

<b>PYROXASULFONE</b>	<b>GROUP 15</b>	<b>HERBICIDE</b>
<b>SULFENTRAZONE</b>	<b>GROUP 14</b>	<b>HERBICIDE</b>



# **AUTHORITY**<sup>®</sup>

## **SUPREME**

HERBICIDE

For weed control in dry shelled peas (including chick-pea), soybeans, and sunflowers.

EPA Reg. No. 279-3601

EPA Est. No.279-IL-1

Active Ingredients	By Wt.
Pyoxasulfone .....	20.66%
Sulfentrazone .....	20.66%
<b>Other Ingredients</b> .....	<b>58.68%</b>
<b>TOTAL</b>	<b>100.00%</b>

AUTHORITY SUPREME Herbicide is a suspension concentrate containing 4.16 lb active ingredient per gallon (containing 2.08 lb ai of pyoxasulfone and 2.08 lb ai of sulfentrazone).

### **KEEP OUT OF REACH OF CHILDREN CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

Sold By



FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

**Net Contents: 2.5 Gallons**

### **FIRST AID**

**If Swallowed:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**If in Eyes:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

**If on Skin or Clothing:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

**If Inhaled:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

### **HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

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## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### Caution

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq 14$  mils, or viton  $\geq 14$  mils, shoes plus socks, and protective eyewear (goggles or face shield).

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### User Safety Recommendations

#### Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling the 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, aquatic invertebrates, and to some plants at very low concentrations. 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 from treated areas may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

**Ground Water Advisory:** The chemicals and degradation products have properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

**Surface Water Advisory:** 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 aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

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 a high potential for reaching both surface water and aquatic sediment via runoff for several months or longer 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 from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**Point Source Contamination:** To prevent point source contamination, do not mix or load this or any other pesticide within 50 feet of wells (including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs). This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or dike mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% of that of the largest pesticide container or application equipment used on the pad and has sufficient capacity to contain all products spills, equipment or container leaks, equipment wash waters and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticides shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

## PHYSICAL/CHEMICAL HAZARDS

Do not use or store near heat or open flame.

## 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. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

**Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or FMC, and, to the extent permitted by applicable law, Buyer assumes the risk of any such use.**

To the extent consistent with applicable law, FMC or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Condition of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

## RESISTANCE MANAGEMENT

AUTHORITY SUPREME® Herbicide, which contains the active ingredients sulfentrazone and pyroxysulfone is a group 14 and 15 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of AUTHORITY SUPREME Herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your FMC representative, local retailer, or county extension agent.
- Contact your FMC representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 and 15 and/or use nonchem-

ical methods to remove escapes, as practical, with the goal of preventing further seed production.

- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 14 and 15 herbicides.
- Avoid making more than two applications of AUTHORITY SUPREME Herbicide and any other Group 14 and 15 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying. 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 AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

## 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, such as plants, soil, or water, is: Coveralls over long-sleeved shirt and long pants, protective eyewear (goggles or face shield), chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq 14$  mils, or viton  $\geq 14$  mils, and shoes plus socks.

## PRODUCT INFORMATION

AUTHORITY SUPREME Herbicide can be applied in all tillage systems (conventional, reduced and no-tillage) and applied in the fall or in the spring as a preplant, preplant incorporated, or preemergence treatment for susceptible grass and broadleaf weeds in dry shelled peas (including chickpea), soybeans, and sunflowers. Consult individual crop sections for specific use directions and application timings for each crop.

### Application Instructions and Timing:

Moisture (rainfall or irrigation) is necessary to activate the active ingredients in AUTHORITY SUPREME Herbicide in soil for weed control. Dry weather following applications of AUTHORITY SUPREME Herbicide may reduce the effectiveness of AUTHORITY SUPREME Herbicide. However, when adequate moisture is received after dry conditions, AUTHORITY SUPREME Herbicide will control susceptible germinating weeds. AUTHORITY SUPREME Herbicide may not control weeds that germinate after application but before an activating rainfall and/or irrigation of at least 0.5 inch, or weeds that germinate through cracks resulting from dry soil. When adequate moisture is not received after AUTHORITY SUPREME Herbicide application, weed control may be improved by irrigation or shallow incorporation with rotary hoe or other light tillage. If no rain occurs within 7 days after application, apply

overhead irrigation if available at 0.5 to 1.0 inch total volume. Refer to the crop specific information section for specific application rates, timings and the restrictions and limitations by crop and use pattern.

