

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 17, 2023

Cindy I. Faulkner Agent, Regulatory Affairs Tenkoz, Inc. 1725 Windward Concourse, Suite 410 Alpharetta, GA 30005

Subject: Registration Review Label Amendments Incorporating Mitigation from the

National Marine Fisheries Services (NMFS) Biological Opinions on the Effects of

S-Metolachlor on Pacific Salmonids Product Name: HAMPER HERBICIDE EPA Registration Number: 55467-18 Application Date: 08/10/2021

Decision Number: 577757

#### Dear Cindy I. Faulkner:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the NMFS' Biological Opinion on the effects of S-Metolachlor on Pacific salmonids. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently

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approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Srijana Shrestha at shrestha.srijana@epa.gov.

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure: Stamped Label

S-METOLACHLOR GROUP 15 HERBICIDE

### Hamper™ Herbicide Master Label

Sublabel 1: Agricultural uses

Sublabel 2: Non-agricultural uses

ACCEPTED

01/17/2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

55467-18

S-METOLACHLOR GROUP 15 HERBICIDE

### Hamper™ Herbicide

## SALE, USE AND DISTRIBUTION OF THIS PRODUCT IN NASSAU AND SUFFOLK COUNTIES IN THE STATE OF NEW YORK IS PROHIBITED

This product controls a broad spectrum of annual grasses and select broadleaf weeds when applied as a pre-emergence, post-emergence, pre-plant surface-applied or pre-plant incorporated treatment on labeled crops.

Active Ingredient: S-metolachlor (CAS No. 87392-12-9)	% by Weight 87.3%
Other Ingredients:	<u>12.7%</u>
Total:	100.0%

Hamper Herbicide is an Emulsifiable Concentrate (EC) containing 8.0 lb of active ingredient per gallon

# KEEP OUT OF REACH OF CHILDREN CAUTION

	FIRST AID
lf on skin	Take off contaminated clothing.
	Rinse skin immediately with plenty of water for 15 - 20 minutes.
	Call a poison control center or doctor for treatment advice.
lf	Call a poison control center or doctor immediately for treatment advice.
swallowed	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 to an unconscious person.
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	• Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye
	Call a poison control center or doctor for treatment advice.
lf 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.
	oduct container or label with you when calling a poison control center or doctor or going t. <b>FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,</b>

### **Tenkoz**

Tenkoz, Inc. 1725 Windward Concourse, Suite 410 Alpharetta, GA 30005 EPA Reg. No. 55467-18 EPA Est. No.

Net Contents : \_\_\_\_ gallons

# PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals CAUTION

Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before drinking, chewing gum, using tobacco, or using the toilet.

#### **Personal Protective Equipment (PPE)**

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton®
- Shoes plus socks

#### **Engineering Control Statements**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-f)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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

#### **User Safety Recommendations**

#### Users should:

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

#### **Environmental Hazards**

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

#### Reporting Ecological Incidents:

To report ecological incidents, including mortality, injury, or harm to plants and animals, call Tenkoz Inc. at 770-343-8509.

#### **Ground Water Advisory**

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

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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

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

#### **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 antisiphoning devices must be used on all mixing and/or irrigation equipment.

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

#### **DIRECTIONS FOR USE**

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

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, presence of other materials or other influencing factors in the use of the product, which are beyond the control of TENKOZ, INC. or Seller. To the extent consistent with applicable law, Buyer and User agree to hold TENKOZ, INC. and Seller harmless for any claims relating to such factors

Hamper Herbicide must be used only in accordance with directions on this label.

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 State or Tribal agency responsible for pesticide regulation.

#### **Endangered Species Protection Requirements:**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulleting 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 <a href="http://www.epa.gov/espp/">http://www.epa.gov/espp/</a>, call 1-844-447-3813, or email <a href="https://espp-a.gov">ESPP@epa.gov</a>. You must use the Bulletin valid for the month in which you will apply the product.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

For early entry into 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, wear:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or Viton
- Shoes plus socks

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

#### PRODUCT INFORMATION

Hamper Herbicide can be used on the following crops to control annual grasses and select broadleaf weeds when applied using an application method as described in each crop section:

Beans

Corn

Cotton

Grasses grown for seed

Lentils

Peanuts

Peas

Potatoes

Safflower

Soybean (immature seed)

Soybean

Sorghum for grain or forage

Sugar Beet

Sunflower

Tomatoes

Horseradish

**Pumpkin** 

Rhubarb

NOTE: Injury may occur following the use of Hamper Herbicide under abnormally high soil moisture conditions during early development of the crop.

#### **USE RESTRICTIONS**

DO NOT apply under windy conditions.

DO NOT apply if conditions are conducive to wind erosion or runoff and may lead to soil containing this product reaching non-target areas.

DO NOT use in greenhouses or other enclosed structures.

DO NOT use in nurseries, turf, or landscape plantings.

Hamper Herbicide may be tank mixed with products that are registered for use in the state where this product is being applied. 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.

When tank mixing with atrazine, rate restrictions for atrazine must be implemented within specific geographic areas and deviation from these State imposed restrictions are a violation. Prior to application, consult the agency responsible for pesticide regulation in your State to determine if any restrictions apply in your desired application area.

#### NON-TARGET DRIFT AND RUNOFF

In order to minimize the possibility of runoff or wind erosion causing movement of this product to non-target areas, do the following:

- When conditions for wind erosion exist, DO NOT apply this product to light sandy soils or soils
  that have a powder dry surface. If these conditions exist, they should be mitigated by
  irrigation or rainfall prior to application.
- DO NOT apply this product to highly compacted or paved surfaces or any other surfaces that are impervious.
- Non-target crops must NOT be exposed to the furrow or first flood irrigation tailwater from fields treated with this product. This restriction does not apply if a minimum of ½" of rain occurs prior to the first irrigation after application.

#### SPRAY DRIFT MANAGEMENT

#### MANDATORY SPRAY DRIFT MANAGEMENT

#### **Ground Boom Applications:**

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

#### Aerial Applications:

- Do not release spray at a height greater than 10 ft. above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed 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 mph at the application site. If the wind speed is
  greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing
  aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length
  must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor
  diameter for helicopters.
- Do not apply during temperature inversions.

#### **Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 mph 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.

**Boomless Ground Applications:** 

• Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### IMPORTANCE OF DROPLET SIZE

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

#### Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

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

#### **BOOM HEIGHT - Ground Boom**

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

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

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

#### **TEMPERATURE AND HUMIDITY**

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

#### **TEMPERATURE INVERSIONS**

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

#### SOIL TEXTURE CLASSIFICATION AND EFFECT ON APPLICATION RATES

In the instructions that follow, application rates may depend on the texture of the soil to which this product is being applied. Use the following information to assign your soil texture to a classification:

Coarse: Sand, Loamy Sand, Sandy Loam

Medium: Loam, Silt Loam, Silt

Fine: Sandy Clay Loam, Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay

Soil texture impacts the application rate as follows: For soils that have low organic matter content or are coarser textured use the lower rates of the range listed, and for soils with high organic matter content or that are finer textured use the higher rates of the range listed in the application instructions.

#### APPLICATION INSTRUCTIONS

This product may be used for pre-emergence applications either by itself or tank mixed with products as specified in this label. This product may also be applied after pre-plant incorporated herbicides as long as doing so is not forbidden in the pre-plant herbicide label. Avoid spray overlap, as crop injury may result.

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

#### STAND-ALONE APPLICATION OF THIS PRODUCT

#### **WEEDS CONTROLLED**

This product is a **pre-emergent herbicide absorbed by weeds shortly after germination that inhibits weed root and shoot development.** Weeds that have already germinated should be controlled using a herbicide for post-emergent use, or through other means such as mechanical removal.

When this product is incorporated, the application depth should be less than 2-3 inches. Any subsequent tilling after incorporating this product, and prior to planting, must be less than the application depth or 2-3 inches.

Dry conditions after application may lead to poor weed control. If this occurs, weeds that develop should be cultivated.

#### **Partial Weed Control**

When describing weed control, this label may refer to "partial control" for certain weeds. Within the context of this label, "partial control" can mean either of the following:

- 1) control that is not consistent, and that may be good in some cases and poor in others; and/or,
- 2) control that is consistent but not considered sufficient for commercial weed control.

There may be several reasons for partial weed control including plant type and climatic conditions. To help improve control of weeds listed as partially controlled in the following table, you may try the following:

• Destroying weeds that are germinating or already emerged by thorough tilling and then planting the crop immediately into moist soil. If this product will be used pre-emergence, it must be applied either at, or immediately after, planting.

If possible, within two days of application of Hamper Herbicide sprinkle irrigate using  $\frac{1}{2}$  - 1 inch of water using lower irrigation rates on soils that are coarse textured and the higher rates on soils that are fine textured. If it is not possible to irrigate and no precipitation occurs within two days of application, there may be decreased control of weeds in which case a shallow, uniform cultivation should be performed immediately upon weed germination.

Refer to the CENTER PIVOT IRRIGATION section for information on applying this product using center pivot irrigation.

This product will provide the level of control listed for the following weeds:

#### **BROADLEAF - Control**

Amaranth, Palmer (Amaranthus palmeri);
Amaranth, Powell (Amaranthus powellii);
Carpetweed (Mollugo verticillata);
Galinsoga, Hairy (Galinsoga quadriradiata);
Galinsoga, Smallflower (Galinsoga parviflora);
Nightshade, Eastern Black (Solanum ptychanthum);
Pigweed, Prostrate (Amaranthus blitoides);
Pigweed, Redroot (Amaranthus retroflexus);
Pigweed, Smooth (Amaranthus hybridus);
Pigweed, Tumble (Amaranthus albus);
Pusley, Florida (Richardia scabra);
Spiderwort, Tropical (Commelina benghalensis);
Waterhemp, Common (Amaranthus rudis);
Waterhemp, Tall (Amaranthus tuberculatus)

#### **BROADLEAF - Partial Control**

Beggarweed, Florida (Desmodium tortuosum); Eclipta (Eclipta prostrata); Nightshade, Hairy (Solanum physalifolium) Purslane, Common (Portulaca oleracea);

#### **GRASS - Control**

Barnyardgrass (Echinochloa crus-galli);
Crabgrass, Large (Digitaria ischaemum);
Crabgrass, Smooth (Digitaria sanguinalis);
Crowfootgrass (Dactyloctenium aegyptium);
Cupgrass, Prairie (Eriochloa contracta);
Cupgrass, Southwestern (Eriochloa acuminate);
Foxtail, Bristly (Setaria verticillata);
Foxtail, Giant (Setaria faberi);
Foxtail, Green (Setaria viridis);
Foxtail, Millet (Setaria italic);
Foxtail, Yellow (Setaria pumila);

Goosegrass (Eleusine indica); Panicum, Fall (Panicum dichotomiflorum); Rice, Red (Oryza punctate); Ryegrass, Italian (Lolium multiflorum); Signalgrass, Broadleaf (Urochloa platyphylla); Witchgrass (Panicum capillare) **GRASS – Partial Control** Cupgrass, Woolly<sup>1</sup> (Eriochloa villosa); Johnsongrass (seedling) (Sorghum halepense); Millet, Wild-proso<sup>1</sup> (Panicum miliaceum); Panicum, Texas (Panicum texanum); Sandbur, Field (Cenchrus spinifex); Sandbur, Southern (Cenchrus echinatus): Shattercane, (Sorghum bicolor) Sorghum (Volunteer) (Sorghum bicolor) SEDGE - Control Nutsedge, Yellow (Cyperus esculentus)

<sup>1</sup>Refer to the corn section of this label for additional use directions

#### **Herbicide Resistance Management**

For resistance management, **Hamper Herbicide** is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to **Hamper Herbicide** and other Group 15 herbicides. Weed species with acquired resistance to Group 15 may eventually dominate the weed population if Group 15 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of Hamper Herbicide or other Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices including mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where
  information on resistance in target weed species is available, use the less resistance-prone
  partner at a rate that will control the target weed(s) equally as well as the more resistanceprone partner. Consult your local extension service or certified crop advisor if you are
  unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting
  and uses historical information related to herbicide use and crop rotation, and that
  considers tillage (or other mechanical control methods), cultural (e.g. higher crop seeding
  rates; precision fertilizer application method and timing to favor the crop and not the
  weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout fields before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your local sales 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
  mechanisms of action for each target weed.

#### **RE-PLANT AND ROTATIONAL CROPS**

#### **Replanted Crops**

Any crop listed in this or a supplemental Hamper Herbicide label may be immediately replanted as long as the originally applied rate is not more than the rate listed for the replacement crop. In cases where the initial application was a banded treatment and the replacement crop is planted in the center of the untreated area between the bands, a second banded application may be made at the rate recommended for the replacement crop as long as there is no overlap between the first and second application bands.

#### **Directions for Rotational Crops**

Any food or feed crops not listed below must NOT be planted within 12 months of the last application of this product.

**Crop(s)**Replant Interval
Tobacco, Buckwheat, Rice
The spring following the last treatment

Barley, Oats, Rye, Wheat 4.5 months Alfalfa 4.0 months Clover 9.0 months

In order to make a replant application of this product, the previous crop must have had applied 1.9 pounds active ingredient, or less, of *S-metolachlor* (1.9 pints or less) per acre, and the previous crop must not have had a lay-by or other post-emergence application of this product.

**Note:** If rotating to a crop listed in one of the crop groupings below within 60 days of last application, injury to the new crop may result. Also, if the amount of this product applied to the previous crop was more than listed below, the crop must not be planted until the following spring.

**Table 1: Permitted Rotational Crops** 

Amount of Hamper Herbicide Applied Previously (Pints per Acre)	Crops that May be Planted 60-days After the Last Application of Hamper Herbicide
	Crop Subgroup 1B – Root Vegetables Arracacha; Arrowroot; Artichoke, Chinese & Jerusalem; Canna (edible); Cassava, Bitter and Sweet; Chayote (root); Chufa; Dasheen (Taro); Ginger; Leren; Potato; Sweet Potato; Tanier; Tumeric; Yam, Bean & True
≤ 1.9 pts/A	Crop Subgroup 3 – Bulb Vegetables (if harvested dry) Garlic; Great-headed Garlic; Leek, Dry Bulb & Green Onion; Welsh Onion; Shallot
	Crop Subgroup 4B – Leaf Petiole Vegetables Cardoon; Celery; Leek, Chinese Celery; Celtuce, Florence; Fennel; Rhubarb; Swiss Chard
	Crop Subgroup 5A – Head and Stem Brassica Vegetables

Amount of Hamper Herbicide Applied Previously (Pints per Acre)	Crops that May be Planted 60-days After the Last Application of Hamper Herbicide	
	Broccoli; Chinese Broccoli; Brussel Sprouts; Cabbage; Chinese (Napa) Cabbage; Chinese Mustard; Cauliflower; Cavalo Broccolo; Kohlrabi	
	All crops listed above plus:	
≤ 1.6 pts/A	Crop Group 8 Fruiting Vegetables (except Cucurbits) Eggplant; Ground Cherry ( <i>Physalis</i> spp.); Pepino; Peppers, Bell, Chili, Cooking, Pimento & Sweet; Tomatillo & Tomato	
	All crops listed above plus:	
≤ 1.3 pts/A	Crop Subgroup 1B Root Vegetables Garden Beet; Burdock (edible); Carrot; Celeriac; Chervil, Turnip-rooted; Chicory; Ginseng; Horseradish; Parsley, Turnip-rooted; Parsnip; Radish; Oriental Radish; Rutabaga; Salsify; Black Salsify; Spanish Salsify; Skirret; Turnip	
	Crop Group 3 Bulb Vegetables (if harvested green) Garlic, Great-headed Garlic; Leek; Onion, Green & Welsh; Shallot; Winter Squash (including Pumpkins)	

NOTE: A second application of *S-metolachlor* to the crops in the above table must NOT be made within 60 days of the original application.

#### **APPLICATION PROCEDURES**

#### **Application Timing**

See CROP USE DIRECTIONS for crop specific application timing.

#### Pre-plant Surface-Applied

For certain crops grown in minimum- or no-tillage systems, Hamper Herbicide may be applied either alone or tank mixed with other herbicides up to 45 days prior to planting.

For applications made 30-45 days prior to planting, make only split applications using 2/3 the listed broadcast rate in the initial application and the remaining 1/3 when planting.

Treatments made less than 30 days prior to planting Hamper Herbicide may be applied as either a single or split application. Applicators should refer to the **CROP USE DIRECTIONS** to determine if these kinds of early pre-plant surface applications may be made for the specific crop.

Tank mixing this product with a contact herbicide such as *paraquat*, *glyphosate* or *glufosinate* is recommended if weeds are already present when making the application. The most restrictive combination of instructions, precautions and restrictions must be followed from all of the tank mix partners when tank mixing multiple products.

For best results, when planting the treated soil must not be moved out of the rows and untreated soil must not be moved into the rows.

#### **Pre-plant Incorporated**

When furrow irrigation is being used or dry weather is expected after the treatment, apply Hamper Herbicide within 14 days of planting and incorporate into the top 2 inches of soil using equipment that will provide uniform incorporation such as a harrow, rolling cultivator or finishing disk. If crops are planted in beds, application should be made after the beds have been formed, unless otherwise specified in the **CROP USE DIRECTIONS** 

#### Pre-emergence

Either apply this product at planting prior to weed emergence, or after planting prior to weed and crop emergence.

#### Post-emergence

This product does not control weeds that have already emerged. Weeds already present must be controlled by either using another herbicide or that use, or mechanical means.

### APPLICATION PROCEDURES FOR SPECIFIC LOCATION, CROP AND/OR WEED SCENARIOS

#### CA Only (Corn, Safflower, Beans, Peas, and Lentils)

**Pre-plant Incorporated:** Apply this product either by itself or tank mixed with other products listed in this label, being sure to incorporate the application thoroughly to a depth of 4-6 inches. Cross tilling may be done to ensure thorough incorporation. The desired crop may be planted on flat surface on on beds., being sure that beds are formed only using treated soil. If treating preformed beds, incorporate this product to 2-4 inches deep being careful to keep the treated soil within the beds.

**Pre-emergence:** Apply this product after planting followed within 7-10 days with irrigation by sprinkler or flood.

#### Fall Application for Spring Weed Control in IA, MN, ND, SD, WI, and areas in NE and IL

For specific timing and application information, refer to the **Corn**; **Soybeans**; or **Beans, Peas, and Lentils** sections of this label

DO NOT apply this product to frozen ground.

Apply this product to fields that will be planted to corn or soybeans the following spring with fine and/or medium textured soils and more than 2.5% organic matter. Tilling may be performed before or after treatment; however, if tilled after treatment do not incorporate deeper than 2-3 inches. If multiple applications are made in a single crop cycle, do not exceed the maximum total rate for the specific crop, or illegal residues may result.

### <u>Fall Application for Italian Ryegrass Control in Corn, Cotton, Sorghum (for Grain or Forage)</u> and Soybean ONLY

For specific timing and application information, refer to the Corn; Cotton; Sorghum (for Grain or Forage) and Soybean sections of this label.

DO NOT apply this product to frozen ground.

Hamper Herbicide may be used to provide residual control of *glyphosate*-resistant Italian ryegrass (*Lolium multiflorum*) with a fall application of this product (between September 1 and December 1). Tillage may be performed prior to application. If planning to till after application, incorporate to a maximum depth of 2-3 inches. All crops listed in this label may be planted the spring following application. If multiple applications are made in a single crop cycle, do not exceed the maximum total rate for the specific crop, or illegal residues may result.

