EPA Est No.:\_\_\_\_\_



ActiveIngredient:	% by weight
Sulfentrazone	39.6%
Other Ingredients	60.4%
TOTAL	100.0%

EPA Reg. No. 74530-63-5481

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

# KEEP OUT OF REACH OF CHILDREN CAUTION

CAUTION		
	FIRST AID	
If Swallowed	Call a poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	<ul> <li>DO NOT induce vomiting unless told to do so by the poison control center ordoctor.</li> </ul>	
	DO NOT give anything by mouth to an unconscious person.	
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.	
	EMERGENCY INFORMATION	
Have the product con	tainer or label with you when calling a poison control center or doctor, or going for treatment.	
FOR THE FOLLOWING	EMERGENCIES, PHONE 24 HOURS A DAY:	
For Medical Emergen	cies, phone:1-888-681-4261	
For Transportation En	nergencies, including spill, leak or fire, phone: CHEMTREC®1-800-424-9300	
	mation phone: AMVAC®1-888-462-6822	
	NOTE TO PHYSICIAN	
SUREPYC is expected	to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly	
irritating to the skin a	and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed	
by symptomatic and s		

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See inside booklet for First Aid, additional Precautionary Statements and Directions for Use including Storage and Disposal

<sup>\*</sup>Contains 4 lbs. Sulfentrazone per gallon





# AMVAC Chemical Corporation 4695 MacArthur Court, Suite 1200 Newport Beach, CA 92660 U.S.A.

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. DO NOT breathe vapor or spray mist. DO NOT get on skin, in eyes or on clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and Other Handlers Must Wear: A long-sleeved shirt & long pants; chemical-resistant gloves (barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyvinyl chloride  $\geq$  14 mils or Viton\* > 14 mils), when mixing and loading and also when using hand-held equipment; and shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Remove and wash contaminated clothing before reuse. If clothing and other absorbent materials have been drenched or heavily contaminated with this product DISCARD and **DO NOT** reuse them.

# **USER SAFETY RECOMMENDATIONS**

#### Users should:

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

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to marine /estuarine invertebrates. **DO NOT** apply directly to water or 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 adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

# DO NOT use on coarse soils classified as sand, which have less than 1% organic matter. Surface water advisory:

SUREPYC can contaminate surface water through spray drift and under some conditions, may have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. Areas prone to contamination 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
- Areas over-lying tile drainage systems that drain to surface waters.

#### **Groundwater advisory:**

SUREPYC is known to leach through soil into groundwater under certain conditions as a result of label use. Use in areas where soils are permeable, especially where the water table is shallow, may result in groundwater contamination.

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# CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF SUREPYC

#### **Runoff Groundwater Protection Areas**

**DO NOT** use in areas identified by the California Department of Pesticide Regulation as a runoff groundwater protection areas\* unless one of the following management practices can be met:

- 1) **Soil disturbance**. Within 7 days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area treated that is immediately adjacent to the crop row and that does not exceed 33% of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or
- 2) **Incorporation of the pesticide.** Incorporate within **48 hours** after the day this product is applied on at least 90% 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 general product application instructions, at application rates that **DO NOT** cause surface water runoff from the treated property or to wells on the treated property; or
- 3) **Band treatment**. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33% of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or
- 4) Timing of application. This product is applied between April 1 and July 31; or
- 5) **Retention of runoff on field.** Retain all irrigation runoff and all precipitation on, and drainage through the field for six months following the application. The field shall be designed, by berms, levees, or non-draining circulation systems. 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
- 6) Retention of runoff in a holding area off the field. For six months following the applications, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into 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
- 7) **Runoff unto a fallow field.** For six months following application, run off shall be managed so that it runs off unto an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after the application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under the product application instructions, with full consideration of any plant-back restrictions.

### **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:

- 1) The user does not apply any irrigation water for six months following application of this product; or
- 2) 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 that level for six months following the application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under the product application instructions; or
- 3) 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 locations of these Areas are also available via the internet at <a href="https://www.cdpr.ca.gov/docs/emon/grndwtr/gwp">www.cdpr.ca.gov/docs/emon/grndwtr/gwp</a> regs.htm

# **CHEMICAL/PHYSICAL HAZARDS**

**DO NOT** store or use near heat or open flame.

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# **DIRECTIONS FOR USE**

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

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. This product may only be used to control weeds listed on this label in use sites on this label.