### Restrictions

- Do not use flood or furrow irrigation to apply, activate or incorporate this product
- Do not use on peat or muck soils or mineral soils with 10% or more organic matter content.
- Do not use on soils classified as sand which have less than 1% organic matter.
- Crop seeds must be planted a minimum of 1 inch deep.

### Ground Application

Use sufficient spray pressure and spray volume for accurate and uniform application. Refer to instructions for the spray equipment used to determine the actual minimum volume. The carrier may be either water or a sprayable fluid fertilizer. Do not apply this product without dilution in a spray carrier. For preplant, preplant incorporated, or preemergence applications, apply AUTHORITY SUPREME Herbicide in a minimum of 10 gallons of water per acre.

### Aerial Application

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply at a minimum of 3 gallons of finished spray per acre. Spray volumes of 5 GPA or greater may be needed for dense populations of emerged weeds are present.

## MIXING AND LOADING INSTRUCTIONS

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.

### Mixing Instructions:

1. The spray equipment must be clean before using this product. If it is contaminated with other materials, mixing problems and/or clogging can occur and/or crop response can occur.
2. Prepare no more spray mixture than is needed for the immediate application. Applying the product immediately after preparation ensures that it is in suspension. If application is delayed, agitation to re-mix the products and checking for resuspension ensures proper blending.
3. Maintain maximum agitation throughout the spraying operation.
4. Flush the spray equipment thoroughly after each use and apply rinse to an appropriate area.

### Mixing Steps:

1. Add 1/4 -1/2 of the required amount of clean water and/or fertilizer to the spray or mixing tank.
2. While maintaining agitation, continue filling the spray tank. When the tank is 3/4 full, add any dry formulation tank mix partners and allow them to completely and uniformly disperse.
3. Add the required amount of AUTHORITY SUPREME Herbicide to the spray tank while maintaining agitation. After the product has completely and uniformly dispersed into the tank mix, add any other liquid tank mix partners and allow them to completely and uniformly disperse.
4. Add the proper amount of spray adjuvant and continue agitation while adding the remaining water and/or fertilizer.
5. Complete filling the tank with clean water and/or fertilizer to maintain sufficient agitation at all times to insure surface action until the mixture is uniform.
6. After use, thoroughly clean the sprayer according to this label (see Cleaning Spray Equipment) and any tank mix partner labels.

### Mixing AUTHORITY SUPREME Herbicide in Tank Mixtures with Other Products and Fluid Fertilizers

AUTHORITY SUPREME Herbicide is compatible with most commonly used herbicides, insecticides, fungicides, and spray adjuvants. 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.

AUTHORITY SUPREME Herbicide can be used with liquid fertilizers. It is recommended that a preliminary compatibility jar test be conducted using appropriate ratios of AUTHORITY SUPREME Herbicide and fertilizer. Dilution of the fertilizer and/or slurring of the AUTHORITY SUPREME Herbicide with water may aid in the mixing of the fertilizer plus herbicide combination. Prepare no more spray mixture than is needed for the immediate application. Applying the product immediately after preparation ensures that it is in suspension. If application is delayed, agitation to re-mix the products and checking for resuspension ensures proper blending.

### Compatibility Test

Before mixing, a jar test is needed to ensure AUTHORITY SUPREME Herbicide compatibility with tank mix partners and adjuvants. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredient rates.

1. Add 1.0 pt. of water to each of 2 one-quart jars. Note: Use the same source of water and the other components in the compatibility test that will actually be tank mixed and applied. It is important that all components are mixed at a temperature similar to the temperature of those used for the actual application.

2. 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 pt/100 gallons spray). Shake or stir gently to mix.

3. 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. Finally, add the appropriate amount of any adjuvants that will be used. After each addition, shake or stir gently to thoroughly mix.

(Dry Herbicides and Adjuvants: For each pound to be applied per acre, add 1.4 tsp. to each jar.

Liquid Herbicides and Adjuvants: For each pint to be applied per acre, add 0.5 tsp. or 2.5 milliliters to each jar).

4. After adding all ingredients for the tank mixture, replace and tighten lids. Shake jars by inverting the mixture and then let stand for 15 to 30 minutes.

5. After waiting period, check jars for separation, precipitates, flakes, films on the side, gels or other signs of incompatibility. If mixtures separate but can be remixed, the mixture can be sprayed as long as good agitation is used.

