH of the spray solution after the addition of nonionic surfactant. To adjust the pH, add between 2 to 4 quarts (depending on the starting pH of your water carrier) of a 7 -percent solution of ammonia for every 100 gallons of spray solution.

**Restriction:** DO NOT use ammonia with chlorine bleach as your pH adjuster, as dangerous gases will form.

#### **Tank Mixtures**

Tank mixtures of this product with other herbicide products may be used to provide a broader spectrum of weed control and an alternate mode of herbicidal action. Tank-mix this product with other herbicides or materials that are listed in the specific use site sections of this label. Refer to each individual product label or supplemental labeling for all products in the tank mixture, and observe all instructions, precautions and limitations on the label, including application rates and restrictions related to soil texture, soil organic matter, wheat growth stage and crop rotation. Use the mixture according to the most restrictive precautionary statements for each product in the tank mixture.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly listed

on this label. Mixing this product with herbicides or other materials that are not listed on this label may result in reduced performance.

Tank mixtures with broadleaf herbicides formulated as amines (including 2,4-0 and others) may decrease the effectiveness.

When a generic active ingredient, including 2,4-D, dicamba, diuron or MSMA is listed on this label for tank-mixing with this product, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the tank mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities before mixing in the spray tank. When preparing tank mixtures, add individual components to the spray tank in the following sequence: water, water dispersible granules (this product), water-soluble bags, dry flowables, emulsifiable concentrates, drift control additives, water-soluble liquids, nonionic surfactants.

## **APPLICATION EQUIPMENT AND TECHNIQUES**

This product may be applied using either ground or aerial (fixed-wing or helicopter) spray application equipment. Apply spray solutions of this product using properly maintained and calibrated equipment capable of delivering desired volumes. Use equipment that is capable of continuous and vigorous agitation. Use an agitation system capable of creating a rippling or rolling action on the liquid surface when the tank is full.

**DO NOT** apply this product through any type of irrigation system.

**DO NOT** allow this herbicide solution to mist, drift, or splash onto desirable vegetation or soil areas where sensitive crops will be planted, as minute quantities of this product can cause severe damage or destruction to susceptible plants on which treatment was not intended.

### **Aerial Application**

All treatments described on this label may be made using aerial equipment where appropriate, except where specifically prohibited, provided that the applicator complies with the precautions and restrictions described in the **SPRAY DRIFT** section of this label.

## **Injection Systems**

This product may be used in ground applicator injection spray systems. It may be diluted prior to injecting into the spray stream. **DO NOT** mix this product with the undiluted concentrate of other products when using injections systems, unless specifically directed.

#### **Equipment Cleaning**

Thoroughly clean application equipment with a 1-percent solution of ammonia (one quart of ammonia for every 25 gallons of rinse water) promptly after using this product. Use a sufficient volume of cleaning solution to thoroughly rinse all surfaces and to flush all hoses. Rinse with water and repeat the cleaning procedure with the ammonia solution. Complete the cleaning procedure by rinsing thoroughly with clean water.

If visible residue is present in the spray tank, use a 1-percent solution of ammonia plus 0.25 percent non ionic surfactant (8 fluid ounces for every 25 gallons of rinse water) as the cleaning solution.

#### MANDATORY SPRAY DRIFT

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft above the 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).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Ground Boom Applications:**

- Apply with the nozzle height recommended 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 10 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 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### **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.

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

 Adjust Nozzles - Follow nozzle manufacturers specifications for setting up nozzles. Generally, to reduce fine droplets, nozzles should 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 should 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.

#### HANDHELD TECHNOLOGY APPLICATIONS

Take precautions to minimize spray drift.

#### NON-CROP, PASTURES AND RANGELAND

#### **Use Sites:**

<u>Non-crop Use Sites:</u> Use this product for weed control on non-crop sites including airports, conservation areas, ditch banks, dry ditches, dry canals, fallow areas, fencerows, industrial sites, lumberyards, manufacturing sites, natural areas, petroleum tank farms and pumping installations, railroads, roadsides, storage areas, utility rights-of-way, utility sites and substations, warehouse areas and wildlife areas.

<u>Pasture and Rangeland Use Sites:</u> Use this product for weed control in pastures, hayfields and rangelands as defined in this label. It can be used for weed control in perennial native grasses as defined on the label.

**DO NOT** use this product on or around athletic fields, commercial turf sites, golf courses, residential turf sites or sod and turfgrass seed farms.

IMPORTANT: DO NOT allow this product to contact roots or foliage of desirable vegetation, areas where roots of desirable vegetation may extend, or areas where this product may be washed or moved into contact with roots of desirable vegetation. Desirable plants may be injured if planted into treated areas.

#### **Application Equipment and Techniques**

Best results are obtained when weeds are actively growing and not disturbed by mowing for at least 14 days before and 14 days after application.

#### **Ground Broadcast Application**

Apply this product uniformly with properly calibrated ground application equipment at rates specified on this label in 10 to 50 gallons of water per acre. Select spray volumes that ensure thorough and uniform weed coverage. Spray booms need to be equipped with nozzles that provide optimum spray distribution and uniform coverage at the appropriate spray pressure to minimize streaking, skips, overlaps and spray drift during application.

#### **Aerial Application**

Apply this product at rates specified on this label in 5 to 15 gallons of water per acre when making aerial applications, unless otherwise specified.

#### Hand-Held and High-Volume Application

Hand-held spray guns, backpack sprayers and other similar types of sprayers may be used to apply this product. Follow the use directions for hand-held and high-volume application in the specific use sections of this label. Apply to foliage of vegetation to be controlled at a rate of approximately 2 gallons of spray solution per 1000 square feet. Spray coverage needs to be uniform and complete. **DO NOT** spray to the point of runoff. Use coarse sprays only.

#### **BERMUDAGRASS AND BAHIAGRASS NON-CROP SITES**

Use this product to control or partially control many annual and perennial weeds for effective release of bermudagrass and bahiagrass on roadsides and other non-crop sites listed in this section of this label.

