SULFENTRAZONE	GROUP	14	HERBICIDE
CHLORIMURON-ETHYL	GROUP	2	HERBICIDE

TIGRIS™ SULFEN XL

ACTIVE INGREDIENT:	**(% by weight)**
Sulfentrazone	62.2%
Chlorimuron Ethyl	7.8%
OTHER INGREDIENTS	30.0%
TOTAL	100.0%

Equivalent to 0.7 pounds of active ingredient per pound product (0.62 lb ai/lb of sulfentrazone and 0.08 lb ai/lb of chlorimuron ethyl)

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF SWALOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

EPA Reg. No.: 92647-16

TIGRIS™

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Causes moderate eye irritation. Do not get into eyes, on skin, or on clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt, long pants and protective eyewear
- Shoes plus socks
- Waterproof gloves

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do Not Reuse Clothing. Follow manufacturer's label instructions for cleaning/maintaining PPE. In the event there are no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENTS

Handlers using enclosed cabs or closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], may reduce or modify the handler PPE requirements as specified in the WPS.

PHYSICAL/CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

USER SAFETY RECOMMENDATIONS

Users should:

Always wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside.

Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS:

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Surface Water Advisory:

Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several too many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Ground Water Advisory: Sulfentrazone and chlorimuron-methyl are known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Do not use on coarse soils classified as sand which have less than 1% organic matter.

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 at the time of application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

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

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

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

- coveralls over long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks

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Prior to using Tigris Sulfen XL, consideration should be given to crop rotation plans. Crops other than soybeans may be extremely sensitive to low concentrations of Tigris Sulfen XL remaining in the soil the next planting season. Choice of rotation crop is restricted following application of Tigris Sulfen XL. (See "ROTATIONAL CROP GUIDELINES" for your geographical region.)

IMPORTANT TO OBSERVE THE FOLLOWING

Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Injury or loss of desirable trees or vegetation may result. Do not use on lawns, walks, driveways, tennis courts or similar areas. Prevent drift of spray to desirable plants. Keep from contact with fertilizers, insecticides, fungicides and seeds during storage. Do not contaminate any body of water.

Thoroughly clean Tigris Sulfen XL from application equipment immediately after use and prior to spraying crops other than soybeans. Injury may result to subsequent crops if failure to remove even small amounts of Tigris Sulfen XL from application equipment.

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 area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

Proper Handling Instructions: Do Not mix or load this product within 50 feet of any well to include abandoned and drainage wells, streams and rivers, lakes and reservoirs. This 50 feet perimeter does not apply to capped or plugged wells. It does not apply to dikes that are properly constructed around mixing or loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Any such pad used for this purpose must be constructed to be able to contain: Product spills – Equipment leaks – equipment rinsate or wash – container leaks – rain water that collects on the pad. This pad must be self-contained. Pads that are constructed with roofs must be able to provide a minimum containment capacity of 100%. Pads without roofs must have a capacity to contain a minimum of 110% capacity of the largest container or application equipment that may be on the pad. The above mentioned minimum containment capacities do not apply to equipment/vehicles that are delivering pesticide shipments to the loading or mixing site. Always check with your state regulatory official since each state may have different or additional well set-backs and or containment operation guidelines.

This product must be used in a way to prevent any back siphoning into wells. It must be used in a manner to prevent spills, improper disposal of pesticide, rinsates and or spray mixtures into wells or any water source.

PRODUCT INFORMATION

Tigris Sulfen XL is a dispersible granule formulated to easily mix with water, to be sprayed for selected preemergent and pre-plant incorporated weed control in soybeans. Control of many broadleaf weeds and partial control of annual grasses will be attained when applied according to label instructions.

Rainfall or sprinkler irrigation is required to activate Pre-emergence and Pre-plant incorporated applications of Tigris Sulfen XL. The control and duration of effect depend on the following: Use rate, growing conditions at and following time of treatment, weed spectrum, soil pH, moisture and precipitation and organic matter. Use information which is applicable to all Tigris Sulfen XL use geography can be found within the label.

