



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 5, 2023

Patricia McFadden  
Registration Manager  
Sipcam Agro USA, Inc.  
2525 Meridian Parkway  
Durham, NC 27713

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decision for Metolachlor and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Metolachlor on Pacific Salmonids  
*Product Name:* Metolachlor + Sulfentrazone Herbicide  
*EPA Registration Number:* 60063-68  
*Application Dates:* 04/19/2021, 08/13/2021  
*Decision Number:* 577841, 577838

Dear Patricia McFadden:

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

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also 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 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

Page 2 of 2  
EPA Reg. No. 60063-68  
Decision No. 577841, 577838

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 12 months from the date of this letter. After 12 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.

If you have any questions about this letter, please contact Anitha Kisanga at [Kisanga.Anitha@epa.gov](mailto:Kisanga.Anitha@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

|                      |              |           |                  |
|----------------------|--------------|-----------|------------------|
| <b>SULFENTRAZONE</b> | <b>GROUP</b> | <b>14</b> | <b>HERBICIDE</b> |
| <b>METOLACHLOR</b>   | <b>GROUP</b> | <b>15</b> | <b>HERBICIDE</b> |

## Metolachlor + Sulfentrazone-Herbicide

[ABN: Whistle, Whistle Herbicide]

**For weed control in Soybeans.**

**Active Ingredient:**

Metolachlor: .....68.19%

Sulfentrazone: .....7.89%

**Other Ingredients:** .....23.92%

**Total:** .....100.0%

This product contains 6.5 pounds a.i. of metolachlor and 0.75 pounds a.i. of sulfentrazone per gallon.

### 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 don't understand the label, find someone to explain it to you in detail.)

| FIRST AID   |   |
|---|---|
| IF SWALLOWED  | <ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have affected person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul> |
| IF IN EYES  | <ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>   |
| IF INHALED  | <ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li> </ul>   |
| IF ON SKIN OR CLOTHING  | <ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>   |
| Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. |   |
| <b>Emergency phone numbers</b>  | (800) 222-1222 Poison Control Center (human health)<br>(800) 424-9300 CHEMTREC (transportation and spills)  |

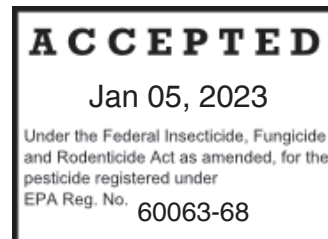
### SHAKE WELL BEFORE USING

Read the [entire] label [carefully] before [using this product.] [opening the container.]  
 See additional Precautionary Statements and Directions for Use inside [the] book[let].

EPA Reg. No. 60063-68  
 Net Contents: \_\_\_\_\_ [gallons] [gal.] [ \_\_\_ [L] [liters]]  
 [Lot number / Label Date Code]

EPA Est. No. \_\_\_\_\_  
 [Lot no. begins with xx]

**Manufactured for:**  
 Sipcam Agro USA, Inc.  
 2525 Meridian Parkway, Durham, NC 27713



### OPTIONAL LANGUAGE FOR LABEL

[Pull][Peel] back [book] [label] here]

[Application Type AG Agricultural] [Herbicide]

[Formulated in the United States of America, with U.S. and imported ingredients.]

[Product of \_\_\_\_\_ ] [Note: if manufactured in a country other than U.S., country name will appear here]

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear appropriate eyewear such as goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear: long sleeved shirt and long pants, socks and shoes.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants,
- Chemical-resistant gloves, such as barrier laminate, butyl rubber >14 mils, nitrile rubber >14 mils, or viton >14 mils,
- Protective eyewear such as safety glasses, goggles, or face shield,
- Chemical-resistant footwear
- Chemical-resistant headgear for overhead exposure, and
- Chemical-resistant apron when cleaning equipment, mixing or loading.

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product.

### ENGINEERING CONTROL STATEMENTS

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When using the closed system, the PPE requirements for mixers and loaders may be reduced or modified as specified in the WPS.

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

### USER SAFETY RECOMMENDATIONS

**Users should:**

- Wash hands 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 and wash contaminated clothing before reuse.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff

may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

### **Ground Water Advisory**

Metolachlor is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### **Surface Water Advisory**

Metolachlor may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months 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 metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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

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

### **Reporting Ecological Incidents**

To report ecological incidents, including mortality, injury, or harm to plants and animals, call Sipcam Agro at 919-226-1296.