#### **Ground Broadcast Application**

Apply at 0.75 to 2 ounces of product (.035 to .093 lb a.i.) per acre in a spray solution containing a nonionic surfactant at a concentration of 0.25 percent by volume. Use the higher application rate of this product within the range for control of large established weeds or when weed growth is heavy or dense. Follow-up applications can be made after suitable re-growth of weeds but no sooner than 30 days after the previous application.

#### **Restrictions:**

- Maximum Annual Use Rate: The combined total of all applications of this product must not exceed 2.66 ounces of product (.124 lb a.i.) per acre per year.
- Single Max Use Rate: 2 ounces (.093 lb a.i.) per acre
- Max Number of Applications/Year: 2
- RTI: 30 days

### Hand-Held and High-Volume Application

With hand-held and high-volume spray equipment, apply a spray solution consisting of 1 ounce (.046 lb a.i.) of this product plus 1 quart of a nonionic surfactant (0.25 percent) per 100 gallons of spray solution.

#### **Tank Mixtures**

ESTABLISHED STANDS OF BERMUDAGRASS AND BAHIAGRASS ARE TOLERANT TO THIS PRODUCT AT RATES SPECIFIED ON THIS LABEL; HOWEVER, TANK MIXTURES OF THIS PRODUCT WITH OTHER HERBICIDES MAY INCREASE GRASS INJURY. USE THESE TANK MIXTURES ONLY WHEN SOME TEMPORARY INJURY OR DISCOLORATION OF THE BERMUDAGRASS AND BAHIAGRASS CAN BE TOLERATED.

Tank mixtures of this product with other herbicides may be used to increase the spectrum of weed control in bermudagrass and bahiagrass.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

This product may be applied at a rate of 0.75 to 2 ounces (.035 to .093 lb a.i.) per acre in a tank-mix with the following products:

2,4-D, chlorsulfuron, clopyralid, dicamba, diuron, glyphosate, imazapic, metsulfuron methyl, MSMA, sulfometuron methyl, triclopyr

Refer to the label of each individual product included in the tank mixture for application rates and use instructions for weed control on bermudagrass and bahiagrass turf sites.

A surfactant does not need to be added to the spray solution when this product is tank-mixed with Campaign® (EPA Reg. No. 524-351, Glyphosate-isopropylammonium and 2,4-D, isopropylamine salt), Roundup ProMAX® (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)- potassium salt), or Roundup PRO® Concentrate (EPA Reg. No. 524-529, Glyphosate-isopropylammonium) herbicides.

#### **Release of Dormant Bermudagrass or Bahiagrass**

This product may be tank-mixed with Campaign® (EPA Reg. No. 524-351, Glyphosate-isopropylammonium and 2,4-D, isopropylamine salt), Roundup ProMAX® (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)- potassium salt), or Roundup PRO® Concentrate (EPA Reg. No. 524-529, Glyphosate-isopropylammonium) herbicides to control or partially control many winter annual weeds in dormant bermudagrass and bahiagrass prior to spring green-up. In dormant bermudagrass or bahiagrass, apply 0.75 to 2 ounces of this product (.035 to .093 lb a.i.) per acre, alone or in a tank mixture with one of the following herbicide products at an application rate within the range indicated.

Tank-Mix Product	Application Rate
Campaign® (EPA Reg. No. 524-351, Glyphosate-	16-64 fl oz / acre (.156 lb a.i. / acre glyphosate
isopropylammonium and 2,4-D, isopropylamine salt)	isopropylammonium and .237595 lb a.i. / acre 2,4-D
	isopropylamine salt)
Roundup ProMAX® (EPA Reg. No. 524-579, Glycine, N-	5-44 fl oz / acre (.214 – 1.88 lb a.i. / acre)
(phosphonomethyl)- potassium salt)	
Roundup PRO® Concentrate (EPA Reg. No. 524-529,	6.4-51 fl oz / acre (.25 – 1.99 lb a.i. / acre)
Glyphosate-isopropylammonium)	

In dormant bermudagrass only, up to 1 ounce per acre of Escort (EPA Reg. No. 432-1549, metsulfuron) may be applied along with 0.75 to 2 ounces of this product (.035 to .093 lb a.i.), alone or in a three-way tank mixture with Roundup PRO (EPA Reg. No. 524-475, Glyphosate-isopropylammonium) or Roundup PRO Concentrate (EPA Reg. No. 524-529, Glyphosate-isopropylammonium) herbicides at the rates indicated in the previous table, to increase the spectrum of broadleaf weeds controlled. Addition of Escort (EPA Reg. No. 432-1549, metsulfuron) may delay green-up of bermudagrass in the spring. TANK MIXTURES OF THIS PRODUCT WITH ESCORT (EPA Reg. No. 432-1549, metsulfuron) IN HIGHLY MAINTAINED TURFGRASS AREAS WILL RESULT IN UNACCEPTABLE TURF INJURY.

In the state of Texas, applications of this product applied before September 30 will not delay green-up of bermudagrass the following spring; however, some temporary discoloration of desirable spring germinating wildflowers may occur.

#### **Release of Actively Growing Bermudagrass**

This product may be tank-mixed with Roundup ProMAX (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)-potassium salt) or Roundup PRO Concentrate (EPA Reg. No. 524-475, Glyphosate-isopropylammonium) herbicides to control or partially control johnsongrass and other weeds in bermudagrass when it is actively growing. Use only on well-established stands of bermudagrass. Apply 0.75 to 2 ounces (.035 to .093 lb a.i.) of this product alone or in a tank mixture with one of the following herbicide products within the range of application rates indicated. Use the higher application rate within the range to control perennial weeds or annual weeds greater than 6 inches in height.