6. If the mixtures are incompatible, then try these methods to overcome the problem. A) Make a slurry of dry pesticides in water before adding them to the tank B) Add more compatibility agent or increase the water volume of the mixture.

7. If tank mixtures are incompatible, then do not spray the mixture. (Properly dispose of testing jars and any pesticide waste).

## DRY FERTILIZER APPLICATION

AUTHORITY SUPREME Herbicide may be impregnated or coated onto dry bulk granular fertilizer carriers for fall, preplant surface and preplant incorporated applications. Follow all AUTHORITY SUPREME Herbicide label requirements, instructions and precautions.

All individual state regulations relating to dry granular fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the herbicide/ fertilizer mixture.

Select the AUTHORITY SUPREME Herbicide application rate per acre from this label and determine the quantity of dry bulk fertilizer to be applied per acre (use a minimum of 200 pounds and a maximum of 750 pounds per acre). Use the equation below to determine the amount of AUTHORITY SUPREME Herbicide needed per ton of fertilizer applied.

(fl oz of AUTHORITY SUPREME Herbicide per acre X 2000) / Pounds fertilizer per acre = oz of AUTHORITY SUPREME Herbicide for 1 ton of fertilizer).

AUTHORITY SUPREME Herbicide may be impregnated on many commonly used dry fertilizer but do not impregnate on ammonium nitrate, fertilizers containing ammonium nitrate, potassium nitrate, sodium nitrate or powdered limestone.

To impregnate AUTHORITY SUPREME Herbicide on bulk fertilizer, use a closed rotary drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix AUTHORITY SUPREME Herbicide with sufficient water to form a sprayable slurry mixture. Spray nozzles be directed to provide uniform fertilizer coverage while avoiding spray contact with mixing equipment. Non uniform impregnation can cause crop injury or unsatisfactory performance.

Spray the herbicide mixture onto the fertilizer after blending has started. If necessary, include a suitable drying agent to ensure a spreadable herbicide impregnated fertilizer. Apply treated fertilizer immediately after impregnation to avoid lump formulation and spreading difficulties. Accurate calibration of fertilizer application equipment and uniform fertilizer distribution is essential for satisfactory weed control. Apply the mixture uniformly to the soil with proper equipment immediately after blending and moisture is required for activation.

## WEEDS CONTROLLED

AUTHORITY SUPREME Herbicide applied fall, early preplant, preplant-incorporated, and preemergence controls the weeds listed in Table 1 prior to their emergence. The length of control is dependent on rate applied, amount of rainfall received following application and soil type. Please see crop specific use rates for rate requirements based on soil type. AUTHORITY SUPREME Herbicide will not control weeds that are emerged at the time of application, and an appropriate burndown herbicide must be tank-mixed with AUTHORITY SUPREME Herbicide for control of emerged broadleaf and grass weeds.

**Table 1. Weeds Controlled by Early Preplant, Preplant-Incorporated, or Preemergence Applications of AUTHORITY SUPREME Herbicide**

Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Powell	<i>Amaranthus powellii</i>
Amaranth, spiny	<i>Amaranthus spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Barnyardgrass	<i>Echinochloa crus-galli</i> (L.) Beauv.
Bluegrass, annual	<i>Poa annua</i>
Broadleaf signalgrass	<i>Urochloa platyphylla</i> (Nash) R. D. Webster
Canarygrass	<i>Phalaris canariensis</i>
Carpetweed	<i>Mulogo verticillata</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i> Riddell
Crabgrass spp.	<i>Digitaria</i> spp.
Crowfootgrass	<i>Dactyloctenium aegyptium</i> (L.) Willd.
Cupgrass, Prairie	<i>Eriochloa contracta</i> Hitchc.
Cupgrass, Southwestern	<i>Eriochloa acuminata</i> (J. Presl) Kunth
Fall Panicum	<i>Panicum dichotomiflorum</i> Michx.
Florida Pusley	<i>Richardia scabra</i> L.
Foxtail, Giant	<i>Setaria faberi</i> Herrm.
Foxtail, Green	<i>Setaria viridis</i> (L.) Beauv.
Foxtail, Robust	<i>Setaria viridis</i> var. <i>robusta</i>
Foxtail, Yellow	<i>Setaria glauca</i> (L.) Beauv.
Foxtail, bristly	<i>Setaria verticillata</i> (L.) Beauv.
Goosegrass	<i>Eleusine indica</i> (L.) Gaertn.
Groundcherry, cutleaf	<i>Physalis angulata</i> L.
Hairy galinsoga	<i>Galinsoga ciliata</i> (Raf.) Blake
Kochia (ALS and Triazine Resistant)	<i>Kochia scoparia</i> (L.) Schrad.
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass (seedling)	<i>Sorghum halepense</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, entireleaf	<i>Ipomea hederacea integrisc</i>
Morningglory, ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, Palmleaf	<i>Ipomea Wrightii</i>
Morningglory, pitted	<i>Ipomoea lacunosa</i> L.
Morningglory, purple	<i>Ipomea turbinate</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, small flower	<i>Jacquemontia tamnifolia</i> (L.) Griseb.
Morningglory, tall	<i>Ipomea, 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>
Pigweed, tumble	<i>Amaranthus albus</i>
Purslane, common	<i>Portulaca oleracea</i>
Red rice	<i>Oryza punctate</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Ryegrass, rigid	<i>Lolium rigidum</i>
Sida, prickly	<i>Sida spinosa</i> L.
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i> L.
Star of Bethlehem	<i>Ornithogalum umbellatum</i> L.
Texas panicum	<i>Panicum texanum</i> L.
Thistle, Russian	<i>Salsola tragus</i> L.
Tropical Spiderwort	<i>Commelina benghalensis</i> L.
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Witch grass	<i>Panicum capillare</i> L.