**DO NOT** apply more than the labeled amount of SUREPYC per acre per twelve month period as stated in this label. The twelvemonth period begins at the time of initial SUREPYC application.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply touses 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.** Exception: if the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 such as polyethylene or polyvinyl chloride.
- shoes plus socks.

# RESISTANCE MANAGEMENT

The development of herbicide resistance is well understood, however it is not easily predicted. When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

Herbicides should be used in conjunction with the resistance management strategies in the area to better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes. It may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes. It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

If herbicide resistance should develop in the area to Group 14 Herbicides, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a

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resistant strain of weeds may have developed. To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action.

Always apply this product at the recommended rates and in accordance with the use directions. **DO NOT** use less than recommended label rates alone or in tank mixtures. **DO NOT** use reduced rates of the tank mix partner. For optimum performance, scout fields carefully before sulfentrazone application for weed identification and growth stage. Begin applications before weeds emerge or when weeds are small. It is recommended that fields be scouted after sulfentrazone application to look for poor performance or possible resistance. If resistance is suspected, report herbicide failure to local extension specialists, certified crop advisors, and/or sulfentrazone registrants.

#### **Mode of Action**

The active ingredient in SUREPYC is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) which is essential for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular injury and leakage. The ultimate manifestation of the process is cell death leading to plant death. The selective herbicidal activity of SUREPYC is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

#### **Mechanism of Action**

Following the application of SUREPYC to soil, germinating seeds and seedlings take up SUREPYC from the soil solution. The amount of SUREPYC in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. See information in Application Instruction section for more details on soil type and pH effects.

#### INSTRUCTIONS AND INFORMATION

#### PRODUCT INFORMATION

SUREPYC is a liquid flowable formulation. The product is a selective, soil-applied herbicide for the control of numerous susceptible broadleaf, grass and sedge weeds formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. Adequate rainfall/irrigation (1/2" to 1") is required for activation of SUREPYC. If adequate moisture is not received within 7 to 10 days after the SUREPYC treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is received after dry conditions, SUREPYC will provide a reduced level of control of susceptible germinating weeds. Soil applications of SUREPYC 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 SUREPYC. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

# MIXING AND APPLICATION GUIDELINES

# **SPRAY VOLUMES**

# **Ground Application:**

- Optimize spray distribution and coverage by utilizing properly calibrated sprayer equipped with appropriate nozzles, spray tips and screens.
- Adjust spray pressures to recommendations that are appropriate for the nozzle type being utilized.
- Sprayer and spray nozzles should be set to minimize the risk of fine droplets, yet achieve adequate coverage of soil
  or foliage coverage.
- Use nozzles that require screens no finer than 50 mesh.
- Use 10 to 40 gallons of water per acre.
- Continuous agitation in the spray tank is required to keep the product in suspension.
- Avoid overlap and shut off spray booms while starting, turning, slowing or stopping, as injury to the crop may result.

**DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

Application with Fertilizer:

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SUREPYC may be applied impregnated on dry fertilizers or with liquid fertilizer solutions by following the instructions below.

**Impregnated Dry Fertilizer Application (Ground Application Only):** SUREPYC may be applied impregnated on dry fertilizers. SUREPYC impregnated on dry fertilizer will provide satisfactory weed control when applied as directed with adequate soil coverage.

Follow all SUREPYC label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions. All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the SUREPYC dry fertilizer mixture.

#### **Impregnation Directions**

Impregnate this product on dry bulk fertilizer, using a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Pre-slurry this product in a clean container using clear water. Slowly add the SUREPYC water slurry to the impregnation spray tank and finish filling as needed with clear water. Place spray nozzles in an appropriate arrangement that will provide uniform coverage of SUREPYC onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the SUREPYC dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas will cause poor weed control or overlapping areas with potential increased SUREPYC use rates could result in possible crop damage. A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of this product must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

**DO NOT** impregnate SUREPYC onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide. Refer to the crop section of the SUREPYC label to determine the rate of this product to be applied per acre. Use the following table to determine the amount of product to be impregnated on a ton (2,000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