### **Physical or Chemical Hazards**

**DO NOT** mix with or allow to come in contact with oxidizing agents; hazardous chemical reactions may occur. **DO NOT** use or store near heat or open flame.

## **DIRECTIONS FOR USE**

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Failure to follow the **DIRECTIONS FOR USE, RESTRICTIONS** and **PRECAUTIONS** on this label may result in reduced weed control, adverse crop response, or illegal crop residues.

### **Endangered Species Protection Requirements**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov). You must use the Bulletin valid for the month in which you will apply the product.

### 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 24 hours.** Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls over short-sleeved shirt and short pants,
- Chemical-resistant gloves, made of barrier laminate, butyl rubber >14 mils, nitrile rubber >14 mils, or viton >14 mils,
- Protective eyewear
- Shoes plus socks

### PRODUCT INFORMATION

This product is an herbicide labeled for use as a pre-plant surface-applied, pre-plant incorporated, or pre-emergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in soybeans.

Observe all use directions on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank-mix partner is registered. 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 avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

#### USE RESTRICTIONS:

- **DO NOT** use in nurseries, turf, or landscape plantings.
- **DO NOT** apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- **DO NOT** use on coarse solid classified as sand, which have less than 1% organic matter.
- **DO NOT** apply other products containing sulfentrazone or metolachlor to the crop unless specified in the individual crop section.
- **DO NOT** apply this product through any other type of irrigation system other than a center pivot irrigation application (See Center Pivot Irrigation Application Section).
- **DO NOT** connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system.
- If this product is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.
- To prevent off-site movement due to runoff or wind erosion:
  1. Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  2. Do not apply to impervious substrates, such as paved or highly compacted surfaces.

3. Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least one-half inch of rainfall has occurred between application and the first irrigation.

#### **USE PRECAUTIONS:**

- Injury may occur following the use of this product under abnormally high soil moisture conditions during early development of the crop.
- Dry weather following pre-emergence application of this product or a tank mixture may reduce effectiveness. Cultivate if weeds develop.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control.

#### **RESISTANCE MANAGEMENT**

For resistance management, please note that Metolachlor + Sulfentrazone Herbicide contains both a Group 14 (sulfentrazone) and a Group 15 (metolachlor) herbicide. Any weed population may contain plants naturally resistant to Group 14 and/or Group 15 herbicides. The resistant individuals 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 this product or other Group 14 or Group 15 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 after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact your Sipcam Agro representative.

## INTEGRATED PEST (WEED) MANAGEMENT

Integrate this product 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) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

## APPLICATION INFORMATION

### GROUND AND AERIAL APPLICATION

Utilize a sprayer equipped with the appropriate nozzles providing optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift. Apply a minimum of 10 gallons of finished spray solution per acre by ground or 5 gallons by air. The sprayer should be properly calibrated to deliver the appropriate volume of herbicide solution. Be aware that overlaps and slower ground speeds while starting, stopping, or turning while spraying may result in excessive application and subsequent crop response.

### RESTRICTIONS FOR GROUND APPLICATION:

- Ground applicators must use a minimum finished spray volume of 10 gallons per acre.
- When tank mixed with a contact down herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.
- For boom spraying, the maximum release height is 30 inches from the soil for ground applications.

### RESTRICTIONS FOR AERIAL APPLICATION:

- Aerial application is allowed only when environmental conditions prohibit ground application. Aerial application will be allowed when the field is too wet to safely apply pesticides using ground equipment.
- When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre.
- The maximum release height must be 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.

## MANDATORY SPRAY DRIFT MANAGEMENT

### Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use  $\frac{1}{2}$  swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use  $\frac{3}{4}$  swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- **DO NOT** apply during temperature inversions.

### Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.



- **DO NOT** apply during temperature inversions.

**Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABES572.3) for all applications.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

**SPRAY DRIFT ADVISORIES**

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

**IMPORTANCE OF DROPLET SIZE**

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

**Controlling Droplet Size – Ground Boom**

- Volume – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure – Use the lowest spray pressure 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. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

**BOOM HEIGHT – Ground Boom**

- 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.

