

**RESTRICTED USE PESTICIDE**

Due to ground and surface water concerns. For retail 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.

ATRAZINE	GROUP	5	HERBICIDE
FLUTHIACET-METHYL	GROUP	14	HERBICIDE
PYROXASULFONE	GROUP	15	HERBICIDE

# Pirate™

## herbicide

### TENKÖZ

For preplant burndown/preemergence, preplant incorporated and early postemergence control in field corn, sweet corn and popcorn.

**ACTIVE INGREDIENT:**

	By Wt.
Atrazine .....	42.50%
Pyroxasulfone .....	5.15%
Fluthiacet-methyl .....	0.15%
Other Ingredients .....	52.20%
<b>Total:</b>	<b>100.00%</b>

**Pirate™ herbicide** is a suspoemulsion containing 4.505 lb active ingredient per gallon (4.006 lb ai of atrazine, 0.485 lb ai of pyroxasulfone and 0.014 lb ai of fluthiacet-methyl).

EPA Reg. No. 279-9670-55467

J EPA Est. 70815-GA-002

CJ EPA Est. 97524-GA-1

EPA Establishment Numbers (The letter before each Establishment Number above corresponds to the first letter in the lot number on the container label.)

## KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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

See additional precautionary statements and Directions for Use in booklet.

Distributed By

Tenköz, Inc.

1725 Windward Concourse

Suite 410

Alpharetta, GA 30005

**Net Contents: 120 Gallons**

## FIRST AID

**IF SWALLOWED:** Immediately call a poison control center or doctor 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 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 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 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 1-800-424-9300 for emergency medical treatment information.

## ATTENTION

Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label. Prior to purchase or use of this product, read the Conditions of Sale and Limitation of Warranty and Liability of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### Warning

May be fatal if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE)

#### Applicators, mixers, loaders, flaggers and other handlers must wear:

Long sleeved shirt and long pants

Shoes plus socks

Chemical-resistant gloves (made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or viton  $\geq$  14 mils)

A chemical-resistant apron must be worn when mixing/loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.

For aerial application, mixers and loaders must also wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination N, R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with HE filters.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. **DO NOT** reuse them. 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.

See Engineering Controls for additional requirements.

## USER SAFETY RECOMMENDATIONS:

### USERS MUST:

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

## ENGINEERING CONTROL STATEMENTS

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.607(d-e), the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides 40 CFR 170.607(d-f). Pilots must wear the PPE required on this labeling for applicators however, they need not wear chemical-resistant gloves when using an enclosed cockpit.

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the Worker Protection Standard for Agricultural Pesticides 40 CFR 170.607(d-e) for dermal protection.

# ENVIRONMENTAL HAZARDS

## Endangered Species

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

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. **DO NOT** discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## Ground Water Advisory:

This chemical and its 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.

**Pirate herbicide** contains the active ingredient atrazine. Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. 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 ground water.

## Surface Water Advisories:

**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 of pyroxasulfone and its degradation product, (5- difluoromethoxy-1H-pyrazol-4-yl) methanesulfone acid (M1), 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. **DO NOT apply this product within 66 feet of points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet of natural or impounded lakes and reservoirs.** If this product is applied to highly erodible land, the buffer or setback from runoff entry points must be planted to crop or seeded with grass or other suitable crop.

One of the following restrictions must be used in applying **Pirate herbicide** to tile outletted fields containing standpipes:

- **DO NOT** apply within 66 feet of standpipes in tile-outletted fields.
- Apply this product to the entire tiles-outletted field and immediately incorporate it to a depth of 2-3 inches in the entire field.
- Apply this product to the entire tile-outletted 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 crop residue is removed from the field during and after crop harvest.

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.

#### **Non-target Organism Advisory Statement:**

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

#### **Physical/Chemical Hazards**

**DO NOT** use or store near heat or open flame.

## **WEED RESISTANCE MANAGEMENT**

**Pirate herbicide**, contains a Group 5 (atrazine), a Group 14 (fluthiacet-methyl), and a Group 15 (pyroxasulfone) 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 **Pirate 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 Tenkoz representative, local retailer, or county extension agent.
- Contact your Tenkoz representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective sites of actions for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Groups 5, 14 or 15 and/or use nonchemical 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 5, 14 or 15 herbicides.
- Avoid making more than two applications of **Pirate herbicide** and any other Group 5, 14 or 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, including 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.

## Glyphosate Resistant Weeds

Some populations of weeds may be tolerant or resistant to glyphosate based herbicides. Applying **Pirate herbicide** in a tank mixture with glyphosate for control of emerged resistant weeds larger than specified in table 6 may result in unsatisfactory control. Follow all directions, restrictions and precautions on the EPA-approved label for each product in the tank mixture.

## DIRECTIONS FOR USE

### RESTRICTED USE PESTICIDE

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.

