

GROUP 14 HERBICIDE

Summit Agro  
USA, LLC**Nassau 4SC™****For use on Turf Grasses (Including Residential and Institutional Lawns, Athletic Fields, Golf Course Fairways and Roughs and Commercial Sod Farms)****ACTIVE INGREDIENT:**

<b>Sulfentrazone</b> .....	39.6%
<b>OTHER INGREDIENTS</b> .....	60.4%
<b>TOTAL:</b> .....	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.)

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

For additional Precautionary Statements, First Aid, Storage, Disposal and other user information see inside this label.

Notice: Read this entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

**Shake Well Before Using**

In case of emergency endangering health or the environment involving this product, call Chemtrec at 1-800-424-9300.

Agricultural Chemical. Do not ship or store with food, feed, drugs or clothing.

EPA Reg. No. 82534-5-88783

EPA Est. No. 73427-IN-001

Distributed by:

Summit Agro USA, LLC

240 Leigh Farm Road, Suite 215

Durham, NC 27707

**Net Contents 1/2 Gallon (64 fl. oz.)**

**FIRST AID**

<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a Poison Control Center or doctor for treatment advice.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye.</li><li>• Call a Poison Control Center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>

**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.

**NOTE TO PHYSICIAN**

Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves and 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 immediately if pesticide gets inside. Then wash thoroughly and put on 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.

#### Groundwater advisory:

This chemical 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. Do not use on coarse soils classified as sand, which have less than 1% organic matter.

#### 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 to 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.

**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 Nassau 4SC™ 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 Nassau 4SC™ 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 over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and 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.

### **WEED RESISTANCE MANAGEMENT**

Nassau 4SC™ must be applied at the labeled rates and in accordance with label directions. Do not apply Nassau 4SC™ at rates less than those listed in this label. Observe target areas prior to treatment and apply Nassau 4SC™ when weeds are smaller.

Scouting the application area before applying Nassau 4SC™ to identify weeds and their growth stages and again following application of Nassau 4SC™ will help to identify performance issues or likely weed resistance.

If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of Nassau 4SC™. If resistance develops, Nassau 4SC™ may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors.

Certain species may develop resistance to this product/other herbicides where they are used repeatedly. Application of pesticide products therefore should be carried out in consultation with local/State agricultural advisors so that local resistance management strategies can be implemented.

In order to limit the possibility of resistance developing, apply Nassau 4SC™ in rotation with herbicides that have different modes of action and other classes of chemistry.

### **PRODUCT INFORMATION**

Nassau 4SC™ is a soil-applied selective herbicide. It will control listed grasses, sedges and broadleaf weeds. Nassau 4SC™ is a flowable product that contains 4 pounds of active ingredient (sulfentrazone) per gallon.

The active ingredient sulfentrazone inhibits an enzyme required by plants in order to produce chlorophyll. Inhibiting this enzyme leads to the release of singlet oxygen (O) which then disrupts cellular membranes, resulting in cellular leakage and cellular death ultimately resulting in plant death.

Nassau 4SC™ has a selective mode of action because sulfentrazone has a greater affinity for the PPO IX enzyme in listed weed species as opposed to listed crops.

Nassau 4SC™ must be prepared and used in such a way so as to prevent the following:

- spills
- improper disposal of spray mixtures, rinsate or any excess pesticide
- back siphoning in wells

### **Setback**

The following activities must not be carried out within 50 feet of any well (including drainage and abandoned wells) unless the activity is carried out on an impervious pad that has been built to withstand the heaviest possible weight that will be moved across the pad or placed upon it:

- Loading
- Mixing
- Washing/rinsing Nassau 4SC™ from application equipment

The impervious pad must be made to contain any leaks or spills, as well as any rinsate/washwaters and rain that may fall upon it. An impervious pad that does not have a roof must have enough capacity to contain a minimum of 110% of the volume of the largest container that will be placed on the pad. Those pads that are covered by a roof must have enough capacity to contain a minimum of 100% of the volume of the largest container that will be placed on the pad. The roof must be big enough to completely exclude contact with the pad from rainfall.

The above containment volume minimum must be maintained. The minimum capacity volumes do not apply to the following:

- Vehicles delivering pesticide product to the load/mix area

Applicators must ensure that they are aware of any State requirements for containment and set back from wells.