#### **GROUND APPLICATIONS**

Unless otherwise specified in the crop specific instructions, apply this product alone or in a tank mixture using ground equipment in a **minimum of 10 gal of spray mixture per acre**. Be sure the sprayers will provide uniform coverage to the target areas only. If this product will be tank mixed with dry flowable (DF) or wettable powder (WP) formulations, the spray equipment should use strainers / screens that are 50-mesh or coarser. The application equipment should be thoroughly rinsed with clean water as soon as the application is completed.

The amount of herbicide required for a band treatment may be determined as follows:

Amount of Product per Acre = Broadcast Rate per Acre 
$$\left(\frac{Width \ of \ the \ Band \ in \ Inches}{Width \ of \ Row \ in \ Inches}\right)$$

Refer to the Spray Drift Management section for information on managing spray drift.

Refer to the **Low Carrier Application** section for information on applying in lower volumes of carrier. Refer to the **Aerial Application** section for information specific to applications by air or center pivot systems.

Refer to the **Dry Bulk Granular Fertilizers** section for information on impregnating dry fertilizer.

Refer to the **Variable-Rate Application** section for more information when applying with variable-rate equipment.

#### SPRAY EQUIPMENT

In order to prevent possible crop damage or equipment malfunction, it is important that the equipment being used to apply this product be thoroughly cleaned prior to use. Any wastes resulting from cleaning must be disposed of responsibly in accordance with local regulations.

#### **LOW CARRIER APPLICATION - For Broadcast Ground Application Only**

ONLY use water as a carrier and apply in a minimum of 5 gallons of spray mixture per acre and a maximum speed of 15 MPH when spraying. The equipment should be cleaned immediately after use using clean water.

Only spray equipment that provides uniform and accurate spray placement (such as Ag-Chem RoGator<sup>®</sup>, Hagie, John Deere Hi-Cycle<sup>™</sup>, Melroe Spra-Coupe, Tyler Patriot<sup>™</sup>, or Willmar Air Ride<sup>®</sup>) should be used to apply this product.

In-line strainers and suction screens that are 50-mesh should be used. In cases where the manufacturer of the spray equipment require 100-mesh tip screens be used with certain nozzles, you must use a pump that can generate enough agitation to keep the mixture suspended and also maintain 35-40 PSI of pressure at the nozzles.

Low Pressure Nozzles: Use of these nozzles will increase the accuracy of the spray placement and reduce drift. The manufacturer's instructions for sprayer setup must be followed for optimum performance and nozzle screens should be used when instructed to do so by the manufacturer of the equipment. Low pressure nozzles should be aimed for 20 inch centers EXCEPT flooding types that should be placed on 40 inch centers. Angles of 80 or 110 degrees should be used for flat fan nozzles. The applicator must be sure to set devices that automatically control the rate of spray to provide the pressure and flow rates required by the low pressure nozzles.

#### **AERIAL APPLICATION**

Refer to the **Spray Drift Management** section for information on managing spray drift.

This product may be applied by aircraft in a **minimum total water volume of 2.0 gallons per acre** either by itself or tank mixed with Atrazine, Benfluralin (e.g., Balan), Pendimethalin (e.g., Prowl), Trifluralin (e.g., Treflan) or Metribuzin (e.g., Lexone, Sencor). To avoid spray drift potentially damaging non-target sensitive plants that are off-site, do not apply this product tank mixed with Linuron or Metribuzin within 300 feet upwind of sensitive plants, and do not apply this product by itself or tank mixed with Atrazine within 400 feet upwind of the sensitive plants.

#### **Sensitive Areas**

Apply pesticides when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoid application to humans or animals. Flagmen and loaders must avoid inhalation of spray mist and prolonged contact with skin.

#### CENTER PIVOT IRRIGATION APPLICATION

This product may be applied pre-emergence either by itself or tank mixed with other herbicides that are registered for use in center pivot applications, or post-emergence where allowed by this label to control weeds that have not yet emerged in crops that have already emerged. In order to avoid illegal residue levels, all restrictions in this label regarding rates, heights, timing, etc. must be followed.

Apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person

knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments when needed.

#### **Operating Instructions**

The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply in 1/2-1 inch of irrigation water by mixing 1 part herbicide(s) to a minimum 1 part water and inject the mixture into the center pivot irrigation system being sure to maintain agitation and inject into the irrigation water for the entire duration of the application. Higher water volumes should be used on fine-textured soils and lower water volumes used on coarse-textured soils. Increased accuracy in the calibration of the metering equipment may be achieved if a more dilute (i.e., larger volume) injection solution is used. Weed control may be reduced if more than 1 inch of irrigation water is applied.

NOTE: Excessive sprinkler overlap may result in crop injury, and insufficient sprinkler overlap may result in poor weed control.

#### DRY BULK GRANULAR FERTILIZERS

#### **IMPORTANT: To Avoid Potential Explosions**

- DO NOT impregnate this product or mixtures containing this product to ammonium nitrate, potassium nitrate, or sodium nitrate.
- DO NOT apply this product or mixtures containing this product to straight limestone because limestone will not absorb the solution. You may impregnate fertilizers that are a blend containing limestone.

This product and tank mixes containing this product may be coated onto or impregnated into dry bulk granular fertilizers that do not prohibit this use and are labeled for pre-plant incorporated or pre-plant surface applications. The most restrictive combination of directions, restrictions and precautions from each of the products used must be followed. It is the responsibility of the seller of the herbicide/fertilizer mixture to be certain they are in compliance with all state regulations governing the registration, blending, labeling and application of blended dry bulk granular fertilizers.

The blended dry bulk fertilizer mixture may be prepared using any commonly used closed dry bulk fertilizer blender including closed belt, drum and ribbon systems. The spray being applied to the fertilizer must be uniform in coverage and must not spray the walls of the blender.

To obtain a dry, free-flowing application mixture if the herbicide/fertilizer mixture is initially too wet, a granular clay or diatomaceous earth material such as Agsorb® or Celatom MP-79® may be added to the mixture only after the herbicide has been thoroughly blended. For best results, use a granule size of 6/30 or similar to the granule size of the bulk fertilizer being blended. Using more than 5% absorptive material by weight should be avoided, and less than 2% by weight is generally needed.

The following formulas should be used to determine the amount of herbicide needed to blend per ton of fertilizer:

Pints of Liquid or Flowable Product per Ton of Fertilizer 
$$= \frac{2000}{Pounds \ of \ Fertilizer \ per \ Acre} \times Pints \ per \ Acre \ of \ Liquid \ or \ Flowable \ Product$$

Pounds of Dry Product per Ton of Fertilizer 
$$= \frac{2000}{Pounds \ of \ Fertilizer \ per \ Acre} \times Pounds \ per \ Acre \ of \ Dry \ Product$$

#### Pneumatic (Compressed Air) Application of Hamper Herbicide Alone

Reduction of fertilizer mixture build-up on application equipment in conditions that promote buildup (such as low fertilizer use rates or dusty fertilizer, high humidity and / or high urea concentrations) may be accomplished by premixing 1-4 pints of Exxon Aromatic 200 per gallon of this product. This blend may be applied using a direct injection system or a fertilizer blender. Use of drying agents should be avoided when mixing this product with Exxon Aromatic 200.

If a drier mixture than what results from mixing this product with Aromatic 200 is desired, this product may be impregnated with a drying agent in place of the Aromatic 200 in a blender prior to application. For best results when using a drying agent, use Agsorb FG or another drying agent that has a 6/30 particle size.

#### **Use Precautions**

Because crop injury or poor weed control may occur if the Hamper Herbicide / Exxon Aromatic 200 mixture is used in water or liquid fertilizer solutions, this combination must be applied to dry fertilizer ONLY.

Use of drying agents should be avoided when On-The-Go impregnation equipment will be used.

#### **Application**

DO NOT use a herbicide/fertilizer mixture if crops are planted in beds or crop injury may occur.

The fertilizer / herbicide combination should be applied at a rate of 200-700 pounds per acre immediately after blending using calibrated equipment that will mix uniformly. A non-uniform application may result in crop injury and poor weed control.

Weed control may be improved in conventional tillage fields by performing a shallow incorporation of the mixture into the soil. In fields that will be tilled conventionally, weed control may be improved if the mixture is incorporated to a shallow depth. If soil incorporation is not planned for the field, in fields with medium- or fine-textured soils applications should be made approximately 30 days prior to planting (14 days in coarse-textured soils) in order to allow the mixture to move into the soil via moisture.

#### MIXING INSTRUCTIONS

Do NOT allow this product to be back-siphoned into wells. All equipment used for mixing or irrigation MUST have anti-siphon or check-valves installed. Unused solutions and rinsate containing this product must be disposed of properly using the instructions in this label.

#### **Hamper Herbicide Alone**

Mix by filling the solution tank with  $\frac{1}{2}$  to  $\frac{3}{4}$  of the desired final fluid fertilizer or water volume and starting agitation in the tank. Add this product at the rate specified in the label and add the remaining amount of water or fluid fertilizer, being sure to maintain agitation during mixing and application so that the resulting solution is uniformly mixed.

#### **Tank Mixtures**

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

Any tank mixture containing fluid fertilizer should be tested for compatibility suing the instructions in the **COMPATIBILITY TESTING** section below.

The products in Table 2 (or products with the same active ingredient) may be tank mixed with Hamper Herbicide.

To tank mix, fill the solution tank 1/4 full with water and commence agitation. If the product to be tank mixed is underlined in Table 2, add it first and allow to disperse. Next add Hamper Herbicide, followed by any products NOT underlined in Table 2. Then add the remaining amount of water.

Fluid fertilizers may be used in place of, part or all of, the water in tank mixtures containing, Atrazine (except post-emergence), Isoxaflutole (Balance), Dicamba (except post-emergence), Metribuzin + Chlorimuron (Canopy), Prometryn (Caparol), Fluometuron (Cotoran), EPTC, Linuron, Dicamba + Atrazine (Marksman), Simazine, Pendimethalin (Prowl), Imazethapyr (Pursuit), Atrazine + Simazine, Ethalfluralin (Sonalan), Trifluralin (Treflan), or Metribuzin. If tank mixing with Atrazine, refer to the Atrazine label for additional mixing instructions.

\* Refer to **Special Mixing Instructions** for tank mixtures containing atrazine, fluometuron, simazine or simazine + pendimethalin under the appropriate tank mixture section.

#### **COMPATIBILITY TESTING**

Tank mix incompatibility occurs most often in fertilizer / pesticide suspensions. To ensure the compatibility of this product with other pesticides and fertilizers, a jar test should be conducted prior to tank mixing. The procedure below assumes a spray volume of 25 gallons per acre and the amounts of the individual ingredients should be changed as appropriate for other spray volumes.

Important Note: Compatibility with between liquid fertilizers and the pesticides to be tank mixed must always be tested prior to use due to the variability of liquid fertilizers, even within the same analysis.

#### **Compatibility Test Procedure**

- 1. Using two 1 quart jars, add 1 pint of the desired fertilizer or water carrier to each. The same source and temperature of water that will be used for the final tank mix should be used to conduct the test.
- 2. To one jar add 1/4 tsp (1.2 milliliters) of a compatibility agent (such as Compex or Unite) approved for this use and gently shake or stir to mix.
- 3. To both jars add the relative proportions the recommended amounts of pesticide(s). If more than one pesticide is being tested for compatibility, add them in the following order: a) dry pesticides b) flowables and c) emulsifiable concentrates. Gently shake or stir after each addition.
- 4. Once all the desired tank-mix components are added, put the lids on the jars and invert each jar ten times to thoroughly combine. Set the jars aside for 15-30 minutes and then inspect for signs of incompatibility such as separation, precipitates, large flakes, gels or heavy oily films.
  - If the two jars look the same, the compatibility agent is not needed, but if the jar with the compatibility agent shows no signs of incompatibility but the other jar does, the compatibility agent will be necessary in the final tank mix.
  - If either mixture separates but can be easily remixed, the mixture may be used only if sufficient agitation is maintained to keep the solution mixed in the spray tank.
- 5. After testing, all pesticide wastes must be disposed of as instructed by the **Storage and Disposal** section of this label.

If the desired mixture is found to be incompatible, the following may be tried to improve compatibility:

Slurry the dry pesticide(s) in water before addition; or,

Add 1/2 of the compatibility agent to the fertilizer or water and the other 1/2 to the flowable pesticide or emulsifiable concentrate prior to mixing.

DO NOT use the mixture if incompatibility is still observed.

**Table 2: Example Tank Mix Partner Products** To tank mix, fill the solution tank 1/4 full with water and commence agitation. If the product to be tank mixed is underlined in Table 2, add it first and allow to disperse. Next add Hamper Herbicide, followed by any products NOT underlined in Table 2. Then add the remaining amount of water.

Active Ingredient	Brand Name(s)  Alternative brands may	EPA Registration Number(s)  Alternative brands may be used	
	be used		
2, 4-D	Amine 4	42750-14-55467, 55467-14 71368-1-55467	
	Lo-Vol 4	228-139-55467	
	Lo-Vol 6	42750-20-55467, 71368-11-55467	
<u>2,4-DB</u>	Butoxone	2749-126 & 2749-516	
	<u>Butyrac</u>	42750-39 & 42750-38	
Acifluorfen	Storm	7050-59	
	Ultra Blazer	70506-60	
<u>Atrazine</u>	Atrazine 4L	55467-13, 100-497-55467, 19713- 11-55467	
	Atrazine 90DF	100-585-55467, 35915-3-55467	
	<u>AAtrex</u>	100-497 & 100-585	
<u>Benfluralin</u>	Balan 2.5G	8378-35	
	Balan Dry Flowable	34704-746	
<u>Bentazon</u>	<u>Basagran</u>	7969-45-(multiple),7969-112, 70506-434	
	Broadloom	70506-306	
Chlorimuron	Classic	5481-681	
Clethodim	Select	59639-3	
Clopyralid	Stinger	62719-73	
Cloransulam	FirstRate	5481-676	
Desmedipham	Betanex	254-620	
<u>Dicamba</u>	<u>Detonate</u>	7969-137-55467,42750-209- 55467	
	<u>Banvel</u>	55467-38	
<u>Dicamba + Atrazine</u>	<u>Marksman</u>	7969-136	
<u>Ethalfluralin</u>	<u>Sonalan</u>	10163-355 & 10163-356	
<u>EPTC</u>	<u>Eptam</u>	10163-281 & 10163-283	
<u>Flometuron</u>	Cotoran 4L	66222-181	
Fomesafen	Flexstar	100-1101	
	Flexstar GT	100-1325	
	Reflex	100-993	
Fluazifop	Fusilade	100-1070	
Fluazifop + Fenoxaprop	Fusion	100-1059	

Flumetsulam	Python	5481-677	
Glufosinate	Autonomy	7969-448-55467	
	<u>Interline</u>	70506-310	
	Liberty	264-829 & 7969-448	
Glyphosate	Roundup	524-549-(multiple)	
	Buccaneer	55467-9, 55467-10, 55467-15	
Glyphosate + 2,4-D	Landmaster BW	42750-62	
<u>Imazethapyr</u>	<u>Pursuit</u>	241-310	
Isoxaflutole	Balance Pro	264-600	
<u>Linuron</u>	Linuron DF	19713-251	
	Linex	61842-21	
	Lorox DF	61842-23	
Metribuzin	Lexone	352-382	
	Sencor	432-1469 & 264-738	
	<u>TriCor</u>	70506-68 & 70506-103	
Metribuzin + Chlorimuron	Canopy	352-444	
Metribuzin + Sulfentrazone	Authority MTZ	279-3340	
s-Metolachlor + Fomesafen	Prefix	100-1268	
<u>MSMA</u>	MSMA 6 Plus	19713-42	
	MSMA 6.6	19713-41	
	<u>Target 6 Plus</u>	42519-3	
	Target 6.6	42519-1	
Nicosulfuron	Accent XP	352-817	
Paraquat	Gramoxone	100-1431 & 100-1652	
<u>Pendimethalin</u>	<u>Acumen</u>	241-337-55467, 70506-318,	
	Prowl	241-337 & 241-418	
	Satellite 3.3	70506-318	
	Satellite HydroCap	70506-230	
<u>Prometryn</u>	<u>Caparol</u>	100-620	
Quizalofop	Assure II	5481-646	
Rimisulfuron-methyl	Beacon	100-705	
Saflufenacil	Sharpen	7969-278	
Saflufenacil +	Verdict	7969-279	
Dimethenamide-P			
Sethoxydim	Poast	7969-58- (multiple)	

Simazine	Princep	100-526 & 100-603	
Sulfentrazone+ Cloransulam	Sonic	62719-680	
	Gauntlet	279-3246	
Sulfentrazone + Chlorimuron	Authority Maxx	279-9560	
Sulfosate	Touchdown	100-1117	
Trifluralin	Treflan	34704-853-(multiple)	
Trisulfuron	Upbeet	279-9584	

#### **CROP USE DIRECTIONS**

#### **CORN (ALL TYPES) – HAMPER HERBICIDE ALONE**

**APPLICATION METHODS**: Pre-plant surface, pre-plant incorporated, pre-emergence, lay-by. Refer to the APPLICATION PROCEDURES section at the beginning of this label.

#### **USE RESTRICTIONS**

The total Hamper Herbicide rate applied on corn during any one crop year must not exceed 3.71 lb. a.i./A (3.7 pts/A).

DO NOT graze or feed forage from treated areas within 30 days of application.

DO NOT apply this product to muck or peat soils.

DO NOT apply, as either a single or split treatment, more than the labeled application rate for a given soil texture per year.

DO NOT apply to sweet corn ears within 30 days of harvest.

In corn grown on soils having an organic matter content between 6% - 20%, this product may be applied as either a pre-plant surface, pre-plant incorporated, or pre-emergence treatment at a rate up to 2.5 pts/A.

Table 3: Hamper Herbicide Use Rates – Corn (All Types)

Table 3: Hamper Herbicide Use Rates – Corn (All Types) Use Rates		
Use	(Pints per Acre)	Instructions
		Do NOT apply this product to frozen ground.
		In ND, SD, MN, WI and north of Route 30 in IA: Apply after September 30
		In NE north of Route 91 and in IA south of Routh 30: Apply after October 15
		In <b>IL north of Route 136</b> : Apply after October 31.
Fall Applications for Control of Spring Weeds	Minimum or no-till fields with > 2.5% organic matter:	Apply after harvest to crop stubble when the sustained soil temperature is < 55°F, and falling, at a depth of 4 inches.
	Medium Soils: 1.6 - 1.9 pts/A Fine Soils: 1.9 pts/A	The field may be tilled before application as well as in the fall or spring after application as long as the tillage depth is no more than 2-3 inches. For best results, minimize the development of furrows and ridges when tilling.
		If application is made in the spring, the total amount applied in the preceding fall plus the spring application must NOT exceed the maximum amount allowed for corn.

	Use Rates	
Use	(Pints per Acre)	Instructions
Fall Applications for Control of Italian Ryegrass (Lolium multiflorum)	1.3 – 1.6 pts/A On coarse soils use the lower rates per acre On fine soils use the higher rates per acre	DO NOT apply this product to frozen ground.  For control of glyphosate-resistant Italian ryegrass, Apply Herbicide in the fall (Sept. 1 – Dec. 1) after harvesting the previous crop and before Italian Ryegrass emerges.  The field may be tilled before application. If tillage follows the application ensure tillage depth is no more than 2-3 inches.  This product may be tank mixed with a paraquat herbicide to control emerged glyphosate-resistant Italian ryegrass.  For control or enhanced control of other weeds that may have already emerged at time of application, this product may be tank mixed with other herbicides labeled for that use on corn. If application is made in the spring, the total amount applied in the preceding fall plus the spring application must NOT exceed the maximum amount allowed for corn.
Fall Pre-emergence Applications for Control or Suppression of Yellow Nutsedge the Following Spring (ONLY in ID, OR & WA)	1.3 pts/A	DO NOT apply this product to frozen ground.  DO NOT make more than one fall application per crop.  DO NOT apply more than 1.3 pints per acre in a single fall pre-plant application.  Apply in the fall after harvest but before the soil freezes either as either an incorporated or surface applied treatment.  If application is made in the spring, the total amount applied in the preceding fall plus the spring application must NOT exceed the maximum amount allowed for corn.

