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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION 1/13

OCT 0 1 2014

Julie Porter AMVAC Chemical Corporation 4695 MacArthur Court, Suite 1200 Newport Beach, CA92660

Subject: Label Amendment – Multiple Label Changes; Incorporating Supplemental Labels Product Name: Topramezone SC Herbicide EPA Registration Number: 5481-524 Application Date: June 6, 2014 Decision Number: 492236

Dear Ms. Porter:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable.

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 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). If you have any questions, please contact Sarah Meadows by phone at 703-347-0505, or via email at meadows.sarah@epa.gov.

Sincerely,

Kathryn Montague, Product Manager 23 Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Group

27

Herbicide

# **TOPRAMEZONE SC**

# HERBICIDE

For postemergence weed control in all types of field corn, popcorn and sweet corn.

# **Active Ingredient:**

Topramezone [3-(4,5-dihydro-3-isoxa	azolyl)-2-methyl-4-		
(methylsulfonyl) phenyl] (5-hydroxy-	1-methyl-1H-pyrazol-4-yl) methanon	2	
Inert Ingredients:			70.3%
Total:	1 - <del>1</del> - <del>1</del> - 1		ACCEPTED
	(1 gallon contains 2.8 pounds of TOPRAMEZONE fr	ee acid)	ACCELLED

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

OCT O 1 2014 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pestacide registered under

Si usted no entiende la etiqueta, busque a alguien para que se la explique a ul terreschale 5481-524 (If you do not understand this label, find someone to explain it to you in detail).

	FIRST AID		
	• Hold eye open and rinse slowly and gently with water for 15 -	20 minutes.	
f in eyes:	• Remove contact lenses, if present, after first 5 minutes, then continue rinsin		
	Call a poison control center or doctor immediately for treatme	ent advice.	
f	Have person sip a glass of water if able to swallow.		
f swallowed:	• Do not induce vomiting unless told to do so by a poison control center or doctor.		
·	• Do not give anything by mouth to an unconscious person.		
	Take off contaminated clothing.	· · · · · · · · · · · · · · · · · · ·	
f on skin or clothing:	• Rinse skin immediately with plenty of water for 15 - 20 minutes.		
	• Call a poison control center or doctor for treatment advice.		
	EMERGENCY INFORMATION		
lave the product conta	iner or label with you when calling a poison control center or doc	tor, or going for	
reatment.			
6	FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY	:	
or Medical Emergencie	es phone:	1-888-681-4261	
or Transportation Eme	rgencies, including spill, leak or fire, phone: CHEMTREC <sup>®</sup>	1-800-424-9300	
	ation phone: AMVAC <sup>®</sup>	1-888-462-6823	

EPA Reg. No. 5481-524 EPA Est. No.

Net Contents: As marked on Container

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# PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION.** Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling.

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

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistant category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves Category A
- Shoes plus socks

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

#### 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 Controls Statement**

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

#### **Environmental Hazards**

DO NOT apply directly to water, or areas where surface water is present, or to inter-tidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment wash water. DO NOT apply this product through any type of irrigation system.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsate.

# DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Coveralls
- Chemical resistant gloves Category A
- Shoes plus socks

All applicable directions, restrictions, precautions and Limited Warranty and Disclaimer are to be followed. This labeling must be in the user's possession during application.

# I. INFORMATION

TOPRAMEZONE SC is a systemic postemergence herbicide for control or growth suppression of emerged broadleaf and grass weeds in field corn (grown for grain, silage or seed), popcorn (grown for ear, kernel or seed) and sweet corn (grown for ear, kernel or seed). This product may be used on conventional and herbicide resistant/tolerant corn hybrids. AMVAC has not tested all inbred lines of corn for tolerance to TOPRAMEZONE SC. Before using TOPRAMEZONE SC; refer to seed company recommendations for use on inbred lines of field corn, popcorn and sweet corn.

When applied postemergence broadcast to weeds as directed, TOPRAMEZONE SC will control or suppress the broadleaf weeds listed in Table 1 and the grass weeds listed in Table 2.

TOPRAMEZONE SC may be tank-mixed with other herbicides to provide both broader spectrum and residual weed control. Refer to Tank Mixes in the Crop Use Directions (Section VII).

