



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

July 24, 2020

Ailis Gregory
Manager, Registration Technical Services
Albaugh, LLC
P.O. Box 2127
Valdosta, GA 31604

Subject: PRIA Label and CSF Amendment – Revised Basic and Alternate CSF 1 and updated various sections of the label
Product Name: Sulfentrazone 4L Turf
EPA Registration Number: 42750-308
Application Date: February 4, 2020
Decision Number: 560084

Dear Ms. Gregory:

The amended label and CSF(s) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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.

The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. You have 18 months from the date of this letter to provide these data.

Please note that the record for this product currently contains the following CSF(s):

- Basic CSF dated 02/04/2020
- Alternate CSF 1 dated 02/04/2020

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 FIFRA 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.

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.

If you have any questions, please contact Curtis Hildebrandt at 703-347-8198 or by email at hildebrandt.curtis@epa.gov.

Sincerely,



Mindy Ondish
Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

SULFENTRAZONE 4L TURF

Not for sale, distribution or use in Nassau or Suffolk Counties in New York State

ACTIVE INGREDIENT:

Sulfentrazone.....40.4%

OTHER INGREDIENTS:59.6%

TOTAL:.....100.0%

Contains 4 pounds of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

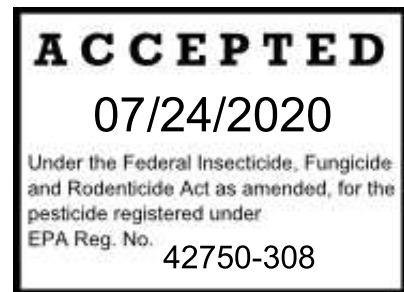
| FIRST AID | |
|--|--|
| IF SWALLOWED: | <ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by the poison control center or doctor. • DO NOT give anything by mouth to an unconscious person. |
| IF INHALED: | <ul style="list-style-type: none"> • 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. |
| IF ON SKIN OR CLOTHING: | <ul style="list-style-type: none"> • 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 IN EYES: | <ul style="list-style-type: none"> • 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. |
| <p>HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical information.</p> | |

EPA Reg. No. 42750-308

EPA Est. No. _____

NET CONTENTS: _____ GALS

Manufactured For:
Albaugh, LLC
Ankeny, IA 50021



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, polyvinyl chloride \geq 14 mils, or Viton \geq 14 mils
3. Shoes plus socks

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

USER SAFETY RECOMMENDATIONS:

Users should:

- 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 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.

Groundwater advisory: Sulfentrazone is 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.

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 many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, 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.

PHYSICAL/CHEMICAL HAZARDS

DO NOT use or store near heat or open flame. **DO NOT** mix or allow contact with oxidizing agents, as a hazardous chemical reaction may occur.

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.

Applicators must not exceed labeled rates of this product. Refer to specific directions for use for maximum use rates. Calculate the 12-month period for the purpose of maximum use rates from when SULFENTRAZONE 4L TURF is first applied.

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. These SULFENTRAZONE 4L TURF requirements 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.

Personal Protective Equipment (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 made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, polyvinyl chloride \geq 14 mils, or Viton \geq 14 mils
- 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.

Reentry Statement: **DO NOT** allow people (other than applicator) or pets on treatment area during application. **DO NOT** enter treatment area until sprays have dried.

RESISTANCE MANAGEMENT

SULFENTRAZONE 4L TURF contains the active ingredient sulfentrazone and is a Group 14 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program. To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).

- Apply full rates of SULFENTRAZONE 4L TURF for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your ALBAUGH, LLC representative, local retailer, or county extension agent.
- Contact your ALBAUGH, LLC representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad-spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 14 herbicides.
- Avoid making more than two applications of SULFENTRAZONE 4L TURF and any other Group 14 herbicide within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

PRODUCT INFORMATION

SULFENTRAZONE 4L TURF is a selective soil applied herbicide for the control of susceptible broadleaf grass and sedge weeds. SULFENTRAZONE 4L TURF is formulated as a 4-pounds per gallon flowable containing the active ingredient sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the SULFENTRAZONE 4L treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, SULFENTRAZONE 4L TURF will provide a reduced level of control of susceptible germinating weeds. Soil applications of SULFENTRAZONE 4L TURF must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface. Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with SULFENTRAZONE 4L TURF.

Proper handling instructions: SULFENTRAZONE 4L TURF may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the

largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment. Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsate.

