



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 30, 2019

Mary Beth Endres  
Registration and Regulatory Affairs Pesticide Manager  
AXION AG PRODUCTS, LLC  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

Subject: Registration Review Label Mitigation for Thifensulfuron-methyl and Tribenuron-methyl  
Product Name: AX SU 2525 Herbicide  
Application Date: 11/3/2017  
EPA Registration Number: 89167-18  
Decision Number: 540724

Dear Ms. Endres:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the 22 Sulfonylurea (SU) Herbicides Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

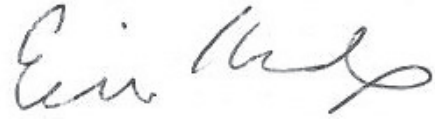
Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded 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 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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label 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 about this letter, please contact Erik Kraft by phone at 703-308-9358, or via email at [kraft.erik@epa.gov](mailto:kraft.erik@epa.gov).

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EPA Reg. No. 89167-18  
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Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is written in a cursive style with a large, sweeping initial "E".

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

Enclosure

THIFENSULFURON-METHYL	GROUP	2	HERBICIDE
TRIBENURON-METHYL	GROUP	2	HERBICIDE

# AX SU 2525

## HERBICIDE

WATER DISPERSIBLE GRANULE

FOR USE ON WHEAT, BARLEY AND FALLOW

ACTIVE INGREDIENTS:	% BY WT.
Thifensulfuron-methyl - Methyl 3-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]-2-thiophenecarboxylate .....	25.0%
Tribenuron-methyl - Methyl 2-[[[N-(4-methoxy-6-methyl-1,3,5-triazin-2-yl) methylamino]carbonyl]amino]sulfonyl]benzoate .....	25.0%
<b>OTHER INGREDIENTS:</b> .....	<u>50.0%</u>
<b>TOTAL:</b> .....	100.0%

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**  
**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

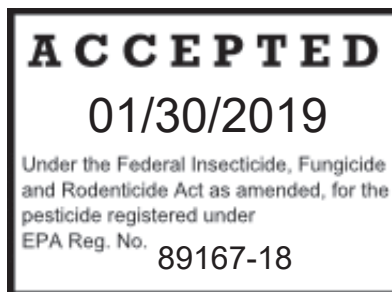
**For Chemical Emergency; Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300**  
**Outside USA and Canada: +1 703-527-3887 (collect calls accepted)**

EPA Reg. No.: 89167-18

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

NET CONTENTS: \_\_\_\_ [Oz.] [Lbs.]

**Manufactured For:**  
 AXION AG PRODUCTS, LLC  
 1880 Fall River Drive, Suite 100  
 Loveland, CO 80538



013019

#### **FIRST AID**

**IF IN EYE:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. 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, doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at **1-800-858-7378** or your poison control center at **1-800-222-1222**. For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC **800-424-9300**.

### **PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION**

Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

##### **Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material including natural rubber  $\geq$  14 mils
- Shoes plus socks

**User Safety Requirements:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exists, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **USER SAFETY RECOMMENDATIONS**

##### **Users Should:**

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

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

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

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated 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 Management section of this label.

#### **Groundwater Advisory**

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

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of thifensulfuron-methyl and tribenuron-methyl 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.

### **Windblown Soil Particles Advisory**

This product 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 affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

### **DIRECTIONS FOR USE**

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

### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) 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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

This product is for use on wheat, barley and fallow in many states. Check with your state extension or Dept. of Agriculture before use, to be certain this product is registered in your state. To the extent consistent with the law, AXION AG PRODUCTS, LLC will not be responsible for losses or damages resulting from the use of this product in any manner not in accordance with instructions on this label.

### **PRODUCT INFORMATION**

This product is a water dispersible granule that is used for selective postemergence weed control in wheat (including durum), barley and fallow. The best control is obtained when this product is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment

This product is noncorrosive, nonflammable, nonvolatile, and does not freeze. Mix and completely dissolved in water and applied as a uniform broadcast spray.

### **Precautions**

- Take all necessary precautions to avoid all direct or indirect contact (including spray drift) with non-target plants or areas.
- Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat or barley.
- Dry, dusty field conditions may result in reduced control in wheel track areas.