**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.

## WIND

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

## Boomless 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.

**Sensitive Areas** - The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops). To assure that spray will not adversely affect adjacent sensitive non-target plants, apply this product by aircraft at a minimum upwind distance of 400 ft. from sensitive plants. Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

## CENTER PIVOT IRRIGATION APPLICATION

This product alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied in irrigation water preemergence (after planting, but before weeds or crop emerge) at rates specified on this label. Apply this product only through a center pivot irrigation system. **DO NOT** apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.

9. Meter into irrigation water during entire period of water application.
10. Apply in 1/2 to 1 inch of water. Use the lower water volume (1/2 inch) on *coarse-textured soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

#### **USE PRECAUTION FOR CENTER PIVOT APPLICATIONS:**

- Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

#### **ADDITIVES / ADJUVANTS**

For applications where an adjuvant will be used, it is recommended to select one that meets the standards of the Council for Producers and Distributors of Agrotechnology (CPDA) adjuvant certification.

#### **MIXING/LOADING INSTRUCTIONS**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

#### **COMPATIBILITY TEST**

Since liquid fertilizers can vary, even within the same analysis, always **check compatibility with herbicide(s) each time before use**. Be especially careful when using **complete** suspension or fluid fertilizers, as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

- Add 1 pt. of fertilizer to each of 2 one-qt. jars with tight lids.
- To **one** of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Shake or stir gently to mix. When an adjuvant is to be used with this product, Sipcam Agro USA, Inc. recommends the use of a Council for Producers and Distributors of Agrotechnology (CPDA) certified adjuvant.
- To **both** jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

**Dry herbicides:** For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

**Liquid herbicides:** For each pint to be applied per acre, add 1/2 teaspoon or 2.5 milliliters to each jar.

- After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

### MIXING INSTRUCTIONS

**Metolachlor + Sulfentrazone Herbicide Alone:** Mix this product with water or fluid fertilizer and apply as a spray. Fill the spray tank one-half to three-quarters full with water or fluid fertilizer, add the proper amount of this product, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

**Tank Mixtures:** 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.

Fill the spray tank one-quarter full with water, and start agitation; add tank mix product, and allow it to become dispersed; then add this product; then add paraquat dichloride, or glyphosate if these products are being used; and finally the rest of the water. For tank mixtures with atrazine, metribuzin + chlorimuron-ethyl, prometryn, clomazone, fluometuron, EPTC, metribuzin, glufosinate-ammonium, linuron, MSMA, pendimethalin, imazethapyr, imazaquin, ethafluralin or trifluralin, fluid fertilizers may replace all or part of the water as carrier. For each tank mixture with atrazine, see additional mixing instructions on the atrazine label.

For each tank mixture, conduct a compatibility test. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

#### Tank Mix Instructions

Use sprayers and equipment that are in good, clean condition and maintain adequate agitation. If the tank mix partner is determined to be compatible, fill the tank half full of the carrier. Begin agitation and maintain throughout mixing and application. Make sure all return lines to the spray tank discharge below the liquid level. Prepare the tank mixture components and add to the tank in the following order:

1. If using ammonium sulfate (AMS) – add and continue until it is completely dispersed.
2. If using a wettable powder or dry flowable formulation, make a slurry with water first and then add it slowly through the screen into the tank. Maintain agitation during this step.
3. If using a flowable formulation, add slowly through screen into the tank. Diluting the flowable with water before adding to the tank may improve mixing and compatibility with dry flowable formulations.
4. Add Metolachlor + Sulfentrazone-Herbicide.
5. Add any other tank mix products, adding emulsifiable concentrates last.
6. If an adjuvant will be used, add as the final step. Maintain agitation.
7. Complete filling the spray tank with the carrier and maintain agitation. Make application as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight unattended or without agitation.

If this product is added to the spray tank via induction, compatibility of the spray mixture may be compromised. If using an induction tank (or comparable equipment), add each tank mixture product separately and allow each to fully disperse into the spray tank before adding the next product. For optimum compatibility, rinse the induction tank with clean water before adding each component.

The addition of this product to the spray tank via in-line injection is not recommended.

### Cleaning Equipment Post Application

Careful attention must be use when cleaning equipment before spraying a crop other than field corn following applications with this product. Mix the volume of spray solution based on the area of application and mix only as much spray solution as needed.