TOPRAMEZONE SC applications must also include recommended spray additives. Refer to Additives and Mixing Order (Sections III and IV).

 Table 1. Broadleaf Weeds Controlled or Suppressed with Topramezone SC applied Postemergence

 (Including ALS-Resistant [Group 2]<sup>1</sup>, Glyphosate-Resistant [Group 9] and Triazine-Resistant [Group 5] Biotypes)

Annual Broadleaf Weeds <sup>2</sup>	Topramezone SC 0.75 to 1.0 fl. oz. per acre Maximum Weed Size (Inches) <sup>3</sup>	Annual Broadleaf Weeds <sup>2</sup>	Topramezone SC 0.75 to 1.0 fl. oz. per acre Maximum Weed Size (Inches) <sup>3</sup>
Amaranth, Palmer	64	Nightshade, Hairy	6
Amaranth, Powell	6 <sup>.</sup>	Pigweed, Prostrate	6
Burcucumber	6	Pigweed , Redroot	6
Canola, Volunteer	6	Pigweed, Smooth	6
Carpetweed	6	Pigweed, Tumble	4
Chickweed, Common	4	Prickly Lettuce	4
Cocklebur, Common	8	Pusley, Florida	3
Dandelion	- 6 <sup>5</sup>	Ragweed, Common	6
Galinsoga, Hairy	6	Ragweed, Giant	84
Henbit	4	Shepherd's-purse	4
Jimsonweed	6	"Sida, Prickly	3
Kochia	64	Smartweed, Ladysthumb	3
Lambsquarters, Common	6	Smartweed, Pennsylvania	3
Mallow, Common	3	Sunflower, Volunteer	8 <sup>4</sup>
Mallow, Venice	3 <sup>5</sup>	Sunflower, Wild (Common)	8 <sup>4</sup>
Marestail (Horseweed)	6 <sup>4</sup>	Thistle, Canada	6 <sup>5</sup>
Morningglories	6 <sup>5</sup>	Thistley Russian	. 4
Mustards	6	Velvetleaf	· 8 <sup>4</sup>
Nightshade, Black	6	Waterhemp, Common	64
Nightshade, Eastern Black	6	Waterhemp, Tall	. 6 <sup>4</sup>

<sup>1</sup>ALS (acetolactate synthase) resistant weeds include those weeds resistant to the sulfonylurea, imidazolinone, or sulfonamide families of herbicides.

<sup>2</sup>Refer to Section IX for a list of scientific names.

<sup>3</sup>For best performance, apply before weeds exceed the maximum stem size or vine length listed in this table.

<sup>4</sup>A rate of 1.0 fl. oz. per acre is recommended if maximum weed size is reached.

<sup>5</sup>Indicates growth suppression.

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Table 2. Annual Grass Weeds Controlled or Suppressed with Topramezone SC Applied Postemergence(Including ALS-Resistant [Group 2]<sup>1</sup> Biotypes)

· · · · · · · · · · · · · · · · · · ·	Topramezone SC 0.75 fl. oz. per acre Maximum Weed Size		Topramezone SC 1.0 fl. oz. per acre	
Annual Grass Weeds <sup>2</sup>				
Annual Grass weeds			Maximum Weed Size	
	(Inches) <sup>3</sup>	Rating <sup>4</sup>	(Inches) <sup>3</sup>	Rating <sup>4</sup>
Barnyardgrass	4	С	5	С
Crabgrass, Large	3	С	4	C
Crabgrass, Smooth	3	С	4	С
Cupgrass, Woolly	3	PC		C
Foxtail, Giant	4	C	5	С
Foxtail, Green	3	C	4	С
Foxtail, Yellow	3	PC 3	3	С
Goosegrass	3	C	4	С
Johnsongrass, Seedling	4	PC	4	С
Millet, Wild-Proso	3	С	4	С
Panicum, Fall	3	PC	3	С
Panicum, Texas	3	PC	3	PC
Shattercane	4	PC	4	PC
Signalgrass, Broadleaf	3	PC	3	С

<sup>1</sup>ALS (acetolactate synthase) resistant weeds include those weeds resistant to the sulfonylurea, imidazolinone, or sulfonamide families of herbicides.

