



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

October 4, 2019

Luz G Chan  
Registration Manager  
Drexel Chemical Company  
P.O. Box 13327  
Memphis, TN 38113-0327

Subject: Notification per PRN 98-10 – Update Mode of action, add first aid referral statement, CHEMTEC referral statement, and safened for corn starburst  
Product Name: Drexel Trizar Herbicide  
EPA Registration Number: 19713-686  
Application Date: March 26, 2019  
Decision Number: 552280

Dear Ms. Chan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records. 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.

If you have any questions, please contact Lydia Crawford by phone at 703-347-0622, or via email at [Crawford.Lydia@epa.gov](mailto:Crawford.Lydia@epa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Emily Schmid".

Emily Schmid, Acting Product Manager 25  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

**RESTRICTED USE PESTICIDE**

(GROUND AND SURFACE WATER CONCERNS)

For retail or sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification. This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.



<b>METOLACHLOR</b>	<b>GROUP</b>	<b>15</b>	<b>HERBICIDE</b>
<b>ATRAZINE</b>	<b>GROUP</b>	<b>5</b>	<b>HERBICIDE</b>
<b>MESOTRIONE</b>	<b>GROUP</b>	<b>27</b>	<b>HERBICIDE</b>



**Trizar™**  
HERBICIDE

A Pre-emergence Herbicide for Control of Annual Grass and Broadleaf Weeds in Field corn, Field seed corn, Field silage Corn, Sweet corn, Yellow popcorn and Grain sorghum.

**ACTIVE INGREDIENTS\*:**

Metolachlor .....	19.00%
Atrazine.....	18.61%
Atrazine Related Compounds .....	0.34%
Mesotrione.....	2.44%
<b>OTHER INGREDIENTS:</b> .....	<b>59.61%</b>
<b>TOTAL:</b> .....	<b>100.00%</b>

\*This product contains 1.74 pounds of metolachlor, 1.74 pounds of atrazine and 0.224 pound of mesotrione active ingredients per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**See Page 2 for FIRST AID**

[Optional: "See Side (Back) Panel for FIRST AID"; "See FIRST AID Below"; "See FIRST AID Below"]  
[Optional: "See Booklet (Container Labeling) for Full Use Instructions"]

**SHAKE WELL BEFORE USING  
[REIRCULATE CONTENTS BEFORE USE]**

EPA Reg. No. 19713-686  
EPA Est. No. 19713-XX-XXX

Net Content: \_\_\_\_\_ Gals. ( \_\_\_\_\_ L)

**NOTIFICATION**

19713-686

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

10/04/2019

Manufactured By:



**Drexel Chemical Company**  
P.O. BOX 13327, MEMPHIS, TN 38113-0327  
**SINCE 1972**

686SP-0319\*

## 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 poison control center or doctor.
- Do not give anything to an unconscious person.

### IF IN EYES:

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

### IF ON SKIN OR CLOTHING:

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

### IF INHALED:

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

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for **emergency medical treatment information**.

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Avoid contact with eyes, skin, or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves (such as natural rubber).

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

#### Mixers, loaders, applicators, flaggers and other handlers must wear:

- Coveralls over short-sleeved shirts and short pants
- Chemical-resistant gloves (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride or viton)
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills or cleaning equipment or otherwise exposed to the concentrate.
- Chemical-resistant headgear for overhead exposure.

See Engineering Controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### ENGINEERING CONTROLS

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## USER SAFETY RECOMMENDATIONS

**Users should:** 1) Wash hands thoroughly before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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 aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

### **Groundwater Advisory**

This product contains the active ingredients metolachlor, atrazine and mesotrione.

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

Metolachlor has the potential to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

### **Surface Water Advisory**

The active ingredients in this product have the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredients may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

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 for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications where rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce the contribution of this product to surface water contamination.

### **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 mixing equipment.

This product must not be mixed/loaded or used within 50 feet of wells, including abandoned wells, drainage wells and sink holes. Operations that involve mixing, loading, rinsing or washing to this product into or from pesticide handling or application equipment or containers within 50 feet 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.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must 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 applied within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 feet buffer or setback from runoff entry points must be planted to crop or seeded with grass or other suitable crop.

### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 feet of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2 to 3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

### **PHYSICAL AND CHEMICAL HAZARDS**

Do not use or store near heat or open flame.

### **PRODUCT INFORMATION**

TRIZAR HERBICIDE may be used pre-emergence and post-emergence in the culture of Field corn, Field seed corn and Field corn silage. This product may also be used in the culture of Sweet corn, Yellow popcorn and Grain sorghum, but application must be made prior to crop emergence (pre-emergence) or severe crop injury may occur.