### Tank and Sprayer Clean Out

1. Use clean water to flush the tank, hoses, boom, and nozzles.
2. Add 1 gal. of household ammonia per 25 gals. of water. Or alternatively, use a commercially available spray tank cleaner.
3. Using pressure washer, clean the inside of the spray tank with this solution. Wash all parts of the tank, including the inside and top surface. If there is not a pressure washer available, fill the sprayer completely with the cleaning solution to provide contact with all internal surfaces of the tank and plumbing. Begin agitation in the sprayer and thoroughly recirculate the solution in the tank for at least 15 minutes. Remove all visible deposits from the spray equipment.
4. Use the cleaning solution to flush the hoses, spray lines, and nozzles for at least 1 minute.
5. Flush dead space areas with water by removing boom end caps, and then replace caps.
6. Dispose of rinsate from the clean-out according to all local State and federal regulations.
7. Repeat the steps 2 to 5 above.
8. After completing the above procedures, remove and clean the nozzles, screens, and strainers separately in the cleaning solution.
9. Completely rinse the spray tank and equipment with clean water.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

### SOIL TEXTURES AND HERBICIDE RATES

Where rates are based on *coarse-*, *medium-*, or *fine-textured soils*, it is understood that soil textural classes are generally categorized as follows:

| Coarse     | Medium    | Fine            |            |
|------------|-----------|-----------------|------------|
| Sand       | Loam      | Sandy clay loam | Sandy clay |
| Loamy sand | Silt loam | Silty clay loam | Silty clay |
| Sandy loam | Silt      | Clay loam       | Clay       |

Within rate ranges in the rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

### APPLICATION PROCEDURES

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

**Note:** This product may be applied pre-emergence alone, or in combination with tank-mix partners specified on this label, following pre-plant incorporated herbicides when used according to their label directions, provided that such use is not prohibited on the respective labels.

### Application Timing

This product alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the given crop section of the label to determine if application timings listed below are recommended.

**A) Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, this product alone and some tank mixtures of this product may be applied up to 45 days before planting certain crops. Use only

split applications for treatments made 30 to 45 days before planting, with two-thirds the recommended broadcast rate for the crop and soil texture applied initially and the remaining one-third at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop to determine if early preplant surface application is recommended. If weeds are present at the time of treatment, apply in a tank-mixture combination with a contact herbicide (for example, glyphosate). Observe directions for use, use precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**B) Preplant Incorporated:** Apply this product to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate this product after bed formation, unless specified otherwise.

**C) Preemergence:** Apply this product during planting (behind the planter) or after planting, but before weeds or crops emerge.

### SPECIAL APPLICATION PROCEDURES

**A) Preplant Incorporated - CA Only (soybeans):** Broadcast this product to the soil and thoroughly incorporate with a disk or similar implement set to till 4 to 6 inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on flat surface or on beds. Caution should be used when forming the beds that only soil from a zone treated with this product is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate this product with a tillage implement set to till 2 to 4 inches deep. Care should be taken during tilling to keep the tilled (this product treated) soil on the beds.

**B) Preemergence:** Apply this product after planting. Water with sprinkler or flood irrigation within 7-10 days.

**C) Fall Application (only in IA, MN, ND, SD, WI, North of Route 20 in the state of NE, and North of Route 136 in the state of IL):** Do not apply to frozen ground. Use on medium and fine soils with greater than 2.5% organic matter that will be planted to Soybeans the next spring. Ground may be tilled before or after application. Do not exceed a 2 to 3-inch incorporation depth if tilled after treatment. **Note:** If a Spring application is made, the total rate of the Fall plus Spring applications must not exceed the maximum total rate for the specific crop, or illegal residues may result.

**D) Ground Application:** Apply this product alone or in tank mixtures by ground equipment in a minimum of 10 gals. spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. For tank mixtures of this product with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{band width (inches)}}{\text{row width (inches)}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

### LOW CARRIER APPLICATION

#### For Broadcast Ground Application Only

Use sprayers, such as, but not limited to, Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh.

Manufacturer's may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35 to 40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

**Note:** Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Nozzle screens should be used when

recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

### DRY BULK GRANULAR FERTILIZERS

Many dry bulk granular fertilizers may be impregnated or coated with this product alone or selected tank mixtures which are registered for preplant incorporated or preplant surface application which are used to control weeds in crops on this product label and are not prohibited from use on dry bulk granular fertilizers.