APPLICATION INSTRUCTIONS

Apply SULFENTRAZONE 4L TURF as a broadcast treatment at rates indicated.

When SULFENTRAZONE 4L TURF is tank mixed or applied alone, use water as the carrier.

In order to assure appropriate amounts of moisture for activation of product, best results will be obtained if SULFENTRAZONE 4L TURF is applied in early spring, late summer or fall.

Make application with a boom and nozzle sprayer or boomless application system.

DO NOT use on coarse soils classified as sand, which have less than 1% organic matter.

When SULFENTRAZONE 4L TURF has been activated, it will provide control of listed weed species. The level of control will depend on the size and type of weed species when SULFENTRAZONE 4L TURF is activated. The control of listed germinating weed species will be reduced when rain or irrigation follows a period of dry weather.

When rainfall/irrigation is not available for prolonged periods, alternative weed control methods should be considered.

Once a treatment with SULFENTRAZONE 4L TURF has been made, seedlings and germinating seeds absorb sulfentrazone from the soil solution. The amount of available active ingredient contained in the soil solution, is determined by the following factors:

- Soil type
- Soil pH
- Soil organic matter content

Sulfentrazone is adsorbed by the organic matter and clay parts of soils. This absorption reduces the amount of active ingredient available for weed uptake. Clay content in soil tends to increase as the soil gets finer. Crop Use Directions are indicated per soil types. Refer to the following chart to determine the category of a particular soil type:

| | |
|-------------|-----------------|
| Coarse Soil | Sand |
| | Loamy Sand |
| | Sandy Loam |
| Medium Soil | Sandy clay loam |
| | Sandy Clay |
| | Loam |
| | Silt Loam |
| | Silt |
| Fine Soil | Silty clay loam |
| | Silty clay |
| | Clay loam |
| | Clay |

The organic matter in soil will vary widely within soil classifications. In order to assess organic matter soil content, a detailed analysis will be required.

The amount of sulfentrazone available for uptake by weed species will increase as the pH of the soil increases. The pH of the soil must be accurately assessed using representative soil samples. In addition, irrigation with water with a high pH (i.e. alkaline water) following treatment, will increase the amount of available sulfentrazone for uptake by target species. However, if irrigation water pH exceeds 7.5, crop damage may result. The likelihood of an adverse response by crops will decrease as the growth stage of crops advances.

SPRAY DRIFT

GROUND APPLICATIONS:

- For boom spraying, the minimum release height must be 30 inches from the soil.
- Use a minimum finished spray volume of 10 gallons per acre
- When tank mixed with a contact burndown herbicide, use a minimum spray volume of 15 gallons per acre.
- 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 medium to very coarse droplet size when sulfentrazone is used postemergence with a contact burndown herbicide.
- Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.
- Do not apply as spray droplets smaller than medium to coarse.
- Applicators may spray only when wind speed is between 3 and 10 mph.

AERIAL APPLICATIONS:

- Aerial application is allowed only when the field is too wet to safely apply pesticides using ground equipment.
- When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre.
- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- 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 medium to very coarse droplet size when sulfentrazone is used postemergence with a contact burndown herbicide.
- Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.
- Do not apply as spray droplets smaller than medium to coarse.
- Applicators may spray only when wind speed is between 3 and 10 mph.
- For Non-Crop use, application can be made by helicopter to railroad rights-of-way only.

*ASABE – American Society for Agricultural and Biological Engineers.

The following drift management requirements must be followed to avoid off target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream, and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.

SPRAY DRIFT REDUCTION ADVISORIES

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

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size

Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure. Do

not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the required practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications.

Boom Length – For some aerial use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift.

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

DO NOT allow spray to drift onto adjacent plants as injury to other plants may occur. If SULFENTRAZONE 4L TURF solutions drift into non-target areas, contact with other plants/crops can cause adverse reaction. Initially, adverse crop/plant reaction may be in localized areas, depending on factors such as plant sensitivity to the application solution and spray solution droplet size. Lesions or spots caused by drift may or may not coalesce. The effects of drift will not normally cause lasting effects on plant growth but may adversely affect the value of fruit or foliage where value is affected by appearance. Where plants are sensitive to SULFENTRAZONE 4L TURF and drift is significant, defoliation may result.

Avoid drift of this product/solutions containing this product to non-target areas by taking adequate notice of the prevailing environmental conditions. Use appropriate and accurately calibrated application equipment and utilize

treatment procedures that will minimize the risk of drift.