Use Rates			
Use	(Pints per Acre)	Instructions	
Early Pre-plant Applications	Medium Soils: 1.6 pts/A Fine Soils: 1.9 pts/A Coarse Soils: 1.3 pts/A	For use on medium and fine soils in minimum or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, WY.  Apply as a split treatment with 2/3 of the listed rate of this product applied 30-45 days prior to planting and the remainder applied at planting.  If application is made within 30 days of planting, the application may be either a single or split treatment.  On coarse soils, apply not more than 2 week prior to planting.  If application is made in the spring, the	
		total amount applied in the preceding fall plus the spring application must NOT exceed the maximum amount allowed for corn.	
Early Pre-plant Applications	Medium Soils: 1.6 pts/A Fine Soils: 1.9 pts/A Coarse Soils: 1.3 pts/A	For use on medium and fine soils in minimum or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, WV  Apply as a split treatment with 2/3 of the listed rate of this product applied 30-45 days prior to planting and the remainder applied at planting.  If application is made within 30 days of planting, the application may be either a single or split treatment.  On coarse soils, apply not more than 2 weeks prior to planting. If application is made in the spring, the total amount applied in the preceding fall plus the spring application must NOT exceed the maximum amount allowed for corn.  If precipitation causes the duration of weed control to be reduced unsatisfactorily, a post-emergence application of a herbicide labeled for use on corn may be made.  NOTE: When using a post-emergent herbicide in conjunction with this product, the most restrictive combination of directions, restrictions and precautions must be followed.	

Use	Use Rates	Instructions
Use	(Pints per Acre)	Ilistructions
	Fine Soils less than 3% Organic Matter: 1.3–1.6 pts/A	
Pre-plant Incorporated or	Fine Soils greater than 3% Organic Matter: 1.6–1.9 pts/A	Follow the application instructions for Hamper Herbicide used alone as
Pre-Emergence Applications	Medium Soils: 1.3– 1.6 pts/A	described in APPLICATION PROCEDURES section of this label.
	Coarse Soils less than 3% Organic Matter: 1.0-1.3 pts/A	
	Coarse Soils greater than 3% Organic Matter: 1.3 pts/A	
Post-Emergence or Lay- By Applications	1.9 pts/A	Weed control in corn may be extended by applying this product after corn has emerged but prior to the plant height reaching 40 inches. This application can follow any pre-plant surface applied, pre-plant incorporated or pre-emergence herbicide applications (including this product). Best results will be achieved if the soil is weed free at the time of application and the application is made to the base of corn plants at least 5 inches tall.

#### SPECIFIC INSTRUCTIONS FOR PROBLEM WEEDS

#### For Partial Control of Eclipta, Shattercane, Wild Proso Millet and Woolly Cupgrass:

Make a pre-plant incorporated application at a rate of 1.0-1.3 pts/A, and a second pre-emergent application at a rate of 1.0-1.3 pts/A. The pre-emergence application should be made during planting, or after planting but prior to corn and weed emergence. If severe weed pressure is anticipated, use the higher rate listed. Weeds that emerge late may require a shallow cultivation to control.

#### **Control Program for Wild Proso Millet and Woolly Cupgrass:**

The following 3-step program may be used for control of Wild Proso Millet and Woolly Cupgrass:

- 1) Make an early pre-plant, pre-plant incorporated or pre-emergence application of this product at a rate of 1.6 pts/A on medium soils, or 1.9 pts/A on fine soils. If precipitation does not occur within 5-7 days of application, incorporate lightly using a rotary hoe.
- 2) Post-emergence when corn is at least 4 inches tall and weeds are 2-3 inches tall, apply a tank mix of Rimsulfuron (Beacon) at reduced rate with Nicosulfuron (Accent XP) at lowest rate (0.33 ounces per acre), 1 quart of crop oil concentrate (COC) and 28% nitrogen fertilizer (1 gallon per acre) or the equivalent amount of sulfate.
- 3) 14-21 days after the post-emergence application the field should be cultivated.

If following a pre-plant surface, pre-plant incorporated, or pre-emergence treatment of this product there is an outbreak of weeds, a post-emergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be necessary.

#### CORN – HAMPER HERBICIDE COMBINATIONS

Hamper Herbicide in any tank mixture for corn may be applied in water or fluid fertilizer before corn emerges. Use only water as a carrier when Hamper Herbicide is applied after corn emergence.

#### **Use Restrictions:**

The total Hamper Herbicide rate applied on corn during any one crop year must not exceed 3.71 lb. a.i./A (3.7 pts/A).

DO NOT graze or feed forage from treated areas within 30 days of application.

DO NOT apply this product to muck or peat soils.

DO NOT apply, as either a single or split treatment, more than the labeled application rate for a given soil texture per year.

DO NOT apply to sweet corn ears within 30 days of harvest.

### SPECIFIC INSTRUCTIONS FOR TANK MIXES OF THIS PRODUCT WITH OTHER HERBICIDES LABELED FOR CORN

If tank mixing this product with atrazine, the most restrictive combination of rates, restrictions and precautions from both labels must be followed. Broadleaf weed control may be affected if atrazine is applied at rates lower than those listed on this label and the atrazine label should be consulted for a list of weeds controlled at the reduced rates.

#### TANK MIXTURE WITH ATRAZINE AND/OR SIMAZINE

(Pre-Plant Surface, Pre-Plant Incorporated, Pre-Emergence)

**Additional Weeds Controlled:** Browntop Panicum, Cocklebur, Common Purslane, Hairy Nightshade, Lambsquarters, Morningglory, Ragweed, Smartweed, Velvetleaf

#### **Application Instructions / Comments:**

For control of most emerged annual weeds and suppression of perennial weeds, tankmix with a burndown herbicide.

DO NOT exceed the total pounds AI of atrazine per acre per year specified on the atrazine product label. Rate restrictions for atrazine may be implemented within specific geographic areas and deviation from these State imposed restrictions are a violation. Prior to application, consult the agency responsible for pesticide regulation in your State to determine if any restrictions apply in your desired application area.

Note: 1.0 lb of atrazine 90 (dry) or simazine 90 (dry) = 1.8 pt of atrazine 4L or simazine 4L.

#### **Pre-plant Surface-Applied:**

Follow instructions for use of Hamper Herbicide alone under APPLICATION PROCEDURES and under application instructions for Hamper Herbicide alone on corn.

Refer to **Table 3: Hamper Herbicide Use Rates – Corn (All Types)** for application rates of Hamper Herbicide and add atrazine 4L or simazine 4L OR atrazine 4L + simazine 4L combined as indicated on the tank mix product label(s) based on soil type.

#### **Pre-plant Incorporated or Pre-emergence:**

Follow instructions for use of Hamper Herbicide alone under APPLICAITON PROCEDURES.. Apply Hamper Herbicide + atrazine or simazine, or Hamper Herbicide + atrazine + simazine, using the appropriate rates.

#### **Use Restrictions:**

DO NOT exceed a total of 1.9 pts/A (1.9 lbs ai/A) of Hamper Herbicide in the pre-plant incorporated plus pre-emergence application on soils with less than 6% organic matter.

DO NOT Apply To Peat or Muck Soils (> 20% Organic Matter)

#### Shattercane and Wild Proso Millet - Partial Control

For a more consistent partial control of shattercane and wild proso millet, tankmix 1.0-1.3 pts/A Hamper Herbicide with labeled tank mix rates of atrazine or simazine preplant incorporated, followed by 1.0-1.3 pts/A Hamper Herbicide pre-emergence. Make the pre-emergence application during or after planting, but prior to weed and corn emergence.

When following one of the application regimes above, after the pre-emergence or post-emergence application a shallow cultivation may be necessary to help control any late emerging shattercane or wild proso millet plants.

When heavy infestations of crabgrass or fall panicum are anticipated, simazine is preferred over atrazine. On soils having between 6% and 20% organic matter, Hamper Herbicide may be used at rates up to 2.22 pts/A in tank mix combination with atrazine 90 or equivalent rates of atrazine 4L. Refer to the atrazine 90 label for weeds controlled at this reduced rate.

When heavy broadleaf weed infestations are anticipated and tank mixing Hamper Herbicide with atrazine 90 AND simazine 90, use equal rates of each. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of atrazine 90 to simazine 90 (Example: Total atrazine 90 + simazine 90 = 1.2 lbs/A, use 0.4 lbs/A of atrazine 90 + 0.8 lbs/A of simazine 90, respectively).

For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 1.3-1.6 pts/A of Hamper herbicide with labeled tank mix rates of atrazine 90, or equivalent rates of atrazine 4L, or the same total amount of atrazine + simazine.

### TANKMIX WITH ATRAZINE (Post-Emergence)

Tank mixtures of Hamper Herbicide with atrazine may be applied following use of any registered preplant surface-applied, pre-plant incorporated, or pre-emergence corn herbicide, including Hamper Herbicide + atrazine.

**Additional Weeds Controlled:** Barnyardgrass (watergrass), Crabgrass, Crowfootgrass, Fall Panicum, Foxtail (giant, green and yellow), Jimsonweed, Kochia, Lambsquarters, Mustard, Pigweed, Prickly Sida, Purslane, Ragweed, Smartweed, Velvetleaf

Additional Weeds Partially Controlled: Cocklebur, Morningglory, Yellow Nutsedge

#### **Use Restrictions:**

DO NOT exceed 3.7 pts/A of Hamper Herbicide, nor the maximum labeled atrazine rate during any one crop year. Refer to the atrazine label for geographic, soil-texture, and rotational restrictions.

#### **Application Instructions:**

Refer to **Table 3: Hamper Use Rates – Corn (All Types)** for application rates of Hamper Herbicide and add atrazine 4L or simazine 4L OR atrazine 4L + simazine 4L combined as indicated on the tank mix product label(s) based on soil type.

Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

**Lay-by:** DO NOT apply this post-emergence tank mixture in fluid fertilizer or severe crop injury may occur. Apply to corn less than 12 inches tall with applications to corn in over 5 inches directed to the

base of the corn plants and applications to corn plants less than 5 inches tall made over the top of the plants. Some corn leaf burn may result but is not likely to affect later growth or yield.

For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply 1.3-1.6 pts/A of Hamper Herbicide with the upper labeled tank mix rate specified for of atrazine 90, or equivalent rate of atrazine 4L.

#### **TANKMIX WITH Dicamba**

(Pre-emergence, Post-emergence)

#### **Additional Use Restrictions:**

DO NOT apply using aircraft.

DO NOT apply on coarse soils or on soils with less than 2.5% organic matter.

#### Pre-emergence:

In CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI, this use may ONLY be applied to flat-planted (no furrow) field corn.

In addition to the weeds controlled by this product when used alone, pre-emergence applications of this product with Dicamba will also control lambsquarters, ragweed, smartweed, cocklebur\*, jimsonweed\*, morningglory\*, and velvetleaf\*.

\* Partial control

Medium soils: apply 1.3 pts/A of Hamper Herbicide with labeled tank mix rate of Dicamba herbicide Fine soils: apply 1.3-1.6 pts/A of Hamper Herbicide with labeled tank mix rate of Dicamba herbicide

Broadcast apply tankmix to the soil surface at or after planting, but before the corn emerges. Plant corn at least 1.5 inches deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed covering device. DO NOT incorporate prior to corn emergence. DO NOT disturb the soil more than 1/2 inch deep if it is necessary to rotary hoe to break the soil crust.

#### Post-emergence for Control of Pigweed in Mid-Atlantic states (DE, MD, PA, VA and WV):

When pigweed plants are less than 3 inches tall and before corn exceeds 5 inches in height, apply 1.0-1.4 pts/A of Hamper Herbicide with the labeled tank mix rate of Dicamba in a minimum of 20 gal of spray per acre using ground equipment. Use the lower rates on coarse-textured and low organic matter soils, and the higher rate on fine-textured and high organic matter soils.

During application, care must be taken to avoid drift to sensitive non target plants such as soybeans or injury may occur.

### TANKMIX WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE WITH PARAQUAT OR GLYPHOSATE

(Minimum-Till, No-Till Systems)

This product alone or tank mixed with atrazine and/or simazine provides pre-emergence control of the weeds listed on this label. In Minimum-Tillage and No-Tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, tankmix with a paraquat herbicide for control of most emerged annual weeds and suppression of perennial weeds; or with glyphosate for control of most emerged annual and perennial weeds.

**Application:** Apply a tank mix with paraquat or glyphosate as directed on the product label before, during, or after planting, but prior to corn emergence.

**Paraquat brands**: Apply as directed on the product label. This treatment will NOT control weeds taller than 6 inches. DO NOT apply combinations containing paraquat brands in suspension-type liquid fertilizers because the activity of the active ingredient (paraquat) is reduced.

**Glyphosate brands**: Refer to the glyphosate brand label for a list of controlled weeds, application rates for specific weeds, and other information related to the use of this product.

Apply with ground equipment using 20-60 gal of water or fluid fertilizer per acre.

Refer to **Table 3: Hamper Use Rates – Corn (All Types)** for application rates of Hamper Herbicide and add atrazine 4L, simazine 4L OR atrazine 4L + simazine 4L with paraquat combined as indicated on the tank mix product labels based on soil type.

When heavy infestations of crabgrass or fall panicum are anticipated, simazine is preferred over atrazine.

When heavy broadleaf weed infestations are anticipated and tank mixing this product with atrazine 90 AND simazine 90, use equal rates of each. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of atrazine to simazine instead of the 1:1 ratio. (Example: Total atrazine 90 + simazine 90 = 1.2 pounds per acre, use 0.4 pounds of atrazine + 0.8 pounds of simazine, respectively).

For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply the labeled rate of Hamper Herbicide with the labeled rate of atrazine 90 or equivalent rates of atrazine 4L, or the same total amount of atrazine + simazine.

### TANKMIX WITH ATRAZINE + 2,4-D; OR ATRAZINE + 2,4-D + Dicamba (Minimum-Till; No-Till Systems)

Apply Hamper Herbicide with atrazine before, during or after planning but prior to corn emergence according to the rates in this label. If heavy crop residues are present at the time of application, add the labeled tank mix rate of a 2,4-D amine product labeled for this use on corn that consists of 3.8 pounds of 2,4-D amine per gallon to the tank mix. Hamper Herbicide should be added last, and the resulting solution applied in a minimum of 25 gallons of carrier per acre.

Because burndown of existing weeds is enhanced if nitrogen solutions and complete liquid fertilizers are applied prior to corn emergence, use nitrogen solutions or complete liquid fertilizers as carriers instead of water for best results. Add X-77 surfactant at 1.0-2.0 quarts per 100 gallons of diluted spray, or another appropriate surfactant at its labeled rate, or add crop oil concentrate (COC) plus 28% liquid nitrogen (or the equivalent). Applications should be made prior to weeds reaching 3 inches in height. If alfalfa is present, add the labeled tank mix rate of Dicamba to the tank mix and apply prior to the alfalfa reaching 6 inches in height.

When existing weeds are more than 3 inches tall or when very dry conditions exist in fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), in place of or in addition to 2,4-D as indicated above, add paraquat brands at the rate recommended on the product label. DO NOT apply paraquat brands in suspension-type liquid fertilizer. The most restrictive combination of instructions, limitations and other restrictions from all the products being applied must be followed.

### TANKMIX WITH DICAMBA + ATRAZINE (MARKSMAN) IN FIELD AND SILAGE CORN (Conservation Tillage)

Hamper Herbicide mixed with Dicamba + Atrazine herbicide will kill most emerged small annual weeds in conservation tillage systems where corn is planted directly into a cover crop or previous crop residue. Apply on medium and fine soils with greater than 2.5% organic matter before, during, or after planting, but prior to corn emergence. Add paraquat brands at its standard rate in fields that have existing vegetation taller than 3 inches in height or when very dry conditions exist. Hamper Herbicide mixed with Dicamba + Atrazine may be applied post-emergence to corn less than 3 inches tall but prior to weedy grasses passing the 2-leaf stage.

Because burndown of existing weeds is enhanced if nitrogen solutions and complete liquid fertilizers are applied prior to corn emergence, use nitrogen solutions or complete liquid fertilizers as carriers instead of water for best results. DO NOT apply paraquat brands in suspension-type liquid fertilizer or to emerged corn. The most restrictive combination of instructions, limitations and other restrictions from all the products being applied must be followed.

#### TANKMIX WITH ISOXAFLUTOLE (e.g., BALANCE PRO) (Field Corn Only)

Because this product is complementary with Balance PRO herbicide from a weed control and crop response standpoint, several tank mix rates may be considered. By adding Balance PRO, control of several problem weeds including Texas Panicum, Wild Proso Millet and Wooly Cupgrass will be improved, while this product will improve the duration as well as the variety of annual grasses and small seeded broadleaf weeds that are controlled.

NOTE: To minimize risk to crops, refer to the Isoxaflutole label for specific restrictions regarding soil textures, pH, percent organic matter and other important considerations.

The rates listed are inversely proportional combinations of Hamper Herbicide and Balance PRO, that is higher rates of Hamper Herbicide are used with lower rates of Balance PRO, and vice versa. The appropriate rate is selected based on your specific conditions, the weeds being targeted and your level of acceptance for potential crop damage.

For example, if Texas panicum, woolly cupgrass, or wild proso millet are a primary target weed, a tank mix combination with a higher Balance PRO rate for the given soil type could be used. Another example could be if your acceptance of potential crop damage is low and/or a more general weed spectrum is targeted (especially yellow foxtail, witchgrass or yellow nutsedge), a mix with a higher Hamper Herbicide rate for the given soil type might be appropriate. Finally, if a target weed is listed as controlled on both product labels, a tank mix consisting of intermediate rates of both products could be used. NOTE: If a target weed is listed as controlled by only one of these two products, DO NOT apply less than the application rate for that weed as recommended in the individual product label or unacceptable control may result. The most restrictive combination of instructions, limitations and other restrictions from all the products being applied must be followed.

The following rate recommendations are for pre-plant applications (incorporated or surface applied) up to 7 days before planting or pre-emergence in field corn:

Refer to **Table 3: Hamper Use Rates – Corn (All Types)** for application rates of Hamper Herbicide and add Balance Pro (264-600) as indicated on the product label based on soil type.

#### POST-EMERGENCE SALVAGE WEED CONTROL (Field Corn Only)

The tank mix combinations listed below may be used for post-emergence weed control in specific types of field corn.

#### **Use Restrictions:**

The most restrictive combination of instructions, limitations and other restrictions from all the products being applied must be followed.

Injury to the corn may occur if fluid fertilizers are used with these mixtures.

Apply ONLY to the specific field corn type specified on the tank mix product label.

If applied to corn over 4 inches tall, in-row weed control may be diminished.

### Hamper Herbicide + Glufosinate (Post-emergence Use in Glufosinate Tolerant Corn (e.g. LibertyLink® Corn))

Glufosinate herbicide will provide post-emergence control of a broad spectrum of grass and broadleaf weeds, and Hamper Herbicide provides residual control of grasses and certain broadleaf weeds. These tank mixtures can be applied to control weeds post-emergence in corn designated as glufosinate tolerant.