When applying this product alone or in mixtures with dry bulk granular fertilizers, follow all directions for use and precautions on the respective product labels regarding target crops, rates per acre, soil texture, application methods (including timing of application), and rotational crops.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture. Prepare the herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray this product alone or in mixtures onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate amounts of **this product**, atrazine, metribuzin or ethalfluralin by the following formula:

$$\frac{2000}{\text{lbs. of fertilizer per acre}} \times \text{pts./A of liquid or flowable product} = \text{pts. of liquid or flowable product per ton of fertilizer}$$
$$\frac{2000}{\text{lbs. of fertilizer per acre}} \times \text{lbs./A of dry product} = \text{lbs. of dry product per ton of fertilizer}$$

**Pneumatic (Compressed Air) Application (Metolachlor + Sulfentrazone Alone):** High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix this product with Exxon Aromatic 200 at a rate of 1 to 4 pts./gal. of this product. Aromatic 200 is a noncombustible / nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

### USE PRECAUTIONS:

- Mixtures of this product with Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications.
- When impregnating this product in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or drying agents of 6/30 particle size are recommended.
- Drying agents are not recommended for use with On-The-Go impregnation equipment.

### USE RESTRICTIONS:

To avoid potential for explosion,

- **DO NOT** impregnate this product or mixtures of this product on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.

- **DO NOT** use this product or mixtures of this product on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

### Application

Apply 200-700 lbs. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Non-uniform application may also result in unsatisfactory weed control.

In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control. On *fine-* or *medium-textured soils* in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On *coarse-textured soils*, make applications approximately 14 days prior to planting.

### USE PRECAUTION:

To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where bedding occurs.

### WEEDS CONTROLLED METOLACHLOR + SULFENTRAZONE HERBICIDE APPLIED ALONE

|                                     |  |
|-------------------------------------|--|
| Amaranth, Palmer                    | <i>Amaranthus palmeri</i>                        |
| Amaranth, spiny                     | <i>Amaranthus spinosus</i>                       |
| Amaranth, spleen                    | <i>Amaranthus dubius</i>                         |
| Barnyardgrass                       | <i>Echinochloa crus-galli (L.) Beauv.</i>        |
| Broadleaf signalgrass               | <i>Urochloa platyphylla (Nash) R. D. Webster</i> |
| Copperleaf, hophornbeam             | <i>Acalypha ostryifolia Riddell</i>              |
| Crabgrass spp.                      | <i>Digitaria</i> spp.                            |
| Crowfootgrass                       | <i>Dactyloctenium aegyptium (L.) Willd.</i>      |
| Cupgrass, Prairie                   | <i>Eriochloa contracta Hitchc.</i>               |
| Cupgrass, Southwestern              | <i>Eriochloa acuminata (J. Presl) Kunth</i>      |
| Fall Panicum                        | <i>Panicum dichotomiflorum Michx.</i>            |
| Florida Pusley                      | <i>Richardia scabra L.</i>                       |
| Foxtail, Giant                      | <i>Setaria faberi Herrm.</i>                     |
| Foxtail, Green                      | <i>Setaria viridis (L.) Beauv.</i>               |
| Foxtail, Robust                     | <i>Setaria viridis var. robusta</i>              |
| Foxtail, Yellow                     | <i>Setaria glauca (L.) Beauv.</i>                |
| Foxtail, bristly                    | <i>Setaria verticillata (L.) Beauv.</i>          |
| Goosegrass                          | <i>Eleusine indica (L.) Gaertn.</i>              |
| Groundcherv, cutleaf                | <i>Physalis angulata L.</i>                      |
| Hairy galinsoga                     | <i>Galinsoga ciliata (Raf) Blake</i>             |
| Kochia (ALS and Triazine Resistant) | <i>Kochia scoparia (L.) Schrad</i>               |
| Lambsquarters, common               | <i>Chenopodium album</i>                         |
| Morning glory, entireleaf           | <i>Ipomoea hederacea integrisc</i>               |
| Morning glory, ivyleaf              | <i>Ipomoea hederacea hederacea</i>               |
| Morning glory, Palmleaf             | <i>Ipomoea wrightii</i>                          |
| Morning glory, pitted               | <i>Ipomoea lacunosa L.</i>                       |
| Morning qlogy, purple               | <i>Ipomoea turbinata</i>                         |
| Morning glory, red                  | <i>Ipomoea coccinea</i>                          |
| Morning glory, scarlet              | <i>Ipomoea hederifolia</i>                       |
| Morning qlogy, small flower         | <i>Jacquemontia tamnifolia (L.) Griseb.</i>      |