USE RESTRICTIONS

- This product may only be used for selected preemergent and pre-plant incorporated weed control in soybeans.
- The maximum single application rate for Tigris Sulfen XL is not to exceed the full rate listed in Table 1.
- The maximum annual application rate for Tigris Sulfen XL is not to exceed the full rate listed in Table 1.
- Apply Tigris Sulfen XL according to Rate Tables 1 or 2 as directed for specific types of application and geographic areas. Do not use the full use rate (Rate Table 1) in DE, IA, MD, MI, MN, NJ, VA, WI and WV.
- Do not use Tigris Sulfen XL in CO, WY, ND, NY or SD at any rate. Do not apply Tigris Sulfen XL in Nebraska west of US Hwy 281 and north of US Hwy 30.
- Do not apply to black belt soil of Alabama or Mississippi with a soil pH >6.8 or history of nutrient deficiency such as iron chlorosis, as injury may occur.
- Do not follow Tigris Sulfen XL with a post-emergence application of another chlorimuron-ethyl containing herbicide in the same cropping season.
- Do not apply Tigris Sulfen XL if there are visible signs of cracking due to soybean emergence, or serious crop injury may result.
- Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots, or injury to desirable trees and plants may occur.
- Do not use on lawns, walks, driveways, tennis courts or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds during storage.
- Do not tank mix Tigris Sulfen XL with organophosphate insecticides. Do not apply Tigris Sulfen XL within 14 days before or after an application of an organophosphate insecticide, as severe crop injury may occur.
- Do not apply this product through any type of irrigation system.
- Do not feed treated soybean forage or soybean hay to livestock.

Aerial Application

- Aerial application is allowed only when environmental conditions prohibit ground application.
- When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre.
- The maximum release height must be 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.

ROTATIONAL GUIDELINES FOR ALL Tigris Sulfen XL APPLICATIONS

The table below describes the minimum length in months from the time of Tigris Sulfen XL application until Tigris Sulfen XL treated soil can be replanted to the crops listed in the table. When a recommended tank mix is used, consult the tank mix partner labels for re-cropping instructions and follow the directions.

ROTATIONAL GUIDELINE
For Full Use Rates (See Rate Table 1)

Refer to importance of soil pH section on page 8 for additional information

Crop	Rotation Interval A IN, OH, MO, IL, KS, NE, OK Soil pH less than 7.2, (If soil pH is greater than 7.2 use rotation interval B)	Rotation Interval B AL, AR, GA, KY, LA, Ml, MS,MO Bootheel, NC, PA, SC, TN, and TX where soil pH is greater than 6.8 (For those states listed above, if soil pH is less than 6.8 use rotation interval A)
	Recropping Interval in Months	Recropping Interval in Months
Soybeans[3]	Anytime	Anytime
Wheat, Barley, Rye	4	4
Oats	12	18
Alfalfa	12	18
Rice	10	18
Tobacco	10	18
Tomato (transplant)	12	18
Field Corn[1]	10	10
Dry Beans	12	18
Clover, Cotton, Cucumber, Flax, Peanuts, Pumpkin, Sunflower, Popcorn, Sweet Corn, Watermelon, Cabbage, Lentils, Mustard	18	18
Canola (rapeseed), Carrot, Onion, Potato, Sugar Beets and any other crop not listed	36	36

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ROTATIONAL GUIDELINE
For Reduced Use Rates - (See Rate Table 2)
Refer to Importance of soil pH section on page for additional information