For season-long residual control from this tank mix combination with Glufosinate, refer to the **CORN** (ALL TYPES) – HAMPER HERBICIDE ALONE section and use the minimum rate per soil texture and organic matter classification. Refer to the Autonomy herbicide, Interline herbicide or Liberty herbicide labels for post-emergence application rates according to weed species and their maximum height at the time of application. If multiple weed species are present, use the highest rates listed in the Glufosinate product label to control the species and growth stages present. If difficult species and/or severe weed populations are anticipated, use the maximum rates when rate ranges are listed.

Be sure to follow all applicable use directions, limitations, precautions, and restrictions regarding application to corn on the Hamper Herbicide and Glufosinate product labels.

### Hamper Herbicide + Glyphosate Brands for Post-emergence Application to Glyphosate-Tolerant Corn (e.g., Roundup Ready® or Agrisure™ GT)

This product may be tank mixed with glyphosate brands and applied post-emergence to weeds in glyphosate-tolerant corn to provide post-emergence control of weed species on the glyphosate brand label and residual control of weed species on the Hamper Herbicide label. Post-emergence applications may be made to glyphosate-tolerant corn from emergence until the corn is 30 inches tall, or the V8 stage (8 leaves with collars), whichever comes first.

Based on the soil texture and organic matter present in the field being treated, use the minimum Hamper Herbicide rates listed in the **CORN (ALL TYPES) – HAMPER HERBICIDE ALONE** section of this label. If difficult species and/or severe weed populations are anticipated, use the maximum rates when rate ranges are listed. Refer to the glyphosate brand label for guidance on appropriate use directions, application procedures, precautions, and restrictions as well as specific instructions for control of problem species.

Be sure to follow all applicable use directions, limitations, precautions, and restrictions regarding application to corn on the Hamper Herbicide and glyphosate brand labels, as well as the Supplemental Labeling of glyphosate for post-emergence application to corn with a glyphosate tolerant gene.

### Hamper Herbicide + Glyphosate + Atrazine for Post-emergence Application to Glyphosate-Tolerant Corn (e.g., Roundup Ready or Agrisure GT)

This product may be tank mixed with atrazine and glyphosate brands and applied post-emergence to weeds and to glyphosate-tolerant corn to provide post-emergence control of weed species on the glyphosate brand label and residual control of weed species on the Hamper Herbicide and atrazine labels. Post-emergence applications may be made to glyphosate-tolerant corn from emergence until the corn is 12 inches tall. If difficult species and/or severe weed populations are anticipated, use the maximum rates when rate ranges are listed. Based on the soil texture and organic matter present in the field being treated, use the minimum Hamper Herbicide rates listed in the With Atrazine and/or Simazine (Pre-Plant Surface, Pre-Plant Incorporated, Pre-Emergence) and With Atrazine (Post-Emergence) sections of this label.

Be sure to follow all applicable use directions, limitations, precautions, and restrictions regarding application to corn on the Hamper Herbicide, atrazine and glyphosate brand labels.

#### **COTTON – HAMPER HERBICIDE ALONE**

**Application Methods:** Fall Application, Pre-plant Incorporated, Pre-emergence, Post-emergence **Use Restrictions:** 

- DO NOT graze or feed forage or fodder to livestock from cotton.
- DO NOT use this product in Gaines County, TX.
- DO NOT apply more than 1.9 pts/A (1.9 lb. a.i./A) on coarse soils in a year.
- DO NOT apply more than 2.48 pts/A (2.48 lb. a.i./A) on medium or fine soils in a year.
- DO NOT apply this product to sandy or loamy sand soils.
- DO NOT apply this product to Taloka silt loam.
- DO NOT apply this product where water may pond over the application site.

In furrow planted cotton, DO NOT apply post-emergent until after first "knifing" or cultivation to level soil surface

DO NOT apply this product over-the-top with fluid fertilizer or any other adjuvant, oil, surfactant or pesticide not listed in the Cotton section of this label.

Table 4: Hamper Herbicide Pre-plant Incorporated, Pre-emergence Use Rates - Cotton

	Use Rates		
Application Site	Sandy Loams	Medium Soils	Fine Soils
AR, KS, LA, MS, TN and Bootheel of MO	0.5 – 1.0 pts/A	0.6 – 1.3 pts/A	1.0 – 1.3 pts/A
NM, OK, TX	1.0 pt/A	1.0 – 1.3 pts/A	1.3 pts/A

#### Fall Application for Italian Ryegrass Control:

DO NOT apply this product to frozen ground.

For residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*) apply Hamper Herbicide in the fall (between September 1 and December 1) at a rate of 1.3 – 1.6 pts/A. The higher rates should be used on fine textured soils and the lower rates on coarse textured soils.

Tillage may be performed prior to application. If planning to till after application, incorporate to a maximum depth of 2-3 inches. If an application is planned for the following spring in addition to the fall application, the total amount of Al applied in both applications must not exceed the maximum total amount listed in the instruction for the specific crop (depending on soil texture, up to 2.5 pts/A).

A tankmix of Hamper Herbicide with paraquat can be used for fall treatments made after emergence of glyphosate-resistant Italian ryegrass. Refer to the paraquat brand label for specific rates, application instructions and restrictions. Other registered herbicides may be tank mixed with Hamper Herbicide for control or improved control of other weeds present at the time of application.

#### Pre-plant Incorporated (NM, OK, and TX ONLY):

Immediately before planting, at planting, or after planting, but prior to crop or weeds emergence, apply Hamper Herbicide and incorporate into the top inch of soil using a rolling cultivator or similar equipment being sure to have uniform incorporation. If furrow irrigation is used or dry weather is predicted after application, a pre-plant incorporated application should be made. For best results when furrow irrigation is used, the top of the bed should be moistened prior to application.

If the crop will be planted on beds, application / incorporation should be done after the beds have been formed. Be sure to plant the cotton below the zone of incorporation; that is, at least at least 1 inch deep on *fine soils* and 1.5 inches deep on *coarse* and *medium soils*.

When incorporating prior to planting, use a planter that will disturb the soil the least amount possible.

For best results on yellow nutsedge and suppression of seedling johnsongrass, whether applied alone or mixed with Prometryn (Caparol 4L) make a pre-plant incorporated application of this product at the maximum rate for the soil texture.

#### Pre-emergence:

Either apply this product prior to weed emergence at planting, or prior to weed and crop emergence after planting.

#### Post-emergence:

Apply this product at the following rates as either a broadcast over-the-top or soil surface directed application:

**VA, NC, SC, GA, FL and AL:** 1.0-1.3 pts/A. **TN, AR, KS, MS, MO and LA:** 0.5-1.3 pts/A.

TX, OK, NM, AZ, CA and Clay Soils in AR: 1.0-1.3 pts/A before August 1.

Post-emergence over-the-top applications may NOT be made within 100 days of harvest, and soil directed post-emergence applications may NOT be made within 80 days of harvest.

This product may be applied post-emergence over any previous registered herbicide treatment. Because this product does not control emerged weeds, application must be made prior to weed emergence or after clean cultivation to remove existing weeds.

To better incorporate this product in fields that are sprinkler-irrigated, after application apply 1/2-1 inch of water (1/2 inch on coarse-textured soils to 1 inch on fine-textured soils). In fields that are furrow-

irrigated, incorporate the application with a rolling cultivator or similar equipment that provides uniform shallow incorporation to a depth of 2 inches or less and then irrigate. In non-irrigated fields, if a minimum of 1/2 inch of precipitation does not occur within 10 days after application, the application should be incorporated using a rolling cultivator or similar equipment that provides uniform shallow incorporation.

#### **Multiple Applications in COTTON:**

**Application Methods:** Pre-plant Incorporated, Pre-emergence followed by a Post-emergent treatment Used as part of a weed control program, multiple applications of Hamper Herbicide can be effective when weed pressure is heavy, difficult to control species are expected, and/or reinfestation may occur. Apply prior to weed emergence or after cultivation to remove existing weeds.

Table 5: Hamper Herbicide Post-emergent Use Rates – Cotton

Geography	Use Rates
AR, KS, LA, MO, MS, TN	0.5 – 1.3 pts/A pre-emergent only followed by 0.5-1.3 pts/A post-emergent
NM, OK, TX	1.0 -1.3 pts/A pre-plant incorporated or pre-emergent followed by 1.0 – 1.3 pts/A post-emergent before August 1
NC, VA	1.0 -1.3 pts/A pre-plant incorporated or pre-emergent followed by 1.0-1.3 pts/A post-emergent

To better incorporate this product in fields that are sprinkler-irrigated, after application apply 1/2-1 inch of water (1/2 inch on coarse-textured soils to 1 inch on fine-textured soils). In fields that are furrow-irrigated, incorporate the application with a rolling cultivator or similar equipment that provides uniform shallow incorporation to a depth of 2 inches or less and then irrigate. In non-irrigated fields, if a minimum of 1/2 inch of precipitation does not occur within 10 days after application, the application should be incorporated using a rolling cultivator or similar equipment that provides uniform shallow incorporation.

Precautions: Do not make broadcast applications of this product to cotton planted in furrows more than 2 inches deep to avoid possible crop damage due to concentration of this product in the seed furrow. For the same reason, the width of a band application to furrows more than 2 inches deep must not exceed the width of the bottom of the furrow.

Whether alone or in combination with other products, for best results on yellow nutsedge and suppression of seedling johnsongrass, make a pre-plant incorporated, pre-emergence or post-emergence application of this product at the maximum rate for the soil texture.

#### **COTTON - HAMPER HERBICIDE COMBINATIONS**

#### TANK MIXTURE WITH PROMETRYN (e.g., Caparol)

Application Methods: Pre-plant Incorporated, Pre-emergent, Post-emergence Directed

In addition to the weeds controlled by Hamper Herbicide alone, this tank mix combination applied preplant incorporated or pre-emergence will also control the following weeds:

Cocklebur\* Lambsquarters Purslane
Coffeeweed\* Malva Ragweed
Groundcherry Morningglory (annual) Wild Oats

Hairy Nightshade Mustard

Junglerice Prickly Sida (Teaweed)

In a post-emergence directed application, Prometryn provides control and residual control of weeds on its label, while Hamper Herbicide provides residual control of the weeds listed in this label.

<sup>\*</sup> Shallow-germinating seedlings only

#### **Use Restrictions**

The total Hamper Herbicide rate applied on cotton during any one crop year must not exceed 2.48 lb. a.i./A (2.48 pts/A).

DO NOT graze or feed forage or fodder to livestock from cotton.

DO NOT use this mix in Gaines County, TX.

DO NOT apply this mix to sandy or loamy sand soils.

DO NOT apply this mix to Taloka silt loam.

DO NOT apply this mix where water may pond over the application site.

DO NOT apply this mix to areas with excess salt or to cut areas of newly leveled fields.

DO NOT apply to glandless cotton varieties

#### Pre-plant Incorporated or Pre-emergence:

Apply this product mixed with Prometryn as either a pre-plant incorporated or pre-emergence treatment in a water or fluid fertilizer carrier, using the labeled rates as appropriate for your location and soil type. If using fluid fertilizer as the carrier, mix only the amount needed for the single application and do not allow these mixtures to sit without agitation.

The cotton should be planted beneath the zone of incorporation, at least 1 inch deep on fine soils and 1.5 inches deep on medium or coarse. If incorporated prior to planting, a planter that will cause minimal soil disturbance should be used.

#### Post-emergence Directed (AR, AZ, CA, LA, MO, MS, NM, OK, TN and TX):

To control emerged weeds and provide residual pre-emergence control of weeds in cotton, this product may be tank mixed with Prometryn (Caparol) in water ONLY and applied as a post-emergence directed treatment in a minimum of 20 gallons of spray volume per acre. These treatments may be applied over previous registered treatments, including Hamper Herbicide, provided the maximum label rate of any product is not exceeded. DO NOT make these treatments over-the-top of cotton or injury to the crop may result.

Follow the directions, restrictions, and precautions on the Prometryn (Caparol) label when Prometryn (Caparol) is applied as a post-emergence-directed application. Refer to the directions, restrictions, and precautions for use of Hamper Herbicide under the **Cotton / Hamper Herbicide Alone / Post-emergence** section earlier in this label.

To avoid concentration in the furrow and potential crop injury, do not make a post-emergence application of this product until after knifing or cultivation to level soil surface. Do not make broadcast applications of this product to cotton planted in furrows more than 2 inches deep to avoid possible crop damage due to concentration of this product in the seed furrow. For the same reason, the width of a band application to furrows more than 2 inches deep must not exceed the width of the bottom of the furrow.

#### TANK MIXTURE WITH FLUOMETURON (e.g. COTORAN)

#### Application Methods: Pre-emergence, Post-emergent

In addition to the weeds controlled by Hamper Herbicide and Fluometuron alone, this tank mix combination applied pre-emergence will also control the following weeds:

Spurge (spotted, hyssop, nodding, prostrate),

Refer to the Fluometuron label and be sure to follow the most restrictive combination of instructions, precautions, and restrictions found in both labels.

#### **Use Restrictions**

DO NOT graze or feed forage or fodder to livestock from cotton.

DO NOT use this mix in Gaines County, TX.

DO NOT apply this mix to sandy or loamy sand soils.

DO NOT apply this mix to Taloka silt loam.

DO NOT apply this mix where water may pond over the application site.

DO NOT make broadcast applications of this tankmix to cotton planted in furrows deeper than 2 inches.

DO NOT make band applications that exceed the width of the bottom of the furrow.

Using Fluometuron after using a systemic insecticide at planting may cause crop injury.

#### **Application Instructions**

Apply this product mixed with Fluometuron as a directed, semi-directed or over-the-top treatment either post-emergence to cotton but pre-emergence to weeds for control of the weeds listed in both labels, or post-emergence to weeds for control of the weeds in the Fluometuron label, using the labeled rates appropriate for your location and soil type:

#### **Special Mixing Instructions:**

- 1) Fill the spray tank 1/4 full with water or fluid fertilizer and begin agitating.
- 2) Add the Fluometuron and agitate until fully dispersed.
- 3) Add X-77<sup>®</sup> at a rate of 4 pints per 100 gallons of mixture.
- 4) Add Hamper Herbicide.
- 5) Add the rest of the water and maintain agitation through spraying.

#### Post-emergence:

Apply this product mixed with Fluometuron as a directed, semi-directed or over-the-top treatment either post-emergence to cotton but pre-emergence to weeds for control of the weeds listed in both labels, and post-emergence to weeds for control of the weeds in the Fluometuron label. This product will not control emerged weeds, but will provide pre-emergence control of the species in this label. Where rate ranges are given for Fluometuron , use the higher rate when applying post-emergence to weeds that are 2 inches or less. These treatments may be applied over previous registered treatments as long as the maximum label rate of any product is not exceeded.

Do not make broadcast applications of this product to cotton planted in furrows more than 2 inches deep to avoid possible crop damage due to concentration of this product in the seed furrow. For the same reason, the width of a band application to furrows more than 2 inches deep must not exceed the width of the bottom of the furrow.

# TANK MIXTURE WITH FLUOMETURON (e.g., Cotoran), PARAQUAT AND/OR GLYPHOSATE (Minimum-Till; No-Till Systems)

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, tankmix Hamper Herbicide with Fluometuron and a contact burndown such as paraquat or glyphosate to control most emerged weeds and suppress many perennial weeds.

#### **Use Restrictions**

DO NOT use this mix in Gaines County, TX.

DO NOT apply this mix to sandy or loamy sand soils.

DO NOT apply this mix where water may pond over the application site.

Crop injury may result if heavy rain occurs shortly after application, especially in poorly drained areas where water stands for several days or where the seeding slit has not been properly closed.

Refer to the Fluometuron label for additional use restrictions and precautions.

#### Instructions

Refer to **Mixing Instructions** under **Tank Mixture with Fluometuron (e.g., Cotoran)** section as well as the respective tank mix labels and be sure to follow the most restrictive combination of instructions, precautions and restrictions from all tank mix partners.

**Paraquat Brands**: Apply as directed on the product label. NOTE: This treatment will NOT control weeds taller than 6 inches. DO NOT apply combinations containing paraquat brands in suspension-type liquid fertilizers because the activity of the active ingredient (paraquat) is reduced.

Glyphosate Brands: Due to compatibility problems, DO NOT apply Hamper Herbicide + Fluometuron + glyphosate in tank mixture.

#### **Application:**

Apply a tank mix with paraquat or glyphosate brands as directed on the product label before, during, or after planting, but prior to cotton emergence. Apply Hamper Herbicide at a rate of at 0.8-1.0 pts/A on sandy loams, medium, and fine-textured soils. Refer to the TANK MIXTURE WITH Fluometuron section above for application rates for this product with Fluometuron.

Apply with ground equipment using 20-60 gal of water or fluid fertilizer per acre.

If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.

## TANK MIXTURE WITH MSMA, MSMA + PROMETRYN (e.g., Caparol), or MSMA + FLUOMETURON (e.g., Cotoran)

Do NOT use this product in tank mixes with premixes of MSMA plus herbicides other than those registered for use in tank mixture with Hamper Herbicide on cotton.

This product may be combined with MSMA and applied as a post-emergence directed treatment to control weeds listed in the MSMA product label as well as residual control of pre-emergent weeds listed in this label. Adding Prometryn or Fluometuron will also control the weeds listed in the respective labels.

## Post-emergence-Directed (AL, AR, AZ, CA, FL, GA, LA, MS, NC, NM, OK, SC, TN, TX, VA, and Bootheel of MO):

Apply this product tank mixed with MSMA as a post-emergence directed treatment to cotton that is at least 3 inches tall. Do NOT apply after first cotton bloom. Treatments may be made over previous treatments provided the maximum label rate of any product is not exceeded. If mixed with Prometryn or Fluometuron, follow the mixing instructions for Hamper Herbicide + Prometryn or Fluometuron in this label and then add the MSMA.

## TANK MIXTURE WITH TRIFLURALIN (e.g. TREFLAN) FOR POST-DIRECTED FOLLOWED BY SOIL INCORPORATION APPLICATIONS

For improved late-season weed control, this product may be applied tank mixed with Trifluralin as an incorporated lay-by treatment. Prior to making this application, the cotton must be at least 3 inches tall and have reached the 4 true-leaf stage. Aim the directed application to the soil surface and away from the crop foliage followed by a shallow (2 inches or less), uniform incorporation using a sweep or rolling type cultivator. Be sure to follow the most restrictive combination of instructions, restrictions and precautions found in each of the tank mix product labels.

## TANK MIXTURE WITH GLYPHOSATE FOR USE ON GLYPHOSATE TOLERANT (e.g. Roundup Ready) COTTON ONLY

#### **Use Restrictions**

DO NOT use this mix in Sand or Loamy Sand soils in Gaines County, TX.

DO NOT apply this tank mixture post-emergence to any variety of cotton unless it is designated Roundup Ready or glyphosate tolerant and unless the glyphosate formulation being used is registered for post-emergence use in glyphosate tolerant cotton.

DO NOT apply glyphosate post-emergence over-the-top to cotton past the growth stage limit specified on their respective labels.

If this tank mix will be applied post-emergence over-the-top, DO NOT add additional spray adjuvants, surfactants, fertilizer additives, or pesticides to this tank mixture or unacceptable injury may result.

#### Instructions

This product may be tank mixed in water with glyphosate and applied as a post-emergence over-thetop or post-emergence directed treatment to control emerged weeds listed on the glyphosate labels while providing residual pre-emergence control of weeds listed in this label. Refer to the **Cotton** / **Hamper Herbicide Alone** / **Post-emergence** section of this label for rates and timings of this product and refer to the glyphosate label for their respective rates, application method, and application timing restrictions. Be sure to follow the most restrictive combination of instructions, restrictions and precautions found in each of the tank mix product labels.

NOTE: Post-emergence over-the-top applications of this tank mixture may cause necrotic spotting on cotton leaves that are exposed to the treatment. This will not affect normal plant development.