|                                    |                                   |
|------------------------------------|-----------------------------------|
| Morning glory, tall                | <i>Ipomoea purpurea</i>           |
| Nightshade, black                  | <i>Solanum nigrum</i>             |
| Nightshade, eastern black          | <i>Solanum americanum</i>         |
| Pigweed, red root                  | <i>Amaranthus retroflexus</i>     |
| Pigweed, smooth                    | <i>Amaranthus hybridus</i>        |
| Pigweed, spiny                     | <i>Amaranthus</i>                 |
| Sida, prickly                      | <i>Sida spinosa L.</i>            |
| Smartweed, Pennsylvania (seedling) | <i>Polygonum pensylvanicum L.</i> |
| Star of Bethlehem                  | <i>Ornithogalum umbellatum L.</i> |
| Texas panicum                      | <i>Panicum texanum L.</i>         |
| Thistle, Russian                   | <i>Salsola tragus L.</i>          |
| Tropical Spiderwort                | <i>Commelina benghalensis L.</i>  |
| Waterhemp, common                  | <i>Amaranthus rudis</i>           |
| Waterhemp, tall                    | <i>Amaranthus tuberculatos</i>    |
| Witch grass                        | <i>Panicum capillare L.</i>       |
| <b>SEDGES (suppression only)</b>   |                                   |
| Nutsedge, purple                   | <i>Cyperus rotundus</i>           |
| Nutsedge, yellow                   | <i>Cyperus esculentus</i>         |
| Sedge, annual                      | <i>Carex spp.</i>                 |

## ROTATIONAL CROPS

### Metolachlor + Sulfentrazone Herbicide Alone:

- If crop treated with this product alone is lost, any crop on this label or any metolachlor + sulfentrazone product label may be replanted immediately. Do not make a second broadcast application of this product. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied.
- Barley, oats, rye, or wheat may be planted 4.5 months following treatment; alfalfa may be planted 4 months following application.
- **DO NOT** graze or feed forage or fodder from cotton to livestock.

| Crop                     | Interval (Months) | Crop        | Interval (Months) |
|--------------------------|-------------------|-------------|-------------------|
| Alfalfa *                | 12                | Potatoes    | Anytime           |
| Barley                   | 4.5               | Rice        | 10                |
| Cabbage                  | 2                 | Rye         | 4.5               |
| Cereal grains **         | 12                | Sorghum     | 10                |
| Buckwheat                | 12                | Soybeans    | Anytime           |
| Corn, field              | 10                | Sugar beets | 36                |
| Corn, pop, sweet         | 18                | Sunflowers  | Anytime           |
| Cotton                   | 18 or 12 ***      | Triticale   | 4.5               |
| Dry shell peas and beans | Anytime           | Tobacco     | 10                |
| Horseradish              | Anytime           | Tomato      | Anytime           |
| Lima Beans – TN only     | Anytime           | Wheat       | 4.5               |
| Peanuts                  | Anytime           |             |                   |

\* To avoid injury to rotational alfalfa, (1) Do not apply more than 1.9 lb. Al metolachlor per acre in the previous crop, and (2) Do not make lay-by or other postemergent applications of products containing metolachlor in the previous crop.

\*\* Cereal grains include oats, pearl millet, prose millet, teosinte, and wild rice.

\*\*\* Cotton may be planted after 12 months where this product was applied at rates 36 oz./acre or less and meets the following conditions: (1) medium and fine soils, (2) pH<7.2, (3) Rainfall or irrigation must exceed 15" after application of this product to rotate to cotton.  
For all other crops not listed, the rotation interval is a minimum of 12 months with a representative bioassay to determine crop safety before planting.

**DO NOT** plant treated fields with any crops at intervals that are inconsistent with the rotational crop guidelines on this label.

#### **Metolachlor + Sulfentrazone Herbicide Tank Mixtures:**

For rotational crop restrictions for this product used in tank mixtures, refer to the statements/restrictions above for this product and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

#### **Restrictions:**

To avoid injury to rotational Alfalfa or Clover:

- **DO NOT** apply more than 3 lbs. a.i. per acre (3 pts. of this product) pre-emergence (including pre-plant surface, pre-plant incorporated, post-plant incorporated, etc.),
- **DO NOT** make lay-by or other post-emergent applications of this product.