<sup>2</sup>Refer to Section IX for a list of scientific names.

<sup>3</sup>For best performance, apply before grasses exceed the maximum size listed in this table.

<sup>4</sup>Rating: C=Control; PC=Partial Control. The addition of atrazine at minimum of 0.5 pound per acre tank-mixed with Topramezone SC is recommended for best performance on grasses.

#### Mode of Action

TOPRAMEZONE SC is absorbed by leaves, roots, and shoots and translocated to the growing points of sensitive weeds to provide control of emerged weeds. TOPRAMEZONE SC controls weeds by inhibiting carotenoid biosynthesis (HPPD inhibitor GROUP 27). Temperatures and moisture conditions for active plant growth are important for optimum TOPRAMEZONE SC activity. TOPRAMEZONE SC applications to weeds during periods of stress conditions such as cold temperatures and/or drought can result in reduced performance.

#### Herbicide Resistance

Repeated applications of any single mode of action in a weed management plan increases the probability of selecting for naturally occurring biotypes\* with less susceptibility to herbicides using that mode of action. TOPRAMEZONE SC is a Group 27 herbicide and should be tank mixed with an herbicide having a different effective mode of action and/or be used in a rotation with herbicides having a different effective mode of action to best control the weed species in question and minimize the selection for Group 27 herbicide resistance. In addition, efforts should be made to include non-herbicide tactics to develop a more diverse and effective weed management program.

\*A weed biotype is a naturally occurring individual within a given species that has a slightly different, but distinct genetic makeup from other plants.

#### Best Management and Stewardship Practices

It is critical to adopt a diversified weed management system in order to provide the best stewardship to

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Topramezone SC and to ensure consistent weed control and to best protect potential crop yield. Best management practices that diversify weed management include using herbicide treatments with multiple modes of action that are effective on target weeds. The effective herbicides can be used in rotation or in combination, and should be used at the highest rate labeled. Herbicide best management practices should be augmented with cultural (e.g., crop rotation) and mechanical (e.g., tillage) tactics. Effort should be expended to keep escaped weeds from contributing seeds to the soil weed seed bank. Scouting soon after herbicide application is an important strategy to identify weed population shifts or herbicide resistant biotypes before the problems become more difficult to manage. Take precautions to keep equipment free of weed seeds when moving from field to field. This is extremely important if fields are custom harvested. By adopting best management practices and providing stewardship to protect against the evolution of herbicide resistant weeds, crop yield potential is higher and thus economic returns are greater.

#### Crop Tolerance

TOPRAMEZONE SC should be applied during favorable growing conditions for optimum crop tolerance and weed control. Crops under environmental stress are more likely to show injury from any herbicide application. Rarely, plants under environmental stress conditions and treated with TOPRAMEZONE SC may show some transient bleaching of the portion of the leaves intercepting the spray application. These symptoms are temporary and occur rarely, and crop growth is not affected.

#### Cultivation

Avoid disturbing (e.g., cultivation) treated areas for at least 7 days following an application of TOPRAMEZONE SC to allow maximum possible herbicide uptake, translocation, and weed control. If cultivation is part of a diverse weed management program, it is important to avoid deep cultivation that will move dormant weed seeds into the soil zone where germination is likely.

Insecticide Information

TOPRAMEZONE SC may be used sequentially or in combination with soil or foliar applied insecticides registered for use in corn.

#### Cleaning Spray Equipment

To avoid injury to sensitive crops, drain and clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions. Equipment should be cleaned and triple rinsed before and after applying this product.

# **II. APPLICATION INSTRUCTIONS**

TOPRAMEZONE SC is effective for postemergence control of many annual weeds in conservation and conventional tillage crop production systems.

Do not apply TOPRAMEZONE SC within 30 feet of native plant community.

The applicator is responsible for any loss or damage that results from spraying TOPRAMEZONE SC in a manner other than recommended in this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regards to spraying.

#### **TOPRAMEZONE SC Application Rate and Timing:**

• TOPRAMEZONE SC may be applied up to a total of 1.0 fluid ounce (0.022 pounds active ingredient) per treated acre per growing season.