### RESTRICTIONS:

- Not for use in the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands)
- Use on roadsides; Conservation Reserve Program (CRP) land; conifers, including Christmas Tree plantings; timber; forestry; and, Miscanthus and other perennial bioenergy crops is prohibited.

### 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 Tenkoz for a refund.

### 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 made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or viton  $\geq$  14 mils) and shoes plus socks.

## PRODUCT INFORMATION

**Pirate herbicide** can be applied in all tillage systems (conventional, reduced and no-tillage). **Pirate herbicide** can be applied in the fall or in the spring as a preplant, pre plant incorporated, preemergence, or early post emergence treatment for susceptible grass and broadleaf weeds in field corn, seed corn, sweet corn and popcorn.

### Weed Size:

When applying **Pirate herbicide** alone for post emergent weed control, apply before the weeds have reached the maximum height listed in Table 6. Application after weeds have reached the listed maximum height for control could result in commercially unacceptable weed control. For control of weeds in post applications larger than listed in Table 6 and for wider spectrum, apply in tank-mixture with herbicide(s) that are labeled for control of targeted weeds. Uniform spray coverage is necessary for optimum performance.

### Application Instructions and Timing:

Moisture is necessary to activate the active ingredients pyoxasulfone and atrazine in soil for weed control. Dry weather following applications of **Pirate herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Pirate herbicide** will control susceptible germinating weeds. **Pirate herbicide** may not control weeds that germinate after application but before an activating rainfall/ irrigation of at least  $\frac{1}{2}$  inch, or weeds that germinate through cracks resulting from dry soil. When adequate moisture is not received after **Pirate herbicide** application, weed control may be improved by irrigation. **DO NOT** use on peat or muck soils and mineral soils with 10% or more organic matter content. Refer to the crop specific information section for specific application rates, timings and the restrictions and limitations by crop and use pattern.

## APPLICATION INFORMATION AND CROP RESTRICTION/LIMITATIONS

### Maximum application use rates:

On coarse textured soils. **DO NOT** apply more than a total of 38.5 fl oz/A of **Pirate herbicide** (1.204 lb ai/A atrazine, 0.145 lb ai/A pyroxasulfone, 0.0042 lb ai/A fluthiacet-methyl) per single application or per year.

On coarse soils. **DO NOT** apply more than 0.146 lb ai/A pyroxasulfone, 0.0089 lb ai/A fluthiacet-methyl or 2.5 lb ai/A atrazine per year including preplant burndown from any tank mix or sequential application programs.

On medium and fine soils. **DO NOT** apply more than a total of 58.5 fl oz/A of **Pirate herbicide** (1.830 lb ai/A atrazine, 0.267 lb ai/A pyroxasulfone, 0.0063 lb ai/A fluthiacet-methyl) in a single application.

**DO NOT** apply more than 70.5 fl oz/A of **Pirate herbicide** (2.206 lb ai/A atrazine, 0.221 lb ai/A pyroxasulfone, 0.0077 lb ai/A fluthiacet-methyl) per year from all pre-plant/burndown and post-emergent applications.

On medium and fine soils. **DO NOT** apply more than 0.0089 lb ai/A of fluthiacet-methyl, 2.5 lb ai/A of atrazine, or 0.268 lb ai/A of pyroxasulfone per year including preplant burndown from any tank mix or sequential application programs.

**Pirate herbicide** may be used prior to, or after applications of other pyroxasulfone or fluthiacet-methyl containing herbicides.

### 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. Apply **Pirate herbicide** in a minimum of 10 gallons of water or sprayable fluid nitrogen fertilizer per treated acre for weed control applications. For postemergence applications, apply **Pirate herbicide** in a minimum of 10 gallons per acre of finished spray solution. If a dense crop and/or weed canopy is present, use up to 40 gallons of spray solution per acre.

### Aerial Application

Use nozzle types and arrangement that will provide optimum coverage and minimize drift potential. Apply with in minimum of 5 gallons per acre of finished spray solution. For dense weed populations or heavy crop canopy, a higher spray volume may be required to obtain adequate spray coverage.

**DO NOT** apply within 66 feet of where field surface water enters perennial or intermittent streams or rivers or within 200 feet of natural or impounded lakes or reservoirs. Refer to Spray Drift Management section of this label for more information.

### Application Method Restrictions

- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** use flood irrigation to apply, activate or incorporate this product.
- **DO NOT** apply via mechanically pressurized handguns to sweet corn.

### Proper Handling Instructions

This product may not be mixed or loaded within 50 feet of any 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 properly diked mixing/loading areas.

Operations that involve mixing, loading rinsing, or washing of 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 rainwater 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 specific minimum containment capacities **DO NOT** apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

This product must not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.

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

To ensure the protection of surface water from runoff in fields through standpipes with tile-outlets in terraced fields, one of the following restrictions must be used in applying atrazine products.