**Table 2. Weeds Partially Controlled or Suppressed by Early Preplant, Pre-plant Incorporated, or Preemergence Applications of AUTHORITY SUPREME Herbicide**

Brome, Downy	<i>Bromus tectorum</i>
Brome, Japanese	<i>Bromus japonicas</i>
Buckwheat, wild	<i>Polygonum convolvulus</i>
Cheat	<i>Bromus secalinus</i>
Chickweed, common	<i>Stellaria media</i>
Cupgrass, woolly	<i>Eriochloa villosa</i>
Fleabane, common	<i>Conyza bonariensis</i>
Groundsel, common	<i>Senecio media</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed (marestalk) (Emerging from seed, not overwintering plants)	<i>Conyza canadensis</i>
Millet, wild proso	<i>Panicum miliaceum</i>
Oat, wild	<i>Avena fatua</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Sandbur, longspine	<i>Cenchrus longispinus</i>
Spreading orach	<i>Atriplex subspicata</i>
Shattercane	<i>Sorghum vulgare</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Sedges (suppression only)	
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cares spp.</i>

For weeds only suppressed with use of AUTHORITY SUPREME Herbicide, tank mix or apply as sequential applications with other herbicides for best results.

#### Soil Texture

Unless a specific soil texture is mentioned, refer to table below for soil texture groups: coarse, medium, and fine. This includes a complete listing of soil textures included in each of the soil texture groupings.

**Table 3.**

COARSE	MEDIUM	FINE
Sand	Sandy clay	Silty clay loam
Loamy sand	Sandy clay loam	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

### CROP ROTATIONAL RESTRICTIONS

If any crop treated with AUTHORITY SUPREME Herbicide is lost, registered crops on this label can be replanted immediately. **DO NOT** make a second application of AUTHORITY SUPREME Herbicide.

**Table 4.**

Crop	Crop Rotation Interval (Months)				
	Application rates up to 3.27 fl oz/A	6.54 fl oz	9.80 fl oz	13.07 fl oz	16.4 fl oz
Alfalfa	12	12	12	12	12
Barley	11	11	11	18	18
Buckwheat	12	12	12	18	18
Cabbage (transplant only)	18	18	18	18	18
Canola, (rapeseed)	24	24	24	24	24
Corn, field and seed	4	4	4	4	4
Corn, sweet and pop	10	10	10	10	10
Cotton	12 <sup>1</sup> -18	12 <sup>1</sup> -18	12 <sup>1</sup> -18	12 <sup>1</sup> -18	18
Dry Shelled Peas	Anytime	Anytime	Anytime	4	4
Dry Shelled Beans	9	9	9	9	9
Succulent Edible Peas	9	9	9	9	9
Succulent Edible Beans and other edible beans (including lentils)	9	9	9	9	9
Flax	Anytime	Anytime	Anytime	Anytime	Anytime
Grasses grown for Seed	18	18	18	18	18
Horseradish	18	18	18	18	18
Millet, (proso, pearl)	12	12	12	18	18
Mint	18	18	18	18	18
Oats	12	12	12	12	18
Peanut	4	4	4	4	4
Potato	4	4	4	4	4
Rice	10	12	18	24	24
Rye	11	11	11	18	18
Sorghum	10	10	10	12	12
Soybeans	Anytime	Anytime	Anytime	4	4
Sugarbeet	24	24	24	24	24
Sunflowers	Anytime	Anytime	Anytime	2	4
Sweet Potato	12	12	12	12	12
Triticale	11	11	11	18	18
Wheat	4	4	4	6	6
Other	18	18	18	18	18