- TOPRAMEZONE SC can be applied postemergence up to 45 days prior to corn harvest.
- Apply TOPRAMEZONE SC as a postemergence treatment to corn when weeds are actively growing.
- For optimal weed control apply TOPRAMEZONE SC before weeds exceed labeled maximum size.
- TOPRAMEZONE SC should be applied a minimum of one hour before rainfall or overhead irrigation.

#### Spray Coverage

Weeds must be thoroughly covered with spray droplets to achieve consistent control of emerged weeds. Dense leaf canopies will shelter small weeds and can prevent adequate spray coverage on these weeds resulting in poor overall weed control.

#### **Ground Application Methods and Equipment**

Uniformly apply TOPRAMEZONE SC with properly calibrated ground equipment in 10 or more gallons of water per acre. Use higher water volumes when treating larger weeds and/or dense weed infestations. Select nozzle types, spray pressure, and carrier volume that deliver droplets which will thoroughly cover target weeds. TOPRAMEZONE SC applications can be made with drop nozzles if the crop canopy prevents adequate weed coverage using broadcast applications methods.

#### Spray Drift

Do not apply when weather conditions favor spray drift to adjacent crops and vegetation; injury to sensitive plant species can occur if contacted by drift. To avoid spray drift from treated areas, do not make applications when wind speeds exceed 10 mph or during periods of temperature inversions.

Use of nozzles that are designed to provide larger droplet sizes will reduce spray drift potential. Agriculturally approved drift-reducing additives may also be used with TOPRAMEZONE SC in accordance with the product labels.

#### Aerial Application Methods and Equipment

Uniformly apply with properly calibrated aerial equipment in 3 or more gallons of water per acre. Adequate spray volume must be used to provide accurate and uniform distribution of spray particles over the treated area and to avoid drift of spray particles to non-target areas.

To avoid injury to sensitive crops from drift, aerial applicators must adhere to the following SPECIAL AERIAL USE DIRECTIONS AND PRECAUTIONS.

• Nozzle height above ground must be a maximum of 10 feet.

• Nozzles must be pointed towards the rear of the aircraft. The downward angle of the nozzle should not be greater than 20 degrees.

• To minimize wing-tip vortex roll, nozzles or spray boom must not be located any closer to end of wing or rotor than three-fourths the distance from the center of the aircraft.

Use a maximum spray pressure of 40 psi.

•A buffer zone must be established between the area to be sprayed and sensitive crops.

• DO NOT spray when wind velocity is greater than 5 mph or during periods of temperature inversions. Coarse sprays (larger droplets) are less likely to drift.

# **III. ADDITIVES**

Postemergence applications of TOPRAMEZONE SC require the addition of an adjuvant and a nitrogen fertilizer source to achieve optimum weed control.

**1.** ADJUVANTS: Unless specific recommendations are given in Section VII. Crop Use Directions -Tank Mixes, always use either a methylated seed oil (MSO) or a crop oil concentrate (COC) containing at least 14% emulsifiers and 80% oil with TOPRAMEZONE SC. For best performance across a wide range of environmental conditions such as when weeds are under moisture and/or temperature stress, the use of an MSO-based adjuvant is recommended. Apply oil-based adjuvant concentrates at the rates of 1.0 to 1.5 gallons per 100 gallons of water (1.0% to 1.5% v/v). Use the higher rate when making an application during periods of hot dry weather and to larger weeds. **AND** 

**2. NITROGEN FERTILIZER SOURCE:** Recommended nitrogen based fertilizers include urea ammonium nitrate (UAN; 28-34%) or ammonium phosphate (10-34-0) at 1.25 to 2.5 gallons per hundred gallons of water (1.25% to 2.5% v/v). Instead of a liquid fertilizer, spray grade ammonium sulfate (AMS) at 8.5 to 17 pounds per 100 gallons of water (or an equivalent liquid AMS product) may be used. Use the higher rate when making application during periods of hot dry weather and to larger weeds.