Misapplication of this product where label directions are not followed may result in drift. The applicator/user of this product is solely responsible for any misapplication of SULFENTRAZONE 4L TURF.

Mixing with Liquid Fertilizers

SULFENTRAZONE 4L TURF may be applied in combination with liquid fertilizers. Local advice regarding fertilizers can yield recommendations of products best suited in your area (e.g., urea or UAN solutions). Follow use and mixing and directions on fertilizer labels. Determine the compatibility of a liquid fertilizer combination before mixing [In a lidded glass jar (~1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. If mixture forms precipitates (flakes or sludge), gels, balls up or forms oily films or layers, this indicates incompatibility. Though signs of incompatibility will typically be seen within 5 minutes of mixing, mixture should be observed for approximately 30 minutes].

California only specific restrictions on applications of SULFENTRAZONE 4L TURF

Runoff Ground Water Protection Areas: **DO NOT** use in areas identified by the California Department of Pesticide Regulation as runoff ground water protection areas* unless one of the following management practices can be met:

- a) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of 1/4 inch of irrigation water and a maximum of one inch as described under Application Instructions, at application rates that **DO NOT** cause surface water runoff from the treated property or to wells on the treated property; or
- b) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or non-draining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inch per hour (5 inches per 24 hours); or
- c) Retention of runoff in a holding area off the field. For six months following application, all runoff shall be channeled to a holding area off the application site, under the control of the property owner, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining onto that holding area. The holding area shall not have a percolation rate of more than 0.2 inch per hour (5 inches per 24 hours); or
- d) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off into an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under Application Instructions, with full consideration of any plant back restrictions.

Artificial Recharge Basins. **DO NOT** use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin), unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. **DO NOT** use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. **DO NOT** use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act pertaining to the treated area.

Leaching Ground Water Protection Areas. **DO NOT** use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below the level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

*Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these areas are also available via the internet at <https://www.cdpr.ca.gov/docs/emon/grndwtr/>.

Chemigation Application

SULFENTRAZONE 4L TURF may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system. **DO NOT** connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. 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.

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 also 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 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) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

SULFENTRAZONE 4L TURF should be metered into the irrigation system continuously for the duration of the water application. SULFENTRAZONE 4L TURF should be diluted in sufficient volume to ensure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; **DO NOT** APPLY SULFENTRAZONE 4L TURF THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. SULFENTRAZONE 4L TURF may be applied through irrigation systems, which may be supplied by a public water system only if water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Crop response to treatment with SULFENTRAZONE 4L TURF will depend on the following factors:

- application rate and timing

- volume of water applied and pH
- sensitivity of crop type to treatment with SULFENTRAZONE 4L TURF
- growth stage of the crop when irrigated

The amount of sulfentrazone available for uptake by weed species will increase as the pH of the soil increases. The pH of the soil must be accurately assessed using representative soil samples. In addition, irrigation with water with a high pH (i.e. alkaline water) following treatment, will increase the amount of available sulfentrazone for uptake by target species. However, if irrigation water pH exceeds 7.5, crop damage may result. The likelihood of an adverse response by crops will decrease as the growth stage of crops advances.

Mixing and Loading Instructions

- SULFENTRAZONE 4L TURF may be applied on its own or in combination with other herbicides for a broader spectrum of weed control. Combinations with other products may not have been tested, therefore, carry out a compatibility test before mixing and applying. In a lidded glass jar (1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. If mixture forms precipitates (flakes or sludge), gels, balls up or forms oily films or layers, this indicates incompatibility. Though signs of incompatibility will typically be seen within 5 minutes of mixing, mixture should be observed for approximately 30 minutes.
- Read and follow the label of each tank mix product used for precautionary statements, directions for use, rates and timings, and other restrictions.
- Spray equipment must be clean and free of product residue prior to mixing an application solution of SULFENTRAZONE 4L TURF. Refer to Cleaning Directions below and to the cleaning directions of the product(s) previously applied.
- Mix SULFENTRAZONE 4L TURF using the following procedure:
 1. Fill a clean spray tank with 1/2 of water required for treatment.
 2. Begin agitation.
 3. Use a clean container to create a slurry of SULFENTRAZONE 4L TURF and water.
 4. Add the slurry slowly to the spray tank, continuing agitation throughout.
 5. Rinse the slurry mix container and add rinsate solution to spray tank.
 6. Finish filling spray tank to required level.
 7. Maintain agitation throughout. The SULFENTRAZONE 4L TURF/water slurry must be mixed thoroughly prior to application.
- For best mixing of the SULFENTRAZONE 4L TURF water slurry, add the slurry using induction systems on the sprayer fill plumbing system.
- The spray application solution must be applied immediately following mixture.
- Maintain agitation throughout mixture and application.
- **DO NOT** store spray solution in the spray tank for an extended period of time, or overnight.
- A tank mixture containing SULFENTRAZONE 4L TURF must not be premixed in nurse tanks.