Dry Fortilizar Bata (lles (sans)	Ounces SUREPYC per ton of fertilizer SUREPYC Use Rate Per Acre		
Dry Fertilizer Rate (lbs/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

For rates not listed in the table above, calculate the amount of SUREPYC to be impregnated on a ton of dry bulk fertilizer using the following formula:

2000 SUREPYC Ounces of SUREPYC

Pounds of dry fertilizer X use rate in fluid ounces per acre = to be applied per ton of fertilizer

**Liquid Fertilizer Solution Application (Ground Application Only):** SUREPYC may be applied using liquid fertilizer solutions as the carrier. Fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied in fertilizer solution mixtures as directed with adequate soil coverage, SUREPYC will provide satisfactory weed control. Adequate soil coverage is mandatory to achieve acceptable levels of weed control.

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SUREPYC mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. Compatibility agents may be beneficial to achieve and maintain a homogenous solution.

# **Liquid Fertilizer Mixing Directions**

Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Preslurry SUREPYC in a clean container with clean water using equal volumes of SUREPYC and clean water. Slowly add the SUREPYC/water slurry to the spray tank. Rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the SUREPYC/water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Fill the spray tank to the desired level using continuous agitation. Sufficient spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Separate pumps may require to simultaneously supply the spray system and the spray tank agitation system. Insure the SUREPYC slurry is thoroughly mixed before application.

Conduct a compatibility test for tank mixtures with other herbicide(s) to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the SUREPYC spray mixture immediately after mixing. **DO NOT** store the sprayer overnight or for any extended period of time with the SUREPYC spray mixture remaining in the tank. **DO NOT** premix SUREPYC spray solutions in nurse tanks. Follow all SUREPYC label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations including those relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the SUREPYC and fertilizer mixture.

#### MIXING AND LOADING INSTRUCTIONS

#### Mixing with Water

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start the agitation system and add SUREPYC to the tank. Make sure SUREPYC is thoroughly mixed before application or before adding another product to the spray tank.

# **Use of Appropriate Surfactants**

Temporary discoloration of some plants may result from use of surfactants or adjuvants with SUREPYC. High temperatures and high relative humidity may increase the risk of temporary discoloration. Surfactants are recommended for some crops and not recommended for others. See surfactant recommendations in crop or site details below.

SUREPYC may be applied alone, or in tank mixtures with other herbicides to increase the spectrum of weed control. AMVAC Chemical Corporation has not tested all mixtures. SUREPYC is believed to be compatible with most other crop protection products - fungicides, insecticides, growth regulators and spray adjuvants. Conduct appropriate compatibility tests and crop safety evaluations prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label. 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.

When preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a jar prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture using the mixing instructions below. Before using SUREPYC it is very important the spray equipment is clean and free

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of any previous pesticide deposits in the tank. Use the previous product's label that was used and follow Tank Cleanout procedures that are on the label. If no procedure is provided use the cleanout procedure on the SUREPYC label marked SPRAYER CLEANOUT.

### **Mixing Instructions**

- 1. Fill the tank 1/2 full of water.
- 2. Start sprayer agitation system.
- 3. Pre-slurry SUREPYC in a clean container using clean water.
- 4. Slowly add the SUREPYC water slurry to the spray tank.
- 5. Rinse the slurry container, adding the rinsate to the spray tank.
- 6. Continue filling the spray tank to the desired level.
- 7. Maintain agitation at all times to maintain a uniform spray solution.
- 8. Before adding any other material SUREPYC should be thoroughly mixed with water in the spray tank.
- 9. Mixing order should be as follows: Fill tank half-full and add SUREPYC water slurry while continue filling with water add other herbicide(s), recommended spray adjuvant and liquid nitrogen fertilizer if recommended.
- 10. Use the SUREPYC spray mixture immediately after mixing.
- 11. **DO NOT** store the sprayer overnight or for any extended period of time with the SUREPYC spray mixture remaining in the tank.
- 12. **DO NOT** premix SUREPYC spray solutions in nurse tanks.
- 13. If SUREPYC is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with SUREPYC as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

#### **SPRAYER CLEANOUT**

Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. Additionally, appropriate steps should be taken to ensure proper equipment clean-out for any other products mixed with SUREPYC as required on the other product labels.