# IV. MIXING ORDER

Following are mixing order guidelines for TOPRAMEZONE SC when mixing either alone or with other components, including spray adjuvants:

#### WATER:

1. Fill the spray tank ½ to ¾ full with clean water.

2. Add the required amount of TOPRAMEZONE SC to the spray tank while agitating.

3. After TOPRAMEZONE SC has visibly dispersed, continue agitation and add spray additives while filling the remainder of the tank with water.

#### **TANK-MIX PREPARATION:**

When tank-mixing TOPRAMEZONE SC with recommended herbicides, add the other herbicides and other components in the following order, all while agitating:

- 1. Fill spray tank ½ to ¾ full with clean water.
- 2. Add soluble packet products and thoroughly mix.
- 3. Add TOPRAMEZONE SC and thoroughly mix.
- 4. Add WP (wettable powder), DG (dispersible granule), DF (dry flowable), or F (liquid flowable) formulations.
- 5. Add EC (emulsifiable concentrate) products.
- 6. Add spray adjuvants to the spray tank.
- 7. Fill the remainder of the tank with water.

# **V. TANK MIX INFORMATION**

TOPRAMEZONE SC is recommended to be used sequentially or tank mixed with other herbicides as part of a complete weed control program. Tank mix recommendations are for use only in states where the sequential or tank mix product and application site is registered. Refer to Crop Use Directions (Section VII) for more details and for specific tank mix restrictions. Read and follow the applicable Restrictions and Limitations (Section VI) and Directions for Use on all products included in any tank mix. The most restrictive labeling applies to tank mixes. Liquid fertilizer as a carrier for postemergence applications of TOPRAMEZONE SC is not recommended. Use only water as a carrier.

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# **VI. RESTRICTIONS AND LIMITATIONS**

• Maximum seasonal use rate: No more than 1.0 fluid ounce per acre (0.022 lbs ai/acre) of TOPRAMEZONE SC may be applied during the growing season.

• DO NOT apply TOPRAMEZONE SC within 45 days of corn harvest (fresh market sweet corn, silage, fodder, or grain).

• DO NOT graze or feed treated corn forage, silage, fodder, or grain for at least 45 days after an application of TOPRAMEZONE SC.

#### Table 3. ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after uniformly applying TOPRAMEZONE SC at the application rates in corn shown in the chart below. Do not plant earlier than the specified interval at the rates shown in the chart below, as crop injury could occur. Avoid over-applications by minimizing overlaps of spray swaths and by switching off spray boom when turning (end rows). In the event of a crop loss due to weather or other causes, any corn type can be replanted at any time following an application of TOPRAMEZONE SC herbicide. If TOPRAMEZONE SC was tank-mixed with other herbicides, the label replanting restrictions for these herbicides must also be followed.

1 <u>2</u> .	A	(A)	
	Rotatio	onal Interval (Mor	nths)
	Topramezone SC	Application Rate	fl. oz. per acre)
Rotational Crop	0.5	0.75	1.0
Corn, sweet corn and popcorn (all types)	Immédiate	Immediate	Immediate
Cereal grains (wheat, barley, oats, rye)	3	3	3
Grass, grown for seed and forage	3.	3	3
Rice	3	3	3 <sup>,</sup>
	n		
Alfalfa	9	9	9
Cotton	9	9	9
Peanut	9	9	9
Potato	9	9	9
Sorghum	s 9	9	9
Soybean	9	9	9
Sunflower	9	9.	9
Canola	9	9	18
Dry Bean (excluding cranberry bean)	9	9 <sup>1</sup>	18 <sup>2</sup>
Flax	9	9	18
Green Bean (including seed production)	9 <sup>3</sup>	9 <sup>3,4</sup>	18 <sup>5</sup>
Pea	9	9	18 <sup>2</sup>
Sugar beet	9 <sup>4</sup>	94	18 <sup>2</sup>
All Other Crops	18	18	18

<sup>1</sup>18 month interval in MI, MN, MT, ND, SD, WI, and WY.

<sup>2</sup>9 month interval in ID, OR, and WA.

<sup>3</sup> 18 month interval in ID, UT, and in area East of Cascade Mountains in OR and WA.

<sup>4</sup> 18 month interval in CO, MI, MN, MT, NE (Panhandle counties), ND, SD, WI, and WY.

<sup>5</sup>9 month interval in area West of Cascade Mountains in OR and WA.