Crop	Rotation Interval A All States, all pH's except those listed in column B	Rotation Interval B DE, IA, MD, MI, MN, NJ, VA, WI, WV soil pH greater than 6.8
	Recropping Interval in Months[4]	Recropping Interval in Months[4]
Soybeans3	Anytime	Anytime
Wheat, Barley, Rye	4	4
Oats	12	18
Alfalfa	12	18
Rice	10	18
Sorghum	10	18
Tobacco	10	18
Tomato (transplant)	12	18
Field Corn[1]	10	10
Dry Beans	12	18
Clover, Cucumber, Flax, Pumpkin, Sunflower, Sweet Corn, Popcorn, Watermelon, Cabbage, Lentils, Mustard	18	18
Canola (rapeseed), Carrot, Onion, Potato, Sugar Beets and any other crop not listed	36	36
Cotton[2]	18 or 12	18 or 12
Peanuts	12	18

Under rotational interval A of the Reduced Rate Table above, a pre-emergent application of a Chlorimuron ethyl product is not allowed in the states of AL, AR. GA, KY, LA, MO Bootheel, MS, NC, OK, SC, TN and TX where soil pH is greater than 7.0.

Do not use full use rates in the states of DE, IA, MD, MI, MN, NJ, VA, WI and WV.

[1] Field corn includes corn grown for grain, silage, and seed corn.

[2] Cotton may be planted after 12 months where Tigris Sulfen XL was applied at rates of 5 oz/acre or less and meets the following conditions:
- Medium and fine soils
- pH <7.2
- Rainfall or irrigation must exceed 15" after application of Tigris Sulfen XL to rotate to cotton

[3] Do not feed treated soybean forage or soybean hay to livestock.

[4] Crops that have rotational intervals greater than 12 months after an Tigris Sulfen XL application are the result of crop injury concerns. The crops should be planted with a successful bioassay.

BIOLOGICAL ACTIVITY
Tigris Sulfen XL quickly inhibits growth of susceptible weeds. Susceptible weeds may germinate and emerge following an application of pre-plant incorporation or pre-emergence treatment, but leaves become yellow 3-5 days after emergence and growth ceases. Death of growing points and leaf tissue will occur in some species while others will remain green, stunted and non-competitive. Tigris Sulfen XL will provide partial control of some annual grasses applied correctly but an additional product(s) may be warranted to provide best grass control.

Seedling vigor may be impacted if poor growing conditions prevail. If poor growing conditions are present Tigris Sulfen XL (like other soil applied herbicides) may injure soybeans. In the event injury symptoms appear they will disappear rapidly and will not result in reductions of yield. Poor growing conditions, such as cool temperatures, presence of disease pathogens, excessive moisture and soil compaction may cause this temporary injury to soybeans.

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WEEDS CONTROLLED-PRE-EMERGENCE

When used as directed Tigris Sulfen XL will provide control of the following weed species:

Carpetweed	Russian Thistle
Cocklebur*	Nutsedge, Purple
Copperleaf, Hophornbeam	Nutsedge, Yellow
Copperleaf, Virginia	Pigweed Palmer amaranth Redroot Smooth Spiny amaranth
Florida beggarweed	
Jimsonweed	
Kochia	
Lambsquarters	
Mallow, Venice	Poinsettia, wild
Marestail	Prickly sida (teaweed)
Morningglory Annual Ivyleaf Entireleaf	Purslane, common
	Ragweed, common
	Ragweed, giant*
	Senna, Coffee
Pitted Smallflower Tall	Smartweed (annual)
	Spurge, Spotted
	Sunflower, wild
Mustard, wild	Velvetleaf
Nightshade, Black	Waterhemp, common
Nightshade, Eastern Black	Waterhemp, tall
Nightshade, Hairy	Star of Bethlehem

*Weed species which can germinate deep in the soil such as pitted morningglory, cocklebur, and giant ragweed or other weeds; such as nutsedge, which may emerge at various times during the growing season may require a cultivation or a follow up application of postemergence herbicides for season-long control.

Tigris Sulfen XL will provide partial control of the following weeds when used as directed:

Barnyardgrass	Mexicanweed
Burcucumber	PanicumTexas and fall
Crabgrass	Sesbania, Hemp
Foxtail, species	Sicklepod
Goosegrass	Signalgrass, broadleaf
Johnsongrass, seedling	

For additional instructions on weed control, see comments following **Rate Table 1**.