Tank-Mix Product	Application Rate
Roundup ProMAX (EPA Reg. No. 524-579, Glycine, N-	5-22 fl oz / acre (.21494 lb a.i. / acre)
(phosphonomethyl)- potassium salt)	
Roundup PRO Concentrate (EPA Reg. No. 524-475,	6.4-26 fl oz / acre (.25 – 1.01 lb a.i. / acre)
Glyphosate-isopropylammonium)	

The following herbicide products can also be applied at the application rates indicated in a tank mixture with 0.75 to 2 ounces (.035 to .093 lb a.i.) of this product per acre, alone or in a three-way tank mixture with Roundup ProMAX (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)- potassium salt) or Roundup PRO Concentrate (EPA Reg. No. 524-529, Glyphosate-isopropylammonium) herbicides at the application rates indicated in the previous table.

Tank-Mix Product	Application Rate
Escort (EPA Reg. No. 432-1549, metsulfuron)	1 oz / acre (.004 lb a.i. / acre)
Oust (EPA Reg. No. 352-401, sulfometuron)	0.5 oz / acre (.023 lb a.i. / acre)
Telar (EPA Reg. No. 432-1561, chlorsulfuron)	0.5 oz / acre (.023 lb a.i. / acre)

**DO NOT** apply this product in tank mixtures with Escort (EPA Reg. No. 432-1549, metsulfuron), Oust (EPA Reg. No. 352-401, sulfometuron), or Telar in highly maintained turfgrass areas.

## **Release of Actively Growing Bahiagrass**

This product may be tank-mixed with Roundup ProMAX (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)-potassium salt) or Roundup PRO Concentrate (EPA Reg. No. 524-475, Glyphosate-isopropylammonium) herbicides to control or partially control johnsongrass and other weeds in bahiagrass while it is actively growing. Use only on well-established stands of bahiagrass. Apply 0.75 to 2 ounces of this product (.035 to .093 lb a.i.) per acre, alone or in a tank mixture with one of the following herbicide products at the application rate indicated.

Tank-Mix Product	Application Rate
Roundup ProMAX (EPA Reg. No. 524-579, Glycine, N-	4 fl oz / acre (.171 lb a.i. / acre)
(phosphonomethyl)- potassium salt)	
Roundup PRO Concentrate (EPA Reg. No. 524-475,	5 fl oz / acre (.195 lb a.i. / acre)
Glyphosate-isopropylammonium)	

#### **TALL FESCUE NON-CROP SITES**

This product may be used to control or partially control johnsongrass and other weeds listed in the **WEEDS CONTROLLED** section of this label in tall fescue on roadsides and other non-crop sites listed on this label.

Use this product only on well-established stands of tall fescue. Even at rates listed in this section, use of this product may result in temporary chlorosis and discoloration, and may result in transient growth reduction of the desirable turf. These symptoms generally appear 7 to 10 days after application and are typically gone within 21 to 28 days.

#### **Ground Broadcast Application**

Apply this product at 0.75 to 1 ounce (.035 to .046 lb a.i.) per acre in a spray solution containing a non ionic surfactant at a concentration of 0.25 percent by volume. **DO NOT** exceed 1 ounce of this product (.046 lb a.i.) per acre per year.

Use the higher application rate of this product within the range for control of large established weeds or when weed growth is heavy or dense.

#### **Restrictions:**

Maximum Annual Use Rate: 1 ounce (.046 lb a.i.) per acre per year

• Single Max Use Rate: 1 ounce (.046 lb a.i.) per acre

Max Number of Applications/Year: 1

#### Hand-Held and High-Volume Application

With hand-held and high-volume spray equipment, apply a spray solution consisting of 1 ounce of this product (.046 lb a.i.) plus 1 quart of a non ionic surfactant (0.25 percent) per 100 gallons of spray solution.

#### **Tank Mixtures**

Tank mixtures of this product may be used to increase the spectrum of vegetation controlled in tall fescue. This product may be applied at 0.75 to 1 ounce (.035 to .046 lb a.i.) per acre in a tank-mix with the following products:

Escort (EPA Reg. No. 432-1549, metsulfuron), Escort XP (EPA Reg. No. 432-1549, metsulfuron), Garlon 3A (EPA Reg. No. 62719-37, triclopyr), Garlon 4 (EPA Reg. No. 62719-40, triclopyr), Transline (EPA Reg. No. 62719-259, clopyralid)

Refer to the label of each individual product included in the tank mixture for application rates and use instructions for weed control on tall fescue sites.

#### **BERMUDAGRASS AND BAHIAGRASS PASTURE SITES**

This product may be used in early spring through the fall to control or partially control the weeds listed in the **WEEDS CONTROLLED** section of this label in well-established' bermudagrass and bahiagrass pastures.

Grass forage may be grazed immediately after application. However, for best weed control, **DO NOT** mow or harvest the pasture to be treated for 2 weeks before or 2 weeks after application. For best control of johnsongrass, make application when the johnsongrass is actively growing, is at least 18 to 24 inches tall and up to the heading stage.

For control of large established weeds or when weed growth is particularly heavy or dense, a single application of up to 2 ounces of this product (.093 lb a.i.) per acre can be made.

#### **Ground Broadcast Application**

Apply 1.33 ounces of this product (.062 lb a.i.) per acre along with a non ionic surfactant at a concentration of 0.25 percent by volume (1 quart per 100 gallons of spray solution) in 10-50 gallons of spray solution per acre. A follow-up application can be made after suitable regrowth of weeds but no sooner than 40 days after the previous application.

#### **Restrictions:**

Maximum Annual Use Rate: 2.66 ounces (.124 lb a.i.) per acre per year.

• Single Max Use Rate: 1.33 ounces (.062 lb a.i.) per acre

Max Number of Applications/Year: 2

• **RTI:** 40 days

#### Hand-Held and High-Volume Application

With hand-held and high-volume spray equipment, apply a spray solution consisting of 1.33 ounces of this product (.062 lb a.i.) per acre plus 1 quart of a non ionic surfactant (0.25 percent) per 100 gallons of spray solution. A follow-up application can be made after suitable regrowth of weeds but no sooner than 40 days after the previous application.