# **VII. CROP USE DIRECTIONS**

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#### **CORN** (Field, Pop, Seed and Sweet)

TOPRAMEZONE SC can be applied postemergence on all corn types including conventional, Clearfield®, Roundup Ready®, and LibertyLink® hybrids. In addition, TOPRAMEZONE SC may be applied on inbred lines used in field corn, popcorn and sweet corn seed production. Refer to seed company recommendations before application of TORAMEZONE SC on inbred lines.

TOPRAMEZONE SC may be used in tank mixtures or sequential applications with other herbicides that are registered for use in corn. If TOPRAMEZONE SC is tank mixed with other herbicides, follow the label restrictions for the most restrictive of the tank mix products.

For best performance it is recommended that TOPRAMEZONE SC be tank mixed with 0.25 to 1.5 pounds active ingredient of atrazine herbicide per acre. Use lower rates of atrazine to provide enhanced burndown of emerged weeds and higher rates for both enhanced burndown and additional soil residual control.

#### **Tank Mixes**

When applied postemergence at 0.75 to 1.0 fluid ounce per acre, TOPRAMEZONE SC may be tank-mixed with one or more of, but not limited to, the following corn herbicides:

2,4-D <sup>1</sup>	Cadet	Harness	Resolve <sup>®</sup> Q
Aim <sup>®</sup>	Cinch <sup>®</sup> brands	Harness <sup>®</sup> Xtra	Resource
Anthem <sup>™</sup> brands	Clarity <sup>®1</sup>	Hornet	Status
Atrazine	Degree	Keystone	Stinger®
Basagran®	Degree Xtra®	Keystone <sup>®</sup> LA	Surpass
Bicep II Magnum <sup>™</sup>	Dual II Magnum	Marksman <sup>°1</sup>	TopNotch®
Bicep Lite II Magnum®	FulTime	Outlook <sup>®</sup>	Warrant
Breakfree <sup>®</sup> brands	G-Max <sup>®</sup> Lite	Prowl <sup>®</sup> H20	Zidua <sup>®</sup>
Buctril <sup>®</sup>	Guardsman Max	Require <sup>®</sup> Q (mp)	

When applied postemergence at 0.5 to 0.75 fluid ounce per acre, TOPRAMEZONE SC may be tank-mixed with the following corn herbicides<sup>2</sup>:

Accent <sup>®</sup>	Liberty	<sup>°</sup> Roundup PowerMAX <sup>°</sup>	Steadfast <sup>®</sup> Q
Accent <sup>®</sup> Q	Lightning	Roundup WeatherMAX <sup>°</sup>	Stout <sup>®</sup>
Glyphosate	Option	Steadfast <sup>°</sup>	Touchdown <sup>®</sup> brands

Use of methylated seed oil (MSO) or crop oil concentrate (COC) in tank mixes of TOPRAMEZONE SC plus 2,4-D containing products, Clarity, or Marksman may result in crop injury if applied during periods of cold, wet weather or hot and/or humid weather. Under these environmental conditions the use of a nonionic surfactant in place of an oil based adjuvant is recommended.

TOPRAMEZONE SC may be applied at a reduced rate of 0.5 to 0.75 fluid ounces per acre to provide additional control of emerged broadleaf weeds when used in tank mixes with the above listed postemergence herbicides. For corn up to 12 inches tall, atrazine may be added to these herbicide mixes. If weed species are known to be tolerant or resistant to the tank mix partner product, use a higher rate of TOPRAMEZONE SC. For best performance on targeted broadleaf weeds, do not exceed the maximum labeled weed size found in Table 1 under Information. When tank mixed with these products, use spray additives as recommended on the labels of the companion herbicides.

# **VIII. SEQUENTIAL HERBICIDE COMBINATIONS AND USES**

In addition to the control of many emerged broadleaf weeds, TOPRAMEZONE SC controls or suppresses the growth 524-20140922 Topramezone SC\_includes formatting changes Page 10 of 12

of several emerged grass weed species. To target a broader spectrum of annual grasses, TOPRAMEZONE SC should be used as a sequential postemergence treatment following a preemergence grass herbicide (Group 15 or Group 3) such as Outlook<sup>\*</sup>, Prowl<sup>\*</sup> H<sub>2</sub>O, Dual II Magnum<sup>\*</sup>, Harness<sup>\*</sup>, or Zidua<sup>\*</sup>. TOPRAMEZONE SC can also be used in sequential programs with registered burn-down herbicides.