This product is a unique combination of the herbicides: metolachlor, atrazine and mesotrione plus the safener, dichlormid. This product controls weeds by interfering with normal germination and seedling development. It is intended for management of the weed species listed in **Tables 1 and 2.**

### **DIRECTIONS FOR USE**

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

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Drexel Chemical Company for a refund.

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

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

**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 WPS, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

For early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

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

**In New York: Not for sale, use or distribution in Nassau County or Suffolk County.**

## RESTRICTIONS

### • Atrazine Rate Restrictions\*

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- The total pounds of atrazine applied (lbs. a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.
- When tank-mixing or sequentially applying atrazine or products containing atrazine with this product to Corn, do not exceed an application rate of 2.0 pounds of atrazine a.i. per acre for any single application.
- Maximum broadcast application rates for atrazine in Corn must be as follows:
  - If no atrazine was applied prior to Corn emergence, apply a maximum of 2.0 pounds a.i. per acre as a broadcast spray.
  - For sequential application following emergence, do not exceed 2.5 pounds a.i. per acre per calendar year.
  - Do not apply more than 2.0 pounds a.i. per acre as a single pre-emergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if at least 30% of the soil is covered with plant residues.
  - Do not apply more than 1.6 pounds a.i. per acre as a single pre-emergence application on highly erodible (as defined by the Natural Resource Conservation Service) soils if <30% of the surface is covered with plant residues or 2.0 pounds a.i. per acre if only applied post-emergence.
- Do not exceed label dosage rates, nor combined maximum seasonal doses for metolachlor, atrazine or mesotrione.
- **Grazing Restriction:** Do not graze or feed forage from treated areas for 45 days following application.
- **Pre-harvest Interval (PHI):** Do not harvest forage, grain or stover within 60 days after application on Field corn. On Sweet corn, do not harvest forage within 45 days after application.
- Do not apply this product through any type of irrigation system.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- Do not apply more than 3.5 quarts of this product (1.5 lbs. of metolachlor, 1.5 lbs. of atrazine, 0.19 lb. of mesotrione a.i.) per acre per growing season.
- Do not apply other solo HPPD inhibitor post-emergence herbicides [such as isoxaflutole (e.g., Balance® Flexx), mesotrione (e.g., Callisto®), tembotrione (e.g., Laudis®), topramezone (e.g., Impact®)] to ground that has been treated with this product in the same season.
- Applying this product post-emergence (emerged Corn) to Corn that has received an at-plant application of terbufos (e.g., Counter®) insecticide can result in severe Corn injury. Temporary Corn injury may occur if this product is applied to emerged Corn where organophosphate insecticides other than terbufos were applied at planting.
- Do not make post-emergence (emerged Corn) applications of this product in a tank-mix with any organophosphate or carbamate insecticide.
- Do not use this product on any crop other than Field corn (for grain, seed or silage), Sweet corn (pre-emergence applications only), Yellow popcorn (pre-emergence applications only) or Grain sorghum (pre-emergence applications only).
- Do not use this product in the culture of White popcorn or Ornamental (Indian) corn.
- Do not contaminate irrigation water used for crops other than Field corn or water used for domestic purposes.
- Do not apply this product by air.

\* **Note:** For purposes of calculating total atrazine a.i. applied, this product contains 1.74 pounds of atrazine a.i. The equivalent amount of a.i. contained in the product is shown below:

Amt. of this Product	Lbs. of A.I. Contained		
	Metolachlor a.i.	Atrazine a.i.	Mesotrione a.i.
1 qt.	0.435	0.435	0.056
1 gal.	1.74	1.74	0.224

## USE PRECAUTIONS

- Post-emergence (emerged Corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after application of this product may result in severe Corn injury.
- Sprayer or applicator contaminated with other materials may cause crop damage or sprayer clogging of the application device. Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner.
- This product will not provide consistent control of emerged grass weeds.
- Avoid drift onto adjacent crops.
- Avoid spray overlap as crop injury may result.

Applied according to directions and under normal growing conditions, this product will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. This product used under these conditions could result in crop injury.

## WEED RESISTANCE MANAGEMENT

GROUP	15	5	27	HERBICIDES
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This product is a Group 15, 5 and 27 herbicides.

Naturally occurring biotypes of certain broad leaf weed species with resistance to triazine or ALS inhibiting herbicides are known to exist. However, no known resistance to this product exists and there are no known instances of cross resistance between this herbicide and other classes of herbicides. If biotypes of weeds resistant to triazines or ALS inhibitors are present in the field, this herbicide should control them if they are listed in **Tables 1** and **2**.