APPLICATION GUIDELINES

SPRAY VOLUMES

Ground Application: Apply uniformly by ground equipment with a properly calibrated sprayer equipped with fan-type nozzles or other appropriate nozzles. Adjust spray pressures to recommendations that are appropriate for the nozzle type being utilized. Sprayer and spray nozzles should be set to minimize the risk of fine droplets (<150 microns), yet achieve adequate coverage of existing weeds. Use nozzles that require screens no finer than 50 mesh. Use 10 to 40 gals of water per acre.

Continuous agitation in the spray tank is required to keep the product in suspension. Avoid overlap and shut off spray booms while starting, turning, slowing or stopping, as injury to the crop may result.

Aerial Application: Aerial application is allowed only when environmental conditions prohibit ground application. Tigris Sulfen XL may be applied by air using properly calibrated nozzle types and arrangements that will provide optimum coverage while producing minimal amounts of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of five (5) gallons of finished spray per acre. Do not apply when wind speed favors drift beyond the area intended for treatment.

PREPARATION OF SPRAY TANK

Before using Tigris Sulfen XL it is very important the spray equipment is clean and free of any previous pesticide deposits in the tank. Use the previous product's label that was used and follow Tank Cleanout procedures that are on the label. If no procedure is provided use the cleanout procedure on the Tigris Sulfen XL label marked SPRAYER CLEANOUT.

Mixing Instructions

1. Fill the tank 1/4 to 1/3 full of water.
2. Add the required amount of Tigris Sulfen XL while agitating.
3. Maintain agitation and continue filling tank with water to insure Tigris Sulfen XL is fully dispersed.
4. Before adding any other material Tigris Sulfen XL should be thoroughly mixed with water in the spray tank. Mixing order should be the following: Fill tank half-full and add Tigris Sulfen XL – while continue filling with water add other herbicide(s), recommended spray adjuvant and liquid nitrogen fertilizer if recommended.
5. Apply Tigris Sulfen XL spray solution within 24 hours of mixing to avoid product degradation.
6. If spray tank has stopped and the mixture has settled, before using re-agitate thoroughly.
7. When tank mixing with liquid fertilizers always prepare a slurry with water before adding to spray tank.

SPRAYER CLEANOUT

To avoid injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of Tigris Sulfen XL as follows:

1. Drain tank; thoroughly hose down the interior surfaces of the tank; then flush tank, boom, and hoses with clean water for a minimum of 5 minutes.
2. Fill spray tank half full of water and add one of the cleaning agents listed below. Finish filling the tank with water, and then flush the cleaning solution through the boom, hoses, and nozzles. Add water to completely fill the tank and allow to agitate or recirculate for at least 10 minutes. Again, flush the boom, hoses and nozzles, and drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing water and the cleaning agent.
4. Repeat Step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing water through the boom-nozzles and hoses.

NOTE: Carefully read and follow the individual cleaning agent instructions. Use any of the following cleaning agents:

- One gallon of household ammonia (contains 3% active) per 100 gallons of water.
- Commercial spray tank cleaner

Do not drain or flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

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

IMPORTANCE OF SOIL PH

Always determine soil pH by laboratory analysis using a 1:1 ratio of soil to water suspension.

Variations of soil pH in the same field can vary as much as 2 pH units is not uncommon. Therefore, it is recommended that subsampling for pH values that may be higher than a field average. Do not depend on composite soil samples taken for analysis of soil fertility since they may not detect areas of high pH.