The impervious pad must be self-contained so that surface water cannot flow over or from one pad. They must also be sloped to allow for material removal.

Do not load or mix Nassau 4SC™ within 50 feet of any sinkholes, reservoirs, impounded or natural lakes, wells (including drainage and abandoned wells) or intermittent/perennial rivers and streams. This restriction does not apply where there are properly diked loading/mixing areas or impervious pads. The restriction also does not apply where abandoned wells are properly plugged or capped.

**Use Restrictions:**

This product may only be used to control listed broadleaf, grass and sedge weeds on residential and institutional lawns, athletic fields, golf course fairways and roughs, commercial sod farms, railroads, highways, roadsides, pipeline and utility rights of way, industrial areas, fence rows and other listed non-crop sites.

**APPLICATION INSTRUCTIONS**

Apply Nassau 4SC™ as a broadcast treatment at rates indicated, in enough water to obtain good coverage and to make at least 10 gallons finished spray per acre.

When Nassau 4SC™ 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 Nassau 4SC™ is applied in early spring, late summer or fall.

Make application with a boom and nozzle sprayer or boomless application system. Make application at spray pressure of 25 psi or below, unless the manufacturer specifies otherwise. Achieve best possible spray delivery and coverage, with minimum amounts of fine spray droplets, by utilizing properly chosen and adjusted nozzles, spray tips, and screens.

Applications only to railroad rights of way can be made by helicopter.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

When Nassau 4SC™ 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 Nassau 4SC™ is activated. The control of listed germinating weed species will be reduced when rain or irrigation follows a period of dry weather.

Where there are prolonged periods when rainfall/irrigation is not available, alternative weed control methods should be considered.

Once a treatment with Nassau 4SC™ 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

**Application by Air**

- Apply Nassau 4SC™ using appropriate nozzles that will allow for optimal coverage, will minimize drift and will keep fine spray droplets to a minimum.
- Do not apply Nassau 4SC™ when wind speed is likely to cause drift outside the target area.

- For Non-Crop use, application can be made by helicopter to railroad rights-of-way only.

**Restrictions:** Aerial application is allowed only when environmental conditions prohibit ground application. Aerial application will be allowed 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. 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.

#### **Application by Ground**

- Apply Nassau 4SC™ using a boom and nozzle sprayer with the appropriate spray tips, screens and nozzles. Application equipment must be calibrated for optimal coverage and spray distribution at the appropriate pressure.
- Use spray nozzles that will minimize drift by keeping fine spray droplets to a minimum.
- Apply Nassau 4SC™ in an appropriate volume for sufficient coverage. Higher volumes of water are more effective if weed populations are dense.

**Restrictions:** Apply Nassau 4SC™ in a minimum spray volume of 10 gallons per acre. Do not apply Nassau 4SC™ when wind speed is likely to cause drift outside the target area. When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre. For boom spraying, the minimum release height must be 30 inches from the soil for ground applications.

#### **CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF NASSAU 4SC™**

**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 ¼ 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 nondraining 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 inches 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 inches 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 onto 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 [www.cdpr.ca.gov/docs/emon/grndwtr/gwp\\_regs.htm](http://www.cdpr.ca.gov/docs/emon/grndwtr/gwp_regs.htm).

#### **Mixing with Liquid Fertilizers**

Nassau 4SC™ 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].

#### **Mixing and Loading Instructions**

- Nassau 4SC™ 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 Nassau 4SC™. Refer to Cleaning Directions below and to the cleaning directions of the product(s) previously applied.
- Mix Nassau 4SC™ using the following procedure:
  1. Fill a clean spray tank with ½ of water required for treatment.
  2. Begin agitation.
  3. Use a clean container to create a slurry of Nassau 4SC™ 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 Nassau 4SC™/water slurry must be mixed thoroughly prior to application.
    - \* For best mixing of the Nassau 4SC™/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 Nassau 4SC™ 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 Nassau 4SC™, 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 Nassau 4SC™ 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, Nassau 4SC™ 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.

### **SPRAY DRIFT REDUCTION ADVISORY**

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

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 (S572) standards.

Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.

Select medium to very coarse droplet size when sulfentrazone is used postemergence 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 as defined by the ASABE standard.

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.