- Wheat and barley may differ in their response to various herbicides. AXION AG PRODUCTS, LLC advises that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of this product to a small area.
- Under certain conditions, including heavy rainfall, prolonged cold weather (daily high temperature less than 50°F), or wide fluctuations in day/night temperatures prior to or soon after this product's application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix this product with 2,4-D (ester formulations perform best—see Tank Mixtures section of this label) and apply after the crop is in the tillering stage of growth.
- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- Avoid storage of pesticides near well sites.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

### **Restrictions**

- Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, and non-agriculture areas not listed on this label. Prevent drift of spray to desirable plants.
- Do not discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
- Do not apply by air in the State of New York.
- Do not apply to wheat and barley that is stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5 leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

This product is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to three weeks after application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

This product provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of this product may be affected in crops stressed from adverse environmental conditions (including extreme temperatures or moisture), abnormal soil conditions, cultural practices, or variations in crop variety. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to this product.

### **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, this product is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to this product 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.

## **Weed Management**

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

- Rotate the use of this product or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the 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 resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact AXION AG PRODUCTS, LLC at [855-466-8428 or 844-425-8488 or other appropriate telephone number].

## **Management of Resistant Biotypes**

Since the occurrence of resistant weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control resistant weed biotypes.

The following good agronomic practices are suggested to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, tank mix or apply sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this Mode of Action have been found in your region. Do not assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled only one of the active ingredients in this product.

## **Integrated Pest (Weed) Management**

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and

herbicide use (weed scouting, proper application timing, banding) must be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

### **MANDATORY SPRAY DRIFT**

#### **Aerial Applications**

- Do not release spray at a height greater than 10 feet 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 1/2 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.

### **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 recommendations for setting up nozzles. To reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **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

#### **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 aurally to crops, do not release spray at a height greater than 10 feet 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.

### **WHEAT (INCLUDING DURUM) AND BARLEY**

#### **APPLICATION TIMING**

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.

#### **Fallow**

This product may be used as a fallow treatment, in the spring, summer or fall when the majority of weeds have emerged and are actively growing.

#### **Preplant or Crop Emergence Burndown**

Apply this product as a burndown treatment to wheat (including durum) and barley to control emerged weeds prior to, or shortly after planting (prior to emergence). Make applications when the majority of weeds have emerged and are actively growing. See the "CROP ROTATION" section for the time interval required before planting.

#### **Post Harvest**

This product may be used as a burndown treatment to crop stubble when the majority of weeds have emerged and are actively growing. (See the "CROP ROTATION" section of this label for additional information.)

Since this product has very little or no soil activity, it controls only those weeds that have germinated; therefore, apply this product when all or most of the weeds have germinated. Annual broadleaf weeds must be past the cotyledon stage, actively growing, and less than 4 inches tall or wide. Rainfall immediately after treatment can wash this product off of weed foliage, resulting in reduced weed control. Several hours of dry weather are needed to allow this product to be sufficiently absorbed by weed foliage.

## USE RATE

Apply this product at a rate of 0.4 to 1 ounce (0.006 to 0.015 lb ai thifensulfuron and 0.006 to 0.015 lb ai tribenuron) per acre. When applying 0.4 to 0.6 (0.06 to 0.009 lb ai thifensulfuron and 0.06 to 0.009 lb ai tribenuron) ounce per acre, this product must be used in a tank mix combination with other registered herbicides.

## Fallow

Apply 0.4 to 1 ounce (0.006 to 0.015 lb ai thifensulfuron and 0.006 to 0.015 lb ai tribenuron) of this product per acre to fallow. Apply in combination with other suitable registered fallow herbicides including glyphosate plus 2,4-D (ester formulations work best) or glyphosate plus dicamba.

When this product is applied at a rate of 0.4 to 0.6 ounce (0.006 to 0.015 lb ai thifensulfuron and 0.006 to 0.015 lb ai tribenuron) per acre, this product must be used in a tank mix combination with other registered fallow herbicides.

## Preplant or Crop Emergence Burndown

Apply 0.4 to 1 ounce (0.006 to 0.015 lb ai thifensulfuron and 0.006 to 0.015 lb ai tribenuron) of this product per acre as a burndown treatment prior to, or shortly after planting (prior to emergence).