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## **CROPS**

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### **SOYBEANS**

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#### **Fall Applications**

This product may be applied as a fall treatment to the stubble of harvested crops for preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of this product must be made in weed control programs that include, as needed, spring application of preplant, preemergence or postemergence herbicides for the following year. Applications to ridge till production systems must be made after the formation of ridges or bedded. Apply when the sustained soil temperature at a 4-inch depth is less than 55°F and falling.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates.

#### **For Fall Application**

- Apply after September 30 in ND, SD, MN, WI and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.
- Do not make fall applications south of Interstate 70.

#### **Early Preplant, Preplant Incorporated, and Preemergence Applications (Spring Applications)**

Use on medium to fine soils with minimum tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI WV and WY.

This product can be applied early preplant, preplant Incorporated or preemergence up to 3 days after planting but prior to emergence.

For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. When this product is applied near or after crop emergence, it may cause severe injury to the crop. Apply this product alone or in combination with other soybean herbicides, including those containing sulfentrazone, as long as the sulfentrazone active ingredient rate does not exceed 0.375 lb a.i./A per year. Do not apply more than

2.387 lb a.i./A metolachlor per year. If needed, follow applications of this product with labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using this product in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds. Apply on coarse soils no more than 2 weeks prior to planting.

**Metolachlor + Sulfentrazone Herbicide Use Rate**

| Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications |                                  |              |               |
|---|----------------------------------|--------------|---------------|
| Broadcast Rate  | Fluid Ounces of Product per Acre |              |               |
| % Organic Matter  | Soil Texture                     |              |               |
|   | Coarse                           | Medium       | Fine          |
| <1.5  | 18.25 – 24.0                     | 24.0 – 30.75 | 24.0 – 30.75  |
| 1.5 - 3   | 24.0                             | 24.0 – 30.75 | 24.0 – 30.75  |
| >3  | 24.0                             | 24.0 – 30.75 | 30.75 – 36.25 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. For soils with pH > 7.2 use the lowest rate for that specific soil texture and organic matter.

When applying this product with other registered herbicides, refer to specific label information on precautions, restrictions, instructions, limitations, application methods and timings, and weeds controlled.

**USE RESTRICTIONS:**

- **MAXIMUM SINGLE APPLICATION RATE:** 38.7 fl.oz. product / A (1.97 lbs. metolachlor AI/A and 0.23 lbs. sulfentrazone AI/A) (Use no more than 38.7 fl.oz. product / A total if making a split application, use no more than 36.25 fl.oz. product / A if making a single one-time application.)
- **MAXIMUM ANNUAL APPLICATION RATE PER YEAR:** 38.7 fl.oz. product / A (1.97 lbs. metolachlor AI/A and 0.23 lbs. sulfentrazone AI/A) (Use no more than 38.7 fl.oz. product / A total if making a split application, use no more than 36.25 fl.oz. product / A if making a single one-time application.)
- **MAXIMUM NUMBER OF APPLICATIONS:** 1 (Two applications are allowed if using the split application program)
- **PRE-HARVEST INTERVAL (PHI):** 90 days
- **DO NOT** apply more than 3 days after planting.
- **DO NOT** graze or feed treated forage or hay from soybeans to livestock following a post-emergence application.
- **DO NOT** graze or feed treated soybean forage, hay or straw to livestock for 30 days after treatment.
- **DO NOT** use on soils classified as sand, which have less than 1 % organic matter.
- **DO NOT** apply to frozen soils or existing snow cover to prevent this product from running off with rain or snowmelt that may occur following application.
- **DO NOT** apply after crop seed germination.

## STORAGE AND DISPOSAL

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

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **Container Handling [less than or equal to 5 gallons]**

**Non-refillable container.** Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration.

### **Container Handling [more than 5 gallons]**

**Non-refillable container.** Do not reuse or refill this container. Offer for recycling if available. Triple rinse container or pressure rinse (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration.

### **Container Handling [greater than 5 gallons]**

**Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**DO NOT USE CONTAINERS FOR THE STORAGE OF FOOD, FEED, OR DRINKING WATER!**

## **WARRANTY AND LIMITATION OF DAMAGES**

**CONDITIONS OF SALE:** To the extent consistent with applicable law, Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc.

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