### **Aerial Applications**

Aerial application is allowed only when environmental conditions prohibit ground application. Aerial application will be allowed when the field is too wet to safely apply pesticide using ground equipment.

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 the product is allowed to be applied by air, the applicator must use a minimum finished spray volume of 5 gallons per acre.

### **Spray Drift Management**

**AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.**

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

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 75 % 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.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

**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 specified 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 recommended 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 75% of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height** - To minimize spray drift, make applications at a height < 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. 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. Increase swath adjustment or offset distance 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. Do not make applications 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** – Do not make applications 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** – Only apply pesticide 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).

#### **Nassau 4SC™ Drift**

If Nassau 4SC™ 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 Nassau 4SC™ 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 Nassau 4SC™.

## TURF GRASSES

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

Nassau 4SC™ can be used to control broadleaf, grass and sedge weeds in established turfgrasses (seeded, sodded or sprigged). Turf grasses should be established (good root system; uniform stand) tolerant to Nassau 4SC™ (see below). A healthy root system is necessary to fill in exposed edges, which are more susceptible to Nassau 4SC™.

#### **Tolerant Turf Grasses**

Cool Season Grasses: Apply Nassau 4SC™ at 4 to 8 oz per acre (unless noted) to: Bentgrass, creeping\*, Fescue Fine\*\* (*Festuca rubra*), Fescue, Tall\*\* (*Festuca arundinacea*), Ryegrass, Perennial (*Lolium perenne*), Bluegrass, Kentucky (*Poa pratensis*), Bluegrass, Rough\*\*\* (*Poa trivialis*)

\*Apply a maximum of 4 oz Nassau 4SC™ to creeping bentgrass

\*\* An undesirable plant response can occur if applying Nassau 4SC™ to certain varieties of Chewings fine fescue or tall fescue.

Warm Season Grasses – Apply Nassau 4SC™ at 8 to 12 oz per acre to: Bahiagrass\*\*\* (*Paspalum notatum*), Buffalograss (*Buchloe dactyloides*), Carpetgrass (*Axonopus affinis*), Centipedegrass (*Eremochloa ophiuoides*), Kikuyugrass (*Pennisetum clandestinum*), Sheashore Paspalum (*Paspalum vaginatum*), Zoysiagrass\*\*\* (*Zoysia japonica*), Bermudagrass (*Cynodon dactylon*), Bermudagrass Hybrids (*Cyn bluegrass*), St. Augustinegrass\*\*\* (*Stenotaphrum secundatum*)

\*\*\* St. Augustine grass and some varieties of bahiagrass, rough bluegrass or zoysiagrass, particularly turfgrass that has been stress-weakened can experience temporary leaf surface discoloration (removed upon mowing) upon application of Nassau 4SC™. Chemicals, certain cultural practices, disease, mechanical exposure and cultivation and weather can all be causes of stress-weakened turf.



Not all varieties or cultivars have been tested with Nassau 4SC™. Consult with university or weed management specialists for information on using Nassau 4SC™ with specific local varieties or cultivars of turfgrass. Prior to treatment on new turfgrass varieties, test response to Nassau 4SC™ by applying to a small area of turfgrass.

Do not apply more than 0.375 lbs sulfentrazone (12.0 fl. oz. product) per acre per 12 month period. The 12 month period starts at the point of first application.

### **Preemergence Weed Control**

When applied as indicated on this label, the following weeds will be controlled or suppressed with Nassau 4SC™

Summer Annual Weeds – apply in early spring, prior to germination of weed seeds.

#### Broadleaf Weeds:

- Black medic (*Medicago lupulina*)
- Common purslane (*Portulaca oleracea*)
- Pigweed, redroot (*Amaranthus retroflexus*)
- Pigweed, smooth (*Amaranthus hybridus*)
- Prostrate knotweed (*Polygonum aviculare*)
- Spurge (*Euphorbia spp.*)
- Spurge, prostrate (*Euphorbia supine*)
- Spurge, spotted (*Euphorbia maculate*)

#### Grassy Weeds:

- Barnyardgrass (*Echinochloa crusgalli*)
- Crabgrass, large (*Digitaria sanguinalis*)
- Crabgrass, smooth (*Digitaria ischaemum*)
- Foxtail, green (*Setaria viridis*)
- Foxtail, yellow (*Setaria glauca*)
- Goosegrass (*Eleusine indica*)

Winter Annual Weeds – apply in late summer or early fall.