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

- 1. Drain system completely including the tank, hoses, spray boom and spray nozzles/tips.
- 2. Thoroughly wash the interior surfaces of the tank with a high pressure washer.
- 3. Thoroughly flush tank, spray boom and hoses with clean water.
- 4. Remove the nozzles/tips and screens (tank, spray hose and spray tips) and clean separately in a bucket containing a 3% ammonia solution. Replace nozzles/tips and screens once cleaned.
- 5. Prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.
- 6. Cleaning of the sprayer will be more thorough if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
- 7. Completely drain the sprayer system before using the sprayer.
- 8. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water.
- 9. After rinsing, once again remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.
- 10. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

**DO NOT** apply sprayer cleaning solutions or rinsate to sensitive crops. **DO NOT** drain or flush equipment on or near desirable trees or plants.

DO NOT store the sprayer overnight or for any extended period of time with SUREPYC spray solution remaining in the tank,

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spray lines, spray boom plumbing, spray nozzles or strainers. If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application. **DO NOT** contaminate any body of water including irrigation water that may be used on other crops.

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

#### HANDLING INSTRUCTIONS AT MIXING SITE

SUREPYC must not be mixed or loaded within 50 feet of wells - including abandoned wells and drainage wells, perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs, and sinkholes. 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. The impervious 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. The impervious pad must be self-contained and surface water must not be allowed to either flow over or from the pad. 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, spill or improper disposal of excess pesticide, spray mixtures or rinsates.

#### IMPORTANCE OF SOIL PH

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

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

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

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

# **MANAGEMENT OF SPRAY DRIFT**

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR. Factors relating to the potential for spray drift are many. The most common is the interaction of many equipment and weather-related factors that can determine potential spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Ultimately it is the applicator that is responsible for taking all these factors into consideration when making decisions on

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applications. 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.

#### **IMPORTANCE OF DROPLET SIZE**

APPLYING LARGER DROPLETS REDUCES SPRAY DRIFT POTENTIAL, BUT IT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR MADE UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS. This is the best strategy to manage the potential for spray drift and is based upon larger droplets to provide better coverage and control. Factors that also can affect an applicator's decision on balancing drift control and coverage are: the presence of non-targeted crops nearby – environmental conditions – and pest pressures.

#### **Controlling Droplet Size- General Techniques**

- Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE\* Standard S-572.
- Select coarse to very coarse droplet size when sulfentrazone is used as a 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 (defined by the ASABE\* standard).

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

Pressure - WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE

INSTEAD OF INCREASING PRESSURE. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration and deposition.

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

**Nozzle Type** - With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Use a nozzle type that is designed for the intended application. 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** - Set the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind.

**Ground:** For ground equipment, the boom should be set at a height that provides uniform Coverage. The boom should remain level with the crop and have minimal bounce.

# EFFECTS ON DRIFT POTENTIAL BY - WIND - TEMPERATURE AND HUMIDITY TEMPERATURE INVERSIONS

# Wind

Drift potential increases at wind speeds of more than 10 mph or less than 3 mph (due to inversion potential). However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift.

### **TEMPERATURE INVERSIONS**

Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Drift potential is high during a temperature inversion. Temperature inversions are common on nights with limited cloud cover and light to no wind and are characterized by increasing temperature with altitude. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

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#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **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).

#### **OFF-TARGET MOVEMENT OF SUREPYC**

Drift of dilute spray mixtures containing SUREPYC must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices detailed in this label will significantly diminish the risk of off-target spray drift. SUREPYC can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by SUREPYC drift mixtures. Depending on concentration of the spray solution and droplets size and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of SUREPYC on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. AMVAC Chemical Corporation accepts no responsibility or liability for potential crop effects that may result from such misapplication of SUREPYC.

# SPECIFIC USE DIRECTIONS

#### TURF GRASSES AND SOD PRODUCTION

Including Residential and Institutional Lawns, Athletic Fields, Golf Course Fairways and Roughs and Commercial Sod Farms

### Application/Turfgrass and Sod Safety

Apply SUREPYC to established seeded, sodded or sprigged turf grasses after the second mowing for the control of key grass, sedge and broadleaf weeds. It is essential that the grass has a good/developed root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Injury may result from application of this product to sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

SUREPYC contains sulfentrazone which is a selective soil applied herbicide for the control of certain broadleaf weeds grasses and sedges. It will control numerous susceptible species when applied according to directions.