Cleaning Application Equipment

Adverse crop reaction may result if residues of this product are left in spray equipment following application. Spray equipment must be cleaned immediately after treatment with SULFENTRAZONE 4L TURF, and before applications with other products.

- Use the following procedure:
 1. Drain the spray application equipment, including tank, hoses, spray boom and nozzles.
 2. Clean inside the spray tank with a high-pressure detergent, removing residues and sediment.
 3. Thoroughly rinse the spray tank.
 4. Flush the spray system out using water, including hoses, spray boom and spray nozzles.
 5. Combine 3 gallons of ammonia (with a minimum of 3% active ingredient) in 100 gallons of water. Make sufficient cleaning solution to operate the spray application equipment for a minimum of 15 minutes so that the system is thoroughly flushed.
 6. Remove spray tips, and all screens and filters and clean separately using the ammonia solution (step 5).
 7. Leave the cleaning solution or water in the nozzles, spray booms, hoses and spray tank overnight (or during storage) to ensure thorough cleaning.
 8. Drain the system completely prior to re-use. Use clean water to rinse/flush nozzles, spray booms, hoses and the spray tank. Remove spray tips, and all screens and filters and clean separately, using the

ammonia solution (step 5).

9. Dispose of rinsate and excess cleaning solution in compliance with Federal, State, and local regulations and guidelines.

- Rinsate and cleaning solution must not be applied to sensitive crops.
- Spray application equipment must not be stored for any extended period while SULFENTRAZONE 4L TURF application solution remains in the spray lines, nozzles, strainers, or boom plumbing.
- When application equipment has been idle or in storage, flush the nozzles and spray boom with clean water prior to use for application of product.
- If small amounts of this product remain in equipment after cleaning, SULFENTRAZONE 4L TURF may be released during later applications, which may cause an adverse reaction from certain crops/other vegetation. The applicator is solely responsible for any damage caused by equipment that is not properly cleaned.
- Equipment must not be flushed or drained near desirable plants/trees.
- Ensure that bodies of water are not contaminated with application solution, rinsate or cleaning solution, including water that may be used for other crops, i.e. irrigation water.

REPLANTING AND ROTATIONAL CROPS

- During replanting, keep soil tillage to a minimum so that the herbicide barrier is preserved, thereby maximizing weed control.
- In the event that the planting of crops listed in label directions does not produce a stand, only crops specified in this label or the tank mix partner may be planted. Where there is a tank mixture, the most restrictive label directions must be followed.
- The planted area must not be retreated with SULFENTRAZONE 4L TURF or any other-product containing sulfentrazone.
- **DO NOT** plant crops in previously treated areas unless in full compliance with the Rotational Restrictions (below)

Crop Rotation:

Refer to the table below for the minimum interval from the time SULFENTRAZONE 4L TURF was last applied until treated areas can be replanted with listed crops.

| CROP | MINIMUM ROTATIONAL INTERVAL |
|---|--|
| Barley Rye Triticale Wheat | 4 months |
| Corn, Field Rice Sorghum ¹ | 10 months |
| Alfalfa Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice) Sweet Potatoes | 12 months |
| Corn, Pop Corn, Sweet Cotton | 18 months |
| Canola | 24 months |
| Sugar Beets | 36 months |
| Asparagus Berries Brassica, head and stem (Broccoli and Cabbage) Brassica, leafy greens Citrus Cowpea, succulent (TN Only) Dry Shell Peas and Beans Flax Fruiting Vegetables (except cucurbits), Okra | Crops can be planted at any point following the application of SULFENTRAZONE 4L TURF |

| | |
|--|--|
| Grapes Horseradish Lima beans, succulent (TN Only) Melons Mint Peanuts Potatoes Rhubarb Soybeans Strawberry Succulent peas Sugarcane Sunflower subgroup 20B Tobacco Tree nuts Turf Turnips Wheat, spring (Pacific Northwest states ID, OR, WA only) | |
|--|--|

¹18-month minimum rotational interval for sorghum where use rates are greater than 8 fl. oz. of SULFENTRAZONE 4L TURF per acre.