#### Broadleaf Weeds:

- Buttercups (*Ranunculus spp.*)
- Carolina geranium (*Geranium carolinianum*)
- Chickweed, common (*Stellaria media*)
- Chickweed, mouseear (*Cerastium vulgatum*)
- Common groundsel (*Senecio vulgaris*)

(continued)

Broadleaf Weeds: (continued)

Corn Speedwell (*Veronica arvensis*)  
Hairy bittercress (*Cardamine hirsute*)  
Henbit (*Lamium amplexicaule*)  
Knawel (*Scieranthus annuus*)  
Large Hop clover (*Trifolium campestre*)  
Parsley piert (*Alchemilla microcarpa*)  
Spurweed (*Soliva pterosperma*)  
Violet, Johnny-jump-up (*Viola rafeinesquii*)

Grassy Weeds:

Annual bluegrass (*Poa annua*)  
Annual ryegrass (*Lolium multiflorum*)

**Postemergence Weed Control**

When applied as indicated on this label, the following weeds in turfgrass will be controlled or suppressed with Nassau 4SC™:

Broadleaf Weeds:

Bedstraw, catchweed (*Galium apanne*)  
Beggartweed, Florida (*Desmodium tortuosum*)  
Bittercress (*Cardamine* spp.)  
Black Medic (*Medicago lupulina*)  
Buttercup (*Ranunculus* spp.)  
Carolina geranium (*Geranium carolinianum*)  
Carpetweed (*Mollugo verticillata*)  
Chickweed, common (*Stellaria media*)  
Chickweed, mouseear (*Cerastium vulgatum*)  
Cinquefoil (*Potentilla* spp.)  
Clover (*Trifolium* spp.)  
Copperleaf (*Ascalypha* spp.)  
Cudweed (*Gnaphalium* spp.)  
Dandelion (*Taraxacum officinale*)  
Dock, curly (*Rumex crispus*)  
Dollarweed (*Hydrocotyl umbellata*)  
Eclipta (*Eclipta prostrata*)

(continued)

## Broadleaf Weeds: (continued)

Evening primrose (*Oenothera biennis*)  
Fiddleneck (*Amsinckia* spp.)  
Filaree (*Erodium* spp.)  
Galinsoga (*Galinsoga ciliata*)  
Garlic, wild (*Allium vineale*)  
Goldenrod (*Solidago* spp.)  
Ground ivy (*Glechema hederasea*)  
Groundsel, common (*Senecio vulgaris*)  
Henbit (*Lamium amplexicaule*)  
Knapweed (*Scieranthus annuus*)  
Knotweed, prostrate (*Polygonum aviculare*)  
Kochia (*Kochia scoparia*)  
Lambsquarters, common (*Chenopodium album*)  
Lawn burweed (spurweed) (*Soliva pterosperma*)  
Lespedeza, common (*Lespedeza striata*)  
Mallow, common (*Malva neglecta*)  
Onion, wild (*Allium canadense*)  
Parsley piert (*Alchemilla arvensis*)  
Pigweed, redroot (*Amaranthus retroflexus*)  
Pigweed, smooth (*Amaranthus hybridus*)  
Pigweed, tumble (*Amaranthus albus*)  
Pineapple weed (*Matricaria matricarioides*)  
Plantain, buckhorn (*Plantago lanceolata*)  
Puncture weed (*Tribulus terrestris*)  
Purslane, common (*Portulaca oleracea*)  
Pusley, Florida (*Richardia scabra*)  
Redweed (*Melochia corchorifolia*)  
Rocket, London (*Sisymbrium irio*)  
Shepherd's purse (*Capsella bursa pastoris*)  
Smartweed, PA (*Polygonum pennsylvanicum*)  
Sorrel, red (*Rumex acetosella*)  
Speedwell (*Veronica* spp.)  
Spurge, annual (*Euphorbia* spp.)