To reduce the risk of weeds developing resistance to HPPD inhibitors, do not apply solo post-emergence HPPD inhibitor herbicides [such as isoxaflutole (e.g., Balance Flexx), mesotrione (e.g., Callisto), tembotrione (e.g., Laudis), topramezone (e.g., Impact)] in the same season or on the same field where this product has been applied. A good weed resistance management strategy includes a herbicide program that contains two or more modes of action. This product contains three herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

## INTEGRATED PEST (WEED) MANAGEMENT

This product may be integrated into an overall weed and pest management strategy whenever the use of a herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

## SOIL ORGANIC MATTER

The organic matter of the soil on which the application is to be made must be known or determined prior to application. The use rate of this product is based on percent soil organic matter.

## REDUCED AND NO-TILL SYSTEMS

This product may be used in reduced and no-till systems. High levels of control will be obtained when applications are made as close to planting as possible. Burndown herbicides such as paraquat (e.g., Quik-Quat™, Gramoxone®), glyphosate (e.g., Imitator®, Roundup®) or 2,4-D (e.g., De-Amine®, De-Ester®) can be tank-mixed with this product in reduced or no-till systems if weeds are present at application and the Corn has not yet emerged.

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.

## WEEDS CONTROLLED

This product applied as directed in this label will control or suppress the weeds listed in **Tables 1** and **2**. Additional weeds may be controlled with tank-mixes. See the *"THIS PRODUCT IN TANK-MIXTURES"* section for tank-mix combinations with this product.

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.

**Table 1. Weeds Controlled or Partially Controlled by Pre-emergence Applications of This Product\***

Common Name	Scientific Name	Control (C) / Partial Control (PC)
<b>GRASS WEEDS</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass	<i>Digitaria</i> spp.	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, Prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, Woolly	<i>Eriochloa villosa</i>	PC
Foxtail, Giant	<i>Setaria faberi</i>	C
Foxtail, Green	<i>Setaria viridis</i>	C
Foxtail, Robust (purple, white)	<i>Setaria</i> spp.	C
Foxtail, Yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, Seedling	<i>Sorghum halepense</i>	PC
Millet, Foxtail	<i>Setaria italica</i>	C
Millet, Wild proso	<i>Panicum milliaceum</i>	PC
Panicum, Browntop	<i>Panicum fasciculatum</i>	C
Panicum, Fall	<i>Panicum dichotomiflorum</i>	C
Panicum, Texas	<i>Panicum texanum</i>	PC
Red rice	<i>Oryza sativa</i>	C
Sandbur, Field	<i>Cenchrus incertus</i>	PC
Shattercane	<i>Sorghum bicolor</i>	PC
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	PC
Signalgrass, Narrowleaf	<i>Brachiaria piligera</i>	C
Sprangletop, Red	<i>Leptochloa filiformis</i>	C
Starbur, Bristly	<i>Acanthospermum hispidum</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>BROADLEAF WEEDS</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, Catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, Wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, Common	<i>Stellaria media</i>	C
Cocklebur, Common	<i>Xanthium strumarium</i>	PC
Deadnettle, Purple	<i>Lamium purpureum</i>	C
Devil's claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (Marestail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, Common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Morningglory, Ivyleaf/Entireleaf	<i>Ipomea hederacea</i>	PC
Mustard, Wild	<i>Brassica kaber</i>	C
Nightshade, Black	<i>Solanum nigrum</i>	C
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, Hairy	<i>Solanum sarrachoides</i>	C
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, Smooth	<i>Amaranthus hybridus</i>	C
Puncturevine	<i>Tribulus terrestris</i>	PC
Purslane, Common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C



Radish, Wild	<i>Raphanus raphanistrum</i>	C
Ragweed, Common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, Giant	<i>Ambrosia trifida</i>	PC
Sesbania, Hemp	<i>Sesbania exaltata</i>	C
Shepherd's purse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Senna obtusifolia</i>	C
Sida, Prickly	<i>Sida spinosa</i>	C
Smartweed, Ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, Common	<i>Helianthus annuus</i>	PC
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, Common	<i>Amaranthus rudis</i>	C
Waterhemp, Tall	<i>Amaranthus tuberculatus</i>	C
<b>SEDGE</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C

\*Thoroughly till soil or make an application of a burndown herbicide to destroy germinating and emerged weeds. Plant crop into moist soil immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply 0.5 to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Post-emergence Applications of This Product\***