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 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice on when high crop residue management practices are used. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during or after crop harvest.

Where there are state/local requirements regarding atrazine use (including lower maximum rates, more restrictive application timings and/or greater setbacks) which are different from the label, the more restrictive requirements must be followed. Some states may have established rate limitations within specific geographical areas. Consult your state pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

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

**DO NOT** use flood irrigation to apply or incorporate this product.

This product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

## **MIXING AND LOADING INSTRUCTIONS**

### **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 rinsate to an appropriate area.

### **Mixing Steps:**

1. Shake the jug or mix the container to ensure the contents are uniformly mixed before use.
2. Add 1/4 -1/2 of the required amount of clean water and/or fertilizer to the spray or mixing tank.
3. 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.
4. Add the required amount of **Pirate 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.
5. Add the proper amount of spray adjuvant (for burndown applications only) and continue agitation while adding the remaining water and/or fertilizer.
6. Complete filling the tank with clean water and/or fertilizer to maintain sufficient agitation at all times to ensure surface action until the mixture is uniform.
7. After use, thoroughly clean the sprayer according to this label (see Cleaning Spray Equipment) and any tank mix partner labels.

### **Mixing Pirate herbicide in Tank Mixtures with Other Herbicides and Fluid Fertilizers**

**Pirate herbicide** is compatible with most commonly used herbicides, insecticides, fungicides, and spray adjuvants.

BEFORE MIXING **Pirate herbicide** WITH OTHER REGISTERED PRODUCTS FOR ANY USE ON THIS LABEL, READ THE LABEL OF THE TANK MIX PARTNER TO BE CERTAIN IT IS LABELED FOR THE USE ON THE TARGET CROP AND THAT USE PATTERNS ARE COMPATIBLE WITH THOSE OF **Pirate herbicide**. When using **Pirate herbicide** in a tank mixture with other pesticides, observe the most restrictive label limitations and precautions for the products being used.

**Pirate herbicide** can be used with commonly used clear fluid nitrogen fertilizers (e.g. 28% or 32% UAN). Perform a preliminary compatibility jar test using appropriate ratios of **Pirate herbicide** and fertilizer. 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

Perform a jar test before mixing to ensure **Pirate herbicide** compatibility with tank mix partners and adjuvants (for burndown applications only). 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 (for burndown applications only).
4. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

**Dry Herbicides and Adjuvants (for burndown applications only): For each pound to be applied per acre, add 1.4 tsp. to each jar.**

**Liquid Herbicides and Adjuvants (for burndown applications only): For each pint to be applied per acre, add 0.5 tsp. or 2.5 milliliters to each jar.**

5. 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.
6. 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.
7. 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.
8. If tank mixtures are incompatible, then **DO NOT** spray the mixture.

After compatibility testing is complete, dispose of any testing jars and pesticide wastes according to the Pesticide Storage and Disposal section of this label.

## Spray adjuvants for burndown applications and postemergence applications

An adjuvant or a product containing an adjuvant approved for use for burndown may be needed with **Pirate herbicide** for maximum consistent performance.

### Adjuvants for Pirate herbicide:

Use a spray adjuvant from one of these classes for optimum performance for burndown applications.

**Non-ionic surfactant (NIS)** - must have a minimum of 80% of the constituents effective as spray adjuvant at the use rate of 1 quart/100 gallons of spray volume (concentration of 0.25%).

**Crop Oil Concentrate (COC) or Methylated Seed oil (MSO)** - petroleum or vegetable-based oil containing not less than 12% emulsifier. Use 1-2 pts/A and the concentration should not exceed 2.5% volume/volume. COC/MSO may improve performance under conditions of dry conditions and low relative humidity.

**Silicone-based surfactant** - apply at a rate of 1 qt/100 gallons or a spray volume concentration of 0.25% or as specified on the adjuvant label.

In addition to an adjuvant, urea ammonium nitrate (UAN) at 1-2 qt /A or spray grade ammonium sulfate (AMS) at specified use rates may also be added to the spray solution.

### **Adjuvants for Pirate herbicide in Tank Mixtures with Other Herbicides**

When tank mixing with other herbicides, use the adjuvant recommended for use with the tank mix partner. Follow all restrictions and precautions on the tank mix partner's label.

## DRY FERTILIZER APPLICATION

**Pirate herbicide** may be impregnated or coated onto dry bulk granular fertilizer carriers for fall and preplant surface and preplant incorporated applications. Follow all **Pirate herbicide** label restrictions, 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 **Pirate 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 **Pirate herbicide** needed per ton of fertilizer applied.

$$(\text{fl oz of Pirate herbicide per acre} \times 2000) / \text{Pounds fertilizer per acre} = \text{fl oz of Pirate herbicide for 1 ton of fertilizer}$$



**Pirate 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 **Pirate herbicide** on bulk fertilizer, use a closed rotary drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix **Pirate 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.