#### Pasture and Rangeland Sites in States West of the Mississippi River

This product may be used in pasture and rangeland grasses in States west of the Mississippi River in the fall or spring to provide selective post-emergent control or partial control of the weeds specified in the **WEEDS CONTROLLED** section of this label.

This product is selective in crested wheatgrass and selectivity in other pasture grasses is increased when they are not actively growing. Temporary stunting or chlorosis of grasses may occur but desirable grasses will recover. If concern exists about selectivity on desirable grasses, a small area needs to be treated to confirm selectivity.

Grass forage may be grazed immediately after application. However, for best weed control **DO NOT** mow or graze the pasture or rangeland for 2 weeks before or after application.

## **Ground Broadcast and Aerial Application**

Apply 0.75 to 1.33 ounces of this product (.035 - .062 lb a.i.) per acre along with a nonionic surfactant. Use the higher rate when weeds are in advanced growth stage. The level of weed control following application is dependent on weed species and weed stage of growth at application. For best results, weeds need to be actively growing and in an early vegetative stage. Refer to the **SPRAY DRIFT MANAGEMENT** section of this label for guidelines regarding spray drift management.

#### **Restrictions:**

- Maximum Annual Use Rate: 2.66 ounces (.124 lb a.i.) per acre per year.
- Single Max Use Rate: 1.33 ounces (.062 lb a.i.) per acre
- Max Number of Applications/Year: 2
- **RTI:** 30 days

#### **Dormant Pastures and Rangelands**

Apply 0.75 to 1.33 ounces of this product (.035 - .062 lb a.i.) per acre in a tank mix with Roundup PRO Concentrate (EPA Reg. No. 524-529, Glyphosate-isopropylammonium) at 10 to 13 fluid ounces (.39 - .505 lb a.i.) per acre or Roundup PROMAX (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)- potassium salt) at 8 to 11 fluid ounces (.342 - .47 lb a.i.) per acre for control of weeds in dormant pastures. Tank mixing this product with Roundup PROMAX (EPA Reg. No. 524-579, Glycine, N-(phosphonomethyl)- potassium salt) herbicide at rates below 12 ounces (.513 lb a.i.) per acre requires the addition of a nonionic surfactant to the spray solution at a concentration of 0.25 percent by volume (1 quart per 100 gallons of spray solution). Make these applications when the desirable pasture grass species are dormant and a new flush of the target weeds is emerged and actively growing.

#### NATIVE GRASSES AND CONSERVATION RESERVE PROGRAM (CRP) SITES

This product may be used to selectively control the weeds listed in the **WEEDS CONTROLLED** section of this label in perennial native grassland areas, including land enrolled in the Federal Conservation Reserve Program (CRP). This product may be applied to the following native perennial grasses:

- big bluestem
- little bluestem
- bushy bluestem
- blue oats grama
- side oats grama
- buffalograss
- Indiangrass
- lovegrass
- switchgrass

For selective weed control in the native grasses listed in this section, apply 1.33 to 2 ounces of this product (.062 - .093 lb a.i.) per acre. Use the higher application rate of 2.0 ounces (.093 lb a.i.) per acre of this product for control of large established weeds, or when weed growth is heavy or dense.

Addition of a non ionic surfactant to the spray solution at a concentration of 0.25 percent by volume (1 quart per 100 gallons of spray solution) is required for this application.

Sequential applications of this product may be made at a minimum of 30 days between applications, up to a maximum use rate of 2.66 ounces of product (.124 lb a.i.) per acre per year.

#### **Restrictions:**

- Maximum Annual Use Rate: 2.66 ounces (.124 lb a.i.) per acre per year
- Single Max Use Rate: 2 ounces (.093 lb a.i.) per acre
- Max Number of Applications/Year: 2 at lower rate of 1.33 ounces (.062 lb a.i.)
- RTI: 30 days

**DO NOT** apply this product to newly seeded perennial native grasses prior to the 3-leaf growth stage. Native grasses listed in this section may be reseeded into treated areas, but no sooner than 14 days after treatment.

#### **Crop Rotation Restrictions**

No crop, except wheat, may be planted into pasturelands, rangelands, or land taken out of the CRP that has been treated with this product within 12 months after application. For all crops, except wheat, a successful field bioassay, as described in this section, must be completed before planting.

**DO NOT** seed any crop, except wheat, any sooner than 3 months after the last application of this product. There are no crop rotation restrictions for wheat.

#### **Field Bioassay**

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

#### **Non-Fruit Bearing Tree Sites**

This product may be applied as a broadcast application around or over the top of select hardwood and conifer tree species in conservation and wildlife areas to control johnsongrass, tall fescue, purple and yellow nutsedge, and other weed species listed in the WEEDS CONTROLLED section of this label.

This product has been shown to provide selective control on the following tree species:

- American Plum
- Bald Cypress
- Bur Oak
- Cottonwood
- Green Ash
- Pecan
- Pin Oak
- Swamp White Oak
- Sycamore
- Walnut

Treated trees must be growing in areas where commercial fruit or nut harvest will not occur. Make over-the-top applications to non-bearing trees only. Treat over the top of transplanted trees after they are well established. Temporary yellowing and growth reduction may occur in some species.

#### **DO NOT** apply by air.

Apply up to 1.33 ounces of this product (.062 lb a.i.) per acre with a non ionic surfactant concentration of 0.25 percent (1 quart per 100 gallons of spray solution). Sequential applications of this product can be made at a minimum of 21 days between applications, up to a maximum use rate of 2.66 ounces (.124 lb a.i.) per acre per year.

#### **Restrictions:**

- Maximum Annual Use Rate: 2.66 ounces (.124 lb a.i.) per acre per year
- Single Max Use Rate: 1.33 ounces (.062 lb a.i.) per acre
- Max Number of Applications/Year: 2
- RTI: 21 days

### Selective Herbaceous Weed Control in Forestry Conifer Release[\*]

#### [\*][NOT FOR USE IN CALIFORNIA]

This product provides control or partial control of herbaceous weeds in a forestry conifer release program using a spring or early summer application after planting loblolly, slash or longleaf pine, and in fallow silvicultural nursery sites for these species. Best results are obtained when Accord® SP herbicide (EPA Reg. No. 524-517, Glyphosate-isopropylammonium) or a labeled tank-mix with Accord SP herbicide (EPA Reg. No. 524-517, Glyphosate-isopropylammonium) has been used for site preparation prior to planting.