(continued)

Broadleaf Weeds: (continued)

Spurge, prostrate (*Euphorbia humistrata*)  
Spurge, spotted (*Euphorbia maculata*)  
Star of Bethlehem (*Omithogalum umbellatum*)  
Velvetleaf (*Abutilon theophrasti*)  
Violet, wild (*Viola pratincola*)  
Violet, Johnny-jump-up (*Viola rafeinesquii*)  
Woodsorrel, creeping (*Oxalis corniculata*)  
Woodsorrel, yellow (*Oxalis stricta*)

Grassy Weeds:

Goosegrass (*Eleusine indica*)

Sedges:

Kyllinga, green (*Kyllinga brevifolia*)  
Kyllinga, false green (*Kyllinga gracillima*)  
Nutsedge, purple (*Cyperus rotundus*)\*  
Nutsedge, yellow (*Cyperus esculentus*)  
Sedge, cylindrical (*Cyperus retrorsus*)  
Sedge, globe (*Cyperus glubulosus*)  
Sedge, Surinam (*Cyperus surinamensis*)  
Sedge, Texas (*Cyperus polystachyos*)

\*NOTE: Split applications give optimum control of purple nutsedge. When actively growing purple nutsedge is evident, apply as indicated below:

Cool season grasses: 2 – 4 fl. oz Nassau 4SC™ per acre first application, followed by second application of 4 -6 fl. oz. per acre (do not exceed 8 fl. oz. total on cool season grasses)

Warm season grasses: 6 – 8 fl. oz. Nassau 4SC™ per acre first application, followed by second application of 4-6 fl. oz. per acre (do not exceed 12 fl. oz. total on warm season grasses)

Observe maximum rate per acre based on turf variety, as indicated above.

Allow 35 days between applications

**Application Instructions**

Apply amount of Nassau 4SC™ 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 Nassau 4SC™ applications. Best results are obtained from waiting at least 1 month after Nassau 4SC™ 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 Nassau 4SC™ 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 Nassau 4SC™ for both preemergence and postemergence control. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Use of adjuvants or surfactants with Nassau 4SC™ can cause short-term discoloration of some turf species. Summit does not advise use of Nassau 4SC™ with surfactants or adjuvants.

#### **Important**

- Establish sod production areas for three (3) months before initial treatment with Nassau 4SC™.
- Temporary undesirable effects can be caused by the use of surfactants with Nassau 4SC™. Perform an on-site evaluation of surfactants for effects to turfgrasses and mixture compatibility prior to use.
- Use of Nassau 4SC™ with surfactants is not advised unless surfactant / sulfentrazone combinations have previously proven to be safe to a particular turf variety.

- Use of Nassau 4SC™ mixed with or applied within 7 days of herbicides containing the active ingredient trinexapac-ethyl can result in temporary turfgrass discoloration. Applying Nassau 4SC™ and trinexapac-ethyl herbicides 7 or more days apart decreases possibility of discoloration.

**RESTRICTIONS:**

- Do not apply more than 0.375 lbs. sulfentrazone (12.0 fl. oz. product) per acre per 12 month period. The 12 month period starts at the point of first application.
- Maximum single application rate is 8 fl. oz. product (0.25 lbs a.i.) for cold season grasses and 12 fl. oz. product (0.375 lbs a.i.) for warm season grasses.
- Pre-harvest interval is 3 months.
- Do not apply to ornamental beds or landscape ornamental plants.
- Do not feed forage or allow grazing of turf treated with Nassau 4SC™.
- Allow 35 days between applications.

## 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 may be disposed of at an approved waste disposal facility.

**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.

**Steps to be taken in case material is released or spilled:**

In case of release or spill, isolate area and keep unprotected persons or animals away from area. Dike and contain the spill with inert material (sand, earth, cat litter or commercial clay, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing and was affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

**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 Summit Agro USA, LLC. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Summit Agro USA, 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 Summit Agro USA, 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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GROUP 14 HERBICIDE

Summit Agro  
USA, LLC**Nassau 4SC™****ACTIVE INGREDIENT:**

Sulfentrazone..... 39.6%

**OTHER INGREDIENTS:**..... 60.4%**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 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. **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 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 SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. **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. **NOTE TO PHYSICIAN:** Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

**PRECAUTIONARY STATEMENTS****Hazards to Humans and Domestic Animals**

**Caution:** Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. See product labeling for additional Precautionary Statements and Directions for Use.

**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 may be disposed of at an approved waste disposal facility. **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.

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Distributed by: Summit Agro USA, LLC

240 Leigh Farm Road, Suite 215, Durham, NC 27707

**Net Contents 1/2 Gallon (64 fl. oz.)**