#### Fertilizer Impregnation Restrictions

Impregnation of **Pirate herbicide** is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 340 tons of bulk fertilizer can be impregnated per worker per day. No single facility may impregnate fertilizer with this product for more than 30 days per calendar year.

## WEEDS CONTROLLED

### Pirate herbicide Alone

When used as directed, **Pirate herbicide** will provide preemergence control/suppression of the weeds in the following Table 1. For postemergence weed control, see the list of weeds in Table 6 when the product is applied alone. **Pirate herbicide** only controls certain broadleaf weeds after they emerge. Weeds larger than the size indicated in Table 6 may only be partially controlled.

**Table 1. Preplant/ Preemergence Weed Control**

Annual Grasses Controlled	
Common Name	Scientific Name
Barley, little	<i>Hordeum leporium</i>
Barnyardgrass	<i>Echinochloa, crus-galli</i>
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Bluegrass, annual	<i>Poa annua</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Canarygrass	<i>Phalaris canariensis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Cupgrass, southwestern	<i>Erichloa glacialis</i>
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Foxtail, bristly	<i>Setaria verticillata</i>
Goosegrass	<i>Eleusine indica</i>
Johnsongrass (seedling)	<i>Sorghum halepense</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Red Rice	<i>Oryza punctata</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Ryegrass, rigid	<i>Lolium rigidum</i>
Witchgrass	<i>Panicum capillare</i>

(Table cont. on next page)

Table 1 (cont.)

Annual Grasses Suppressed <sup>1</sup>	
Common Name	Scientific Name
Brome downy	<i>Bromus tectorum</i>
Brome, Japanese	<i>Bromus japonicus</i>
Cheat	<i>Bromus secalinus</i>
Cupgrass, woolley	<i>Eriochloa villosa</i>
Oat, wild	<i>Avena fatua</i>
Sandbur, longspine	<i>Cenchrus longispinus</i>
Shattercane	<i>Sorghum vulgare</i>
Millet, wild proso	<i>Panicum miliaceum</i>

Annual Broadleaves Controlled	
Common Name	Scientific Name
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Powell	<i>Amaranthus powellii</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed	<i>Stellaria media</i>
Kochia (non-Triazine Resistant) control	<i>Kochia scoparia</i>
Lambsquarters, common	<i>Chenopodium album</i>
Jimsonweed	<i>Datura stramonium</i>
Hairy galinsoda	<i>Galinsoga quadriradiata</i>
Henbit	<i>Lamium amplexicaule</i>
Ladysthumb	<i>Polygonum persicaria</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, hairy	<i>Solanum physalifolium</i>
Nightshade, Eastern black	<i>Solanum ptycanthum</i>
Mustards	<i>Sinapis species</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Purple deadnettle	<i>Lamium purpureum</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, common <sup>1</sup>	<i>Ambrosia artemisiifolia</i>
Spreading orach	<i>Atriplex subspicata</i>
Sida, prickly (Teaweed)	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Annual Broadleaves Suppressed <sup>1</sup>	
Buckwheat, wild	<i>Polygonum convolvulus</i>
Cocklebur, common	<i>Xanthium pennsylvanicum, Xanthium strumarium</i>
Ragweed, giant	<i>Ambrosia trifida</i>
Groundsel, common	<i>Senecio media</i>
Kochia (Triazine Resistant)	<i>Kochia scoparia</i>
Hairy fleabane	<i>Conyza bonariensis</i>
Horseweed (marestail)	<i>Conyza canadensis</i>
Morningglory, entireleaf	<i>Ipomoea hederacea integruscula</i>
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>
Morningglory, pitted	<i>Ipomoea lacunosa</i>
Russian thistle	<i>Salsola iberica</i>
Sicklepod	<i>Senna obtusifolia</i>
Velvetleaf	<i>Abutilon theophrasti</i>

(Table cont. on next page)

Table 1 (cont.)

Sedges	
Common Name	Scientific Name
Nutsedge, yellow	<i>Cyperus esculentus</i>

<sup>1</sup>Partial control (light gray) or suppression only. **Pirate herbicide** should be used in tank mixes or use sequential applications with other herbicides for best results.

## CORN

### Specific Use Directions: Field, Sweet, Pop and Seed

#### Fall Applications for controlling weeds germinating the following spring

**Pirate herbicide** may be applied in the fall to control weeds in conventional, minimum tillage, or no-till corn production systems planted the following spring. This fall application program will typically need to be followed with a suitable in-season postemergence herbicide treatment to provide season long control of the complete target weed spectrum.