<sup>1</sup>Cotton may be planted after 12 months where AUTHORITY SUPREME Herbicide was applied at 12.1 fl oz/A or less and meets the following conditions:

- Medium and fine soils
- pH <7.2
- Rainfall or irrigation must exceed 15" after application before planting cotton

For crops listed in the rotational crop table, the minimum replant interval listed in the table must be observed. For crops not listed in the rotational crop table, a minimum rotational crop interval of 18 months must be observed and a representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.

If there is a lack of adequate or normal soil moisture due to drought conditions following an application of AUTHORITY SUPREME Herbicide, the minimum rotational crop interval listed in the table must be extended for one additional year and a representative bioassay of the field must be conducted with the potential rotational crop and adequate soil moisture to determine the crop sensitivity to AUTHORITY SUPREME Herbicide.

### APPLICATION INSTRUCTIONS

#### Fall Application

AUTHORITY SUPREME Herbicide may be applied in the fall for crops that are to be planted the following spring. For control of emerged weeds in the fall, use combinations with other burndown herbicides like carfentrazone-ethyl, 2,4-D, dicamba, glyphosate, paraquat or glufosinate. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Do not exceed 2 inch incorporation depth if tilled after application. AUTHORITY SUPREME Herbicide may be broadcast surface applied in the fall after crop harvest when soil temperatures at the 4-inch depth are sustained at less than 55°F and before the ground freezes to control

weeds in minimum or no tillage fields planted the following spring. Do not apply to frozen soils or to existing snow cover to prevent AUTHORITY SUPREME Herbicide runoff from rain or snow melt that may occur following application.

**Preplant, preemergence and early preplant applications**

AUTHORITY SUPREME Herbicide may be applied prior to planting up 3 days after planting. Apply AUTHORITY SUPREME Herbicide alone or in tank mixtures, up to 30 days before planting dry peas (including chickpea). Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the surface. Preplant surface applications are not recommended on coarse soils in areas where average annual rainfall (or rainfall + irrigation) typically exceeds 40 inches. If rainfall or irrigation is not received within 7 days, weed control may be inconsistent. A light incorporation (less than 2" deep) in the soil by mechanical means is allowed and may improve herbicide performance under limited activation moisture conditions. Cultivation or a labeled postemergence herbicide application may still be required under certain conditions for complete weed control.

If weeds are present at the time of application, use additional weed control methods including tank mixes with an appropriate postemergence herbicide(s) to control emerged weeds and follow all label directions, rates, restrictions, and precautions on the tankmixture partner labeling.

**Preplant incorporated (PPI) applications**

For PPI applications of AUTHORITY SUPREME Herbicide, incorporate into the upper (1-2 inches) soil surface before planting. Do not incorporate greater than 2 inches deep. Use appropriate equipment that provides uniform shallow incorporation, such as a field cultivator, harrow, rolling cultivator or finishing disc.

**Split applications in labeled crops**

AUTHORITY SUPREME Herbicide can be applied in sequential programs, but do not exceed the maximum use rate per year. Do not make more than 2 applications per year. Where weeds are emerged, use appropriate tank mixtures for control of the weed species present.

**APPLICATION RATES**

Application rates for AUTHORITY SUPREME Herbicide when applied alone, in tank mix, or sequentially are provided in **Tables 5 through 7**.

**DRY SHELLED PEAS (INCLUDING CHICKPEA)**

**Crop Sensitivity**

The use of AUTHORITY SUPREME Herbicide may result in temporary growth suppression of dry shelled peas (including chick pea) in extreme conditions of high rainfall and extended periods of water-saturated soil that occur during germination or early seedling development.