## TANK MIXTURE WITH GLUFOSINATE FOR USE ON GLUFOSINATE TOLERANT (e.g. Liberty Link) COTTON ONLY

#### **Use Restrictions**

DO NOT use this mix in Sand or Loamy Sand soils in Gaines County, TX.

DO NOT apply this tank mixture post-emergence to any variety of cotton unless it is designated LibertyLink or glufosinate tolerant and unless the glufosinate formulation being used is registered for post-emergence use in glufosinate tolerant cotton.

DO NOT apply glufosinate post-emergence over-the-top to cotton past the growth stage limit specified on their respective labels.

If this tank mix will be applied post-emergence over-the-top, DO NOT add additional spray adjuvants, surfactants, fertilizer additives, or pesticides to this tank mixture or unacceptable injury may result.

#### Instructions

This product may be tank mixed in water with a glufosinate product and applied as a post-emergence over-the-top or post-emergence directed treatment to control emerged weeds listed on the glufosinate product label while providing residual pre-emergence control of weeds listed in this label. Refer to the **Cotton / Hamper Herbicide Alone / Post-emergence** section of this label for rates and timings of this product and refer to the glufosinate product label for their respective rates, application method, and application timing restrictions. Be sure to follow the most restrictive combination of instructions, restrictions and precautions found in each of the tank mix product labels.

NOTE: Post-emergence over-the-top applications of this tank mixture may cause necrotic spotting on cotton leaves that are exposed to the treatment. This will not affect normal plant development.

## SOYBEAN, IMMATURE SEED

Application Methods: Pre-plant surface applied; Pre-plant incorporated; Pre-emergent

This product may be used to control or suppress grass and small-seeded broadleaf weeds in immature-seed soybean or other food-grade soybeans. This product will not control emerged weeds.

### **Use Restrictions**

DO NOT apply more than 2 lb. a.i./A (2 pts/A) of Hamper Herbicide in a single crop per year.

DO NOT use for forage within 60 days of application.

DO NOT cut for hay within 120 days of application.

## **Application Rates:**

Coarse Soils less than 3% Organic Matter: 1.0-1.3 pts/A

Coarse Soils greater than, equal to 3% Organic Matter: 1.3 pts/A

Medium Soils less than 3% Organic Matter: 1.3-1.6 pts/A

Medium Soils greater than, equal to 3% Organic Matter: 1.3-1.6 pts/A

Fine Soils less than 3% Organic Matter: 1.3-1.6 pts/A

Fine Soils greater than, equal to 3% Organic Matter: 1.6-1.9 pts/A

#### Pre-plant Surface-Applied:

For soybean grown in minimum- or no-tillage systems, this product may be applied alone up to 45 days prior to planting. For applications made 30-45 days prior to planting, make only split applications using 2/3 the listed broadcast rate in the initial application and the remaining 1/3 when planting. Treatments made less than 30 days prior to planting may be applied as either a single or split application.

Tank mixing this product with a contact herbicide such as glufosinate brands, paraquat or glyphosate brands is recommended if weeds are already present when making the application. The most restrictive

combination of instructions, precautions and restrictions must be followed from all of the tank mix partners when tank mixing multiple products.

For best results, when planting the soil that has been treated must not be moved out of the rows and untreated soil must not be moved into the rows.

### **Pre-plant Incorporated:**

When furrow irrigation is being used or dry weather is expected after the treatment, within 14 days of planting apply this product and incorporate into the top 2 inches of soil using equipment that will provide uniform incorporation such as a harrow, rolling cultivator or finishing disk. If crops are planted in beds, the application should be made after the beds have been formed.

### Pre-emergence:

Either apply this product prior to weed emergence at planting, or prior to weed and crop emergence after planting.

## **GRASSES GROWN FOR SEED (ID, OR, WA)**

## Application Methods: Pre-emergence

Hamper Herbicide provides pre-emergence control and/or suppression of volunteer seedlings of perennial ryegrass, fine fescue spp., tall fescue, orchardgrass, bentgrass and Kentucky bluegrass in addition to the weed species listed in the **Hamper Herbicide Alone** section at the beginning of this label, and will suppress or control rattail fescue, annual bluegrass, Italian ryegrass, California brome, downy brome, and roughstalk bluegrass. Hay may be harvested anytime between seed harvest and the next application of Hamper Herbicide or another product containing S-metolachlor.

### **Use Restrictions**

DO NOT apply this product more than once per crop year.

#### DO NOT apply more than 1.27 lb. a.i./A (1.27 pts./A) per year.

West of the Cascades, within 60 days after application DO NOT graze forage regrowth.

East of the Cascades, within 150 days after application DO NOT graze forage regrowth.

#### **Application Instructions**

This product may be applied prior to target weed/grass emergence to established tall fescue, orchardgrass, perennial ryegrass, fine fescue, bentgrass, and Kentucky bluegrass grown for seed that has been established at least one year, or that has had at least one seed harvest. Application should be made just before or during a late summer or early fall irrigation or just before, during, or immediately following the first fall rains.

Prior to application, the post-harvest residue should be evenly spread, removed from the field or burned. For best results, irrigation or precipitation after application but prior to weed emergence is recommended. Control may be diminished if excessive straw from the previous harvest is present at application and/or insufficient rainfall/irrigation occurs.

Apply this product at the rates listed below in a minimum of 10 gallons of water per acre using ground equipment:

Fine Fescue spp. and Perennial Ryegrass: 1.0 pts/A

Bentgrass, Kentucky Bluegrass, Orchardgrass and Tall Fescue: 1.0-1.27 pts/A

## NOTES:

Application after the 15th of November may result in poor control.

Adding an adjuvant or tank mixing with other pesticides may increase the likelihood of crop injury.

Applications made to perennial ryegrass and fine fescue stands experiencing stress may cause crop injury.

## **HORSERADISH**

Horseradish should be harvested at normal timing. This product does not control emerged weeds, and they must be controlled using mechanical means or using a foliar herbicide registered for use on horseradish.

#### **Use Restrictions**

DO NOT apply this product more than once per crop year.

DO NOT apply more than 1.27 pts/A (1.27 lb. a.i./A) per year.

## **Application Instructions**

After planting but before weeds or crop emerge, make a single 1.0-1.27 pts/A application of this product to the soil surface. Use higher rates on fine-textured soils and lower rates on soils relatively coarse-textured.

If a band application is used, proportionally less spray mixture must be applied to the treated area.

## PEANUTS - HAMPER HERBICIDE ALONE

Application Methods: Pre-plant Incorporated, Post-plant Incorporated, Pre-emergence, Lay-By

When used according to their label use rates, directions, and restrictions, this product may be applied as directed after any of the following pre-plant incorporated herbicides: Benfluralin (e.g., Balan); Trifluralin (e.g., Treflan); Ethalfluralin (e.g., Sonalan); Imazethapyr (e.g., Pursuit, ); or Pendimethalin (e.g., Prowl).

#### **Use Restrictions**

DO NO apply more than 1.91 lb. a.i./A (1.91 pts./A) per year.

DO NOT graze or feed peanut forage or fodder to livestock within 30 days of application.

DO NOT apply within 90 days of harvest.

### Pre-plant Incorporated or Pre-emergence:

Follow instructions for use of Hamper Herbicide Alone under APPLICATION PROCCEDURES.

#### Post-plant Incorporated:

Apply and shallowly incorporate this product into the soil after planting, but prior to peanut germination. Seed will be damaged if the incorporation depth and incorporating equipment reaches the seed level.

#### Lay-by:

Apply Hamper Herbicide to the soil immediately after the last normal cultivation.

## **Application Rates:**

NM, OK, and TX: 0.8-1.3 ptsA Southeast\*: 1.0-1.3 pts/A

(\*Use 1.3-1.9 pts/A for partial control of Florida Beggarweed)

## PEANUTS - HAMPER HERBICIDE COMBINATIONS

## TANK MIXTURE WITH BENFLURALIN (e.g., Balan)

Application Methods: Pre-plant incorporated, Pre-emergence before ground cracking, Lay-by

Apply 1.0-1.3 pts/A Hamper Herbicide and the labeled use rate of Benfluralin in a minimum of 10 gallons of spray volume per acre for ground application or a minimum of 5.0 gallons of spray volume per acre for aerial application. Be sure to follow the most restrictive combination of instructions, precautions and restrictions from each label. Apply and incorporate this tankmix up to 14 days prior to planting.

#### **Use Restrictions**

DO NOT apply more than 1.91 pounds of S-metolachlor (the active ingredient in this product) per acre in a single year.

DO NOT use Hamper Herbicide after peanuts have emerged.

DO NOT feed or graze peanut forage or fodder to livestock within 30 days of application.

DO NOT apply within 90 days of harvest.

### Southeast Only (AL, FL, GA, NC, SC, VA)

### **Pre-plant Incorporated**

Make a pre-plant incorporated application of this product as directed under **Peanuts** / **Hamper Herbicide Alone** or make a pre-plant incorporated application of this product + Benfluralin as directed previously in this section. Refer to the respective sections for a list of weeds controlled.

OR

## Pre-emergence Before "Ground Cracking"

For extended weed control when weeds have not yet emerged, apply 1.0-1.9 pts/A anytime from preemergence until "ground cracking". Refer to the **Hamper Herbicide Applied Alone** section of this label for a list of weeds controlled.

## Follow the Pre-plant Incorporated or Pre-emergence application by:

#### Lay-by

Only when late germinating weeds are anticipated, apply this product at lay-by as directed in the **Peanuts – Hamper Herbicide Alone** section. Refer to the **Hamper Herbicide Applied Alone** section for a list of weeds controlled.

## Southwest Only (NM, OK, TX)

#### **First Application**

Make a pre-plant incorporated or pre-emergence before "ground cracking" application of this product as instructed previously in this section. Refer to the respective section for a list of weeds controlled.

#### **Second Application**

Only when late germinating weeds are anticipated, apply this product at lay-by as directed in the **Peanuts – Hamper Herbicide Alone** section. Refer to the **Hamper Herbicide Applied Alone** section for a list of weeds controlled.

### TANK MIXTURE OR SEQUENTIALLY WITH IMAZETHAPYR (e.g., Pursuit, 241-310)

Tank mixing with, or following an application of, Imazethapyr with this product will control all weeds listed as controlled in the labels for both products. Refer to the **Hamper Herbicide Applied Alone** section for weeds controlled by Hamper Herbicide and to the Imazethapyr label for weeds controlled by Imazethapyr.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of either product.

#### TANK MIXTURE WITH ETHALFLURALIN (e.g., Sonalan)

Tank mixing Ethalfluralin with this product will control all weeds listed as controlled in the labels for both products. Refer to the **Hamper Herbicide Applied Alone** section for weeds controlled by Hamper Herbicide and to the Ethalfluralin label for weeds controlled by Ethalfluralin.

Make a pre-plant incorporated application of Hamper Herbicide tank mixed with Ethalfluralin using the appropriate use rates listed on the product label. Be sure to follow the instructions for soil preparation listed in the Ethalfluralin label.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of either product.

## TANK MIXTURE WITH PENDIMETHALIN (e.g., Prowl, 241-337, 241-418)

A tank mix of this product with Pendimethalin or will control all weeds listed in this label as well as Texas Panicum, field sandbur, johnsongrass (from seed), lambsquarters, kochia, annual spurge and other weeds listed in the Pendimethalin label.

Apply by ground or air within 14 days of planting as a pre-plant incorporated treatment using the appropriate rates listed in the table below. Within 7 days of application incorporate the top 1-2 inches of soil with equipment that provides uniform incorporation like a finishing disk. If the peanuts are to be planted in beds, the application and incorporation should be made after the beds are formed. Refer to the **Incorporation** instructions in each label for additional information.

For heavy weed infestations, especially of Texas panicum, the higher labeled rate of Pendimethalin can be used in Alabama, Florida and Georgia.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of either product.

## TANK MIXTURE OR SEQUENTIALLY WITH PARAQUAT BRANDS OR PARAQUAT BRANDS + PRODUCTS CONTAINING BENTAZON (e.g., Basagran, Broadloom)

Small (1-6 inch) emerged annual grass and broadleaf weeds are controlled or suppressed and residually controlled by this product mixed with paraquat brands or paraquat brands and Bentazon herbicide applied at ground cracking or sequentially. Refer to the **Hamper Herbicide Applied Alone** section of this label for a complete list of weeds controlled or suppressed.

Using the rates in the paraquat brand and Bentazon labels and the **Peanuts / Hamper Herbicide Alone** section of this label, apply using ground equipment in a minimum of 20 gallons of spray volume per acre. A second application of this mix may be made 28 days after ground cracking, being sure to follow all restrictions in the **Peanuts / Hamper Herbicide Combinations / Multiple Applications** section of this label

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of either product.

## TANK MIXTURE OR SEQUENTIALLY WITH PRODUCTS CONTAINING BENTAZON (e.g., Basagran, Broadloom)

The weeds listed in the Bentazon label will be controlled and the weeds listed in this label residually controlled by this product when applied with Bentazon as a tank mix or sequentially. Refer to the Bentazon label and the **Hamper Herbicide Applied Alone** section of this label for a complete list of weeds controlled or suppressed.

Using the rates in the Bentazon label and the **Peanuts / Hamper Herbicide Alone** section of this label, apply using ground equipment in a minimum of 20 gallons of spray volume per acre. A second application of this mix may be made prior to peanut pegging, being sure to follow all restrictions in the **Peanuts / Hamper Herbicide Combinations / Multiple Applications** section of this label. If necessary, a second Bentazon-only application may be made in any peanut growing area.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of either product.

## TANK MIXTURE OR SEQUENTIALLY WITH PARAQUAT BRANDS + 2,4-DB (e.g., Butyrac 200 or Butoxone 200)

Small (1-6 inch) emerged annual grass and broadleaf weeds are controlled or suppressed and residually controlled by this product mixed with paraquat brands and 2,4-DB applied at ground cracking or sequentially. Refer to the **Hamper Herbicide Applied Alone** section of this label for a complete list of weeds controlled or suppressed.

Using the rates in the paraquat brands and 2,4-DB labels and the **Peanuts / Hamper Herbicide Alone** section of this label, apply using ground equipment in a minimum of 20 gallons of spray volume per acre. A second application of this mix may be made 28 days after ground cracking, being sure to follow

all restrictions in the **Peanuts / Hamper Herbicide Combinations / Multiple Applications** section of this label.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of any of the products.

## TANK MIXTURE OR SEQUENTIALLY WITH PRODUCTS CONTAINING BENTAZON (e.g., Basagran) + 2,4-DB (e.g., BUTYRAC 200 or BUTOXONE 200)

Weeds listed in the Bentazon and 2,4-DB labels (especially morningglory) are controlled or suppressed and the weeds listed in this label residually controlled by this product mixed with Bentazon and 2,4-DB applied at ground cracking or sequentially. Refer to the **Hamper Herbicide Applied Alone** section of this label for a complete list of weeds controlled or suppressed.

Using the rates in the Bentazon and 2,4-DB labels and the **Peanuts / Hamper Herbicide Alone** section of this label, apply using ground equipment in a minimum of 20 gallons of spray volume per acre. A second application of this mix may be made prior to peanut pegging, being sure to follow all restrictions in the **Peanuts / Hamper Herbicide Combinations / Multiple Applications** section of this label. If necessary, a second Bentazon and 2,4-DB application may be made in any peanut growing area.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of any of the products.

## TANK MIXTURE OR SEQUENTIALLY WITH ACIFLUORFEN (e.g., Storm)

Weeds listed in the Acifluorfen label are controlled or suppressed and the weeds listed in this label residually controlled by this product mixed with Acifluorfen applied at ground cracking through 2 expanded tetrafoliate leaves, or sequentially with an at-cracking through post emergence treatment of Acifluorfen. Refer to the **Hamper Herbicide Applied Alone** section of this label for a complete list of weeds controlled or suppressed. Apply using the rates and instructions in the Acifluorfen label and the **Peanuts / Hamper Herbicide Alone** section of this label.

Refer to the respective labels for application methods, timing and rates, being sure to use the most restrictive combination of restrictions and precautions from each label. DO NOT use more than the maximum label rate of any of the products.

## BEANS, PEAS, AND LENTILS - HAMPER HERBICIDE ALONE

Application Methods: Fall applied, Pre-plant incorporated, Pre-emergence

Hamper Herbicide may be applied pre-plant incorporated or pre-emergence to beans, peas, and lentils including garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English; southern peas, such as blackeye, pinkeye, crowder, etc.), pinto beans, snap beans (green, wax, string), lentils, and lupines (sweet, white, white sweet, and grain).

NOTE: Make ONLY pre-emergence applications to English peas.

Use of this product when soils are cold and wet during pea germination and emergence may delay maturity and/or reduce yields.

#### **Use Restrictions**

The total Hamper Herbicide rate applied on beans, peas, or lentils must not exceed 1.91 lb. a.i./A (1.91 pts/A) per year.

DO NOT apply to frozen ground.

DO NOT cut for hay within 120 days after application.

DO NOT use for forage within 60 days after application.

DO NOT apply more than 1.9 pts/A per year.

#### **Fall Application:**

MN, ND, SD, WI and north of Route 30 in IA: Apply after September 30.

South of Route 30 in IA and North of Route 91 in NE: Apply after October 15.

North of Route 136 in IL: Apply after October 31.

Apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum- or no-tillage systems with soils having greater than 2.5% organic matter, apply 1.6-1.9 pts/A on medium-textured soils, and 1.9 pts/A on fine-textured soils. Tilling may be performed before or after treatment; however, if tilled after treatment do not incorporate deeper than 2-3 inches. If an application is planned for the following spring in addition to the fall application, the total amount applied in both applications must not exceed the maximum total amount listed in the instructions for the specific crop.

### **Spring Application**

Apply this product as either a pre-plant incorporated or pre-emergence treatment using the appropriate rates listed below and using the instructions in the **Hamper Herbicide Alone** section under **Application Procedures** at the beginning of this label.

Coarse Soils less than 3% Organic Matter: 1.01.3 pts/A

Coarse Soils greater than, equal to 3% Organic Matter: 1.3 pts/A

Medium Soils less than 3% Organic Matter: 1.3-1.6 pts/A

Medium Soils greater than, equal to 3% Organic Matter: 1.3-1.6 pts/A

Fine Soils less than 3% Organic Matter: 1.3-1.6 pts/A

Fine Soils greater than, equal to 3% Organic Matter: 1.6-1.9 pts/A

## BEANS, PEAS, AND LENTILS - HAMPER HERBICIDE COMBINATIONS

#### **Use Restrictions**

The total Hamper Herbicide rate applied on beans, peas, or lentils must not exceed 1.91 lb. a.i./A (1.91 pts/A) per year.

DO NOT cut for hay within 120 days after application.

#### TANK MIXTURE AND SEQUENTIAL APPLICATIONS WITH EPTC - BEANS (GREEN OR DRY)

#### **Pre-plant Incorporated:**

Follow instructions for use of Hamper Herbicide alone in the **Application Procedures** section of this label. Refer to EPTC herbicide label for use rates and instructions.

#### Sequential

Make a pre-plant incorporated application of EPTC alone following the rates and instructions in the EPTC label, followed by a pre-emergence application of this product using the rates specified below either during planting (behind the planter) or after planting, but prior to weed emergence.

Coarse Soils less than 3% Organic Matter: 0.8 pts/A

Coarse Soils greater than, equal to 3% Organic Matter: 1.0 pts/A

Medium Soils less than 3% Organic Matter: 1.0 pts/A

Medium Soils greater than, equal to 3% Organic Matter: 1.3 pts/A

Fine Soils less than 3% Organic Matter: 1.3 pts/A

Fine Soils greater than, equal to 3% Organic Matter: 1.3-1.6 pts/A

Be sure to follow the most restrictive combination of instructions, precautions and restrictions from both the EPTC label and for this product as listed in the **Beans, Peas, and Lentils / Hamper Herbicide Alone** section of this label. Refer to the EPTC label for rate limitations depending on geographical area, and for restrictions specific to species and varieties.