- Certain crops have a rotational interval of more than 12 months because of sensitivity and the risk of crop injury. Carry out a representative bioassay of the target area on the rotational crop in order to assess the crop's sensitivity to applications of this product.
- For all crops not listed in the table above, there must be a minimum rotational interval of 12 months.
- When this product is tank mixed with another product(s), read and follow the directions of all tanks mix partners. The most restrictive directions must apply, including directions for re-cropping.

TURF GRASSES

(including Residential and Institutional Lawns, Athletic Fields, Golf Course Fairways and Roughs and Commercial Sod Farms)

SULFENTRAZONE 4L TURF is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. SULFENTRAZONE 4L TURF is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of SULFENTRAZONE 4L TURF involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with SULFENTRAZONE 4L TURF.

SULFENTRAZONE 4L TURF may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Turf injury could result from application of this product on turf that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical recent harvesting or mechanical influences.

Turf Grass Tolerance

When applied as directed, the following established turf grasses are tolerant to SULFENTRAZONE 4L TURF at the listed use rates:

| Grass Type | Maximum Use Rate for Single Application | |
|------------|--|--|
| | Fluid Ounces SULFENTRAZONE 4L TURF Per Acre | Pound Active Ingredient Per Acre |
| | | |

| | | |
|---|--------|--------------|
| Cool Season Grasses Bentgrass Creeping | 4 | 0.125 |
| Fescue, fine (<i>Festuca rubra</i>) Fescue, tall (<i>Festuca arundinacea</i>) Ryegrass, perennial (<i>Lolium perenne</i>) Bluegrass, Kentucky (<i>Poa pratensis</i>) Bluegrass, Rough (<i>Poa trivialis</i>) | 4 – 8 | 0.125 - 0.25 |
| Warm Season Grasses Bahigrass (<i>Paspalum notatum</i>) Buffalograss (<i>Buchloe dactyloides</i>) Carpetgrass (<i>Axonopus affinis</i>) Centipedegrass (<i>Eremochloa ophurioides</i>) Kikuyugrass (<i>Pennisetum clandestinum</i>) Seashore Paspalum (<i>Paspalum vaginatum</i>) Zoysiagrass (<i>Zoysia japonica</i>) Bermudagrass (<i>Cynodon dactylon</i>) Bermudagrass Hybrids (Cyn) Bluegrass St. Augustinegrass (<i>Stenotaphrum secundatum</i>) | 8 - 12 | 0.25 – 0.375 |

Applications of SULFENTRAZONE 4L TURF to certain varieties of Chewings Fine Fescue or Tall Fescue may able plant response.

*It is important to note that not all varieties or cultivars have been evaluated under treatment with SULFENTRAZONE 4L TURF. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SULFENTRAZONE 4L TURF under specific local conditions.

**Do not apply more than 12 fluid ounces (0.375 pound active) per acre of SULFENTRAZONE 4L TURF per twelve-month period. The twelve-month period is considered to begin upon the initial SULFENTRAZONE 4L TURF application.

Applications to Reseeded, Overseeded or Sprigged Areas

Reseeding, overseeding or sprigging may be done following SULFENTRAZONE 4L TURF applications to turfgrasses. If reseeded, overseeding or sprigging is done within 1 month following a SULFENTRAZONE 4L TURF treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a SULFENTRAZONE 4L TURF application provided slight grass plant response can be tolerated.

Optimum reseeded and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use

Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended

Postemergence Control of Sedges

SULFENTRAZONE 4L TURF may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct SULFENTRAZONE 4L TURF use rate from Table 25.

When applied as directed, SULFENTRAZONE 4L TURF will provide control or suppression of the following sedges:

| | |
|----------------------|---------------------------|
| Kylinga, green | <i>Kylinga brevifolia</i> |
| Kylinga, false green | <i>Kylinga gracifilma</i> |
| Nutsedge purple | <i>Cyperus rotundus</i> |
| Nutsedge, yellow | <i>Cyperus esculentus</i> |

| | |
|--------------------|-----------------------------|
| Sedge, cylindrical | <i>Cyperus retrorsus</i> |
| Sedge, globe | <i>Cyperus globulosus</i> |
| Sedge, Sunnam | <i>Cyperus sunnamensis</i> |
| Sedge, Texas | <i>Cyperus polystachyos</i> |

Purple nutsedge: For optimum control of purple nutsedge, split applications are listed below.