## Post Harvest

Apply this product at 0.4 to 1.0 (0.006 to 0.015 lb ai thifensulfuron and 0.006 to 0.015 lb ai tribenuron) ounce per acre to crop stubble after harvest. Use the 1.0 ounce (0.016 lb ai thifensulfuron and 0.016 lb ai tribenuron) per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under the "WEEDS PARTIALLY CONTROLLED" section of this label or when application timing and environmental conditions are marginal. (See the "APPLICATION TIMING" section of this label for restriction on planting intervals). Apply in combination with other suitable registered burndown herbicides (See the "TANK MIXTURES" section of this label for additional information).

## Restrictions - Wheat (Including Durum) And Barley

- Do not apply more than 1 ounce (0.016 lb ai thifensulfuron and 0.016 lb ai tribenuron) per acre per application.
- Do not apply more than 1 ounce (0.016 lb ai thifensulfuron and 0.016 lb ai tribenuron) per acre per year.
- Sequential treatments of this product may be made provided the total amount of this product applied to the crop does not exceed 1 ounce (0.016 lb ai thifensulfuron and 0.016 lb ai tribenuron) per acre per year. Allow at least 7 days between applications.
- Do not make more than two applications per year when using reduced application rates.
- Do not harvest sooner than 45 days after the last application of this product.
- Do not graze treated fields or feed treated forage or hay. Harvested straw may be used for bedding and/or feed.
- Do not apply to wheat or barley crops underseeded with another crop.

## CROP ROTATION

Labeled crops may be planted at specified time intervals following application of labeled rates of this product. Use the time intervals listed below to determine the required time interval before planting.

### Time Interval Before Planting\* (days after treatment with this product)

Crop	Days
Barley, Triticale and Wheat (including durum)	0
Soybeans	7**
Cotton, Field Corn and Grain Sorghum/Forage Sorghum	14**
Canola, Sugar beets and Winter Rape	60
Any other crop	45

\* Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.

\*\* Where the product is used on light textured soils (such as sands and loamy sands) or on high pH soils (>7.9), extend timing to planting by 7 additional days.

### WEEDS CONTROLLED

This product effectively controls the following weeds when used according to label directions:

Annual knawel	Common sunflower	London rocket	Slimleaf lambsquarters
Annual sowthistle	Corn chamomile	Marshelder	Smallf lower buttercup
Black mustard	Corn gromwell *	Mayweed chamomile	Smallseed falsef lax
Blue/Purple mustard	Corn spurry	Miners lettuce	Stinking chickweed
Broadleaf dock	Cowcockle	Narrowleaf lambsquarters	Stinking mayweed/ Dogfennel
Bur buttercup	Cress (mouse-ear)	Nightflowering catchfly	Sunflower
Bushy wallflower/ Treacle mustard	Curly dock	Pennsylvania smartweed	Swinecress
Canada thistle *	False chamomile	Pineappleweed	Tansymustard
Clasping pepperweed	Field chickweed	Prickly lettuce*	Tarweed fiddleneck
Coast fiddleneck	Field pennycress	Prostrate knotweed	Tumble/Jim Hill mustard
Common buckwheat	Filaree (redstem, Texas)	Prostrate pigweed	Volunteer canola
Common chickweed	Flixweed	Redmaids	Volunteer lentils
Common cocklebur *	Green smartweed	Redroot pigweed	Volunteer peas
Common groundsel	Henbit	Russian thistle*	Wild buckwheat*
Common lambsquarters	Kochia *	Scentless chamomile/ mayweed	Wild chamomile
Common ragweed *	Ladysthumb	Shepherd's-purse	Wild mustard
	Lanceleaf sage *		

### WEEDS PARTIALLY CONTROLLED\*\*

This product partially controls the following weeds when used according to label directions:

Catchweed bedstraw	Marestail
Mallow (common, little)	Nightshade (cutleaf, hairy)

\* See SPECIFIC WEED PROBLEMS for more information.

\*\* Partial control: A visual reduction of weed population as well as a significant loss of vigor. For better results, use the highest rate of this product per acre and include a tank mix partner including 2,4-D, MCPA, or Dicamba (refer to TANK MIXTURES).

### SPECIFIC WEED PROBLEMS

**Canada thistle:** For control in wheat and barley, use 0.8 ounce (0.012 lb ai thifensulfuron and 0.012 ai tribenuron) per acre plus surfactant when all thistles are 4 to 8 inches with 2 to 6 inches of new growth. Make the application in the spring. Control will be improved by using this product in combination with 2,4-D or dicamba (refer to TANK MIXTURES).