Common Name	Scientific Name	Control (C) / Partial Control (PC)
<b>GRASS WEEDS</b>		
Crabgrass	<i>Digitaria sanguinalis</i>	C**
Signalgrass, Broadleaf	<i>Bracharia platyphylla</i>	C**
<b>BROADLEAF WEEDS</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, Catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, Wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, Common	<i>Stellaria media</i>	C
Cocklebur, Common	<i>Xanthium strumarium</i>	C
Dandelion	<i>Taraxacum officinale</i>	PC
Deadnettle, Purple	<i>Lamium purpureum</i>	C
Devil's claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horsenettle	<i>Solanum carolinense</i>	C
Horseweed (Marestail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, Common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail	<i>Hippuris vulgaris</i>	C
Morningglory, Ivyleaf/Entireleaf	<i>Ipomea hederacea</i>	C
Mustard, Wild	<i>Brassica kaber</i>	C
Nightshade, Black	<i>Solanum nigrum</i>	C
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, Hairy	<i>Solanum sarrachoides</i>	C
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, Smooth	<i>Amaranthus hybridus</i>	C

Pokeweed	<i>Phytolacca americana</i>	C
Potatoes, Volunteer	<i>Solanum</i> spp.	C
Purslane, Common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, Wild	<i>Raphanus raphanistrum</i>	C
Ragweed, Common	<i>Ambrosia artimisiifolia</i>	C
Ragweed, Giant	<i>Ambrosia trifida</i>	C
Sesbania, Hemp	<i>Sesbania exaltata</i>	C
Shepherd's purse	<i>Capsella bursa-pastoris</i>	C
Sida, Prickly	<i>Sida spinosa</i>	C
Smartweed, Ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, Common	<i>Helianthus annuus</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, Common	<i>Amaranthus rudis</i>	C
Waterhemp, Tall	<i>Amaranthus tuberculatus</i>	C
<b>SEDGE</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	PC
**Apply before weed exceeds 2 inches in height.		

\*This product will not provide consistent control of emerged grass weeds. A tank-mix of atrazine with this product can provide control of certain emerged annual grass weeds. Refer to the atrazine label for weeds controlled and other restrictions.

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.

## ROTATIONAL CROPS

When rotating crops following an application of this product:

- Do not rotate to crops other than Corn (all types), Cotton, Peanuts, Small grain cereals, Sorghum or Soybeans, the Spring following application of this product.
- If crop is lost, Field corn, Field seed corn, Field silage corn, Sweet corn, Yellow popcorn and Grain sorghum (Concep<sup>®</sup> treated seed) may be replanted immediately. **Do not reapply this product.**
- If this product is applied after June 1, rotating to crops other than Corn (all types) or Sorghum the next Spring may result in crop injury.
- Injury may occur to Soybeans planted the year following application on soils having a calcareous surface layer, e.g., those found within the Clarion-Nicollet-Webster soil series of Northern Iowa and Southern Minnesota.
- In eastern parts of the Dakotas, Kansas, Western Minnesota and Nebraska, do not rotate to Soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 pounds a.i. per acre or equivalent band application rate or Soybean injury may occur.
- In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when Corn (all types) or Sorghum is to follow Field corn or a crop of untreated Corn (all types) or Sorghum is to precede other rotational crops.
- For all other crops, wait for 18 months.

## APPLICATION PROCEDURES

### USE OF ADJUVANTS

Where this product is applied after Field corn has emerged, a non-ionic surfactant at 0.25% v/v (1 qt./100 gals.) may be used. The use of crop oil concentrate (COC) may result in temporary crop injury. If used, add COC at a rate not to exceed 1% v/v (1 gal./100 gals.) or not more than the equivalent of 1 quart per acre. Do not use nitrogen based

adjuvants (AMS or UAN) or methylated seed oil (MSO) with this product when applied alone to emerged Field corn or when this product is applied as a post-emergence tank-mixture with other products, unless directed for a specific tank-mix on this label or as a part of a supplemental label of this product. Any of these adjuvants may be used at a pre-emergence or pre-plant timing, i.e., where the Corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply this product to emerged Sweet corn or Yellow popcorn.

For tank-mixtures of this product with glufosinate (e.g., Liberty® Herbicide) applied to emerged Field corn (LibertyLink® hybrids only), AMS may be added as directed on the glufosinate product label. However, AMS should be the only adjuvant added to this tank-mixture or severe crop injury may occur. 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.

### **SPRINKLER IRRIGATION**

Do not apply this product by sprinkler irrigation. Use a sprinkler system only to incorporate this product after application. After this product has been applied, a sprinkler irrigation system set to deliver 0.5 to 1 inch of water may be used to incorporate the product. Do not use flood irrigation to apply or incorporate this product.

### **CULTIVATION**

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in improved weed control. If this product was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

### **SPRAY EQUIPMENT**

#### **GROUND APPLICATION**

Spray nozzles should be the same size and type, spaced uniformly and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50 mesh or coarser. Use a pump that can maintain pressure of at least 35 to 40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

#### **Pre-emergence**

Apply in a spray volume of 10 to 80 gallons per acre.