Do not exceed the maximum rate per acre based on the turf variety as listed in the tolerant turf grasses table above.

Split Application Rates for Optimum Purple Nutsedge Control

| Grass Type | First Application (fl. ozs. Per acre) | Second Application (fl. ozs. Per acre) |
|---------------------|--|---|
| Cool Season Grasses | 2 – 4 fl. ounces | 2 – 6 fl. ounces |
| Warm Season Grasses | 4 – 6 fl. ounces | 4 – 6 fl. ounces |

Allow 35 days after first application for second application

Postemergence Control of Grassy Weeds

SULFENTRAZONE 4L TURF will control or suppress specific annual grasses when applied at a rate of 4 to 12 fluid ounces per acre. Apply highest rate consistent with the rate needed for turfgrass tolerance in Table 25 Rates lower than 12 fluid ounces per acre will generally control grasses for at least 60 days.

| Common Name | Scientific Name |
|-------------|------------------------|
| Goosegrass | <i>Eleusine indica</i> |

SULFENTRAZONE 4L TURF works best if applied when the annual grasses are small (pre-tiller stage) and actively growing.

Postemergence Control of Broadleaf Weeds

SULFENTRAZONE 4L TURF will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. SULFENTRAZONE 4L TURF may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct SULFENTRAZONE 4L TURF use rate from Table 25. For optimum results, SULFENTRAZONE 4L TURF applications should be made shortly after weeds have emerged.

SULFENTRAZONE 4L TURF may be tank mixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass species tolerance, use rates and application requirements.

Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, SULFENTRAZONE 4L TURF will provide control or suppression of the following broadleaf weeds:

| Broadleaves | Scientific Names |
|--------------------|-----------------------------|
| Bittercress | <i>Cardamine</i> spp. |
| Black Medic | <i>Medicago Lupulina</i> |
| Buttercup | <i>Ranunculus</i> spp. |
| Carolina Geranium | <i>Geranium carolinanum</i> |
| Carpetweed | <i>Mollugo verticillata</i> |
| Chickweed, common | <i>Stellaria media</i> |
| Chickweed, mousear | <i>Cerastrium vulgatum</i> |
| Cinquefoil | <i>Potentilla</i> spp. |
| Clover | <i>Trifolium</i> spp. |
| Cudweed | <i>Gnaphaflum</i> spp. |
| Dandelion | <i>Taraxacum officinale</i> |
| Dock, curly | <i>Rumex crispus</i> |
| Evening primrose | <i>Oenothera bierims</i> |

| | |
|-----------------------|--------------------------------|
| Fiddleneck | <i>Amsinckia</i> spp. |
| Filaree | <i>Erodium</i> spp. |
| Garlic, wild | <i>Allium vmeale</i> |
| Goldenrod | <i>Sofldago</i> spp. |
| Ground ivy | <i>Glechema hederasea</i> |
| Henbit | <i>Lamium amplexicaule</i> |
| Knotweed, prostrate | <i>Polygonum awculare</i> |
| Kochia | <i>Kochia scopana</i> |
| Lambsquarters, common | <i>Chenopodium album</i> |
| Lawn burweed | <i>Soltva pierosperma</i> |
| Lespedeza common | <i>Lespedeza striata</i> |
| Mallow, common | <i>Malva neglecta</i> |
| Onion, Wild | <i>Allium canadense</i> |
| Parsley piert | <i>Alchemtila aryensts</i> |
| Pigweed redroot | <i>Amaranthus retroflexus</i> |
| Pigweed tumble | <i>Amaranthus albus</i> |
| Pineapple weed | <i>Matricana matricanodes</i> |
| Plantam, buckhorn | <i>Plantago lanceolata</i> |
| Puncture weed | <i>Tnbulus terrestns</i> |
| Purslane, common | <i>Portulaca oleracea</i> |
| Pusley, Florida | <i>Richardia scabra</i> |
| Redweed | <i>Melochta corchonfofla</i> |
| Rocket, London | <i>Sisymbriunimo</i> |
| Smartweed, PA | <i>Polygonum pensylvaincum</i> |
| Sorrel, red | <i>Rumex acetosella</i> |
| Speedwell | <i>Veronica</i> spp. |
| Spurge, annual | <i>Euphorbta</i> spp. |
| Spurge, prostrate | <i>Euphorbta humtstrata</i> |
| Spurge, spotted | <i>Euphorbia maculata</i> |
| Star of Bethlehem | <i>Omithogalum umbellatum</i> |
| Velvetleaf | <i>Abuttlon theophrasit</i> |
| Violet, Wild | <i>Viola pratincola</i> |
| Woodsorrel, creeping | <i>Oxafls comiculata</i> |
| Woodsorrel, yellow | <i>Oxafls stricta</i> |

APPLICATION INSTRUCTIONS

Apply amount of SULFENTRAZONE 4L TURF indicated above to turfgrass to control or suppress indicated weeds.