The following is a non-inclusive list of potential high pH areas where sub-sampling is recommended:

- Where different soil types are evident within a field, sample soil types separately.
- Where conditions vary within a field, sample areas separately, such as:
  - areas bordered by limestone gravel roads,
  - river bottoms subject to flooding,
  - low areas in hardpan soils where evaporative ponds may occur,
  - eroded hillsides,
  - along drain tile lines, and
  - areas where drainage ditch spoil has been spread.
- Where lime has not been deeply incorporated, soil may exhibit significantly higher pH values in the upper 3 inches of soil. Composite soil samples taken at a 6-8 inch depth may not reflect the elevated pH near the surface. In these cases shallow sampling, the upper 3 inches, is advised.

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SPRAY DRIFT

- Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE* Standard S-572.
- Select coarse to very coarse droplet size when sulfentrazone is used as a pre-emergent/pre-plant application.
- Select medium to very coarse droplet size when sulfentrazone is used post-emergence with a contact burndown herbicide.
- Applicators may spray only when wind speed is between 3 and 10 mph.
- Do not apply as spray droplets smaller than medium to coarse (defined by the ASABE standard).

Ground Boom Applications:

- Ground applicators must use a minimum finished spray volume of 10 gallons per acre.
- When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.
- Apply no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- Do not apply during temperature inversions.

Aerial Applications:

- Aerial application is allowed only when environmental conditions prohibit ground application.
- For aerial applications, the maximum release height must be 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.
- When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre.
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply during temperature inversions.

*ASABE – American Society for Agricultural and Biological Engineers

Spray Drift Advisories

Boom-less Ground Applications:

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

Handheld Technology Applications:

- Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

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

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. 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. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

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.

WEED RESISTANCE MANAGEMENT
For resistance management, Tigris Sulfen XL is a Group 14 and Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Tigris Sulfen XL and other Group 14 and Group 2 herbicides. Weed species with acquired resistance to Group 14 and Group 2 herbicides may eventually dominate the weed population if Group 14 and Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Tigris Sulfen XL or other Group 14 or Group 2 herbicides. Users should scout before and after application.

Suspected herbicide-resistant weeds may be identified by these indicators:

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; and
3. Surviving plants mixed with controlled individuals of the same species.

To delay herbicide resistance:

- Avoid the consecutive use of Tigris Sulfen XL or other target site of action Group 14 and Group 2 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern (an herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides)
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.
- Report any incidence of non-performance of this product against a particular weed species to your Tigris, LLC retailer, representative or call 877-235-0043. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

WINDBLOWN SOIL PARTICLES ADVISORY
WINDBLOWN SOIL PARTICLES: Tigris Sulfen XL has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affects the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying Tigris Sulfen XL if prevailing local conditions may be expected to result in off-site movement.

IMPORTANT PRECAUTIONS

- All direct or indirect contact (such as spray drift) to other crops or to land scheduled to be planted to crops other than soybeans should be avoided.
- Soybean stunting may occur if excessive rainfall occurs after application but before soybeans emerge. Injury is more prevalent under poor drainage or compacted conditions or when soil is saturated for long periods of time. Soybeans rapidly outgrow stunting once favorable growing conditions return.
- Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, or drought may weaken soybean seedlings and increase the possibility of crop injury.
- Back to back application of ALS or ALS containing herbicides can occasionally result in residual herbicide stacking and potential crop injury. Grower should be aware of previous herbicide use and potential interaction it may have with Tigris Sulfen XL application.
- Thoroughly clean Tigris Sulfen XL from application equipment immediately after use and prior to spraying crops other than soybeans. Failure to remove even small amounts of Tigris Sulfen XL from application equipment may result in injury to subsequently sprayed crops.

Follow all label restrictions regarding soil type, soil pH, organic matter, rotational crop intervals, geographic location, and weed pressure, in selecting the rate of Tigris Sulfen XL from **Rate Table 1** or **Table 2**.

Use of Tigris Sulfen XL on soils which exceed pH 6.8 may result in unacceptable injury to the following crop. Tigris Sulfen XL may be used on fields which are generally pH 6.8 or less, but which may contain isolated areas where the pH exceeds 6.8 only if the following rotational crop is soybeans or a Tigris, LLC recommended chlorimuron ethyl resistant corn variety.