#### **Ground Broadcast Application**

Apply **A374.01** at 0.75 to 2 ounces (.035 to .093 lb a.i.) per acre. **DO NOT** exceed 2 ounces of this product (.093 lb a.i.) per acre per year.

#### **Restrictions:**

- Maximum Annual Use Rate: 2 ounces (.093 lb a.i.) per acre per year.
- Single Max Use Rate: 2 ounces (.093 lb a.i.) per acre
- Max Number of Applications/Year: 2 at lower rate of 0.75 ounces (.035 lb a.i.)
- RTI: 30 days

Use the higher application rate of this product within the range or in one of the tank mixtures described on this labeling for control of large established weeds or when weed growth is heavy or dense. Best results are obtained when weeds are in the early stage of growth. Addition of a non ionic surfactant at a concentration of 0.25 percent by volume (1 quart per 100 gallons of spray solution) is required for postemergence application of this product. Use only non ionic surfactants that contain at least 90 percent active ingredient.

#### Hand-Held and High-Volume Application

Apply a spray solution consisting of 1 to 2 ounces of **A374.01** (.046 to .093 lb a.i.) plus 1 quart of a nonionic surfactant per 100 gallons per acre of water. Use only non ionic surfactants that contain at least 90 percent active ingredient.

#### **Aerial Application**

**DO NOT** APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Aerial application of this product is by helicopter only. Apply the specified rate of this product in 5 to 30 gallons of water per acre. Use the higher spray volumes where weeds are dense or form multiple canopy layers.

When used according to label directions, this product will give control or partial control of herbaceous weeds listed in the **WEEDS CONTROLLED** section of this label. Follow instructions in the **Spray Drift** section of this label to manage off-target drift movement from aerial application to agricultural field crops. Apply **A374.01** at 0.75 to 2 ounces of product (.035 to .093 lb a.i.) per acre. **DO NOT** exceed 2 ounces of this product (.093 lb a.i.) per acre per year.

Use the higher application rate of this product within the range or in one of the tank mixtures described on this labeling for control of large established weeds or when weed growth is heavy or dense. Best results are obtained when weeds are in the early stage of growth.

Addition of a nonionic surfactant at a concentration of 0.25 percent by volume (1 quart per 100 gallons of spray solution) is required for postemergence application of this product. Use only non ionic surfactant that contains at least 90 percent active ingredient.

#### **Tank Mixtures**

Tank mixtures of this product may be used to increase the spectrum of herbaceous vegetation controlled in a conifer release program. When tank-mixing, read and carefully observe the label directions, precautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Ensure that the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any labeled rate of this product may be used in a tank-mix with the following products for forestry use.

Tank-Mix Product	Application Rate
Arsenal Applicators Concentrate* (EPA Reg. No. 241-	4 fl oz / acre (.125 lb a.i. / acre)
299, imazapyr)	
Arsenal Applicators Concentrate * (EPA Reg. No. 241-	4 fl oz / acre (.125 lb a.i. / acre) + 1 fl oz/ acre (.005 lb
299, imazapyr) + Oust (EPA Reg. No. 352-401,	a.i. / acre)
sulfometuron) or Oust XP (EPA Reg. No. 432-1552,	
sulfometuron)	
Oust (EPA Reg. No. 352-401, sulfometuron) or Oust XP	1-2 fl oz / acre (.046093 lb a.i. / acre)
(EPA Reg. No. 432-1552, sulfometuron)	
Oust (EPA Reg. No. 352-401, sulfometuron) or Oust XP	1-2 fl oz / acre + 0.375-0.05 lb/acre (.046093 lb a.i. /
(EPA Reg. No. 432-1552, sulfometuron) + Velpar (EPA	acre) + (.281562 lb a.i. / acre)
Reg. No. 432-1576, hexazinone)	
Oustar (EPA Reg. No. 432-1553, sulfometuron)	8-12 fl oz / acre (.316474 lb a.i. / acre)
Velpar (EPA Reg. No. 432-1576, hexazinone)	0.375-0.75 lb/ acre (.281562 lb a.i. / acre)

<sup>\*</sup> Use of surfactant not advised with these products for slash and longleaf pine.

Any of these mixtures can be used as a broadcast spray or in a banded application around trees to reduce potential for soil erosion.

#### **Weeds Controlled**

Barley, volunteer

Hordeum vulgare

Bedstraw, catchweed

Galium aparine

Bentgrass, creeping

Agrostis stolonifera

Bluegrass, bulbous

Poa bulbosa

Bluegrass, roughstalk

Poa trivialis

Brome, downy

Bromus tectorum

Brome, ripgut

Bromus rigidus

**Buttercup** 

Ranunculus arvensis

Chamomile, mayweed

Anthemis cotula

Cheat

Bromus secalinus

Chess, hairy

Bromus commutatus

Chickweed, common

Stellaria media

Cocklebur, common

Xanthium strumarium

Fiddleneck, tarweed

Amsinckia lycopsoides

**Flixweed** 

Descurainia sophia

Horseweed

Conyza canadensis

**Johnsongrass** 

Sorghum halepense

Mustard, tumble

Sisymbrium altissimum

Mustard, wild

Sinapis arvensis

Nutsedge, purple

Cyperus rotundus

Nutsedge, yellow

Cyperus esculentus

Pennycress, field

Thlaspi arvense

Quackgrass

Elytrigia repens

Shepherd's-purse

Capsella bursa-pastoris

#### Sunflower, common

Helianthus annuus

## Tansymustard, pinnate

Descurainia pinnata

## WINTER WHEAT AND SPRING WHEAT[\*\*]

[\*\*] [NOT FOR USE IN CALIFORNIA AND NEW YORK]

Use sites: Winter wheat and spring wheat

**Preharvest Interval:** Wheat forage may be grazed immediately after application of this product. **DO NOT** harvest wheat for hay within 30 days of **A374.01** application. **DO NOT** harvest wheat for grain within 55 days of application of this product.