Best control is achieved with grassy weeds when applied with grasses are actively growing and small (pre tiller stage). Application rates lower than 12 fl. oz/acre will control grasses for 60 days.

Optimum control of broadleaf weeds will occur if application is made shortly after weed emergence.

Applications to sprigged, overseeded or reseeded areas: Turfgrasses can be sprigged, overseeded or reseeded after SULFENTRAZONE 4L TURF applications. Best results are obtained from waiting at least 1 month after SULFENTRAZONE 4L TURF application before sprigging, overseeding or reseeded. If slight plant response can be tolerated, overseeding of Bermudagrass with perennial ryegrass can be done between 2 to 4 weeks after SULFENTRAZONE 4L TURF application.

Observing proper fertilization, irrigation and soil cultivating practices, and using mechanical or power seeding equipment will give optimum overseeding or reseeded results.

Optimum weed control is obtained with thorough spray coverage.

Tank Mixes and Adjuvants

Tank mixing with other pesticides registered for use on turfgrass can extend the weed control range and enhance efficacy of SULFENTRAZONE 4L TURF for both preemergence and postemergence control. Read and follow the label of each tank mix product used for precautionary statements, directions for use, rates and timings, and other restrictions. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Use of adjuvants or surfactants with SULFENTRAZONE 4L TURF can cause short-term discoloration of some turf species. Albaugh does not advise use of SULFENTRAZONE 4L TURF with surfactants or adjuvants.

PRECAUTIONS:

- Temporary undesirable effects can be caused by the use of surfactants with SULFENTRAZONE 4L TURF. Perform an on-site evaluation of surfactants for effects to turfgrasses and mixture compatibility prior to use.
- Use of SULFENTRAZONE 4L TURF with surfactants is not advised unless surfactant/sulfentrazone combinations have previously proven to be safe to a particular turf variety
- Use of SULFENTRAZONE 4L TURF **mixed** with or applied within 7 days of herbicides containing the active ingredient trinexapac-ethyl can result in temporary turfgrass discoloration. Applying SULFENTRAZONE 4L TURF and trinexapac-ethyl herbicides 7 or more days apart decreases possibility of discoloration.

TURF GRASS RESTRICTIONS

- **DO NOT** apply more 8.0 fluid ounces (0.25 pound of sulfentrazone) per application on cool season grasses.
- **DO NOT** apply more 12.0 fluid ounces (0.375 pound of sulfentrazone) per application on warm season grasses.
- **DO NOT** apply more 12.0 fluid ounces (0.375 pound of sulfentrazone) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial SULFENTRAZONE 4L TURF application.
- **DO NOT** apply more than two applications per year when using reduced application rate equal to or less than 6.0 fl oz/A of this product.
- Sod production areas must be established three (3) months prior to the initial treatment of SULFENTRAZONE 4L TURF.
- **DO NOT** apply SULFENTRAZONE 4L TURF to turf grasses not listed on this label.
- **DO NOT** apply with surfactants.
- **DO NOT** graze or feed forage harvested from SULFENTRAZONE 4L TURF treated areas.
- **DO NOT** apply to landscape ornamental plants or ornamental beds.
- **DO NOT** harvest sod within three (3) months of SULFENTRAZONE 4L TURF application.
- **DO NOT** apply to golf course putting greens or tees.
- **DO NOT** apply to frozen soils or existing snow cover to prevent SULFENTRAZONE 4L TURF runoff from rain or snowmelt that may occur following application.

NON-CROP USES

For use in Railroad, Highway, Roadside, Pipeline and Utility Rights of Way, Industrial Areas, Fence Rows, and Other Listed Non-Crop Sites.