**Common cocklebur, Common ragweed, Lanceleaf sage:** In wheat and barley, apply this product at 0.4 to 0.8 ounce (0.006 to 0.012 ai thifensulfuron and 0.006 to 0.012ai tribenuron) per acre in combination with label rate of 2, 4-D (ester formulations work best) when weeds are small and actively growing. When using 2,4-D, be sure to add surfactant at the rate of 1/4 to 1/2 quart per 100 gallons of spray solution (0.06 to 0.125% v/v--use the higher rate under stress conditions).

**Corn gromwell, Wild buckwheat:** For control in wheat and barley, use 0.8 ounce (0.012 ai thifensulfuron and 0.012 ai tribenuron) this product per acre plus surfactant.

**Kochia, Russian thistle, Prickly lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use this product in a tank mix with Fluroxypyr, Fluroypyr + MCPA or 2,4-D, Dicamba + 2,4-D or bromoxynil + 2,4-D. Apply in the spring when weeds are 2 to 4 inches tall or 2 to 4 inches across and are actively growing. Refer to the Tank Mixtures section of this label for additional details.

### SPRAY ADJUVANTS

Always include a spray adjuvant with applications of this product. In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used.

Consult your Ag dealer or applicator, local AXION AG PRODUCTS, LLC fact sheets, technical bulletins, and service policies prior to using an adjuvant system. If another herbicide is tank mixed with this product, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients.

### **NONIONIC SURFACTANT (NIS)**

- Apply 0.06 to 0.50% volume/volume (1/2 to 4 pints per 100 gallons of spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. See the Tank Mixtures section of this label for additional information.

### **PETROLEUM CROP OIL CONCENTRATE (COC) OR MODIFIED SEED OIL (MSO)**

- Apply at 1% volume/volume (1 gallon per 100 gallons spray solution) or 2% volume/volume under arid conditions.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

### **SPECIAL ADJUVANT TYPES**

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by AXION AG PRODUCTS, LLC product management. Consult separate AXION AG PRODUCTS, LLC technical bulletins for detailed information before using adjuvant types not specified on this label.

### **AMMONIUM NITROGEN FERTILIZER**

- Use 2 quarts per acre of a high-quality urea ammonium nitrate (UAN), including 28%N or 32%N, or 2 pounds per acre of a spray grade ammonium sulfate (AMS). Use 4 quarters per acre UAN or 4 pounds per acre AMS under arid conditions.

### **GROUND APPLICATION**

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

- For flat-fan nozzles, use a spray volume of at least 5 gallons per acre (GPA).
- For flood nozzles on 30" spacing, use flood nozzles no larger than TK 10 (or the equivalent), a pressure of at least 30 psi and a spray volume of at least 10 GPA only. For 40" nozzle spacing, use at least 13 GPA; for 60" spacing use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.
- Raindrop® RA nozzles are not advised for this product applications, as weed control performance may be reduced.
- Use screens that are 50-mesh or larger.
- For additional information see the "MANDATORY SPRAY DRIFT" section of this label.

### **AERIAL APPLICATION**

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.

- Use 2 to 5 GPA
- Use at least 3 GPA in Idaho, Oregon, or Utah.
- For additional information see the "MANDATORY SPRAY DRIFT" section of this label.

### **Restriction**

- Do not apply this product by air in the state of New York.

### **CHEMIGATION**

### **Restriction**

- Do not apply this product through any irrigation system.

### **PRODUCT MEASUREMENT**

This product is measured using this product volumetric measuring cylinder. The degree of accuracy of this cylinder varies by +/- 7.5%. For more precise measurement, use scales calibrated in ounces.

### **TANK MIXTURES**

This product may be tank mixed with other suitable registered herbicides to control weeds listed as suppressed, weeds resistant to this product or weeds not listed under Weeds Controlled. 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 can also be mixed with registered fungicides, insecticides, or liquid fertilizer for use on wheat, barley, or fallow.

#### **With 2,4-D (Amine or Ester) or MCPA (Amine or Ester)**

This product may be tank mixed with the amine or ester formulations of 2,4-D or MCPA herbicides for use on wheat and barley. For best results in the Red River Valley and adjacent areas of North Dakota and Minnesota, add the ester formulations of 2,4-D or MCPA herbicides to the tank mix. No additional surfactant is needed with this mixture.