When TOPRAMEZONE SC is used in sequential applications following other products containing Group 27 herbicides such as isoxaflutole (e.g. Corvus<sup>°</sup>, Balance<sup>°</sup> Flexx), mesotrione (e.g. Callisto<sup>°</sup>, Lexar<sup>°</sup>, Lumax<sup>°</sup>), or tembotrione (e.g. Laudis<sup>°</sup>, Capreno<sup>°</sup>) use of a tank mix partner with a different effective mode of action is recommended at full use rates to reduce risk of selection for HPPD resistant weed biotypes.

# IX. SCIENTIFIC NAMES OF WEEDS SPECIFIED IN THIS LABEL

	· · ·		
Common Name	Scientific Name	Common Name	Scientific Name
Amaranth, Palmer	Amaranthus palmeri	Nightshade, Eastern Black	Solanum ptycanthum
Amaranth, Powell	Amaranthus powellii	Nightshade, Hairy	Solanum sarrachoides
Barnyardgrass	Echinochloa crus-galli	Panicum, Fall	Panicum dichotomiflorum
Burcucumber	Sicyos angulatus	Panicum, Texas	Panicum texanum
Canola, Volunteer	Brassica spp.	Pigweed, Prostrate	Amaranthus blitoides
Carpetweed	Mollugo verticillata	Pigweed, Redroot	Amaranthus retroflexus
Chickweed, Common	Stellaria media	Pigweed, Smooth	Amaranthus hybridus
Crabgrass, Large	Digitaria sanguinalis	Pigweed, Tumble	Amaranthus album
Crabgrass, Smooth	Digitaria ischaemum	Prickly Lettuce	Lactuca serriola
Cocklebur, Common	Xanthium strumarium	Pusley, Florida	Richardia scabra
Cupgrass, Woolly	Eriochloa villosa 👘 👘	Ragweed, Common	Ambrosia artemisiifolia
Dandelion	Taraxacum officinale	Ragweed, Giant	Ambrosia trifida
Foxtail, Giant	Setaria faberi	Shattercane	Sorghum bicolor
Foxtail, Green	Setaria viridis 🧀	Shepherd's-purse	Capsella bursa-pastoris
Foxtail, Yellow	Setaria glauca	Sida, Prickly	Sida spinosa
Galinsoga, Hairy	Galinsoga ciliata 👘 🎡	Signalgrass, Broadleaf	Brachiaria platyphylla
Goosegrass	Eleusine indica	Smartweed, Pennsylvania	Polygonum pensylvanicum
Henbit	Lamium amplexicaule	Smartweed, Ladysthumb	Polygonum persicaria
Jimsonweed	Datura stramonium	Sunflower, Volunteer	Helianthus spp.
Johnsongrass	Sorghum halepense	Sunflower, Wild (common)	Helianthus annuus
Kochia	Kochia scoparia 👘 🍼	Thistle, Canada	Cirsium arvense
Lambsquarters, Common	Chenopodium album	Thistle, Russian	Salsola iberica
Mallow, Common	Malva neglečta	Velvetleaf	Abutilon theophrasti
Mallow, Venice	Hibiscus trionum	Waterhemp, Common	Amaranthus rudis
Marestail (Horseweed)	Conyza canadensis	Waterhemp, Tall	Amaranthus tuberculatus
Millet, Wild-Proso	Panicum miliaceum		
Morningglory	Ipomoea spp.		
Mustard	Brassica spp.		
Nightshade, Black	Solanum nigrum		

# STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal, or cleaning of equipment. Open dumping is Do not

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**PESTICIDE STORAGE:** Store product in original container only. Store product in a cool, dry place. Do not store this product under wet conditions. If this product has been stored where freezing temperatures have occurred, agitate or mix contents of container well before use. Avoid cross-contamination with other pesticides.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned stay out of smoke.

# LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or mall states or underall conditions.

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