#### **Application Equipment and Techniques**

Select spray volumes that ensure thorough and uniform weed coverage. Use nozzles that provide optimum spray distribution and coverage at the appropriate spray pressure. Thorough coverage is necessary to provide good weed control without streaking, skips, overlaps, and spray drift during application.

To the extent consistent with applicable law, Atticus, LLC will not be liable for rotational crop injury resulting from spray overlaps.

#### **Ground Broadcast Application**

Apply this product uniformly as a broadcast spray with properly calibrated ground equipment in 5 to 20 gallons of water per acre, or in 10 to 40 gallons of liquid fertilizer solution per acre.

#### **Aerial Application**

Apply with aerial equipment in 5 to 15 gallons of water per acre.

#### **Applications in Fluid Fertilizer Carrier**

APPLICATION OF THIS HERBICIDE IN LIQUID FERTILIZER SOLUTIONS MAY RESULT IN LEAF BURN AND REDUCED FORAGE GROWTH.

This herbicide provides most consistent performance when applied with water as the spray carrier and surfactant is added to the spray solution. Liquid nitrogen fertilizer solutions (28-0-0 or 32-0-0) may, however, be used as a spray carrier in place of all or part of the water when the label directions are followed.

DO NOT USE IN FERTILIZER SOLUTIONS OF pH 5 OR LESS.

Fall applications of this herbicide in liquid fertilizer solutions may cause rapid leaf burn, resulting in reduced weed control and reduced forage growth.

Fertilizer solutions must contain less than 50 percent liquid nitrogen and not exceed 30 pounds of actual nitrogen per acre.

Nonionic surfactants must be added at 0.25 percent by volume (1 quart per 100 gallons of spray solution) to spray solutions containing fluid fertilizer.

#### **Tank mixtures with Insecticides**

This product may be tank-mixed or used sequentially with insecticides labeled for use in wheat, except Malathion. **DO NOT** USE THIS PRODUCT PLUS MALATHION, AS CROP INJURY MAY RESULT.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**DO NOT** use tank mixtures of this product plus insecticides when the wheat crop has significant insect damage, is under drought stress, or when growth is negatively influenced by other environmental stresses, including nutrient deficiency, poor soil pH, or disease. **DO NOT** apply this product within 60 days of crop emergence where an organophosphate insecticide has been applied as an in-furrow treatment, as crop injury may result.

#### Winter Wheat

When applied to winter wheat as directed in this section, the following weeds are either controlled or suppressed by this product as indicated for either preemergence application, postemergence application in the fall, or postemergence application in the spring.

Weed Species	Pre	Fall Post	Spring Post
Barley, volunteer	С	С	S
Hordeum vulgare			
Bedstraw, catchweed	S	С	С
Galium aparine			
Bluegrass, bulbous	•	•	С
Poa bulbosa			
Bluegrass, roughstalk	•	С	•
Poa tinialis			
Brome, downy	С	С	S
Bromus tectorom			
Brome, Japanese	С	С	S
Bromus japonicus			
Brome, ripgut	•	S	S
Bromus rigidus			
Chamomile, mayweed	•	С	С
Anthemis cotula			
Cheat	С	С	S
Bromus secalinus			
Chess, hairy	С	С	S
Bromus commutatus			
Chickweed, common	•	S	С
Stellaria media			
Fiddleneck, tarweed	•	S	S
Amsinckia lycopsoides			
Flixweed	S	S	S
Descurainia sophia			
Henbit	S	S	•
Lamium amplexicaule			
Lady's-thumb	•	•	S
Polygonum persicaria			

Mustard, tumble	S	С	С
Sisymbrium altissimum			
Mustard, wild	С	С	С
Sinapis arvensis			
Oat, wild (fall	•	S	S
germinating)			
Avena fatua			
Oat, wild (spring	•	•	S
germinating)			
Avena fatua			
Pennycress, field	S	S	S
Thlaspi arvense			
Quackgrass	•	•	С
Elytrigia repens			
Rescuegrass	•	S	S
Bromus catharticus			
Ryegrass, Italian	•	S	S**
Lolium multiflorum			
Shepherd's-purse	•	•	С
Capsella bursa-pastoris			
Tansymustard, pinnate	S	S	S
Descurainia pinnata			
Wallflower, bushy	•	С	С
Erysimum repandum			

<sup>\*\*</sup> Spring application will provide suppression only in WA, ID, OR.

C = Control S = Suppression • = Not Control or Suppressed

This product can be applied in winter wheat either as a single preemergence application, a single postemergence application, or as a split postemergence application to control or suppress the weeds listed in this section. Best weed control is obtained when soil moisture is adequate to support vigorous wheat and weed growth.

Choose one of the following application scenarios.

## **Preemergence in Winter Wheat**

Apply **A374.01** preemergence to winter wheat at 2/3 ounce of product (.03 lb a.i.) per acre in a single application. Preemergence applications of **A374.01** must be made after drilling wheat but before wheat or weed emergence. **DO NOT** use preemergence application if dry soil conditions will cause delayed wheat and/or weed emergence. Preemergence applications under dry soil conditions can:

- 1. Increase the risk of wheat injury due to slow and inconsistent winter wheat germination and growth prior to winter dormancy. (If winter wheat does not reach the 3-leaf stage prior to winter dormancy, a negative crop response the following spring can be expected.)
- 2. Result in poor weed control performance
- 3. Make this product vulnerable to wind erosion until fall moisture is received.

Under these conditions wait until crop and weeds have emerged and are showing good vigor, and then follow directions for postemergence application. **DO NOT** use preemergence applications for no-till systems or when high crop residue levels (plant material) are present on the soil surface.