For best results in other areas, add the ester formulations of 2,4-D or MCPA herbicides to the tank mix. Surfactant may be added to the mixture at 1/2 to 1 quart per 100 gallon of spray solution (0.125 to 0.25% v/v); however, adding surfactant may increase the potential for crop injury, especially at the higher phenoxy rates.

Higher rates of 2,4-D or MCPA may be used, but do not exceed the highest rate allowed by those respective labels. Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using these tank mixtures.

#### **With Dicamba**

This product may be tank mixed with labeled rate of dicamba. Use higher rates when weed infestation is heavy. Surfactant may be added to the mixture at 1/2 to 1 quart per 100 gallon of spray solution (0.125 to 0.25% v/v); however, adding surfactant may increase the potential for crop injury. Refer to the specific dicamba label for application timing and restrictions. Tank mixes of this product plus dicamba may result in reduced control of some broadleaf weeds.

#### **With 2,4-D (Amine or Ester) and Dicamba**

This product may be applied in a 3-way tank mix with labeled rates of dicamba and 2,4-D. Use higher rates when weed infestation is heavy. Surfactant may be added to the mixture at 1/2 to 1 quart per 100 gallon of spray solution (0.125 to 0.25% v/v); however, adding surfactant may increase the potential for crop injury. Consult the specific 2,4-D label, dicamba label, or local directions for more information and restrictions.

Apply this 3-way combination to winter wheat after the crop is tillering and prior to jointing (first node). In Spring Wheat (including Durum) apply after the crop is tillering and before it exceeds the 5-leaf stage.

In Spring Barley, apply after the crop is tillering and before it exceeds the 4-leaf stage.

#### **With Bromoxynil**

This product may be tank mixed with labeled rate of a bromoxynil containing herbicides registered for use on wheat, barley, or fallow.

Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using these tank mixtures. Follow the most restrictive labeling. Tank mixes of this product plus bromoxynil may result in reduced control of Canada thistle.

#### **With Fluroxypyr, Fluroxypyr + 2,4-D or MCPA**

For improved control of Kochia (2 to 4 inches tall), Russian thistle, mustard species, and wild buckwheat this product may be tank mixed with labeled rates of fluroxypyr, fluroxypyr + 2,4-D or MCPA. Additional 2,4-D or MCPA can be added based on local directions (refer to 2,4-D and MCPA labels for maximum amount that can be applied to the crop). Refer to all product labels for information regarding use restrictions, labeled crops, rotational cropping directions, sprayer cleanup, use precautions and other information. The most restrictive provisions on any label will apply. Do not use the tank mix if any restrictions on the labels conflict with instructions on this product label.

#### **With Diclofop-methyl**

This product may be used in combination with diclofop-methyl and bromoxynil in accordance with the diclofop-methyl label. For best results, use the three-way tank mix of this product at 0.4 ounce (0.006 lb ai thifensulfuron and 0.006 lb tribenuron) and labeled rates of diclofop-methyl and bromoxynil. Apply only to winter wheat. Only use this tank mix under good soil conditions when wild oat is in the 1 to 4 leaf stage. If conditions are not ideal for the performance of diclofop-methyl, wild oat control may be reduced. Be sure to follow all warnings and cautions on the diclofop-methyl and bromoxynil labels

### **WITH OTHER GRASS CONTROL PRODUCTS**

Tank mixtures of this product and grass control products may result in poor grass control. AXION AG PRODUCTS, LLC advises that you first consult your state experiment station, university, or extension agent, Agricultural dealer, or AXION AG PRODUCTS, LLC representative as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of this product and the grass product to a small area.

### **WITH INSECTICIDES OR FUNGICIDES**

This product may be tank mixed or used sequentially with insecticides (or fungicides) registered for use on cereal grains. However, under certain conditions (drought stress, or if the crop is in the 2 to 4 leaf stage), tank mixes or sequential applications of this product with organophosphate insecticides (including parathion) may produce temporary crop yellowing or, in severe cases, crop injury. Test these mixtures in a small area before treating large areas. However, review all insecticide and fungicide labels for restrictions.

#### **Restriction**

- Do not use this product plus Malathion, as crop injury will result.