#### Fall Applications for controlling weeds germinating in the fall or winter annual weeds

**Pirate herbicide** may be applied in the fall for burndown and residual control. For control of emerged weeds in the fall use combinations with other burndown herbicides like Aim® (EPA Reg. No. 279-3241, Carfentrazone-ethyl), 2,4-D, glyphosate, paraquat or glufosinate. Follow all directions, restrictions and precautions on the EPA-approved label for each product in the tank mixture. If a sequential application program (fall application followed by spring application of **Pirate herbicide**) is used the maximum combined rate of **Pirate herbicide** must not exceed 70.5 fl oz/A (2.206 lb ai/A atrazine, 0.221 lb ai/A pyroxasulfone, 0.0077 lb ai/A fluthiacet-methyl) for fine and medium soils. **DO NOT** exceed 2 inch incorporation depth if tilled after application to maintain sufficient herbicide barrier in the weed germination zone. Use the highest rate within soil type. **Pirate 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.

#### Fall Application Restrictions

- Fall applications must be made after October 1.
- **DO NOT** apply to frozen or snow covered soil.
- **DO NOT** make fall applications on coarse soils.

##### On medium and fine textured soils:

- **DO NOT** apply more than 58.5 fl oz/A (1.830 lb ai/A atrazine, 0.267 lb ai/A pyroxasulfone, 0.0063 lb ai/A fluthiacet-methyl) per application.
- **DO NOT** exceed the maximum amount of 70.5 fl oz/A (2.206 lb ai/A atrazine, 0.221 lb ai/A pyroxasulfone, 0.0077 lb ai/A fluthiacet-methyl) from all sequential applications (Fall, preplant / preemergence, or early postemergence) per year.

#### Preplant and Preemergence applications:

**Pirate herbicide** may be applied from 45 days prior to planting up to crop emergence. Cultivation or a labeled post-emergence herbicide application may still be required under certain conditions for full-season weed control.

If weeds are present at the time of application, use of additional weed control methods such as tank mixes with an appropriate postemergence herbicide(s) to control emerged weeds may be necessary.

#### Preplant incorporated (PPI) applications:

For PPI applications of **Pirate herbicide** incorporate into the upper (1-2") soil surface up to 14 days before planting. Deeper incorporation may increase the potential for crop injury and also may result in reduced weed control. Use appropriate equipment that provides uniform shallow incorporation, such as a field cultivator, harrow, rolling cultivator or finishing disc.

**Precaution for PPI applications:** Preplant surface applications on coarse soils being planted to popcorn or sweet corn may cause crop injury in certain varieties. Before making applications of this product, consult with your local seed supplier or agricultural extension office for specific cultural practice suggestions.

#### Early Post-emergent Applications:

In corn, apply **Pirate herbicide** from crop emergence up to 12 inches tall. The amount of **Pirate herbicide** to apply and the degree of weed control resulting from a **Pirate herbicide** application depends upon a variety of factors such as weeds present, stage of growth of the weeds, environmental conditions, growing conditions and soil type.

Under stressful growing conditions (i.e. saturated soils, cold temperatures, slow growth periods, etc) the crop may experience higher risk for temporary crop response. The crop will rapidly outgrow these effects and develop normally with no reduction in yield.

Before applying to corn, verification of **Pirate herbicide** selectivity on your inbred line or hybrid line must be confirmed with your local seed company or supplier to avoid injury to sensitive inbred lines or hybrids.

### Precautions for Post Emergence Applications:

1. If applying **Pirate herbicide** post emergence, avoid applications when crop foliage is wet due to heavy dew, rain, or irrigation moisture. If **Pirate herbicide** is applied post emergence, shortly before or soon after rainfall, crop response can occur. Recovery from this response is rapid and normal growth is not delayed. Crop yields will not be impacted by this crop response.
2. Rainfall or irrigation within 1 hour may wash **Pirate herbicide** off of the weeds during this period and may reduce post emergence performance.

### Restrictions for Preplant/Preemergence and Postemergence Applications to Corn

#### On Coarse Textured Soils:

- **DO NOT** make preplant surface applications in areas where average annual rainfall (or rainfall + irrigation) typically exceeds 40 inches.
- **DO NOT** apply more than 2 weeks ahead of planting.
- **DO NOT** apply more than 38.5 fl oz/A (1.204 lb ai/A atrazine, 0.145 lb ai/A pyroxasulfone, 0.0042 lb ai/A fluthiacet-methyl) per application.
- **DO NOT** exceed 38.5 fl oz/A (1.204 lb ai/A atrazine, 0.145 lb ai/A pyroxasulfone, 0.0042 lb ai/A fluthiacet-methyl) per year from all sequential applications (Fall burndown, preplant/preemergence, and early post).

#### On Medium and Fine Soils:

- **DO NOT** apply more than 58.5 fl oz/A (1.830 lb ai/A atrazine, 0.267 lb ai/A pyroxasulfone, 0.0063 lb ai/A fluthiacet-methyl) per application.
- **DO NOT** exceed 70.5 fl oz/A (2.206 lb ai/A atrazine, 0.221 lb ai/A pyroxasulfone, 0.0077 lb ai/A fluthiacet-methyl) per year from all sequential applications (Fall burndown, preplant/preemergence, and early post).