## TANK MIXTURE WITH TRIFLURALIN (e.g., Treflan) – BEANS (DRY – KIDNEY, NAVY, PINTO, ETC.; LIMA; AND SNAP)

Tank mix Hamper Herbicide using the rates specified in the **Hamper Herbicide Alone** section of this label, and the **Dry Beans** or the **Lima and Snap Beans** sections of the Trifluralin label by ground or air within 14 days of planting and incorporate uniformly to a depth of no more than 2 inches. The application rate used should be selected based on the soil texture and organic matter present in the field and the weed species being treated.

Be sure to follow the most restrictive combination of instructions, restrictions and precautions in each respective label.

## POTATOES - HAMPER HERBICIDE ALONE

## These instructions do NOT apply to sweet potatoes or yams.

Application of this product followed by cool, wet soil conditions may delay maturity and/or reduce yield of Superior and other early maturing potato varieties.

This product will control weeds listed in the WEEDS CONTROLLED section of this label when applied after hilling / lay-by as either a pre-emergence incorporated, or post-emergence treatment to potatoes. Use the lower rates specified below on soils that are coarse-textured and / or low in organic matter and the higher rates on soils that are fine-textured and / or high in organic matter. NOTE: If agricultural activity following the treatment exposes untreated soil, the effectiveness of this application will be diminished.

Refer to the **Center Pivot Irrigation Application** section of this label for instructions when applying this product using center pivot irrigation.

#### **Use Restrictions**

Do NOT apply more than 3.43 lb. a.i./A (3.43 pts./A) per year.

DO NOT harvest within 40 days of a lay-by application.

DO NOT harvest within 60 days of an at-planting to drag-off application.

DO NOT use on muck or peat soils.

DO NOT apply as both a pre-emergence and incorporated treatment.

## Incorporated:

Apply to the soil at a rate of 1.0-1.9 pts/A and incorporate into the top 3 inches of soil using equipment that will provide uniform incorporation such as a finishing disk, harrow or rolling cultivator.

Post-plant incorporated applications may be made any time after planting to drag-off but prior to potato emergence. Incorporate using equipment that will uniformly distribute the application in the top 2 inches of the soil being careful not to damage potato seed pieces or sprouts.

## Pre-emergence:

Apply at a rate of 1.0-1.9 pts/A after planting but before weeds emerge as either a pre-emergence or delayed pre-emergence treatment or an after drag-off or hilling treatment. When soil organic matter content is between 6-20%, up to 2.5 pts/A may be applied.

#### Post-emergence after Hilling / Lay-by:

To control weed species sensitive to this product for the remainder of the growing season, apply at a rate of 1.6 pts/A as a post-emergence treatment to potatoes after hilling / at lay-by. This application may be applied over a previous Hamper Herbicide application, but do NOT apply more than 3.43 pts/A in a single year.

#### POTATOES - HAMPER HERBICIDE COMBINATIONS

These instructions do NOT apply to sweet potatoes or yams.

## TANK MIXTURE WITH METRIBUZIN (e.g., Lexone, Sencor, TriCor)

Tankmix with Metribuzin herbicide to control the weeds listed in this label as well as the following broadleaf weeds: cocklebur\*, hairy nightshade\*, hemp sesbania, jimsonweed\*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

#### **Use Restrictions**

Do NOT apply more than 3.43 lb. a.i./A (3.43 pts./A) per year.

DO NOT apply this tank mixture to muck or peat soils.

#### Instructions

Apply 1.0-1.9 pts/A of Hamper herbicide with the labeled rate of Metribuzin herbicide and apply as a pre-emergence or post-emergence treatment through after last hilling. The 1.0-1.3 pts/A rate range

<sup>\*</sup> Indicates partial control.

should be used on coarse soils and 1.3-1.9 pts/A rate range on other soil textures, with the lower rates of the range used on fields with low organic matter and the higher rates of the range used on fields with higher organic matter content. The effectiveness of the treatment may be diminished if subsequent operations disturb and expose untreated soil.

Refer to the Metribuzin label for precautionary statements, restrictions, application information, center pivot irrigation application, weeds controlled, and varietal limitations.

Precaution: To avoid chlorosis, minor necrosis, or leaf distortion when making post-emergence applications to potatoes, with the exception of center pivot application the application must be made as a directed or semi-directed spray.

The most restrictive combination of instructions, precautions and restrictions from both product labels must be followed.

## HAMPER HERBICIDE + LINURON (e.g., Lorox) TANK MIXTURE (EAST OF ROCKY MOUNTAINS)

#### **Use Restrictions**

DO NOT use on sand or loamy sand soils.

DO NOT incorporate or spray over the top of emerged potatoes.

### **Application**

This product may be tank mixed with any Linuron formulation registered for use on potatoes and applied using the labeled rates as a pre-emergence broadcast application to the soil surface after planting but prior to emergence of the crop, or after final drag-off.

The most restrictive combination of instructions, precautions and restrictions from both product labels must be followed.

#### TANK MIXTURE WITH PENDIMETHALIN (e.g., Prowl)

When tank mixed with Pendimethalin, the following weeds will be controlled in addition to the weeds listed in this label: kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Pendimethalin label. Apply using the labeled rates as a pre-emergence, pre-emergence incorporated or early post-emergence application following the instructions in the Pendimethalin label.

The most restrictive combination of instructions, precautions and restrictions from both product labels must be followed.

#### PUMPKIN - HAMPER HERBICIDE ALONE

Applying this product to pumpkin as a broadcast spray over the planted row or hill or as an application directly to crop foliage increases the risk of injury and may cause delayed maturity, stand loss, and loss of yield.

## **Use Restrictions**

DO NOT apply more than 1.27 lb. a.i./A (1.27 pts./A) per year.

DO NOT apply this product within 30 days of harvest.

## Pre-emergence

Apply this product pre-emergence at a rate of 1.0-1.3 pts/A as an inter-row or inter-hill treatment. Inter-row or inter-hill means not applying directly to the planted seed or young pumpkin plants. When applying, there should be 1 foot of untreated area over the top of the row where the plants are, or six inches to each side of the planted hill and any emerged pumpkin foliage.

Use the lower rates listed on soils that are coarse and/or low (less than 3%) in organic matter.

## **RHUBARB**

#### **Use Restrictions**

DO NOT apply more than 1.27 lb. a.i./A (1.27 pts./A) per year.

DO NOT make more than one application per crop.

DO NOT harvest within 62 days of application.

### **Application**

In early spring prior to crop emergence, make a broadcast application of this product at a rate of 0.6-1.3 pts/A using lower rates on coarse textured soils and higher rates on fine textured soils.

### SAFFLOWER - HAMPER HERBICIDE ALONE

## Pre-plant Incorporated or Pre-emergence:

Using the rates below, follow the instructions for use of Hamper Herbicide Alone under Application Procedures at the beginning of this label:

Table 6: Hamper Use Rates - Safflower

% Organic Matter / Soil Texture	Use Rates Hamper Herbicide
	Tramper Herbicide
< 3% Organic Matter	
Coarse	1.0-1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.3-1.6 pts/A
≥ 3% Organic Matter	
Coarse	1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.6-1.9 pts/A

# GRAIN OR FORAGE SORGHUM (SEED TREATED WITH CONCEP®) – HAMPER HERBICIDE ALONE

This product may be applied alone as a pre-plant surface, pre-plant incorporated, pre-emergence or post-emergence treatment using the appropriate rate specified below ONLY when the sorghum seed has been properly treated with Concep seed treatment. Plant death will occur if pre-plant or pre-emergence applications of this product are made to sorghum that has not been treated with Concep seed treatment, and plants grown from seed not properly treated will also experience severe injury. Plant injury may also occur following pre-plant and pre-emergence applications of this product if high soil moisture conditions are experienced prior to sorghum emergence; however, the crop typically outgrows the damage.

#### **Use Restrictions**

DO NOT apply more than 1.59 lb. a.i./A (1.59 pts./A) per year.

DO NOT use this product to sorghum grown under dry mulch tillage.

DO NOT apply this product more than once in a year except for the split pre-plant surface treatment.

DO NOT apply this product post-emergence within 75 days of harvest.

## Fall Application for Italian Ryegrass Control

DO NOT apply this product to frozen ground.

If an application of this product is made in the spring, DO NOT apply this or any other product containing S-metolachlor to grain or forage sorghum the following spring.

This product may be used to provide residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*) with a fall application of 1.3-1.6 pts/A (between September 1 and December 1). The higher rates should be used on fine textured soils and the lower rates on coarse textured soils.

Tillage may be performed prior to application. If planning to till after application, incorporate to a maximum depth of 2-3 inches. If an application is planned for the following spring in addition to the fall application, the total amount of Al applied in both applications must not exceed the maximum total amount listed in the instruction for the specific crop (depending on soil texture, up to 2.5 pts/A).

Fall treatments made after emergence of glyphosate-resistant Italian ryegrass can use paraquat brands tank mixed with this product for control of the emerged ryegrass. Refer to the paraquat brand label for specific rates, application instructions and restrictions. Other registered herbicides may be tank mixed with Hamper Herbicide for control or improved control of other weeds present at the time of application.

## **Pre-plant Surface-Applied**

Make pre-plant surface-applied treatments of this product following the instructions in the **Application Procedures** section of this label.

For sorghum grown in minimum- or no-tillage systems in CO, IA, IL, KS, MO, NE and SD: This product may be applied alone up to 45 days prior to planting using the following rates:

Medium Soils: 1.4 pts/A Fine Soils: 1.6 pts/A

For applications made 30-45 days prior to planting, make only split applications using 2/3 the listed broadcast rate in the initial application and the remaining 1/3 when planting. Treatments made less than 30 days prior to planting may be applied as either a single or split application. For coarse soils apply 1.3 pts/A within two weeks prior to planting.

For best results, when no precipitation is expected after application irrigate to move this product into the soil.

### Pre-plant Incorporated or Pre-emergence:

Make a broadcast application of this product using the application rates below and following the instructions in the **Application Procedures** section of this label.

Coarse Soils: 1.0-1.3 pts/A Medium Soils: 1.3-1.4 pts/A Fine Soils: 1.3-1.6 pts/A

#### Post-emergence:

This product is safe to use on emerged sorghum when applied alone. The risk of injury to the crop increases when adjuvants such as non-ionic crop oil, nitrogen sources such as AMS or UAN, or fertilizers are applied in conjunction with this product.

Make a broadcast post-emergence application of this product using the application rates below and following the instructions in the **Application Procedures** section of this label.

Coarse Soils: 1.0-1.3 pts/A Medium Soils: 1.3-1.4 pts/A Fine Soils: 1.3-1.6 pts/A

## GRAIN OR FORAGE SORGHUM (SEED TREATED WITH CONCEP) - HAMPER HERBICIDE TANK MIXTURES

This product may be tank mixed with atrazine and applied as a pre-plant or pre-emergence treatment using the appropriate rate specified below ONLY when the sorghum seed has been properly treated with Concep seed treatment. Plant death will occur if pre-plant or pre-emergence applications of this product are made to sorghum that has not been treated with Concep seed treatment, and plants grown from seed not properly treated will also experience severe injury. Plant injury may also occur following pre-plant and pre-emergence applications of this product if high soil moisture conditions are experienced prior to sorghum emergence; however, the crop typically outgrows the damage.

Sorghum injury may occur if this product tank mixed with atrazine is applied to highly alkaline soils or on eroded areas where calcareous sub-soils are exposed.

If tank mixing this product with atrazine, the most restrictive combination of rates, restrictions and precautions from both labels must be followed. Broadleaf weed control may be affected if

atrazine is applied at rates lower than those listed on this label and the atrazine label should be consulted for a list of weeds controlled at the reduced rates.

#### **Use Restrictions**

DO NOT apply more than 1.59 lb. a.i./A (1.59 pts./A) per year.

DO NOT use this product to sorghum grown under dry mulch tillage.

DO NOT apply this product more than once in a year except for the split pre-plant surface treatment.

#### TANK MIXTURE WITH ATRAZINE

Tank mixing this product with atrazine and applying as a pre-plant surface, pre-plant incorporated or pre-emergence treatment will control the weeds listed in this label as well as the following broadleaf weeds: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

## **Pre-plant Surface-Applied**

Make pre-plant surface-applied treatments of this product using the appropriate rates below and following the instructions in the **Application Procedures** section of this label.

For sorghum grown in minimum- or no-tillage systems in IA, IL, eastern KS, MO, NE and SD: This product may be applied alone up to 45 days prior to planting using the following rates per acre:

Medium soils ≥ 1.5% organic matter: 1.4 pts/A Hamper Herbicide + labeled rate of Atrazine 90\* Fine soils < 1.5% organic matter: 1.4 pts/A Hamper Herbicide + labeled rate of Atrazine 90\* Fine soils ≥ 1.5% organic matter: 1.6 pts/A Hamper Herbicide + labeled rate of Atrazine 90\*

\* While a single formulation for Atrazine is listed in the rate tables, other formulations may be substituted by using the following formula: 1.0 pounds of Atrazine 90 = 1.8 pints of Atrazine 4L

For applications made 30-45 days prior to planting, make only split applications using 2/3 the listed broadcast rate in the initial application and the remaining 1/3 when planting. Treatments made less than 30 days prior to planting may be applied as either a single or split application.

For best results, when no precipitation is expected after application irrigate to move this product into the soil.

#### Pre-plant Incorporated or Pre-emergence

DO NOT use on coarse soils, or medium soils with < 1.5% organic matter.

DO NOT make pre-plant incorporated applications in AZ or the Imperial Valley of CA.

DO NOT apply in NM, OK or TX except in northeast OK and the Gulf Coast and Blacklands of TX.

Make pre-plant incorporated or pre-emergence treatments of this product using the appropriate rates below and following the instructions in the **Application Procedures** section of this label.

Application rates per acre:

Medium soils ≥ 1.5% organic matter: 1.0 pts/A Hamper Herbicide + labeled rate of Atrazine 90\* Fine soils < 1.5% organic matter:

1.0 pts/A Hamper Herbicide + labeled rate of Atrazine 90\*

Fine soils ≥ 1.5% organic matter: 1.1-1.3 pts/A Hamper Herbicide + labeled rate of Atrazine 90\*

\* While a single formulation for Atrazine is listed in the rate tables, other formulations may be substituted by using the following formula: 1.0 pounds of Atrazine 90 = 1.8 pints of Atrazine 4L

## TANK MIXTURE OF HAMPER HERBICIDE OR HAMPER HERBICIDE + ATRAZINE + BURNDOWN HERBICIDE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In Minimum and No-Tillage systems where sorghum (with seed treated with Concep) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues in a minimum- or no-tillage system, mix with a paraquat brand herbicide for control of most emerged annual weeds and suppression of perennial weeds; or with glyphosate brands for control of most emerged annual and perennial weeds.

## **Application**

Apply a tank mix with paraquat brands, glyphosate brands as directed on the product label before, during, or after planting, but prior to sorghum emergence.

**Paraquat Brands**: Apply as directed on the product label. NOTE: This treatment will NOT control weeds taller than 6 inches.

**Glyphosate Brands**: Refer to the glyphosate brand label for a list of controlled weeds, application rates for specific weeds, and other information related to the use of this product.

## SWEET SORGHUM (SEED TREATED WITH CONCEP)

Apply this product as a pre-plant surface, pre-plant incorporated, pre-emergence or post-emergence treatment at the appropriate rate specified below ONLY when the sorghum seed has been properly treated with Concep seed treatment. Plant death will occur if pre-plant or pre-emergence applications of this product are made to sorghum that has not been treated with Concep seed treatment, and plants grown from seed not properly treated will also experience severe injury.

#### **Use Restrictions**

DO NOT apply more than 1.59 lb. a.i./A (1.59 pts./A) per year.

DO NOT make more than one application per year.

DO NOT apply within 90 days of harvest.

DO NOT use this product to sorghum grown under dry mulch tillage.

## Soil-Applied

Make soil-applied treatments using this product at the rates specified below up to 45 days prior to planting. For applications made 30-45 days prior to planting, make only split applications using 2/3 the listed broadcast rate in the initial application and the remaining 1/3 when planting. Treatments made less than 30 days prior to planting may be applied as either a single or split application.

For best results, when no precipitation is expected after application irrigate to move this product into the soil.

Table 7: Hamper Soil-Applied Application Rates in Pints per Acre – Sweet Sorghum (Seed Treated with Concep)

	Soil Type – Use Rates		
Application Timing	Fine	Medium	Coarse
At Planting <sup>1</sup>	1.3-1.6 pts/A	1.3-1.4 pts/A	1.0-1.3 pts/A
< 30 days before planting	1.6 pts/A	1.4 pts/A	1.3 pts/A
30-45 days before planting <sup>2</sup>	1.6 pts/A	1.4 pts/A	-

<sup>&</sup>lt;sup>1</sup> Pre-plant Incorporated or pre-emergence

#### Post-Applied

For residual control of small broadleaf weeds and grasses, apply this product using the appropriate rate specified below as a post-emergence treatment to sorghum no more than 5 inches tall. This product is safe for used on sweet sorghum that has emerged when applied alone. **Do NOT use adjuvants when making post-emergence applications of this product to sweet sorghum**.

Coarse Soils: 1.0-1.3 pts/A
Medium Soils: 1.3 pts/A
Fine Soils: 1.3 pts/A

## **SOYBEANS - HAMPER HERBICIDE ALONE**

**Application Methods**: Fall applied, Pre-plant surface, Pre-plant incorporated, Pre-emergence, Post-emergence

<sup>&</sup>lt;sup>2</sup> Use only as a split application with 2/3 of the broadcast rate applied initially and the remaining 1/3 applied at planting.

Refer to the application instructions under **Hamper Herbicide Alone** in the **Application Procedures** section at the beginning of this label.

#### **Use Restrictions**

DO NOT apply more than 2.5 lb. a.i./A (2.5 pts./A) per year.

DO NOT apply this product to frozen ground.

The combined total amount of this product applied in the fall plus the spring must not exceed 2.5 pints/A per year.

DO NOT apply more than 1.3 pts/A per year post-emergence to soybeans.

DO NOT make post-emergence applications within 90 days of harvest.

DO NOT graze or feed treated soybean forage, hay, or straw to livestock within 30 days after a preplant surface, pre-plant incorporated or pre-emergence application of this product.

DO NOT graze or feed treated forage or hay from soybeans to livestock after a post-emergence application of this product.

### **Fall Application for Spring Weed Control**

ND, SD, MN, WI, and north of Route 30 in IA: Apply after September 30

North of Route 91 in NE and south of Route 30 in IA: Apply after October 15

North of Route 136 in IL: Apply after October 31

Apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum- or no-tillage systems with soils having greater than 2.5% organic matter, apply 1.6-1.9 pts/A on medium-textured soils, and 1.9 pts/A on fine-textured soils. Tilling may be performed before or after treatment; however, if tilled after treatment do not incorporate deeper than 2-3 inches and minimize the formation of furrows and ridges.

## Fall Application for Italian Ryegrass Control

This product may be used to provide residual control of *glyphosate*-resistant Italian ryegrass (*Lolium multiflorum*) with a fall application of 1.3-1.6 pts/A (between September 1 and December 1). The higher rates should be used on fine textured soils and the lower rates on coarse textured soils. Tillage may be performed prior to application. If planning to till after application, incorporate to a maximum depth of 2-3 inches.