### **WITH LIQUID NITROGEN SOLUTION FERTILIZER**

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing this product in fertilizer solution. This product must be thoroughly mixed with clean water before it is added to liquid nitrogen fertilizer. If granules remain when the mixture is poured out, add more clean water and mix until all granules have disappeared. Ensure that the agitator is running when the product premix is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/4 to 1 quart per 100 gallon of spray solution (0.06 to 0.25% v/v) based on local directions. When using high rates of liquid nitrogen fertilizer solution in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or AXION AG PRODUCTS, LLC representative for directions before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with this product and fertilizer mixture, ester formulations tend to be more compatible (see manufacturer's label). Additional surfactant is not needed when using this product in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions.

#### **Restriction**

- Do not use low rates of liquid nitrogen fertilizer solution as a substitute for a surfactant.
- Do not use with liquid fertilizer solutions with a pH less than 3.0.
- Do not add this product directly to liquid nitrogen fertilizer; the granules will not dissolve.

### **TANK MIXTURES IN FALLOW**

This product may be used as a fallow treatment and tank mixed with other herbicides that are registered for use in fallow. 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.

### **TANK MIXTURES IN PREPLANT BURNDOWN**

This product may be used as a preplant burndown treatment alone or tank mixed with other herbicides that are registered for use as a preplant burndown product, including glyphosate plus 2,4-D (ester formulations work best) or glyphosate plus dicamba.

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.

### **TANK MIXTURES IN POST HARVEST APPLICATIONS**

This product may be used as a post harvest treatment to crop stubble and tank mixed with other herbicides that are registered for use in fallow.

### **MIXING INSTRUCTIONS**

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of the product
3. Continue agitation until this product is fully dissolved, at least 5 minutes.
4. Once the product is fully dissolved, maintain agitation and continue filling tank with water.
5. As the tank is filling, add tank mix partners and then add the required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. Do not use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of this product.
6. Dispersed tank mix partners can settle if the tank mixture is not continually agitated. If settling occurs, thoroughly re-agitate before using.
7. Apply this product spray mixture within 24 hours of mixing to avoid product degradation.
8. If this product and a tank mix partner are to be applied in multiple loads, fully dissolve this product in clean water prior to adding to the tank.

### **GRAZING**

Allow at least 7 days between application and grazing of treated forage. In addition, allow at least 7 days between application and feeding of forage from treated areas to livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock. Harvested straw may be used for bedding and/or feed. Allow at least 45 days between application and harvesting of grain.

### **SPRAY EQUIPMENT**

For specific application equipment, refer to the manufacturer's directions for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.

For additional information on spray drift refer to "MANDATORY SPRAY DRIFT" section of label.

Continuous agitation may be required to keep this product and tank-mix partners in solution or suspension. Refer to tank-mix partner labels for additional information.

### **SPRAYER CLEANUP**

The spray equipment must be cleaned before this product is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in "After Spraying" in this label.

### **AT THE END OF THE DAY**

It is advised that during periods when multiple loads of this product are applied, at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

### **AFTER SPRAYING AND BEFORE SPRAYING CROPS OTHER THAN WHEAT AND BARLEY**

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of this product as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gallon of household ammonia\*(contains 3% active) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.

3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
  4. Repeat Step 2.
  5. Rinse the tank, boom, and hoses with clean water.
  6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) listed on this label. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.
- \*Equivalent amounts of an alternate-strength ammonia solution can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer for a listing of approved cleaners.

**Notes:**

1. Steam-cleaning aerial spray tanks is advised prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
2. When this product is tank mixed with other pesticides, examine all cleanout procedures. and the most rigorous procedure must be followed.
3. In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products must be followed as per the individual labels.
4. Where routine spraying practices include shared equipment frequently being switched between applications of this product and applications of other pesticides to sensitive crops during the same spray season, it is advised that a sprayer be dedicated to this product to further reduce the chance of crop injury.

**Restrictions**

- For ammonia used as a cleaner, do not exceed the maximum labeled use rate.
- Do not use chlorine bleach with ammonia as dangerous gases will form.
- Do not clean equipment in an enclosed area.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in original container only. Store in a cool, dry place.

**PESTICIDE DISPOSAL:** Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING:**

**For Plastic Containers:** 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**For Fiber Sacks:** Nonrefillable container. Do not reuse or refill this container. Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**For Paper and Plastic Bags:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or 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.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency contact CHEMTREC 1-800-424-9300.



**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of AXION AG PRODUCTS, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold AXION AG PRODUCTS, LLC and Seller harmless for any claims relating to such factors.

AXION AG PRODUCTS, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or AXION AG PRODUCTS, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, AXION AG PRODUCTS, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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