#### **Early Post-emergence**

Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop - at least 15 inches above the crop canopy, but high enough to give uniform coverage. Apply in a spray volume of 10 to 30 gallons per acre. When weed foliage is dense, use a minimum spray volume of 20 gallons per acre. Flat fan nozzles of 80° or 110° are recommended for optimum post-emergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for post-emergence applications. Nozzles may be angled 45° forward to enhance penetration of the crop and provide better coverage.

### **CLEANING EQUIPMENT AFTER APPLICATION**

Special attention must be given to cleaning equipment before spraying crops other than Field corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom and nozzles with clean water.
2. Prepare a cleaning solution of 1 gallon of household ammonia per 25 gallons of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation

in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.

4. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1 to 3 in an appropriate manner.
6. Repeat steps 2 to 5.
7. Remove nozzles, screens and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

## **SPRAY DRIFT**

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of equipment and weather related factors determine the potential for drift. The applicator is responsible for considering these factors when making an application decision.

Do not apply when weather conditions may cause drift to non-target areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, do not apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

### **Information on Droplet Size**

The most effective way to reduce spray drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

### **Controlling Droplet Size**

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. 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 Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

### **Application Height**

Applications should be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

### **Wind**

Drift potential is lowest between wind speeds 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a sufficient buffer downwind of the application to avoid drift to sensitive crops. This buffer may be untreated corn rows or field border species maintained for this purpose. The width of the buffer needed for a specific application will depend on the wind speed, distance to sensitive crops, and application equipment parameters.

### **Temperature Inversions**

Applications should not occur during a 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 sunsets and often continue into the 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

This product should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## TO PREVENT OFF-SITE MOVEMENT DUE TO RUNOFF OR WIND EROSION

- 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.
- Do not apply to impervious substrates, such as paved or highly compacted surfaces.
- Do not use tail water 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.
- 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.
- Dry weather following pre-emergence application of this product or tank-mixture of this product may reduce effectiveness. Cultivate if weeds develop in conventional tillage Corn.

## MIXING PROCEDURES

### CARRIER

#### Pre-emergence Applications

Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for pre-emergence applications. If fluid fertilizers are used, a compatibility test must be done. See *"TANK-MIX COMPATIBILITY TEST"* section for compatibility testing. Even if this product is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

#### Post-emergence Applications

Use only clean water as the carrier when applying this product after Field corn emergence. Do not apply this product to emerged Sweet corn, Yellow popcorn or Grain sorghum.

## ADDING THIS PRODUCT TO THE SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either this product alone or with tank-mix partners. If water is used as carrier, use clean water.

### This Product Applied Alone

When this product is used alone, add the specified amount of this product to the spray tank when the tank is half full of the carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

### This Product Applied in Tank-mixtures

Refer to the sections on this label for listed tank-mixes. 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 label dosage rates, nor combined maximum seasonal doses for metolachlor, atrazine or mesotrione.** This product cannot be mixed with any product bearing a label prohibition against such mixing. If a tank-mixture is used, a compatibility test must be done. See *"TANK-MIX COMPATIBILITY TEST"* section for details on the procedure for such a test.

If the tank mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add this product.
4. Add any other tank-mix products next with emulsifiable concentrates added last.

5. Add adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

### TANK-MIX COMPATIBILITY TEST

To ensure compatibility of a tank-mixture of this product with other pesticides, conduct a compatibility test using the following test. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, always check compatibility with pesticide(s) before use. Incompatibility of tank-mixtures is more common with mixtures of fertilizer and pesticides.

#### Test Procedure

1. Add 1.0 pint of carrier (fertilizer or water) to each of two 1 quart jars with tight lids. **Note:** Use the same source of water that will be used for the tank-mix and conduct the test at the temperature the tank-mix will be applied.
2. To one of the jars, add one-fourth teaspoon or 1.2 milliliters of a compatibility agent suitable for this use, such as Mix™, Compex or Unite (1/4 tsp. is equivalent to 2.0 pts./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on specified label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten and invert each jar ten times to mix. Let the mixtures stand 15 to 30 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 two 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 pesticide(s) in water before addition or (b) add one-half the compatibility agent to the fertilizer or water and the other one-half to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the “STORAGE AND DISPOSAL” section in this label.

### CROP USE DIRECTIONS

**Note:** For purposes of calculating total atrazine a.i. applied, this product contains 1.74 pounds of atrazine a.i. The equivalent amount of a.i. contained in the product is shown below:

Amt. of this Product	Lbs. of A.I. Contained		
	Metolachlor a.i.	Atrazine a.i.	Mesotrione a.i.
1 qt.	0.435	0.435	0.056
1 gal.	1.74	1.74	0.224

### CORN

This product is for pre-emergence use to control most annual grass and broad leaf weeds in Field corn, Field seed corn, Field corn silage, Sweet corn and Yellow popcorn. This product may also be applied early post-emergence to control broadleaf weeds in Field corn, Field seed corn and Field corn silage.