The mode of action of SUREPYC involves active ingredient uptake by weed roots and shoots. SUREPYC may be tank mixed with other herbicides labeled for use in turf. When tank mixing SUREPYC observe all instructions, mixing directions, application precautions and other label information of each product.

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# Turf Grass Tolerance: When applied as directed, the following established turf grasses are tolerant to SUREPYC at the recommended use rates.

When applied as directed under the conditions described, the following established turf grasses are tolerant to SUREPYC at the recommended use rates in a range from 0.125 to 0.375 lb. a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

# Cool Season Grasses (see note below)

	Maximum Use Rate of a Single Application	
	Fluid ounces SUREPYC per Acre	Pound Active Ingredient per Acre
Bentgrass, creeping	4	0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea) Ryegrass, perennial (Lolium perenne) Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)	4 - 8	0.125 - 0.25

<sup>\*</sup>Applications of SUREPYC to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

#### Restriction

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.

# Warm Season Grasses (see note below)

	Maximum Use Rate of a Single Application	
	Fluid ounces SUREPYC per Acre	Pound Active Ingredient per Acre
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass) St. Augustinegrass (Stenotaphrum secundatum)	8 - 12	0.25 – 0.375

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

#### Restriction

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.

# Applications to Reseeded, Overseeded or Sprigged Areas

Turf grass treated with SUREPYC may be reseeded, overseeded or sprigged following application. However, if reseeding, overseeding or sprigging is done within 1 month following a SUREPYC treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done 2 to 4 weeks following an application provided slight grass plant response can be tolerated. Optimum reseeding 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.

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#### **Applications to Sod Production Areas**

This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of SUREPYC.

**DO NOT** apply this product within three (3) months of sod harvest.

**Adjuvant Use and Sod Discoloration:** Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant, thus use of surfactants is not recommended.

If Primo is either tank-mixed or applied within 7 days of an application SUREPYC temporary discoloration of turf grass has been observed. It is recommended that Primo applications be made 7 days prior to, or after a SUREPYC application to reduce risk of turf grass discoloration. 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.

#### Restrictions

- DO NOT apply to golf course putting greens or tees.
- **DO NOT** use on turf grasses other than those listed on this label
- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC in a single application.
- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.
- **DO NOT** apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.
- DO NOT graze or feed livestock forage cut from areas treated with SUREPYC.
- **DO NOT** apply directly to landscape ornamental foliage or ornamental beds containing dormant bulbs or non-woody perennials when applying to turf or sod.
- Sod production areas must be established three (3) months prior to the initial treatment of SUREPYC.

# **Postemergence Control of Sedges**

SUREPYC may be applied at the rate of 4 to 12 fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct SUREPYC use rate from table above.

When applied as directed, SUREPYC will provide control or suppression of the following sedges.		
Common Name	Scientific Name	
Kyllinga, green	Kyllinga brevifolia	
Kyllinga, false green	Kyllinga gracillima	
Nutsedge, purple*	Cyperus rotundus	
Nutsedge, yellow	Cyperus esculentus	
Sedge, cylindrical	Cyperus retrorsus	
Sedge, globe	Cyperus globulosus	
Sedge, Surinam	Cyperus surinamensis	
Sedge, Texas	Cyperus polystachyos	

<sup>\*</sup>Purple nutsedge: Split applications are recommended for optimum control of purple nutsedge. Apply 4 - 8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. **DO NOT** exceed the maximum rate per acre based on the turf variety as listed in table above on tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control		
Grass Type	First Application	Second Application
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.		