**Table 5. Use Rates of AUTHORITY SUPREME Herbicide in dry shelled peas (including chickpea)**

Organic Matter	Use Rate by Soil Texture <sup>1</sup> AUTHORITY SUPREME Herbicide fl oz/A per year (lb ai/A)		
	Coarse	Medium	Fine
<1.5%	4.3 – 5.8 (0.141 – 0.189)	5.8 – 8.7 (0.187 – 0.282)	5.8 – 8.7 (0.187 – 0.282)
1.5 – 3.0%	5.8 – 8.7 (0.189 – 0.282)	7.2 – 11.5 (0.234 – 0.374)	8.7 – 13.0 (0.282 – 0.422)
>3.0%	7.2 – 11.5 (0.234 – 0.374)	8.7 – 13.0 (0.262 – 0.422)	10.0 – 15.4 (0.326 – 0.500)
Use higher rates for soils of pH less than 7.2 and lower rates for pH greater than 7.2 within the rate range.			

<sup>1</sup> Refer to definitions of soil texture groups in Soil Texture Table 3.

**Restrictions for use in dry shelled peas (including chickpea)**

- **DO NOT** apply more than a maximum cumulative amount of 15.4 fl oz/A AUTHORITY SUPREME Herbicide (0.5 lb ai/A containing 0.25 lb ai of pyroxasulfone and 0.25 lb ai of sulfentrazone) of AUTHORITY SUPREME Herbicide per year.
- Do not apply more than a cumulative of 0.266 pound active of pyroxasulfone per year from all sequential applications.
- Do not apply more than a cumulative of 0.25 pound active of sulfentrazone per year from all sequential applications.
- Do not make more than 2 applications per year.
- Do not apply within 7 days if a second application is necessary.

**Use Instructions and Precautions for use in dry shelled peas (including chickpea)**

- Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. AUTHORITY SUPREME Herbicide use rates must be reduced in those areas. If applying AUTHORITY SUPREME Herbicide to coarse textured soils with less than 1.5% organic matter, best results are achieved by waiting a minimum of 7-14 days after application before planting
- Inadequate seed furrow closure or shallow planting (less than 1.0

inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of AUTHORITY SUPREME Herbicide from seed germination through seedling emergence may increase the risk of dry pea (including chickpea) seedling injury and must be avoided if possible.
- The use of AUTHORITY SUPREME Herbicide may result in temporary growth suppressions or leaf burn on dry shelled peas (including chickpea) under stressful conditions such as inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of AUTHORITY SUPREME Herbicide may reduce herbicidal effectiveness. When AUTHORITY SUPREME Herbicide is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.
- Before applying to dry peas (including chickpea), verification of AUTHORITY SUPREME Herbicide selectivity on your variety must be confirmed to avoid injury to sensitive beans varieties. Check with the local Cooperative Extension agent for information on potential AUTHORITY SUPREME Herbicide varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply AUTHORITY SUPREME Herbicide on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of AUTHORITY SUPREME Herbicide and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, AUTHORITY SUPREME Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with AUTHORITY SUPREME Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on AUTHORITY SUPREME under specific local conditions.

**SOYBEANS**

**Crop Sensitivity**

The use of AUTHORITY SUPREME Herbicide may result in temporary growth suppression of soybeans in extreme conditions of high rainfall and extended periods of water-saturated soil occurring during germination or early seedling development.

**Table 6. Use Rates of AUTHORITY SUPREME Herbicide in Soybeans**

Organic Matter	Use Rate by Soil Texture <sup>1</sup> AUTHORITY SUPREME Herbicide fl oz/A per year (lb ai/A)		
	Coarse	Medium	Fine
<1.5%	6 – 6.9 (0.130 – 0.163)	6 – 9.8 (0.193 – 0.318)	7 – 11.5 (0.23 - 0.372)
1.5 – 3.0%	6 – 6.9 (0.130 – 0.224)	6 – 9.8 (0.193 – 0.318)	8 – 11.5 (0.261 – 0.372)
>3.0%	6.9 (0.224)	7 – 9.8 (0.23 – 0.318)	8 – 11.5 (0.261 – 0.372)
Use higher rates for soils of pH less than 7.2 and lower rates for pH greater than 7.2 within the rate range.			

<sup>1</sup> Refer to definitions of soil texture groups in Soil Texture Table 3.

**Restrictions for use in Soybeans**

- Do not make more than 2 applications per year.
- Do not apply within 7 days if a second application is necessary.
- **On coarse soils - DO NOT** apply more than a maximum cumulative amount of 6.9 fl oz/A AUTHORITY SUPREME Herbicide (0.224 lb ai/A containing 0.112 lb ai of pyroxasulfone and 0.112 lb ai of sulfentrazone) per year.
- **On medium and fine soils - DO NOT** apply more than a maximum cumulative amount of 11.5 fl oz/A of AUTHORITY SUPREME Herbicide (0.372 lb. ai/A containing 0.186 lb ai of pyroxasulfone and 0.186 lb ai of sulfentrazone) per year.