#### Postemergence in Winter Wheat-Single Application

Apply this product at 2/3 ounce of product (.03 lb a.i.) per acre in a single application when the target weeds listed in this section are actively growing. Use a nonionic surfactant at a concentration of 0.5 percent by volume (2 quarts per 100 gallons of spray solution) with this postemergence application.

In the states of KS, OK, TX and MT, the single postemergence application can be made after the wheat is in the 2-leaf stage, but prior to the jointing stage (Feekes' Scale 6). In all other states, postemergence application can be made after the wheat emerges, but prior to the jointing stage (Feekes' Scale 6).

#### Brome (Cheat, Downy Brome, Japanese Brome)

For best control of brome species, apply this product as a single postemergence fall application of 2/3 ounce of product (.03 lb a.i.) per acre when brome is in the 2- to 3-leaf stage of growth. Best performance with fall applications of this product will occur with good soil moisture and/or rainfall soon after application.

For spring postemergence suppression of brome species, apply a single application of 2/3 ounce of this product (.03 lb a.i.) per acre when brome has recovered from cold weather (majority of foliage is green and not red or purple) and is actively growing. For best control, apply when brome is less than the 5-tiller stage of growth.

#### Mustards and other winter annual broadleaf weeds

For fall postemergence control of mustards and other winter annual broadleaf weeds, apply 2/3 ounce of this product (.03 lb a.i.) per acre in a single application. For best control, apply when weeds are less than 2 inches in diameter. Best performance with fall application of this product will occur with good soil moisture and/or rainfall soon after application.

For spring postemergence control of winter annual broad leaf weeds, apply 2/3 ounce of this product (.03 lb a.i.) per acre. For best control, make application when weeds are less than 2 inches in diameter. Use tank mixtures with broad-leaf herbicides when winter annual broadleaf weeds are greater than 2 inches in diameter.

#### Postemergence in Winter Wheat-Split Application

[Optional Statement: For use only in the following states: Idaho, Montana, Oregon, Washington, and Wyoming]

As an alternative to a single postemergence application, this product may be applied to winter wheat in a split application. Start with an initial application of 3/8 ounce of product (.017 lb a.i.) per acre after winter wheat and target weeds have emerged and are beyond the 2-leaf stage, followed by a second application of 3/8 ounce of this product (.017 lb a.i.) per acre in the spring, no sooner than two weeks following the initial application but prior to boot stage (Feekes' Scale 9). Add a non ionic surfactant at a concentration of 0.5 percent by volume (2 quarts per 100 gallons of spray solution) with this postemergence application.

FOR SPLIT APPLICATION ONLY, **DO NOT** EXCEED 3/4 OUNCE OF PRODUCT (.035 lb a.i.) PER ACRE PER YEAR.

## **Restrictions:**

- Maximum Annual Use Rate: 0.75 ounces (.035 lb a.i.) per acre per year
- Single Max Use Rate: 0.375 ounces (.017 lb a.i.) per acre
- Max Number of Applications/Year: 2
- RTI: 2 weeks

#### **Tank Mixtures for Winter Wheat**

For additional broadleaf weed control, this product may be applied as a spring postemergence application to winter wheat in a tank mixture with the following herbicides.

2,4-D amine <sup>1,2,3</sup> (EPA Reg. No. 81927-38)

Bronate (bromoxynil + MCPA) (EPA Reg. No. 264-690)

Buctril (bromoxynil) (EPA Reg. No. 264-437) Buctril 4EC (bromoxynil) (EPA Reg. No. 264-540) MCPA amine <sup>1,2,3</sup> (EPA Reg. No. 1381-104) MCPA LV ester <sup>2</sup> (EPA Reg. No. 9779-265) Sencor DF (metribuzin)<sup>3,4</sup> (EPA Reg. No. 264-738)

Tank mixtures with herbicides formulated as amines may decrease the effectiveness of this product.

Refer to individual tank-mix product label for application rate and restrictions related to soil texture, soil organic matter, and wheat growth stage.

Tank mixtures with metribuzin may be applied only in the spring.

See the MIXING section of this label for additional information on Tank Mixtures.

#### **Spring Wheat**

When this product is applied to spring wheat as directed in this section, the following weeds are either controlled or suppressed as indicated for either preemergence or postemergence application:

Weed Species	Pre	Post
Oat, wild	•	С
Avena fatua		
Sunflower, common	С	С
Helianthus annuus		
Quackgrass	•	S
Elytrigia repens		
Barley, volunteer	S	S
Hordeum vulgare		

C = Control S= Suppression • = Not controlled or suppressed

In spring wheat, apply a single postemergence application of 0.667 ounce of this product (.03 lb a.i.) per acre when soil moisture is adequate to support vigorous wheat and weed growth, and prior to jointing stage (Feekes' scale 6). Use a non-ionic surfactant at a concentration of 0.5 percent by volume (2 quarts per 100 gallons of spray solution) with this postemergence application.

**DO NOT** apply this product postemergence to durum wheat.

For wild oat control, apply 0.667 ounce of this product (.03 lb a.i.) per acre when wild oat is in the 1 to 4 true leaf stage.

#### **Tank Mixtures for Spring Wheat**

For additional broadleaf weed control, this product may be applied to spring wheat in a tank mixture with the following herbicides:

2,4-D amine<sup>1,2</sup> (EPA Reg. No. 81927-38)

Bronate (bromoxynil + MCPA) (EPA Reg. No. 264-690)

<sup>&</sup>lt;sup>1</sup> Tank mixtures with this herbicide may result in reduced control of brome species.

<sup>&</sup>lt;sup>2</sup> Tank mixtures with this product may be made provided the specific product being used is registered for postemergence application to wheat.

<sup>&</sup>lt;sup>3</sup> Not required for use with split application rate of 0.375 ounce of **A374.01** (.017 lb a.i.).

<sup>&</sup>lt;sup>4</sup> Different formulations of the active ingredient may be used, provided that the specific product being used is registered for postemergence application to wheat.