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#### **Postemergence Control of Grassy Weeds**

Apply SUREPYC at a rate of 4 to 12 fl oz/acre for control or suppression of specific annual grasses. Apply the highest rate consistent with the rate needed from the turf grass tolerance table above. Rates lower than 12.0 fl oz/acre will generally control grasses for at least 60 days. SUREPYC works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Common Name	Scientific Name
Goosegrass	Eleusine indica

#### **Postemergence Control of Broadleaf Weeds**

SUREPYC will control or suppress the broadleaf weeds listed in the chart below if applied alone shortly after weeds have emerged. Apply at 4 to 12 fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct SUREPYC use rate from turf grass tolerance table above. For optimum results, applications should be made shortly after weeds have emerged. SUREPYC may be tank mixed with other herbicides, insecticides and fungicides registered for use on turf grasses. Read and follow the label recommendations of the tank mix partner to determine turf grass species tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, SUREPYC will provide control or suppression of the following broadleaf weeds in Sod Production Fields.		
Broadleaves	Scientific Name	
Bittercress	Cardamine spp.	
Black Medic	Medicago lupulina	
Buttercup	Ranunculus spp.	
Carolina geranium	Geranium carolinianum	
Carpetweed	Mollugo verticillata	
Chickweed, common	Stellaria media	
Chickweed, mousear	Cerastium vulgatum	
Cinquefoil	Potentilla spp.	
Clover	Trifolium spp.	
Cudweed	Gnaphalium spp.	
Dandelion	Taraxacum officinale	
Dock, curly	Rumex crispus	
Evening primrose	Oenothera biennis	
Fiddleneck	Amsinckia spp.	
Filaree	Erodium spp.	
Garlic, wild	Allium vineale	
Goldenrod	Solidago spp.	
Ground ivy	Glechema hederasea	
Henbit	Lamium amplexicaule	
Knotweed, prostrate	Polygonum aviculare	
Kochia	Kochia scoparia	
Lambsquarters, common	Chenopodium album	
Lawn burweed	Soliva pterosperma	
Lespedeza, common	Lespedeza striata	
Mallow, common	Malva neglecta	
Onion, wild	Allium canadense	
Parsley piert	Alchemilla arvensis	
Pigweed, redroot	Amaranthus retroflexus	
Pigweed, tumble	Amaranthus albus	
Pineapple weed	Matricaria matricariode	
Plantain, buckhorn	Plantago lanceolata	

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Puncture weed	Tribulus terrestris
Purslane, common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Redweed	Melochia corchorifolia
Rocket, London	Sisymbrium irio
Smartweed, PA	Polygonum pensylvanicum
Sorrel, red	Rumex acetosella
Speedwell	Veronica spp.
Spurge, annual	Euphorbia spp.
Spurge, prostrate	Euphorbia humistrata
Spurge, spotted	Euphorbia maculata
Star of Bethlehem	Omithogalum umbellatum
Velvetleaf	Abutilon theophrasti
Violet, wild	Viola pratincola
Woodsorrel, creeping	Oxalis corniculata
Woodsorrel, yellow	Oxalis stricta

#### Precautions

The addition of surfactants may cause temporary undesirable effects to turf grasses.

#### Restrictions

- Sod production areas must be established three (3) months prior to the initial treatment of SUREPYC.
- **DO NOT** apply SUREPYC to golf course greens or tees.
- **DO NOT** apply SUREPYC to turf grasses not listed on this label.
- **DO NOT** apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.
- **DO NOT** graze or feed forage harvested from SUREPYC treated areas.
- **DO NOT** apply to landscape ornamental plants or ornamental beds.
- **DO NOT** harvest sod within three (3) months of SUREPYC application.
- DO NOT apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC in a single application.
- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.

#### SPECIFIC USE DIRECTIONS

# COMMERCIAL CONTAINER AND FIELD GROWN ORNAMENTALS (NOT FOR USE IN CALIFORNIA)

#### **Application/Plant Safety**

Apply SUREPYC to container and field grown ornamentals for the control of key grass, sedge and broadleaf weeds. **DO NOT APPLY OVER-THE-TOP.** 

#### **USE PRECAUTIONS**

- Direct application of SUREPYC to actively growing foliage can cause unacceptable injury to desirable plants. See
  Compatible Plants Table below for a list of compatible plants. To reduce injury, apply SUREPYC as a directed spray
  to the soil around the base of the plant. Avoid application directly to plant foliage. If foliage is contacted during
  application apply overhead irrigation to the foliage to wash SUREPYC from plant surfaces onto soil.
- **DO NOT** apply to areas where ornamental bulbs or dormant non-woody perennials are present. SUREPYC is soil active and may damage these plants upon emergence.
- DO NOT APPLY OVER-THE-TOP.