**Use Instructions and Precautions for use in Soybeans**

- Inadequate seed furrow closure or shallow planting (less than 1.0

inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of AUTHORITY SUPREME Herbicide from seed germination through seedling emergence may increase the risk of soybean seedling injury and must be avoided if possible.
- The use of AUTHORITY SUPREME Herbicide may result in temporary growth suppressions or leaf burn on soybeans under stressful conditions such as inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of AUTHORITY SUPREME Herbicide may reduce herbicidal effectiveness. When AUTHORITY SUPREME Herbicide is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.
- Before applying to soybeans, verification of AUTHORITY SUPREME Herbicide selectivity on your variety must be confirmed to avoid injury to sensitive soybean varieties. Check with the local Cooperative Extension agent for information on potential AUTHORITY SUPREME Herbicide varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply AUTHORITY SUPREME Herbicide on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of AUTHORITY SUPREME Herbicide and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, AUTHORITY SUPREME Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with AUTHORITY SUPREME Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on AUTHORITY SUPREME Herbicide under specific local conditions.

## SUNFLOWER

### Crop Sensitivity

The use of AUTHORITY SUPREME Herbicide may result in temporary growth suppression of sunflowers in extreme conditions of high rainfall and extended periods of water-saturated soil occurring during germination or early seedling development.

**Table 7. Use Rates of AUTHORITY SUPREME Herbicide in Sunflowers**

Organic Matter	Use Rate by Soil Texture <sup>1</sup> AUTHORITY SUPREME Herbicide fl oz/A per year (lb ai/A)		
	Coarse	Medium	Fine
<1.5%	5.8 – 7.2 (0.187 – 0.234)	5.8 – 8.7 (0.187 – 0.282)	7.2 – 10.1 (0.234 – 0.328)
1.5 - 3.0%	5.8 – 8.7 (0.187 – 0.282)	5.8 – 11.6 (0.187 – 0.377)	8.7 – 13.0 (0.282 – 0.422)
>3.0%	7.2 – 11.6 (0.234 – 0.377)	8.7 – 13.0 (0.282 – 0.377)	11.6 – 15.4 (0.377 – 0.50)

Use higher rates for soils of pH less than 7.2 and lower rates for pH greater than 7.2 within the rate range.

<sup>1</sup> Refer to definitions of soil texture groups in Soil Texture Table 3.

### Restrictions for use in Sunflower

- Do not make more than 2 applications per year.
- Do not apply within 7 days if a second application is necessary.
- **DO NOT** apply more than a maximum cumulative amount of 15.4 fl oz/A AUTHORITY SUPREME Herbicide (0.50 lb ai/A containing 0.25 lb ai of pyroxasulfone and 0.25 lb ai of sulfentrazone) per year.
- Do not apply more than a cumulative of 0.266 pound active of pyroxasulfone per year from all sequential applications.
- Do not apply more than a cumulative of 0.25 pound active of sulfentrazone per year from all sequential applications.

### Use Instructions and Precautions for use in Sunflower

- Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. AUTHORITY SUPREME Herbicide use rates must be reduced in those areas. If applying AUTHORITY SUPREME Herbicide to coarse

textured soils with less than 1.5% organic matter, best results are achieved by waiting a minimum of 7-14 days after application before planting

- Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.
- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of AUTHORITY SUPREME Herbicide from seed germination through seedling emergence may increase the risk of soybean seedling injury and must be avoided if possible.
- The use of AUTHORITY SUPREME Herbicide may result in temporary growth suppressions or leaf burn on sunflower under stressful conditions such as inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of AUTHORITY SUPREME Herbicide may reduce herbicidal effectiveness. When AUTHORITY SUPREME Herbicide is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.
- AUTHORITY SUPREME Herbicide can be used on all types of sunflowers. Before applying to sunflowers, verify with your local seed company (supplier) the selectivity of AUTHORITY SUPREME Herbicide on your inbred line or hybrid to avoid potential injury.
- Before applying to sunflower, verification of AUTHORITY SUPREME Herbicide selectivity on your variety must be confirmed to avoid injury to sensitive soybean varieties. Check with the local Cooperative Extension agent for information on potential AUTHORITY SUPREME Herbicide varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply AUTHORITY SUPREME Herbicide on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of AUTHORITY SUPREME Herbicide and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, AUTHORITY SUPREME Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with AUTHORITY SUPREME Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on AUTHORITY SUPREME Herbicide under specific local conditions.

## SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

AUTHORITY SUPREME Herbicide contains a contact protoporphyrinogen oxidase (PPO) inhibitor herbicide. Avoid any drift conditions that would allow the product to contact desirable vegetation. The mist from spray drift may cause injury to sensitive plants.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all factors involved in minimizing drift potential.

The following drift management requirements must be followed to avoid off-target movement from applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

Where states have more stringent regulations, they must be observed.

### Information on Droplet Size

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Use nozzle types arrangements that will provide maximum coverage and minimize the potential for off target movement of spray particles. Droplets size for ground applications must be in the medium to very coarse size categories as defined in the August 1999 ASAE S572 publication entitled, "Spray Nozzle Classification by Drop Spectra". Refer to that publication for additional information. Regardless of droplet size, if applications are made improperly or under unfavorable environmental conditions off target movement will occur. (See Wind, Temperature and Humidity, and Temperature Inversion sections in this label).

### Controlling Spray Droplet Size

**VMD (Volume median diameter)** – VMD is the expression of the droplet size of the spray cloud. The VMD value means that 50% of the droplets are larger than the expressed value and 50% of the droplets are smaller than the expressed value. Optimum AUTHORITY SUPREME Herbicide spray clouds are 450 microns with fewer than 10% of the droplets being 200 microns or less.

**Volume** – Use high flow rate nozzles that produce medium droplets to apply the highest practical spray volume.

**Pressure** - Use the lower spray pressures recommended for the nozzle and do not exceed the manufacturer's recommended pressure. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** – Orienting nozzles so that the spray is released backwards parallel to the air-stream will produce larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential. For aerial application, orient nozzles so that the spray is released parallel to the airstream. A parallel orientation results in larger droplets than other orientations and reduces air turbulence and the production of small droplets. Significant deflection from horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** – Use a nozzle type that is designed for the intended application. For aerial applications, solid stream nozzles oriented straight back produce the largest droplets and potentially the least drift. Do not use nozzles that produce fine spray droplets (e.g. cone).

**Application Height** – Ground applications must not be made at a height greater than 4 feet above the top of the largest plants. Aerial applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment** – When applications are made with cross wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path upwind. Swath adjustment distance must increase with increasing drift potential (higher wind, smaller drops, etc).

**Wind** – Variable wind speeds with changing directions may pose the largest potential for drift damage if crops other than rice are adjacent to the field to be sprayed. Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Applications must be avoided if wind speed is below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity** – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation, but they still must remain within the medium droplet size category. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions** – Do not spray at times when spray particles may be entrained into a temperature inversion layer. If inversion conditions are suspected, consult with local weather services before making an application. Applications must not occur during temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified 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.

**Sensitive Areas** – AUTHORITY SUPREME Herbicide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Maintain a 10-foot buffer between the application area and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrublands, and croplands).

## CLEANING SPRAY EQUIPMENT

Many pesticides are very active at low rates, especially to sensitive crops. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. As soon as possible after spraying AUTHORITY SUPREME Herbicide and before using the sprayer equipment for any other applications, the sprayer equipment must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with AUTHORITY SUPREME Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then,

thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water or using a commercial tank cleaner. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer for any extended period of time with AUTHORITY SUPREME Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of AUTHORITY SUPREME Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

When AUTHORITY SUPREME Herbicide has been tank mixed refer to the label of the product used previously or tank mixed with AUTHORITY SUPREME Herbicide for cleaning instructions.

## STORAGE AND DISPOSAL

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

### **Pesticide Storage**

Store product in original container only, in a well ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. Store in a cool, dry place and avoid excess heat.

### **In Case of Spill**

Avoid contact. Isolate areas and keep out animals and unprotected persons. Confine spills. **Call CHEMTREC (Transportation and spills): (800) 424-9300.**

### **To Confine Spills**

Dike surrounding area; sweep up spillage; dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container. Identify contents per required hazardous waste labeling regulations.

### **Pesticide Disposal**

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

### **Container Handling**

**Nonrefillable container:** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

(For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

(For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Returnable/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 refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% 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 reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

## LABEL TRACKING INFORMATION

Label Code: SL-4099 090418 01-09-18

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