See **Tables 1** and **2** for list of weeds controlled. This product will not consistently control grasses that are emerged at the time of application.

**Restriction:** Do not apply this product to emerged Sweet corn or Yellow popcorn or severe crop injury will occur.

#### USE RATE OF THIS PRODUCT

When this product is used on soils with greater than 10% organic matter, poor weed control may result. The soil organic matter content of the field on which this product is to be applied must be known. If soil organic matter content is less than 3%, use 3.0 quarts of this product (1.30 lbs. of metolachlor, 1.30 lbs. of atrazine, 0.168 of mesotrione a.i.) per acre. If soil organic matter content is 3% or greater, use 3.5 quarts this product (1.52 lbs. of metolachlor, 1.52 lbs. of atrazine, 0.196 lb. of mesotrione a.i.) per acre.

**Restriction:** Do not apply to Field corn taller than 12 inches or apply more than 3.5 quarts of this product (1.52 lbs. of metolachlor, 1.52 lbs. of atrazine, 0.196 lb. of mesotrione a.i.) per acre per growing season.

## THIS PRODUCT APPLIED ALONE

**Early Pre-plant:** This product may be applied up to 14 days prior to planting.

**Pre-emergence Surface:** This product may be applied to the soil surface as a broadcast or banded application.

**Restriction:** Do not exceed 3.5 quarts of this product (1.52 lbs. of metolachlor, 1.52 lbs. of atrazine, 0.196 lb. of mesotrione a.i.) per acre season.

**Banding Pre-emergence:** This product may be applied in a 10 to 15 inch band after Corn planting but prior to Corn emergence.

**Band Applications:** For band applications, using row and band width measurements in inches, calculate the amount of this product to be applied per acre as follows:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Rate per acre for a broadcast treatment} = \text{Amount needed per acre}$$

**Early Post-emergence:** This product may be applied after Field corn emergence. See "*Adjuvants*" under "*APPLICATION PROCEDURES*" section of this label for use of adjuvant.

Apply this treatment to small broadleaf weeds (less than 5 inches tall). Occasional Field corn leaf burn may result, but this will not affect later growth or Corn yield.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank-mix may be required (see "*THIS PRODUCT IN TANK-MIXTURE*" section).

**RESTRICTIONS:** (1) Do not apply early post-emergence to Field corn in liquid fertilizer or severe crop injury may occur. (2) Post-emergence applications to Field corn must be made before crop reaches 12 inches in height. (3) Do not apply this product to emerged Sweet corn or Yellow popcorn or severe crop injury may occur.

(4) Do not exceed a total of 3.75 pounds of metolachlor a.i. or 2.5 pounds of atrazine a.i. per acre if products containing metolachlor (e.g., Me-Too-Lachlor® II, Trizmet®, Bicep II Magnum®, Dual Magnum® or Dual II Magnum®) or atrazine (e.g., Atrazine 4L or 90DF) had been applied prior to application of this product.

**Split Application:** This product may be applied as split application in Field corn, Field corn seed corn and Field corn silage. For a split application program, apply 1.5 to 2.0 quarts (0.65 to 0.87 lb. of metolachlor, 0.65 to 0.87 lbs. of atrazine, 0.084 to 0.112 lb. of mesotrione a.i.) of this product per acre prior to crop emergence followed by a second application at a rate of 1.25 to 1.75 quarts of this product (0.54 to 0.76 lb. of metolachlor, 0.54 to 0.76 lb. of atrazine, 0.070 to 0.098 lb. of mesotrione a.i.) per acre as post-application after Corn emergence. The total amount of this product applied in the split application program cannot exceed 3.0 quarts (1.30 lbs. of metolachlor, 1.30 lbs. of atrazine, 0.168 lb. of mesotrione a.i.) per acre in soils with < 3% organic matter and cannot exceed 3.5 quarts (1.52 lbs. of metolachlor, 1.52 lbs. of atrazine, 0.196 lb. of mesotrione a.i.) per acre in soils with ≥ 3% organic matter. Refer to the "*Early Post-emergence*" section above for instructions on post-emergence applications.

## THIS PRODUCT IN TANK-MIXTURES

### Use of Spray Adjuvants with Tank-mixtures

When this product is used as a pre-emergence herbicide and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and Corn has not, an adjuvant may be used with this product applied alone or when applied in tank-mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants suitable for agricultural crop use. See "*Adjuvants*" under "*APPLICATION PROCEDURES*" section for further instructions.