#### On All Soil Types:

- Postemergence applications can be made from emergence to 12 inches tall.
- **DO NOT** make more than 1 preplant/preemergence application per year.

#### Pre-Harvest Intervals (PHI):

- Field Corn: **DO NOT** harvest forage within 60 days or grain and fodder less than 70 days after the last application.
- Sweet Corn: **DO NOT** harvest forage or sweet corn ears for human consumption less than 45 days after the last application.
- Popcorn: **DO NOT** harvest grain or fodder less than 70 days after the last application.

### Sequential applications

**Pirate herbicide** can be applied in sequential programs, but **DO NOT** exceed the maximum use rate per year. Where weeds are emerged use appropriate tank mixtures for control of the weed species present.

**Pirate herbicide** may be used following an earlier application of F9310-6 Herbicide (Anthem™ EPA Reg. No. 279-3450, pyroxasulfone, fluthiacet-methyl) during the same year. When **Pirate herbicide** is applied to the soil, it may be followed with F9310-6 herbicide. See the F9310-6 herbicide label for the use rates and use directions.

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

### **Pirate herbicide in Tank Mixtures**

For enhanced control of emerged weeds use in combination with other burndown herbicides like Aim® (EPA Reg. No. 279-3241, Carfentrazone-ethyl), 2,4-D, glyphosate, paraquat, glufosinate and products containing saflufenacil (e.g. Sharpen® (EPA Reg. No. 7969-278, Saflufenacil), Verdict®, (EPA Reg. No. 7969-279, Dimethenamid-P + Saflufenacil)). Saflufenacil may be applied prior to planting at any time in combination with **Pirate herbicide**. **Pirate herbicide** may be applied pre and post emergence with glufosinate or glyphosate based products, or other pre and postemergence broadleaf herbicides approved for use on corn. Tank mixing **Pirate herbicide** with other post-emergence herbicides may increase the speed of activity and provide control of the weeds listed in Table 6. **Pirate herbicide** will provide enhanced control or suppression of other weeds such as ragweeds and marehail. **Pirate herbicide** may be tank-mixed with insecticides such as Hero™ (EPA Reg. No. 279-3315, Bifenthrin + Zeta-Cypermethrin), or Mustang Max™ (EPA Reg. No. 279-3426, Zeta-Cypermethrin) and with fungicides. Some populations of weeds may be tolerant or resistant to glyphosate based herbicides. Applying **Pirate herbicide** in a tank-mix with glyphosate on resistant weeds larger than specified in Table 2 may result in unsatisfactory control. Other herbicides in tank-mix with **Pirate herbicide** or separately may be required to achieve adequate control of these resistant biotypes. Follow all directions, restrictions and precautions for each product in the tank mixture.

## ATRAZINE APPLICATION RESTRICTIONS

### FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

#### On Highly Erodible land (as defined by the Natural Resource Conservation Service)

If conservation tillage is practiced, leaving at least 30% of the soil covering with plant residues at planting, apply a maximum of 2 lb ai/A atrazine as a broadcast spray.

If soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 lb ai/A atrazine may be applied.

#### On Land Not Highly Erodible

Apply a maximum of 2 lb ai/A atrazine as a broadcast spray.

### FOR POSTEMERGENCE APPLICATIONS TO CORN

If no atrazine was applied prior to corn emergence, a maximum of 2.0 lb ai/A atrazine may be applied postemergence. If a postemergence treatment is required following an earlier herbicide application containing atrazine, the total atrazine applied may not exceed 2.5 lb ai/A atrazine per year.

For all tank mixtures and sequential treatment of products containing atrazine, the total lb ai/A of atrazine applied must not exceed 2.5 lb ai/A atrazine per year.

Note that this product, applied at the maximum single use rate (for all soil types except course), of 58.5 fl oz ai/A will deliver 1.83 lb ai/A atrazine.

On course soils, the maximum single application rate is 38.5 fl oz/A, which will deliver 1.2 lb ai/A atrazine.

## SOIL TEXTURE

Unless a specific soil texture is mentioned, the rate tables throughout this label refer to Table 2 for soil texture groups: coarse, medium and fine. Table 2 includes a complete listing of soil textures included in each of the soil texture grouping.

Table 2

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

## CORN: Rate Tables

### EARLY PREPLANT

Table 3. Pirate herbicide application more than 14 days prior to planting

Coarse	Medium	Fine
DO NOT APPLY	2 - 2.75 pts 1.126 - 1.549 lb ai/A	2.5 - 3.66 pts 1.408-2.06 lb ai/A

### PREPLANT / PREEMERGENCE APPLICATION RATES

Table 4. Pirate herbicide application less than 14 days before planting.