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Full Use Rate

Rate Table 1: Fall application, Early Pre-plant, Pre-plant Burndown, Pre-plant Incorporated, and Pre-emergence: No-Till, Minimum-till, Conventional tillage

Soil Texture	Organic Matter	
	0.5 – 2%	2 – 4%
	Ounces Product (lb sulfentrazone + lb chlorimuron ethyl*) Per Acre	
Coarse: Loamy Sand, Sandy Loam	5.0(0.219) – 6.0(0.263)	6.0(0.263) – 7.0(0.306)
Medium: Loam, Silt Loam, Silt, Sandy Clay Loam	6.5(0.284) – 7.5(0.328)	7.0(0.306) – 8.0(0.350)
Fine: Silty Clay Loam, Clay Loam, Clay	7.0(0.306) – 8.0(0.350)	8.0(0.350) – 9.6(0.420)

*One pound of product contains 0.62 lb ai/lb of sulfentrazone and 0.08 lb ai/lb of chlorimuron ethyl
Apply Tigris Sulfen XL according to Rate Tables for types of application and specific geographic areas.

Reduced rate for GMO soybean (Roundup Ready, Liberty Link)

Rate Table 2: Use rates in Table 2 are to be used in conjunction with a planned POST herbicide program; Tigris Sulfen XL at these reduced rates will provide early season control or suppression to reduce early season weed competition.

Fall application, Early Pre-plant, Early Pre-plant Burndown, Pre-plant Incorporated, Pre-emergence: No-Till, Minimum-till, Conventional Tillage

Soil Texture	Organic Matter	
	0.5 – 2%	2 – 4%
	Ounces Product (lb sulfentrazone + lb chlorimuron ethyl*) Per Acre	
Coarse: Loamy Sand, Sandy Loam	3.0(0.131) – 4.0(0.175)	3.2(0.140) – 4.0(0.175)
Medium: Loam, Silt Loam, Silt, Sandy Clay Loam	3.2(0.140) – 4.0(0.175)	3.2(0.140) – 4.8(0.210)
Fine: Silty Clay Loam, Clay Loam, Clay	4.0(0.175) – 5.0(0.219)	4.0(0.175) – 5.0(0.219)

*One pound of product contains 0.62 lb ai/lb of sulfentrazone and 0.08 lb ai/lb of chlorimuron ethyl

APPLICATION METHODS

Do not apply Tigris Sulfen XL after the soybean crop has emerged or severe injury or death of the crop may occur. Tigris Sulfen XL may be applied by any of the methods listed below.

CONSERVATION TILLAGE

Early Pre-Plant in No-Till, Minimum Till, or Stale Seedbed

Tigris Sulfen XL applied Early Pre-plant must be applied in combination with the appropriate burndown herbicide such as glyphosate, glufosinate, gramozone, and/or 2,4-D to achieve acceptable control of existing weeds during application. Tigris Sulfen XL is rainfast after one hour when applied as a burndown treatment. For burndown or control of existing vegetation, an appropriate burndown herbicide at labeled rates is recommended such as glyphosate etc. Follow all label directions for the burndown herbicide including application timing, spray volume, adjuvants to achieve control of targeted weeds. For applications of Tigris Sulfen XL made from 30 - 60 days before planting apply the higher rate in the appropriate soil range from tables 1 or 2 depending on the soybean system being grown.

PRE-EMERGENCE

Tigris Sulfen XL may be applied at planting time or within 3 days after planting, but before seed emergence. Tigris Sulfen XL may be applied alone or in tank mix combinations with other registered soybean herbicides. When applied in tank mix combinations, follow applicable use directions, including application rates, precautions and restrictions of each product in the mixture. The seed furrow should be completely closed and seed covered before any applications of Tigris Sulfen XL.