### Burndown Combinations for Reduced Tillage Situations

In reduced or no-till Corn and before the crop has emerged, tank-mixture of this product with paraquat (e.g., Quik-Quat, Gramoxone) or glyphosate (e.g., Imitator, Roundup) will burndown emerged weeds. For best results, tank-mixture of this product with paraquat (e.g., Quik-Quat, Gramoxone) should be applied to emerged weeds that are 1 to 6 inches in height. Consult the paraquat (e.g., Quik-Quat, Gramoxone) or glyphosate (e.g., Imitator, Roundup) product label for further information on weeds controlled and application timings.

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.

### Pre-emergence Tank-mixtures Applied Before Corn Emergence

The tank-mix partners listed in **Table 3** may be used in either conventional, reduced or no-till systems and be applied by the same methods and at the same timings as this product unless otherwise specified in the tank-mix product label. 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.

Perform a compatibility test prior to spraying the tank-mix application. Tank-mixtures with 2,4-D (e.g., De-Amine, De-Ester) are allowed, but should only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products (and even their batches), vary greatly with regard to compatibility and should be checked each time a water or carrier source, water or carrier temperature, product source or tank-mixture recipe is changed.

**Table 3. Tank-mixtures of this Product for Pre-emergence Application in Corn**

Tank-mix Partner* (Products Containing)	Rate	Purpose
Atrazine (by itself) (e.g., Atrazine 4L or 90DF)	See product label	Improved broadleaf and grass weed control
Simazine (by itself) (e.g., Simazine 4L or 90DF)	See product label	Improved broadleaf and grass weed control
Glyphosate (by itself) (e.g., Imitator, Roundup)	See product label	Burndown existing weeds
Paraquat (by itself) (e.g., Quik-Quat, Gramoxone)	See product label	Burndown existing weeds
Lambda-cyhalothrin (e.g., L-C Insecticide, Warrior®)	See product label	To control insects such as Cutworm
*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.		

### Early Post-emergence Tank-mixtures Applied After Corn Emergence

The tank-mix partners listed in **Table 4** may be used in conventional, reduced or no-till systems and can be applied by the same methods and timings as this product unless otherwise specified in the tank-mix product label. Follow all tank-mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank-mix application. Do not apply this product in tank-mixtures to emerged Sweet corn or Yellow popcorn.

**Table 4. Tank-mixtures of this Product for Post-emergence Application in Corn**

Tank-mix Partner* (Products Containing)	Rate	Purpose
Atrazine (by itself) (e.g., Atrazine 4L or 90DF)	See product label	Improved broadleaf and annual grass weed control
Glufosinate (e.g., Liberty) (only for Corn hybrids designated as LibertyLink)	See product label	Emerged grass control
Nicosulfuron (by itself) (e.g., Accent®, Accent Q)	See product label	Emerged grass control
Nicosulfuron + Rimsulfuron (e.g., Steadfast®, Steadfast Q)	See product label	Emerged grass control
Rimsulfuron + Thifensulfuron-methyl (e.g., Basis®, Basis Blend, Resolve® Q)	See product label	Emerged grass control
Lambda-cyhalothrin (e.g., L-C Insecticide, Warrior)	See product label	To control insects such as Cutworm
See "Adjuvants" under "APPLICATION PROCEDURES" section for directions when applying this product in tank-mixtures to emerged Field corn.		



\*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.

### **Programs for Use of This Product with Glyphosate in Glyphosate Tolerant Corn**

This product may be applied early post-emergence at a rate down to 2.25 quarts (0.97 lb. of metolachlor, 0.97 lb. of atrazine, 0.126 lb. of mesotrione a.i.) per acre in tank-mixture with a solo glyphosate (e.g., Imitator, Roundup) that is registered for use over-the-top in glyphosate tolerant Field corn (e.g., Roundup Ready® or Agrisure™ GT Corn).

To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to Corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e., product label does not ask for additional adjuvant), only spray-grade ammonium sulfate (AMS) at 8.5 pounds per 100 gallons should be added to this mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a nonionic surfactant at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC) or methylated seed oil (MSO) type adjuvants to these mixtures or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, this product may be applied pre-emergence at a rate down to 2.25 quarts (0.97 lb. of metolachlor, 0.97 lb. of atrazine, 0.126 lb. of mesotrione a.i.) per acre as part of a two-pass weed control system when followed by a post-emergence application of a glyphosate-based product in glyphosate tolerant Corn (e.g., Roundup Ready or Agrisure GT Corn). When used in this manner, this product will provide reduced competition of the weeds listed in **Table 1** for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate-based product application. Follow all directions for use and restrictions on the glyphosate product label.

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.