Organic Matter	Coarse	Medium	Fine
Less than 3%	1.5 - 2 pts 0.845 - 1.126 lb ai/A	1.75 - 2.5 pts 0.985 - 1.408 lb ai/A	2 - 3 pts 1.126 - 1.689 lb ai/A
Greater than 3%	1.75 - 2.0pt 0.985 - 1.267 lb ai/A	2 - 2.75 pt 1.126 - 1.549 lb ai/A	2.25 - 3.66 pts 1.267 - 2.06253 lb ai/A

- Use rates listed above are for control or suppression of weeds listed in Table 1 with **Pirate herbicide** or **Pirate herbicide** tankmixes.
- For early preplant applications and/or in reduce tillage (i.e. no-till/ high residue) systems or heavy weed pressures use the higher labeled rate by the soil type.
- DO NOT apply to sweet corn on all coarse textured soils or on any medium texture soils with 2.0% O.M. or less.
- For fine textured soils with organic matter >3% use up to 3.66 pts/A.
- Corn seed must be planted a minimum of 1.5 inches deep. Shallow planting can lead to increased crop response risk.

A preemergence tankmix or sequential application of a postemergence herbicide may be necessary for control of some difficult weed species.

For additional control, **Pirate herbicide** may be used in combination with other labeled corn herbicides for increased weed control including but not limited to:

Product	Weed Species
Isoxaflutole (Balance Flexx EPA Reg. No. 264-1067) Callisto (EPA Reg. No. 100-1131, mesotrione)	Velvetleaf, Kochia, Lambsquarters, Common and Giant Ragweed, Pigweeds, Waterhemp, Pennsylvania Smartweed, Nightshade spp., Russian thistle,
Atrazine	Cocklebur, Giant ragweed, Kochia (non-triazine resistant) Morningglory, Pigweeds, Russian thistle, Common ragweed, Lambsquarters, Pennsylvania smartweed, sunflower

#### POSTEMERGENCE APPLICATION RATES

Table 5.

Coarse	Medium	Fine
1.5 - 2.0 pt 0.849 - 1.126 lb ai/A	1.75 - 2.25 pt 0.985 - 1.267 lb ai/A	2 - 3.66 pt 1.126 - 2.06 lb ai/A

- Use rates listed above are for residual control on the weed control list.
- For heavy weed densities and longer residual use the higher labeled rate by the soil type.
- Applications to weeds larger than specified in Table 6 can result in unsatisfactory control.

Table 6. Post Broadleaf Weed Control – Maximum Weed Height for Pirate herbicide Applied Alone

Weed Species	Maximum height (in)	
	2 pt/A 1.126 lb ai/A	3 pt/A 1.689 lb ai/A
Anoda, spurred ( <i>Anoda cristata</i> )	2	4
Burcucumber ( <i>Sicyos angulatus</i> )	2	3
Dayflower, spreading ( <i>Commelina diffusa</i> )	2	3
Jimsonweed ( <i>Datura stramonium</i> )	3	4
Kochia ( <i>Kochia scoparia</i> )	2	3
Lambsquarters, common ( <i>Chenopodium album</i> )	2	4
Morningglory, annual ( <i>Ipomea spp.</i> )	2	4
Nightshade, black ( <i>Solanum nigrum</i> )	3	4
Nightshade, Eastern black ( <i>S. ptycanthum</i> )	3	4
Pigweed, redroot ( <i>Amaranthus retroflexus</i> )	3	4
Pigweed, smooth ( <i>A. hybridus</i> )	3	4
Pigweed, spiny ( <i>A. spinosus</i> )	3	4
Russian thistle	2	3
Smartweed, Pennsylvania ( <i>Polygonum pennsylvanicum</i> )	2	4
Velvetleaf ( <i>Abutilon theophrasti</i> )	18	18
Waterhemp, common ( <i>Amaranthus rudis</i> )	3	3
Waterhemp, tall ( <i>A. tuberculatus</i> )	3	3
Wild Buckwheat ( <i>Polygonum convolvulus</i> )	2*	3

\*Partial control or suppression

# MANDATORY SPRAY DRIFT MANAGEMENT

## Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572)
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed- wing aircraft and 90% or less of the rotor diameter for helicopters.
- User must maintain a 150 foot (46 m) in-field downwind buffer (in the direction in which the wind is blowing) from the following areas:
  - edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.
- **DO NOT** apply during temperature inversions

## Ground Boom Applications:

- Users must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572).
- User must maintain a 15 foot (4.6 m) in-field downwind buffer (in the direction in which the wind is blowing) from the following areas: edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### IMPORTANCE OF DROPLET SIZE

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

### Controlling Droplet Size – Ground Boom

**Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

**Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

**Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Controlling Droplet Size – Aircraft

**Adjust nozzles** – Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### BOOM HEIGHT – Ground Boom

For ground equipment, the boom must remain level with the crop and have minimal bounce.

### RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift,

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## WIND

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

## HANDHELD TECHNOLOGY APPLICATIONS

Take precautions to minimize spray drift

## DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution.

Preferred drift control additives have been certified by the Council of Producers & Distributors of Agrotechnology (CPDA).

**Sensitive Areas – Pirate 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). Avoid potential adverse effects to non-target areas by maintaining a 30-ft. buffer between the application area and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedge rows, riparian areas, shrublands, and crop lands). Maintain a 66-ft. buffer at points where field surface water runoff enters perennial or intermittent streams or rivers and 200-ft buffer around natural or impounded lakes and reservoirs.

## 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 **Pirate 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 **Pirate 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. 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 overnight or for any extended period of time with **Pirate 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 **Pirate 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. To the extent consistent with applicable law Tenkoz accepts no liability for any effects due to inadequately cleaned equipment.

When **Pirate herbicide** has been tank mixed refer to the label of the product used previously or tank mixed with **Pirate herbicide** for any additional cleaning instructions.

## REPLANTING INSTRUCTIONS

If corn treated with **Pirate herbicide** is lost due to a natural catastrophe such as hail or frost, only corn can be replanted immediately, provided this is not restricted on the label of a product used previously or by a product applied in a tank mixture with **Pirate herbicide**.



## ROTATIONAL CROPS

For rotational crop restrictions when **Pirate herbicide** is used in tank mixtures or sequentially with other products, refer to the rotation intervals on the other product label for possible additional restrictions.

For all uses **DO NOT** rotate to any crop except corn until the following year, or injury may occur. In the following year, rotation to these crops (soybeans, cotton, grain sorghum, and peanuts) can occur if the following conditions are observed:

- 1) If applied after June 10, **DO NOT** rotate with crops other than corn, grain sorghum the next year or crop injury may occur.
- 2) 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 or grain sorghum is to follow corn or a crop of untreated corn is to precede other rotational crops.
- 3) In eastern parts of the Dakotas, KS, western MN, and NE, **DO NOT** rotate to soybeans for 18 months if the rate applied to corn was more than 64 fl oz/A of **Pirate herbicide** (2 lb ai/A atrazine, 0.242 lb ai/A pyroxasulfone, 0.007 lb ai/A fluthiacet-methyl) or equivalent band application rate or soybean injury may occur.
- 4) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer.
- 5) **DO NOT** plant tobacco, vegetables (including dry beans), spring-seeded small grains, or small seeded legumes and grasses the year following application, or injury may occur.
- 6) **DO NOT** apply to grasses grown for seed for 18 months.
- 7) **DO NOT** plant small grains (other than winter wheat) for 18 months if 56 fl oz/A or more of **Pirate herbicide** is used (1.75 lb ai/A atrazine, 0.212 lb ai/A pyroxasulfone, 0.0061 lb ai/A fluthiacet-methyl).
- 8) **DO NOT** plant sugarbeets for 15 months.
- 9) **DO NOT** plant rice for 18 months, if 42 fl oz/A or more of **Pirate herbicide** (1.3 lb ai/A atrazine, 0.159 lb ai/A pyroxasulfone, 0.0045 lb ai/A fluthiacet-methyl) is used and for 24 months if 56 fl oz/A or more of **Pirate herbicide** (1.75 lb ai/A atrazine, 0.212 lb ai/A pyroxasulfone, 0.0061 lb ai/A fluthiacet-methyl) is used.
- 10) **DO NOT** apply atrazine and propazine products to the same sorghum acre.
- 11) For all others crops not listed above the rotational crop interval is 18 months.

If treated crop is lost due to crop conditions or weather-related events, corn may be replanted. Corn may be planted the spring following treatment.

## 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 of Manufacturer or Tenkoz, Inc. 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 Manufacturer 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, TENKOZ 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) Manufacturer or Tenkoz, Inc., and, to the extent permitted by applicable law, buyer assumes the risk of any such use. To the extent consistent with applicable law, Manufacturer nor Tenkoz, Inc. 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 MANUFACTURER AND TENKOZ, INC. 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 MANUFACTURER OR TENKOZ, INC., 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.

## PESTICIDE STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

### Pesticide Storage

Store product in original container only, in a well ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. **DO NOT** contaminate water, food, or feed by storage or disposal. 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. **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

**Metal or Plastic Containers - 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.

## LABEL TRACKING INFORMATION

Label Code: SDL-4386 110523 06-04-24

Distributed by:

Tenkoz, Inc.

1725 Windward Concourse

Suite 410

Alpharetta, GA 30005

**Pirate herbicide**, trademark of Tenkoz, F9310-6, Aim, Anthem, Hero, Mustang Max, are Trademarks of FMC Corporation or an affiliate.

Sharpen and Verdict are trademarks of BASF.

©2024 Tenkoz, Inc. All Rights Reserved.