PRE-PLANT INCORPORATED

Uniformly incorporate Tigris Sulfen XL or Tigris Sulfen XL tank mixes no deeper than 2" prior to planting soybeans. If tank-mixing Tigris Sulfen XL with a companion herbicide, follow all label instructions for proper incorporation of the companion herbicide in the top 2" of soil. Improper incorporation can result in erratic weed control or potential crop injury.

FOR HERBICIDE ACTIVATION RAINFALL REQUIREMENT

Best results are obtained if Tigris Sulfen XL is followed by rainfall or irrigation before weeds germinate. Several small rainfalls of less than 1/4"each are not as beneficial as one large rainfall of 1/2-1". If moisture is not sufficient to activate the herbicide, a rotary hoeing or shallow cultivation should be made after emergence of the crop while weeds are small enough to be controlled by mechanical means.

FALL APPLICATIONS

Tigris Sulfen XL may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and pre-emergence control of labeled weeds the following spring in no-till and conservation tillage production systems. If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide such as glyphosate, or glufosinate at labeled rates. Fall applied burndown treatments should be made with a minimum of 10 gallons per acre to achieve adequate coverage of the weeds being treated. Applications volume should be increased to 15-20 gallons per acre or more where weed density is high or heavy crop residue levels are present. When making burndown applications to emerged weeds, the addition of adjuvants such as COC, NIS, or MSO to the spray mixture can be used to enhance the burndown activity of the application. Refer to product labels for use rates and instructions. Refer to rates in Table 1 or Table 2. Use the higher rate in the soil type for longer spring residual.

FALL APPLICATION AND SPRING PRE-PLANT BURNDOWN OF BROADLEAF WEEDS

Tigris Sulfen XL may be used as part of burndown program to provide control or suppression of the following broadleaf weeds. For complete control of emerged weeds follow specific directions under the list of weeds below:

Chickweed[1]	Nightshade species
Dandelion	Pennycress
Garlic, wild	Pigweeds
Henbit	Ragweed, common
Lambsquarters	Ragweed, giant
Lettuce, prickly	Shepherd's purse
Marestail	Smartweeds, annual
Mustard, tansy	Sunflower
Mustard, wild	Waterhemp species

For Burndown control, pick the appropriate rate from **Rate Table 1** or **2** and apply with:

- For complete burndown of emerged annual grasses or broadleaf weeds or for burndown of weeds not listed above, Tigris Sulfen XL must be tank mixed with: glyphosate, glufosinate, paraquat, 2,4-D or other appropriate burndown herbicides.
- Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) at 1% v/v 1 gallon per 100 gallons of spray solution, or Non-ionic surfactant (NIS) at 1 qt./100 gallon of spray solution.
- In addition to the specific adjuvants above, other adjuvants may be used if they provide the same or similar functions as those previously mentioned. The addition of other adjuvants or fertilizers such as ammonium sulfate (AMS) may aid in control of weeds when used with appropriate companion herbicides. Consult specific companion herbicides for additional adjuvant, and fertilizer recommendations when applying for burndown of existing vegetation.
- Use flat fan nozzles or other appropriate nozzle types and a minimum of 10 gallons of water per acre. Where dense vegetation or heavy crop residues are present, increasing the spray volume to 15-20 gallons per acre or more may improve spray coverage and weed control.

To select the proper tank mix product, identify the weeds which need to be controlled and consult the product labels to determine which product is needed. Consult the companion tank mix herbicide label for use instructions, rates, precautions, restrictions, and other use information.

For instructions on how to prevent spray drift see section on SPRAY DRIFT MANAGEMENT on page 8.

STORAGE AND DISPOSAL

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

Pesticide Storage and Disposal

Store product in original container only. Keep container closed when not in use, away from f ood or feed, fertilizer and other pesticides. Store in a cool dry place and avoid excess heat. Do not store below 30°F degrees.

Wastes resulting from the use of this product that cannot be used should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures. For more information contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable container – Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable/Refillable Containers – Refill this container with Tigris Sulfen XL only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of TIGRIS, LLC. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, TIGRIS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither TIGRIS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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