### **Programs for Use of This Product on LibertyLink Corn**

This product may be applied early post-emergence at a rate down to 2.25 quarts (0.97 lb. of metolachlor, 0.97 lb. of atrazine, 0.126 lb. of mesotrione a.i.) per acre in tank-mixture with glufosinate (e.g., Liberty Herbicide) and applied over-the-top in Field corn designated as LibertyLink.

To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to Corn that is greater than 12 inches tall. Ammonium sulfate (AMS) may be added as a spray adjuvant as directed on the glufosinate label. However, AMS should be the only adjuvant added to this tank-mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), nonionic surfactants or methylated seed oil (MSO) type adjuvants to these mixtures or crop injury may occur. Follow all directions for use and restrictions on the glufosinate product label.

Alternatively, this product may be applied pre-emergence at a rate down to 2.25 quarts (0.97 lb. of metolachlor, 0.97 lb. of atrazine, 0.126 lb. of mesotrione a.i.) per acre as part of a two-pass weed control system when followed by a post-emergence application of glufosinate in Field corn designated as LibertyLink. When used in this manner, this product will provide reduced competition of the weeds listed in **Table 1** for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glufosinate application. Follow all directions for use and restrictions on the glufosinate product label.

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.

## GRAIN SORGHUM

This product can be applied pre-plant non-incorporated (up to 21 days before planting) through pre-emergence for weed control in Sorghum that was seed treated with Concep® III. For a listing of weeds controlled or partially controlled by this product, see **Table 1**.

Apply this product at a rate of 3.0 quarts (1.30 lbs. of metolachlor, 1.30 lbs. of atrazine, 0.168 lb. of mesotrione a.i.) per acre as a broadcast non-incorporated spray beginning at 21 days before planting through planting but prior to Sorghum emergence. Applying this product less than 7 days before Sorghum planting will increase the risk of crop injury especially if irrigation or rainfall is received following application. Injury symptoms include temporary bleaching of newly emerging Sorghum leaves or in extreme conditions, stunting or partial stand loss. Applying this product more than 7 days (but not more than 21) prior to Sorghum planting will reduce the risk of crop injury.

If this product is applied prior to planting, minimize disturbance of the herbicide treated soil barrier during the planting process in order to lessen the potential for poor weed control in the disturbed soil zone.

This product may also be applied as a split application to Grain sorghum. For split application program, apply this product at 1.5 to 1.75 quarts (0.65 to 0.76 lb. of metolachlor, 0.65 to 0.76 lb. of atrazine, 0.084 to 0.098 lb. of mesotrione a.i.) per acre as a non-incorporated early pre-plant (7 to 21 days before planting) followed by a second application at the rate of 1.25 to 1.5 quarts of this product (0.54 to 0.65 lb. of metolachlor, 0.54 to 0.65 lb. of atrazine, 0.070 to 0.084 lb. of mesotrione a.i.) per acre as a pre-emergence prior to Sorghum emergence. The total amount of this product applied in the split application program cannot exceed 3.0 quarts (1.30 lb. of metolachlor, 1.30 lb. of atrazine, 0.168 lb. of mesotrione a.i.) per acre.

If weeds are present at the time of application, add a nonionic surfactant type of adjuvant at a rate of 0.25% v/v or crop oil concentrate at a rate of 1% v/v to the spray solution. In addition to COC or NIS, a spray grade UAN at a rate of 2.5% v/v or AMS at a rate of 8.5 pounds per 100 gallons of spray may be added to the solution for improved control of emerged weeds. If weeds are not emerged at the time of application, no additives are needed.

## RESTRICTIONS

1. Do not apply more than 3.0 quarts of this product (1.30 lb. of metolachlor, 1.30 lb. of atrazine, 0.168 lb. of mesotrione a.i.) per acre per growing season.
2. Do not apply this product to Sorghum grown on sandy soils (sand, sandy loam or loamy sand).
3. Do not apply this product to emerged Grain sorghum or severe injury will occur.
4. Do not use this product in the production of Forage sorghum, Sweet sorghum (Sorgo), Sudangrass, Sorghum-Sudangrass hybrids or dual purpose Sorghum.
5. Sorghum seed must be treated with Concep III herbicide safener prior to planting or severe crop injury may occur.
6. In the state of Texas, do not apply this product to Sorghum grown South of Interstate 20 (I-20) or East of Highway 277.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container. Keep container tightly closed. Keep away from heat and flame.

**PESTICIDE DISPOSAL:** To avoid waste, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often, such programs are run by State or local governments or by industry).

### CONTAINER HANDLING:

**Nonrefillable Container (rigid material; ≤ 5 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: 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 one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid material; > 5 gallons up to < 250 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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. Turn the container over onto its other 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. Dispose of empty container in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Refillable Container (≥ 250 gallons & Bulk):** 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 from this container 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 if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

## WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable laws, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable laws, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

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