Fall treatments made after emergence of *glyphosate*-resistant Italian ryegrass can be tankmixed with paraquat for control of the emerged ryegrass. Refer to the paraquat brand label for specific rates, application instructions and restrictions. Other registered herbicides may be tank mixed with Hamper Herbicide for control or improved control of other weeds present at the time of application.

#### **Pre-plant Surface Application**

Spring pre-plant surface application may be made on medium and fine soils only under minimum- or no-tillage practices in the following states: CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY.

For applications made 30-45 days prior to planting, make only split applications using 2/3 the listed broadcast rate in the initial application and the remaining 1/3 when planting (see Use Rates below). Treatments made less than 30 days prior to planting may be applied as either a single or split application. For coarse soils apply 1.3 pts/A within two weeks prior to planting.

On soils with 6-20% organic matter, this product may be applied at rates up to 2.5 pts/A.

#### Pre-plant Incorporated or Pre-emergence

Using the rates below, follow the instructions for use of **Hamper Herbicide Alone** under Application Procedures at the beginning of this label:

#### Table 8: Hamper Use Rates - Soybeans

	Use Rates
% Organic Matter / Soil Texture	Hamper Herbicide
< 3% Organic Matter	
Coarse	1.0-1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.3-1.6 pts/A
≥ 3% Organic Matter	
Coarse	1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.6-1.9 pts/A

On soils with 6-20% organic matter, this product may be applied at rates up to 2.5 pts/A.

## Post-emergence

Apply 1.0-1.3 pts/A as a post-emergence treatment for residual control of the weeds listed in the beginning of this label. This product does not control emerged weeds and must be applied to a weed-free soil surface or in a tank mixture with products that provide post-emergence control of weeds that may be present at the time of application.

If this product was applied as a pre-plant surface, pre-plant incorporated, or a pre-emergence treatment, a second application of this product may be made post-emergence so long as the total amount of all applications does not exceed 2.5 pts/A.

#### SOYBEANS - HAMPER HERBICIDE COMBINATIONS

For enhanced residual control of the weeds listed at the beginning of this label, tank mix Hamper Herbicide at the rates listed in **Soybeans – Hamper Herbicide Alone** section with the herbicides listed below. The most restrictive combination of precautionary statements, restrictions, rates and approved uses of all tank mix partners must be followed.

#### **Use Restrictions**

DO NOT apply more than 2.5 lb. a.i./A (2.5 pts./A) per year.

DO NOT apply this product to frozen ground.

The combined total amount of this product applied in the fall plus the spring must not exceed 2.5 pts/A per year.

DO NOT apply more than 1.3 pts/A post-emergence to soybeans.

DO NOT make post-emergence applications within 90 days of harvest.

DO NOT graze or feed treated soybean forage, hay, or straw to livestock within 30 days after a preplant surface, pre-plant incorporated or pre-emergence application of this product.

DO NOT graze or feed treated forage or hay from soybeans to livestock after a post-emergence application of this product.

## Pre-plant, Pre-emergence:

## Contact herbicides such as:

- Paraquat
- Glyphosate
- Glufosinate

For burndown and residual control in reduced- or no-till systems, apply Hamper Herbicide pre-plant surface or pre-emergence with paraquat, glyphosate or glufosinate.

- Metribuzin (e.g., Lexone, Sencor, TriCor)
- Metribuzin +Sulfentrazone (e.g., Authority MTZ)

For additional residual control, make pre-plant surface or pre-emergence applications of this tank mix.

DO NOT apply this tank mix to soils with < 0.5% organic matter.

DO NOT apply this tank mix to soils with a pH > 7.4 (alkaline soils).

Crop injury may occur if heavy precipitation occurs soon after application.

Crop injury may occur if this mix is applied to soybean varieties that are sensitive to metribuzin.

- Metribuzin + Chlorimuron (Canopy®)
- Sulfentrazone + Cloransulam (Sonic, Gauntlet)
- Sulfentrazone + Chlorimuron (Authority® Maxx)
- Chlorimuron (Classic®, FirstRate®)
- Saflufenacil (Sharpen®)
- Saflufenacil + dimethenamide-P (Verdict®)

For additional residual control, make pre-plant surface or pre-emergence applications of this tank mix.

#### Post-emergent:

- Chlorimuron (Classic®, FirstRate)
- Fomesafen (Flexstar®, Reflex®)
- Fluazifop (Fusilade®)
- Fluazifop + Fenoxaprop (Fusion®)
- Metolachlor + Fomesafen (Prefix®)
- Flumetsulam (Python®)
- Aciflurofen (e.g., Storm®, Ultra Blazer®)

To control emerged weeds and provide residual control of grasses and small seeded broadleaf weeds, apply this tank mix post-emergence being sure to follow any instructions or restrictions in the tank mix partner labels. Using a COC or UAN with this product may cause temporary injury to the crop.

- Fomesafen (e.g., Flexstar® GT)
- Glyphosate brands

Use this tank mixture for residual control of weeds in glyphosate tolerant soybeans only.

Glufosinate (e.g., Autonomy<sup>™</sup>, Interline<sup>™</sup>, Liberty®)

Use this tank mixture for residual control of weeds *in glufosinate tolerant soybeans* only. To avoid potential crop damage, be sure to follow the instructions for adjuvant use in the Interline or Liberty product label.

## SUGAR BEETS - HAMPER HERBICIDE ALONE

**Application Methods**: Post-emergence after the sugar beets have reached the first true leaf stage. Crop injury may occur if this product is applied to sugar beets grown in coarse soils prior to emergence.

## **Use Restrictions:**

DO NOT apply more than 2.54 lb. a.i./A (2.54 pts/A) per year.

DO NOT harvest within 60 days after application.

## **Use Rates:**

Coarse Soils: 1.0 pts/A Medium Soils: 1.3 pts/A Fine Soils: 1.6 pts/A

More than one application may be made, but the total amount applied must not exceed 2.5 pints/A per year.

## SUGAR BEETS - HAMPER HERBICIDE TANK MIX COMBINATIONS

Tank mixing with Quizalofop (Assure® II) , Desmedipham (Betanex®) Sethoxydim (Poast®) Pendemethalin (e.g.,Satellite® 3.3), Clethodim (Select®), Clopyralid (Stinger™) or Triflusulfuron (Upbeet®) will increase the likelihood of crop injury due to the adjuvant properties of this product, and adding a spray adjuvant such as COCs or MSOs may increase the likelihood even further. This risk can be reduced by using the lowest listed rates of the tank mix partners and/or adjuvants and by not applying when environmental conditions are poor for the crops or soil and air humidity are high. Be sure to use the most restrictive combination of instructions, use restrictions and precautions from all of the tank mix partner labels.

DO NOT apply more than 2.5 lb. a.i./A (2.5 pts./A) per year.

## SUNFLOWERS - HAMPER HERBICIDE ALONE

Application Methods: Pre-plant incorporated, Pre-emergence

#### **Use Restrictions**

DO NOT apply more than 1.91 lb. a.i./A (1.91 pts./A) per year.

DO NOT graze or feed livestock on treated areas.

DO NOT exceed the maximum labeled rates listed below for the soil type.

Using the rates below, follow the instructions for use of **Hamper Herbicide Alone** under Application Procedures at the beginning of this label:

Table 9: Hamper Use Rates - Sunflowers

	Use Rates
% Organic Matter / Soil Texture	Hamper Herbicide
< 3% Organic Matter	
Coarse	1.0-1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.3-1.6 pts/A
≥ 3% Organic Matter	
Coarse	1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.6-1.9 pts/A

Use the higher ranges of the rates listed if heavy weed pressure is anticipated.

#### TOMATOES - HAMPER HERBICIDE ALONE

To prevent damage, plant only healthy transplants and avoid planting when wet, cool, or unfavorable growing conditions exist.

In transplanted tomatoes, if Hamper Herbicide is applied pre-plant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower end of the rate range for the given soil type, or damage may occur.

For row middle applications where tomatoes are grown on sandy soils and where high soil moisture conditions can exist (e.g., low binding and high evaporation conditions), as may be found in the States of Florida, Georgia, Maryland, and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by: a) incorporating the Hamper Herbicide immediately following application, b) applying the Hamper Herbicide seven or more days before transplanting (but only after the beds have been formed), c) minimizing the application of Hamper Herbicide onto the plastic of the bed, or d) any combination of the above.

#### **Use Restrictions**

DO NOT apply more than 2.5 lb. a.i./A (2.5 pts./A) per year.

DO NOT exceed the maximum label rate for the soil texture per year.

Apply ONLY by ground.

DO NOT harvest within 90 days of application if the single application rate of this product is MORE than 1.3 pts/A per year

DO NOT harvest within 30 days of application if the single application rate of this product is LESS than 1.3 pts/A per year.

The additional following restrictions apply when treating at a rate of 1.3 pts/A per year with a 30 day PHI:

DO NOT make more than 2 applications per year.

DO NOT use adjuvants.

Concentrated spray volume applications MAY be made using ground equipment.

Applications may be made as a foliar broadcast spray to the soil within a week of transplanting and again at blooming / fruiting to the row middles as a banded/directed application 38-77 days after the first treatment.

### **Transplanted**

Apply this product pre-plant incorporated or pre-plant prior to transplanting. Take care to minimize soil disturbance when transplanting. A post-directed application may also be made to transplants once the first irrigation or settling rain takes place. Minimize spray contact with the tomato plants, and use a minimum of 20 gallons of water per acre when making post-directed applications.

For bedded transplanted tomatoes, this product should be applied to the top of the bed as a pre-plant, non-incorporated treatment just before laying plastic.

Row middles between beds may also be treated. Do not exceed the maximum amount allowed in this label.

#### Seeded

Hamper Herbicide may be applied post-directed to direct seeded tomatoes. Tomato plants must be at least 4 inches tall at the time of application and the product must be applied in a minimum of 20 gallons of water per acre. Minimize spray contact with tomato plants. Hamper Herbicide will not control emerged weeds.

#### **Use Rates:**

Using the rates below, follow the instructions for use of Hamper Herbicide Alone under Application Procedures at the beginning of this label as well and any specific instructions listed above depending on whether applying to transplants or seeded tomatoes:

Table 10: Hamper Use Rates - Tomatoes

	Use Rates
% Organic Matter / Soil Texture	Hamper Herbicide
< 3% Organic Matter	
Coarse	1.0-1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.3-1.6 pts/A
≥ 3% Organic Matter	
Coarse	1.3 pts/A
Medium	1.3-1.6 pts/A
Fine	1.6-1.9 pts/A

## STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Do not store at temperatures lower than -30°F.

#### **Pesticide Disposal**

Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or

rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

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

**Non-refillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## Container Handling [greater than 5 gallons]

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

## Container Handling [greater than 5 gallons]

**Non-refillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

# IMPORTANT INFORMATION READ BEFORE USING PRODUCT

### 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Tenkoz, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of Tenkoz, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Tenkoz, Inc. and Seller harmless for any claims relating to such factors.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, TENKOZ, INC. AND SELLER MAKE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE

## NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ON THIS LABEL.

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

Tenkoz, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of Tenkoz, Inc.

S-METOLACHLOR GROUP 15 HERBICIDE

SALE, USE AND DISTRIBUTION OF THIS PRODUCT IN NASSAU AND SUFFOLK COUNTIES IN THE STATE OF NEW YORK IS PROHIBITED.

## Hamper™ Herbicide

# For weed control in nurseries, turf, and landscape plantings Not for homeowner use

 Active Ingredient:
 % by Weight

 S-metolachlor (CAS No. 87392-12-9):
 87.3%

 Other Ingredients:
 12.7%

 Total:
 100.0%

## KEEP OUT OF REACH OF CHILDREN

Hamper Herbicide is an Emulsifiable Concentrate (EC) containing 8.0 lb of active ingredient per gallon

## **CAUTION**

	FIRST AID	
If on skin	Take off contaminated clothing.	
	Rinse skin immediately with plenty of water for 15-20 minutes.	
	Call a poison control center or doctor for treatment advice.	
If swallowed	Call a poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	• Do not induce vomiting unless told to do so by the poison control center or doctor.	
	Do not give anything to an unconscious person.	
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes.	
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing	
	eye.	
	Call a poison control center or doctor for treatment advice.	
If inhaled	Move person to fresh air.	
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration,	
	prefer- ably by mouth-to-mouth, if possible.	
	Call a poison control center or doctor for further treatment advice.	
	container or label with you when calling a poison control center or doctor or going for	
treatment. FOR C	CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,	

## Tenkoz

Tenkoz, Inc. 1725 Windward Concourse, Suite 410 Alpharetta, GA 30005

call CHEMTREC 1-800-424-9300.

EPA Reg. No. 55467-18 EPA Est. No.

Net Contents : \_\_\_\_ gallons

## PRECAUTIONARY STATEMENTS

## Hazards to Humans and Domestic Animals CAUTION

Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before drinking, chewing gum, using tobacco, or using the toilet.

## **Personal Protective Equipment**

## Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton®
- · Shoes plus socks

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.

## **Engineering Control Statements**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-f)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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

## **User Safety Recommendations**

## Users should:

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

#### **Environmental Hazards**

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

#### Reporting Ecological Incidents:

To report ecological incidents, including mortality, injury, or harm to plants and animals, call Tenkoz Inc. at 770-343-8509.

## **Ground Water Advisory**

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

## **Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils wit shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application.

## Non-Target Organism Advisory

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

## **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 antisiphoning devices must be used on all mixing and/or irrigation equipment.

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

#### **DIRECTIONS FOR USE**

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

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, presence of other materials or other influencing factors in the use of the product, which are beyond the control TENKOZ, INC or Seller. To the extent consistent with applicable law, Buyer and User agree to hold TENKOZ, INC and Seller harmless for any claims relating to such factors

Hamper Herbicide must be used only in accordance with directions on this label.

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 State or Tribal agency responsible for pesticide regulation.

#### **Endangered Species Protection Requirements:**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulleting 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 <a href="http://www.epa.gov/espp/">http://www.epa.gov/espp/</a>, call 1-844-447-3813, or email <a href="https://espp-a.gov">ESPP@epa.gov</a>. You must use the Bulletin valid for the month in which you will apply the product.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

For early entry into 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, wear:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or Viton
- Shoes plus socks

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter the treated area until sprays have dried.

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

Note: Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

#### PRODUCT INFORMATION

Hamper Herbicide controls many annual grasses, certain annual broadleaf weeds, and yellow nutsedge.

Hamper Herbicide may be used on commercial and residential warm-season turfgrasses and other noncrop land, including, but not limited to the following: airports, roadsides, golf courses, sports fields, public recreational areas, ornamental gardens, cemeteries, other landscaped areas, etc. Hamper Herbicide may also be used in and around container and field-grown ornamentals, nonbearing nursery stock, and on sod farms.

## **USE RESTRICTIONS**

DO NOT apply under windy conditions.

DO NOT apply under conditions which favor runoff or wind erosion of soil containing this product to nontarget areas.

DO NOT USE IN GREENHOUSES OR OTHER ENCLOSED STRUCTURES.

To prevent off-site movement due to runoff or wind erosion:

- When conditions for wind erosion exist, DO NOT apply this product to light sandy soils or soils
  that have a powder dry surface. If these conditions exist, they should be mitigated by
  irrigation or rainfall prior to application.
- Do not apply to highly compacted or paved surfaces or any other surfaces that are impervious.

• Non-target crops must NOT be exposed to the furrow or first flood irrigation tailwater from fields treated with this product. This restriction does not apply if a minimum of ½" of rain occurs prior to the first irrigation after application.

#### **SPRAY DRIFT MANAGEMENT**

#### MANDATORY SPRAY DRIFT MANAGEMENT

#### **Ground Boom Applications**

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

## Aerial Applications:

- Do not release spray at a height greater than 10 ft. above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed 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 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

#### **Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 mph 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.

## **Boomless Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

## **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be

greater if applications are made improperly or under unfavorable environmental conditions.

## Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

## **Controlling Droplet Size - Aircraft**

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

#### **BOOM HEIGHT - Ground Boom**

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

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

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

#### TEMPERATURE AND HUMIDITY

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

#### **TEMPERATURE INVERSIONS**

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

**NOTICE TO USER:** Plant tolerances to Hamper Herbicide have been found to be acceptable in the specific genera and species listed on this label. Because of the large number of species and varieties of plants, it is impossible to test each for tolerance to Hamper Herbicide. Neither the manufacturer nor the seller has determined whether or not Hamper Herbicide can be used safely on plants not specified on this label. Therefore, the professional user should determine if Hamper Herbicide can be used safely by testing the labeled rates on a particular group of similar unlabeled ornamental plants in a small area before widespread use or by checking with the local weed specialist for guidance. Likewise, if the professional user plans to apply Hamper Herbicide for control of weed species not listed on this label, Hamper Herbicide should be tested on a small-scale basis before widespread use or the local weed specialist contacted for guidance.

## **Weed Resistance Management**

For resistance management, Hamper Herbicide is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to Hamper Herbicide and other Group 15 herbicides. Weed species with acquired resistance to Group 15 may eventually dominate the weed population if Group 15 herbicides are used repeatedly in the same area. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of Hamper Herbicide or other Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds. Whenever possible incorporate multiple weed control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or pest control advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and
  uses historical information related to herbicide use, and that considers mechanical control
  methods, cultural (e.g., timing to favor the desirable plants and not the weeds), biological
  (weed-competitive varieties) and other management practices.
- Fields should be scouted before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method. Prevent movement of resistant weed seeds to other areas by cleaning equipment.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your sales representative, pest control advisors, or local extension specialist for additional pesticide resistance management and/or integrated weed management recommendations for specific types of plants and weed biotypes. Report any incidence of non-performance of this product against a particular weed species to your retailer or Tenkoz representative.

#### **APPLICATION PROCEDURES**

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

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

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

**Aerial Application (Sod Farms Only):** Apply Hamper Herbicide in water alone or in tank mixtures with AAtrex<sup>®</sup>, Princep<sup>®</sup>, or other herbicides registered for use on sod farms in a minimum total volume of 2 gals./A by aircraft. See **Turfgrass** section for listing of applicable warm-season grasses. Do not apply

in conditions where uniform coverage is not possible, or where spray drift may occur. To ensure that spray will be controllable within the treatment area, apply at a maximum height of 10 ft., and use low-drift nozzles at a maximum pressure of 40 psi. Restrict application to periods when wind speed does not exceed 10 mph. For further protection of sensitive nontarget plants, apply Hamper Herbicide or HamperHerbicide mixtures at a minimum upwind distance of 400 ft. from such plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

## **SPRAY EQUIPMENT**

## **Aerial Drift Management**

Refer to the **Spray Drift Management** section for information on managing spray drift. Where states have more stringent regulations, they should be observed.

#### **Sensitive Areas**

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

Overhead or Microjet Irrigation Application: Hamper Herbicide alone or in tank mixture with other herbicides which are registered for overhead or microjet application may be applied in irrigation water at rates recommended on this label. Apply this product only through an overhead or microjet irrigation system. Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise

## **Operation Instructions**

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

usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.

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

Precaution for overhead or microjet applications: Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, injury to desirable plants may result.

## **Dry Bulk Granular Fertilizers**

Many dry bulk granular fertilizers may be impregnated or coated with Hamper Herbicide alone or with selected Hamper Herbicide tank mixtures. All respective fertilizers or tank mix partners must be registered and not prohibited from use together. Always follow all directions for use, precautions and limitations on the respective product labels.

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

Prepare the granular herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Place the nozzles used to spray Hamper Herbicide or tank mixtures onto the fertilizer to provide uniform spray coverage.

An absorptive material such as Agsorb® granules, Microcel E (Johns-Manville Products Corporation), diatomaceous earth, or finely powdered clay may be added to the mixture if it is too wet, to obtain a dry free-flowing mixture. Generally, less than 2% by weight of absorptive material is needed to form a free-flowing mixture..