Buctril (bromoxynil) (EPA Reg. No. 264-437

Buctril 4EC (EPA Reg. No. 264-540)

Cheyenne (fenoxaprop + MCPA) (EPA Reg. No. 264-654)

Curtail (clopyralid + 2,4-D) $^1$  (EPA Reg. No. 62719-48)

Dakota (fenoxaprop + MCPA) (EPA Reg. No. 83100-38-83979)

MCPA amine<sup>1,2</sup> (EPA Reg. No. (1381-104)

MCPA LV ester<sup>2</sup> (EPA Reg. No. 9779-265

Stinger (clopyralid) (EPA Reg. No. 62719-73)

Tiller (fenoxaprop + 2,4-D + MCPA) (EPA Reg. No. 264-649)

#### **Crop Rotation**

No crop other than wheat may be planted sooner than 3 months after application of this product.

The following tables provide crop rotation intervals (months) for selected crops based on soil pH and cumulative precipitation by geographic region. For soils with pH higher than listed or for cumulative precipitation less than listed, a successful field bioassay must be completed before planting, as described in this section under Field Bioassay. If a shorter rotation interval other than that listed for a crop is desired, a successful field bioassay must be completed before planting.

All crops other than those listed in these tables may be seeded into fields treated with this product only after the completion of a successful field bioassay.

#### **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 this product. Crop response will determine if the crop(s) planted in the test strips can be adequately grown in these areas.

Table 1- OK, KS, NE, TX

Crop	Soil pH	Cumulative Precipitation	Rotation Interval
		(Inches)	(Months)
Millet	<7.5	18	3
Corn- IR (imidazolinone	<7.5	18	3
resistant)			
Soybean- STS™	<7.5	18	3
(sulfonylurea			
resistant soybean)			
Winter Canola (varieties	<7.5	18	3
that exhibit resistance to			
sulfonylurea herbicides)			
Corn- normal	<7.5	30	12
Cotton	<7.5	30	12
Soybean	<7.5	30	12
Sorghum (grain)	6.0-7.5	30	22
Sunflower	<6.0	30	17
Winter Canola (varieties	6.0-7.5	30	22
that do not exhibit			

<sup>&</sup>lt;sup>1</sup> Tank mixtures with this herbicide may result in reduced control of grass species.

<sup>&</sup>lt;sup>2</sup>Tank mixtures with this herbicide may be made provided the specific product is registered for this use.

sensitivity to sulfonylurea		
herbicides)		

Table 2- WA, OR, ID

Crop	Soil pH	<b>Cumulative Precipitation</b>	<b>Rotation Interval</b>
		(Inches)	(Months)
Millet	<7.5	18	3
CLEARFIELD Canola	<7.5	18	3
Corn- IR (imidazolinone resistant)	<7.5	18	3
Soybean- STS™	<7.5	18	3
(sulfonylurea			
resistant soybean)			
Potato	<7.5	18	12
Barley	<7.5	24	22
Canola	<7.5	24	22
Corn- normal	<7.5	24	22
Lentils	<7.5	24	22
Peas*- all classes	>6.5	24	22
(including chickpeas)	<6.5	30	17
Soybean	<7.5	24	22

<sup>\*</sup> Peas must not be planted on clay or eroded hillsides treated with **A374.01** without conducting a field bioassay as described in this section.

Table 3- CO, SD, WY

Crop	Soil pH	Cumulative Precipitation (Inches)	Rotation Interval (Months)
Millet	<7.5	18	3
Corn- IR (imidazolinone resistant)	<7.5	18	3
Soybean- STS™ (sulfonylurea resistant soybean)	<7.5	18	3
Corn- Normal	<7.5	24	22
Soybean	<7.5	24	22
Sorghum (grain)	6.5-7.5	45	34
Sunflower	<6.5	35	22

## Table 4- MT, ND

Crop	Soil pH	Cumulative Precipitation (Inches)	Rotation Interval (Months)
CLEARFIELD Canola	<7.5	12	12

24

**Table 5- All Other Regions** 

Crop	Soil pH	Cumulative Precipitation (Inches)	Rotation Interval (Months)
Soybean- STS™ (sulfonylurea resistant soybean)	<6.5	30	3
Soybean	<6.5 <7.5	30 24	5 12

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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.

#### **CONTAINER HANDLING:**

[Bag: Nonrefillable outer bag. DO NOT reuse or refill the outer bag. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.]

[Plastic Container: Nonrefillable container. DO NOT reuse or refill this container. Triple 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.]

#### LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following 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. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. 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, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

[A374.01™] is a trademark of Atticus, LLC

[Outrider®] is a registered trademark of Valent USA Corporation.

Campaign, Roundup PRO Concentrate, and Roundup PROMAX are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

## **{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

A374.01™

SULFOSULFURON GROUP 2 HERBICIDE

#### [Alternate Brand Name: Cryder]

Contains sulfosulfuron, the active ingredient used in Outrider®. A374.01 is a selective herbicide for the control of certain annual and perennial grasses and broadleaf weeds in select pasture grasses and rangelands, non-crop areas and in winter and spring wheat.

ACTIVE INGREDIENT:	(% by weight)
Sulfosulfuron	75.0%
OTHER INGREDIENTS:	<u>25.0%</u>
TOTAL	100.0%
Water Dispersible Granule	

# 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:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.	
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>	
	Call a poison control center or doctor for treatment advice.	
HOT LINE NUMBER		

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.

## For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION!

CAUSES MODERATE EYE IRRITATION. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **ENVIRONMENTAL HAZARDS:**

#### **Groundwater 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**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly raining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of sulfosulfuron from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal Laws.

## STORAGE AND DISPOSAL

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See inside label booklet for additional Precautionary Statements and Directions for Use.

[A374.01<sup>™</sup>] is not manufactured, or distributed by Valent USA Corporation seller of Outrider®.

EPA Reg. No.: 91234-119

EPA Est. No.: \_\_\_\_

NET WEIGHT:

Manufactured for: **Atticus, LLC** 5000 CentreGreen Way, Suite 100 Cary, NC 27513

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