APPLICATION INSTRUCTIONS

Utilize a boomless application system or a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips, and screens, and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Railroad Rights-of-Way

SULFENTRAZONE 4L TURF can be used to control many weeds and maintain bare ground on railroad rights of way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of Way

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SULFENTRAZONE 4L TURF can be used to control many weeds and maintain bare ground in highway roadside pipeline and utility rights of way. Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations around eclectic transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites

SULFENTRAZONE 4L TURF controls weeds and maintains bare ground in industrial areas, including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application

For residual control of germinating weeds to non-crop land apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only. Use labeled rates of burndown herbicide such as glyphosate, diquat, 2-4,D, dicamba, etc. as tank mixtures with SULFENTRAZONE 4L TURF. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotations cropping restrictions.

Timing

For best results, apply SULFENTRAZONE 4L TURF alone or in combination with other herbicides for residual control of weeds in late summer, fall or early spring to insure adequate moisture for soil activation.

Weeds Controlled

This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in noncropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

| Broadleaves | Scientific Name |
|---------------------------------|-------------------------------|
| Bittercress | <i>Cardamine</i> spp. |
| Beggarweed, Florida | <i>Desmodium totuosum</i> |
| Carpetweed | <i>Mollugo verticiliata</i> |
| Chickweed, common | <i>Stellana media</i> |
| Copperleaf, Hophombeam | <i>Acalypha ostyifolia</i> |
| Crabgrass species | <i>Digitana</i> spp. |
| Croton, tripic | <i>Croton, glanduosus</i> |
| Daisy, American | <i>Coreopsis grandiflora</i> |
| Dayflower, common | <i>Commelina communis</i> |
| Dayflower, Virginia | <i>Commedlina virginica</i> |
| Dock, curly | <i>Rumex crispus</i> |
| Fixweed | <i>Descurainia Sophia</i> |
| Galinsoga, hairy | <i>Galinsoga Ciliata</i> |
| Groundcherry, clammy (seedling) | <i>Physalis heterophylla</i> |
| Groundcherry, cutleaf | <i>Physalis angulate</i> |
| Jimsonweed | <i>Datura stramonium</i> |
| Kochia | <i>Kochia scopana</i> |
| ALS/Triazene Resistant Kochia | <i>Kochia scopana</i> |
| Lambsquarter, common | <i>Chenopodium album</i> |
| Lettuce, wild | <i>Lactuca virosa</i> |
| Mallow, common | <i>Malva Neglecta</i> |
| Milkweed, honeyvine | <i>Ampelamus albidus</i> |
| Mexicanweed | <i>Caperonia castanifolia</i> |
| Morningglory species | <i>Ipomoea</i> spp. |

| | |
|--------------------|--------------------------------|
| Mustard species | <i>Brassica</i> spp. |
| Nightshade species | <i>Solanum</i> spp. |
| Palmer amaranth | <i>Cyperus</i> spp. |
| Pigweed, smooth | <i>Amaranthus hybridus</i> |
| Pigweed, redroot | <i>Amaranthus retroflexus</i> |
| Texasweed | <i>Caperonia palustris</i> |
| Thistle, Russian | <i>Salsola ibenca</i> |
| Waterhemp, tall | <i>Amaranthus tuberculatus</i> |
| Waterhemp, common | <i>Amaranthus rudis</i> |

NON-CROP RESTRICTIONS

- **DO NOT** apply SULFENTRAZONE 4L TURF to soils classified as sand with less than 1% Organic Matter.
- **DO NOT** apply more 12.0 fluid ounces (0.375 pound of sulfentrazone) per application.
- **DO NOT** apply more 12.0 fluid ounces (0.375 pound of sulfentrazone) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial SULFENTRAZONE 4L TURF application.
- **DO NOT** apply more than two applications per year when using reduced application rate equal to or less than 6.0 fl oz/A of this product.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. **DO NOT** use or store around the home.

PESTICIDE STORAGE: Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool, dry place and avoid excess heat.

PESTICIDE DISPOSAL: Waste resulting from the use of this product must be disposed of at an approved waste disposal facility.

CONTAINER HANDLING:

[For containers ≤ 5 gallons:] Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

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 ¼ 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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures allowed by State and local authorities.

[For containers > 5 gallons:] Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container or pressure rinse promptly after emptying.

Triple rinse as follow: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration.

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 Albaugh, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Albaugh, 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 Albaugh, 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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LABEL HISTORY
(not included in the final printed label)

| FILE NAME | VERSION MARK | COMMENT |
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| 042750-00308.20160531.MASTER | 053116 | Section 3 Approval |
| 042750-00308.20200723.DRAFT | 072320 | Revision per EPA comments |
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