Calculate amounts of Hamper Herbicide and other herbicides by the following formula:

2,000 lbs of fertilizer per acre	Х	pts/A of liquid or flowable product	=	pts of liquid or flowable product per ton of fertilizer
2,000 lbs of fertilizer per acre	Х	lbs/A of dry product	=	lbs of dry product per ton of fertilizer

#### Precautions:

- Do not use Hamper Herbicide or Hamper Herbicide mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.
- To avoid potential injury of ornamental plants, do not use the herbicide/fertilizer mixture on container- grown plants and where planting beds are being formed.

To avoid potential for explosion,

• Do not impregnate Hamper Herbicide or Hamper Herbicide mixtures on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.

Do not combine mixtures of Hamper Herbicide plus any other herbicide with single superphosphate (0-20-0) or triple superphosphate (0-46-0).

#### **Application**

Uniformly apply 100-800 lbs of the herbicide/fertilizer mixture per acre to the soil immediately after

blending. Always use properly calibrated equipment. Uniform application will prevent possible crop injury nonuniform application may result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control.

On fine- or medium-textured soils in areas where soil incorporation is not planned (reduced tillage situations or in some conventional tillage situations), apply approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, apply approximately 14 days prior to planting.

## MIXING PROCEDURES

**Hamper Herbicice Alone:** Mix Hamper Herbicide with water or fluid fertilizer and apply as a spray. Agitate continuously during mixing and application to maintain a uniform spray mixture.

- Fill the spray tank 1/2-3/4 full with water or fluid fertilizer
- start agitation
- add the proper amount of Hamper Herbicide
- add the rest of the water or fluid fertilizer.

#### **Tank Mixtures:**

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

When tank mixing Hamper Herbicide solutions, allow each product to fully disperse before adding other products.

- Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation.
- Add all products packaged in water-soluble bags first and at the same time. These products must be mixed in clean water only (preslurry in water when fertilizer is the main carrier).
- Continue agitation. Then add water-dispersible granules (WG formulations) And allow the granules to disperse.
- Add any wettable powder (WP) formulations to the tank with continuous agitation.
- Add spray adjuvants and spray markers, if needed. Confirm prior to use that additives are approved for application to turf and ornamentals..
- Add flowable liquids (L) or suspension concentrates (SC).
- Add Hamper Herbicide to the spray tank last.
- Continue to fill the sprayer with the rest of the water or fluid fertilizer. Maintain agitation in the spray tank until all of the solution has been applied.

Check compatibility of the mixture using the test described below before mixing in the spray tank.

**Restrictions:** Before using Hamper Herbicide in a tank mix with fluid fertilizer or other registered pesticides, determine the tolerance of the plant species by applying the combination to a limited area during a period of active growth. **Do not use fluid fertilizers as a carrier for applications to container-grown ornamentals.** 

#### COMPATIBILITY TESTING

Tank mix incompatibility occurs most often in fertilizer / pesticide suspensions. To ensure the compatibility of this product with other pesticides and fertilizers, a jar test should be conducted prior to tank mixing. The procedure below assumes a spray volume of 25 gallons per acre and the amounts of the individual ingredients should be changed as appropriate for other spray volumes.

Important Note: Compatibility with between liquid fertilizers and the pesticides to be tank mixed must always be tested prior to use due to the variability of liquid fertilizers, even within the same analysis.

#### **Compatibility Test Procedure**

- 1. Using two 1 quart jars, add 1 pint of the desired fertilizer or water carrier to each. The same source and temperature of water that will be used for the final tank mix should be used to conduct the test.
- 2. To one jar add 1/4 tsp (1.2 milliliters) of a compatibility agent (such as Compex or Unite) approved for this use and gently shake or stir to mix.
- 3. To both jars add the relative proportions the labeled amounts of pesticide(s). If more than one pesticide is being tested for compatibility, add them in the following order: a) dry pesticides b) flowables and c) emulsifiable concentrates. Gently shake or stir after each addition.
- 4. Once all the desired tank-mix components are added, put the lids on the jars and invert each jar ten times to thoroughly combine. Set the jars aside for 15-30 minutes and then inspect for signs of incompatibility such as separation, precipitates, large flakes, gels or heavy oily films.
  - If the two jars look the same, the compatibility agent is not needed, but if the jar with the compatibility agent shows no signs of incompatibility but the other jar does, the compatibility agent will be necessary in the final tank mix.
  - If either mixture separates but can be easily remixed, the mixture may be used only if sufficient agitation is maintained to keep the solution mixed in the spray tank.
- 5. After testing, all pesticide wastes must be disposed of as instructed by the **Storage and Disposal** section of this label.

**Table 1: Example Tank Mix Partner Products** 

Active Ingredient	Brand Name(s)  Alternative brands may	EPA Registration Number(s)
	be used	Alternative brands may be used
Oxadiazon	Ronstar	432-886, 432-1465
Prodiamine	Barricade	100-834, 100-1139
Simazine	Princep	100-526
Sulfosate	Touchdown	100-1117

## **CROP USE DIRECTIONS**

## **Nurseries and Landscape Plantings**

Apply Hamper Herbicide at rates indicated below to control many annual grasses, certain broadleaf weeds, and yellow nutsedge (see following list). Calibrate applicator equipment before use according to the manufacturer's directions.

### **Weeds Controlled**

annual bluegrass	groundsel*
barnyardgrass (watergrass)	hairy nightshade*
black nightshade	pigweed
carpetweed	prairie cupgrass
common purslane*	red rice
crabgrass	sandbur*

crowfootgrass	seedling johnsongrass*
doveweed	shattercane*
fall panicum	signalgrass ( <i>Brachiaria</i> )
Florida pusley	southwestern cupgrass
foxtail millet	witchgrass
galinsoga	yellow foxtail
giant foxtail	yellow nutsedge
goosegrass	volunteer sorghum*
green foxtail	

<sup>\*</sup>Control of these weeds can be erratic due partially to variable weather conditions.

## **Application**

Apply Hamper Herbicide before grass, broadleaf weeds, or yellow nutsedge emerge (or after existing weeds or nutsedge plants have been removed) in sufficient carrier to obtain thorough coverage. For liquid carriers, use a minimum of 10 gals./A. A second application, which must not exceed a total of 4.2 pts/A (1.5 fl. oz/1,000 sq. ft. or 46 ml/1,000 sq. ft.) per year or crop cycle, whichever is less, may be needed to provide longer weed control.

## **Rates of Hamper Herbicide**

Soil Texture	Pts/A	fl. oz/1,000 sq. ft.	ml/1,000 sq. ft.	Notes
COARSE	1.3-2.0	0.47-0.71	14-21	Use higher rates on high organic matter soils and where yellow nutsedge and/or a heavy infestation of weeds is expected.
MEDIUM	1.3-2.0	0.47-0.71	14-21	Use the lower rates on soils with low organic matter content and where light infestations of weeds are expected.
FINE	2.0-2.6	0.71-0.95	21-28	In peat and muck soils and soils highly enriched with organic matter (i.e., sawdust) and/or synthetic mixes, the activity of Hamper Herbicide may be reduced.

If banded applications are used, refer to the **Product Information** section of this label to calculate the amount of Hamper Herbicide needed.

#### **Precautions:**

- To avoid plant injury, do not apply Hamper Herbicide to seedbeds, cutting beds, or unrooted cuttings before transplanting or to plants until the soil has firmly settled around roots.
- When Hamper Herbicide is applied broadcast over-the-top of plant foliage, reduce the chance of injury by following with sufficient overhead irrigation to wash the product from the foliage.

Hamper Herbicide has been found to be safe on the following plants:

## Container grown plants:

Abelia, Glossy	Abelia grandiflora
Ajuga	Ajuga reptans
Arborvitae, Globe	Thuja occidentalis
Aucuba, Variegated	Aucuba japonica variegate
Azalea, Catawba	Rhododendron catawbiense

Azolog Formoso/Indica	Rhododendron indica
Azalea, Formosa/Indica	
Azalea, Kurume	Rhododendron obtusum
Beard-Tongue	Penstemonn x Mexicali
Boxwood	Buxus spp.
Candytuft	Iberis sempervirens
Carex	Carex spp.
Cotoneaster	Cotoneaster spp.
Dogwood	Cornus spp.
Eastern Red Cedar	Juniperus virginiana
English Ivy	Hedera helix
English Lavender	Lavandula augustifolia
Euonymus	Euonymus fortune
Euonymus, Manhattan	Euonymus kiautschovicus
Flax	Phormium colinsoi
Forsythia	Forsythia spp.
Gardenia	Gardenia jasminoides
Golden Rockets	Ligularia stenocephala
Goldenrod	Solidago sempervirns
Hemlock	Tsuga Canadensis
Hens and Chicks	Sempervivum tectorum
Holly, Dwarf Burford	llex cornuta
Holly, Japanese	llex crenata
Holly, Savannah	llex attenuate
Hosta, Variegated	Hosta lancifolia
Ironweed	Vernonia noveboracensis
Japanese Black Pine	Pinus thunbergii
Juniper	Juniperus horizontalis
Juniper, Chinese	Juniperus chinensis
Juniper/Foemina, Hick's	Juniperus sabina
Leucothoe	Leucothoe fontanesiana
Ligustrum or Privet	Ligustrum japonicum
Liriope	Liriope mascara
Liriope, Green	Liriope spicata
Mondo Grass	Ophiopogon japonicas
Mountain Laurel	Kalmia spp.
Pachysandra, Japanese	Pachysandra terminalis
Pittosporum	Pittosporum tobira
Poker Plant	Kniphofia uvaria
Prickly Pear Cactus	Opuntia humifusa
Red Maple	Acer rubrum
River Birch	Betula nigra
Shrub verbena	Lantana spp.
Switchgrass	Panicum virgatum
Viburnum	Viburnum spp.
Wax Myrtle	Myrica cerifera
White Pine	Pinus strobes
Willow Oak	Quercus phellos
Yew	Taxus cuspidate
Yucca	Yucca spp.

Field- and Liner-Grown Plants and Plants in Landscape Plantings: plants transplanted normally in rows in a nursery or similar area for further growth before transplanting to final growing location (place of establishment)

African Lily	Agapanthus africanus
Ajuga	Ajuga reptans

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Allium	Allium spp.
Allyssum	Allyssum spp.
Annual Statice	Statice sinnata
Arborvitae	Thuja spp.
Ash	Fraxinus spp.
Aster	Aster spp.
Aucuba	Aucuba spp.
Bald Cypress	Taxodium distichum
Bamboo	Nandina domestica
Barberry	Berberis spp.
Beard-Tongue	Penstemon x mexicali
Bellflower	Campanula carpatica
Birch	Betula spp.
Blue Ageratum	Ageratum spp.
Bougainvillea	Bougainvillea spp.
Boxwood	Buxus spp.
Camellia	Camellia spp.
Candytuft	Iberis sempervirens
Canna Lily	Canna indica
Carex	Carex spp.
Carolina Jessamine	Gelsemium sempervirens
Cherry*	Prunus spp.*
Chrysanthemum, Daisy	Chrysanthemum spp.
Citrus*	Citrus spp.*
Cleyera	Ternstoemia gymanathera
Columbine	Aquilegia spp.
Coreopsis	Coreopsis spp.
Cotoneaster	Cotoneaster spp.
Crabapple, Apple*	Malus spp.*
Crepe Myrtle	Lagerstroemia spp.
Crocus	Crocus spp.
Daylily	Hemerocallis spp.
Delphinium	Delphinium spp.
Dogwood	Cornus spp.
Douglas Fir	Pseudotsuga menziesii
Dusty Miller	Artemesia stoleriana
Eleagnus	Eleagnus spp.
Endymion	Endymion spp.
English Ivy	Hedera spp.
English Lavender	Lavandula augustifolia
Escallonia	Escallonia fradesii
Euonymus	Euonymus spp.
Fig	Ficus spp.
Fir	Abies spp.
Firethorn	Pyracantha spp.
Flax	Phormium colinsoi
Forsythia	Forsythia spp.
Fortnight Lily	Morea spp.
Gaillardia	Gaillardia spp.
Gardenia	Gardenia jasminoides
Gazania Gold Rush	Gazania splendoens
Geranium	Geranium spp.
Geranium	Pelargonium x hortorum
Geum	Geum spp.
Gingko	Gingko biloba

Gladiolus	Gladiolus x hortulanus
Glossy Abelia	Abelia spp.
Golden Rockets	Ligularia stenocephala
Goldenrod	Solidago sempervirens
Hemlock	Tsuga spp.
Hens and Chicks	Sempervivum tectorum
Hibiscus	Hibiscus spp.
Holly	llex spp.
Honey Locust	Gleditsia triacanthos
Honeysuckle	Lonicera spp.
Hosta	Hosta lancifolia
Hyacinth	Hyacinthus spp.
Hydrangea	
Ice Plant	Hydrangea spp.
Ice Plant	Cryophytum crystallium
ice Plant	Mesembryanthemum
lusus attaus a	crystallinum
Impatiens	Impatiens spp.
Indian Hawthorne	Raphiolepis spp.
Iris	Iris spp.
Ironweed	Vernonia noveboracensis
Japanese Andromeda	Pieris japonica
Jasmine	Jasmine spp.
Juniper	Juniperus spp.
Kalmia	Kalmia spp.
Leatherleaf Fern	Rumohra adiantiformis
Leopard's-bane	Senecio doronicum
Leucothoe	Leucothoe spp.
Lilac	Syringa spp.
Lily	Lilium spp.
Liriope	Liriope spp.
Locust	Robinia spp.
Loosestrife	Lythrum spp.
Lupines	Lupinus spp.
Magnolia	Magnolia spp.
Maple	Acer spp.
Marigold	Tagetes spp.
Mexican Fan Palm	Washingtonia robusta
Mexican petunia	Ruellia carolinensis
Milkweed	Asclepias spp.
Mondo Grass	Ophiopogon japonicas
Muscari	Muscari armeniacum
Narcissus	Narcissus spp.
Ninebark	Physocarpus spp.
Oak	Quercus spp.
Oleander	Nerium oleander
Osmanthus	Osmanthus spp.
Pachysandra	Pachysandra spp.
Pampas Grass	Cortaderia selloana
Pansy	Viola x Wittrockiana
Pear*	Pyrus spp.*
Periwinkle	Vinca spp.
Petunia	Petunia spp.
Phlox	Phlox spp.
Photinia	Photinia spp.
Physostegia	Physostegia spp.
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Pine	Pinus spp.
Pittosporum	Pittosporum spp.
Podocarpus	Podocarpus spp.
Poker Plant	Kniphofia uvaria
Poplar	Populus spp.
Potentilla (Cinquefoil)	Potentilla spp.
Prickly Pear Cactus	Opuntia humifusa
Primrose	Oenothera spp.
Privet	Ligustrum spp.
Queen Anne's Lace	Daucus carota
Rhododendron/Azalea	Rhododendron spp.
Rose	Rosa spp.
Scilla	Scilla spp.
Shrub Verbina	Lantana spp.
Snapdragon	Antirrhinum majus
Snowberry	Symphoricarpos spp.
Spicebush	Illicium spp.
Spiraea	Spiraea spp.
Spruce	Picea spp.
St. John's Wort	Hypericum spp.
Stachys	Stachys spp.
Star of Bethlehem	Ornithogalum umbellatum
Stone Crop	Sedum spp.
Sweet Broom	Cytisus racemosus
Sweet William	Dianthus barbatus
Sweetgum	Liquidambar spp.
Switchgrass	Panicum virgatum
Tulip	Tulipa spp.
Tulip Tree	Liriodendron tulipifera
Veronica	Veronica spp.
Viburnum	Viburnum spp.
Wax Myrtle	Myrica spp.
Weigela	Weigela spp.
Willow	Salix spp.
Wisteria	Wisteria senensis
Yarrow	Achillea spp.
Yew	Taxus spp.
Yucca	Yucca spp.
Zinnia	Zinnia spp.

<sup>\*</sup>Do not apply to trees or plants that will bear harvestable fruit within 12 months, or illegal residues may result.

Hamper Herbicide may be applied in tank mixtures with Prodiamine (e.g., Barricade®), , Simazine (e.g., Princep), Oxadiazon (e.g., Ronstar®), Sulfosate (e.g., Touchdown®) or other compatible herbicides registered for use on ornamentals. Refer to the respective product labels for weeds controlled and for plants on which they are registered for use. When applying Hamper Herbicide in tank mixtures, observe the more restrictive directions for use, precautions, and limitations on this label or the respective tank mix product label.

## **Turfgrass**

Warm Season Grasses (Bermudagrass, Centipedegrass, St. Augustinegrass, Bahiagrass, and Zoysiagrass) including Commercial St. Augustinegrass Sod Production

Do not use Hamper Herbicide on turfgrasses in New York State.

Apply Hamper Herbicide before weeds emerge. Since soil moisture is necessary for activation, irrigate

with 1/2 inch of water if there is no rainfall within 7 days after treatment (See Precautions below).

## **Weeds Controlled**

Rate of Hamper Herbicide*	Weed Name
2.6 pts/A	Annual sedge (Cyperus compressus)
(see Restrictions)	Yellow nutsedge (Cyperus esculentus)
	Smooth crabgrass (Digitaria ischaemum)
	Large crabgrass (Digitaria sanguinalis)
1.3-2.6 pts/A	Bearded sprangletop (Leptochloa fascicularis)
(see Restrictions)	Mexican sprangletop (Leptochloa uninervia)
	Doveweed (Murdannia nudiflora)
	Annual bluegrass (Poa annua)

<sup>\*1.0</sup> pt./A = 0.37 fl. oz/1,000 sq. ft. or 11 ml/1,000 sq. ft.

#### Restrictions:

- To avoid possible illegal residues, do not graze or feed turf clippings to animals.
- Split rate of applications are permitted at rates greater than 1 pt./A.
- Do not apply more than once every 6 weeks.
- For commercial sod production, do not apply more than 4.2 pts/A per year to the same area used for sod production.
- For other turf uses, do not apply more than 2.6 pts/A per year.

**Precautions**: Delayed spring green-up, temporary slowing of growth and yellowing may occur following application. To avoid turf injury,

- apply a nitrogen-containing fertilizer at or soon after applying Hamper Herbicide to minimize delay in spring green-up and any temporary yellowing;
- use only on turfgrass not under stress from infestations of insects, nematodes, or diseases:
- o do not use on golf greens, tees, or aprons;
- do not seed or overseed with desirable turfgrass 4 months before or after treatment, and
- o do not apply this product to newly seeded grasses until they have overwintered and have a well-developed rhizome system.
- Evaluate the tolerance of turf species to mixtures with this product before use. Apply the combination to a limited area during a period of active growth.
- Weed control may be reduced in turfgrass areas which have heavy thatch.

 $<sup>1.3 \</sup>text{ pts/A} = 0.47 \text{ fl. oz/1,000 sq. ft. or } 14 \text{ ml/1,000 sq. ft.}$ 

 $<sup>2.6 \</sup>text{ pts/A} = 0.95 \text{ fl. oz}/1,000 \text{ sq. ft. or } 28 \text{ ml}/1,000 \text{ sq. ft.}$ 

#### STORAGE AND DISPOSAL

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

## **Pesticide Storage**

Do not store at temperatures lower than -30°F.

#### **Pesticide Disposal**

Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

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

**Non-refillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## Container Handling [greater than 5 gallons]

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

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

**Non-refillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

# IMPORTANT INFORMATION READ BEFORE USING PRODUCT 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Tenkoz, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of Tenkoz, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Tenkoz, Inc. and Seller harmless for any claims relating to such factors.

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