# **Method and Rate of Application**

SUREPYC is most effective when applied to soil free of clods and debris such as leaves or mulch. When applied preemergence, the herbicide must be activated with moisture, thus treated area should receive at least 0.25 inches of irrigation or rainfall after application to optimize efficacy.

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The addition of liquid fertilizers can increase the probability of superficial damage to green plant tissue inadvertently treated if applied with SUREPYC.

When plants are under stress - from various causes but not limited to heat, drought or frost – some cultivars of listed plants may be sensitive to SUREPYC.

SUREPYC Compatible Plants Table		
Common Name	Scientific Name	
Abelia	Abelia X grandiflora	
Arborvitae	Thuja sp.	
Azalea and Rhododendron	Rhododendron sp.	
Boxwood Species	Buxus sp.	
Bridal - Wreath	Spirea sp.	
Butterfly Bush	Buddleia davidii	
Crape Myrtle	Lagerstroemia indica	
Creeping Juniper	Juniperus horizontalis	
Douglas Fir	Pseudotsuga menziesii	
Dwarf Yaupon Holly	ILex vomitora 'Nana'	
Fir Species( Fraser, Balsam, etc)	Abies fraseri	
Juniper	Juniperus sp.	
Meserve Holly	ILex x meserveae	
Norway Spruce	Abies picea	
Rose	Rosa sp.	
Rotunda Holly	ILex Rotunda	
Southern Magnolia	Magnolia gradiflora	
Taxus sp.	Yew	

Application Sites/Instructions and Rates/Instructions for Container and Field Grown Ornamentals

Application Sites and Instructions		
Sites	Application Instructions	
Newly-Transplanted Container or	<ul> <li>Apply after new transplant material has formed</li> </ul>	
Field Nursery Stock	roots and is well established.	
	DO NOT apply until soil has settled around	
	transplants.	
	<ul> <li>Direct application toward base of plant to avoid</li> </ul>	
	terminal and bud area of plant.	
Established Container, Field Nursery Stock Plants, or	<ul> <li>Apply at any time as a directed spray toward the base</li> </ul>	
Landscape Plants	of the plant.	
Application Rate for Contain	er and Field Grown Ornamentals	
Amount to Apply (Broadcast)*	Instructions	
4 -12 fl oz/A	<ul> <li>Use 8-12 fl oz/A for sedges and perennial weeds.</li> </ul>	
0.092 – 0.275 fl oz/1000 sq ft	<ul> <li>Multiple applications may be made if needed as long as</li> </ul>	
	total amount applied in one year does not exceed 12.0 fl oz/A.	
	<ul> <li>Direct application toward base of plants.</li> </ul>	
*DO NOT use on food producing trees, vines, or plants.		

# Preemergence control of annual broadleaf weeds and sedges

SUREPYC will control or suppress the weeds listed in the table below. Apply prior to weed germination, at a rate of 4 to 12 fluid ounces per acre (0.092 to 0.275 fl. ounces/1,000 square feet). To broaden the weed spectrum and increase effectiveness for certain weeds listed in table below, SUREPYC may be tank mixed with other registered preemergence this label to determine compatibility of tank mixtures. Consult the label for application instructions for each of the tank mix products. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Control of emerged annual grass weeds may be improved by combining SUREPYC with other post emergence herbicides.

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# Restrictions

- DO NOT apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC in a single application.
- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.

#### **Postemergence Control of Broadleaf Weeds**

SUREPYC will control or suppress the broadleaf weeds listed in the table below if applied alone shortly after weeds have emerged. Apply at 4 to 12 fluid ounces per acre (0.092 to 0.275 fl. ounces/1,000 square feet) to established turf grasses for the control or suppression of broadleaf weeds. Select the correct SUREPYC use rate from turf grass tolerance table above. For optimum results, applications should be made shortly after weeds have emerged. To broaden the weed spectrum and increase effectiveness for certain weeds listed in the table below, SUREPYC may be tank mixed with other herbicides, insecticides and fungicides registered for use on turf grasses. Read and follow the label recommendations of the tank mix partner to determine turf grass species tolerance, use rates and application requirements. Control of emerged annual grass weeds may be improved by combining SUREPYC with other registered post emergence herbicides. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, SUREPYC will provide control or suppression of the following broadleaf weeds in Container and Field Grown Ornamentals		
Broadleaves	Scientific Name	
Bedstraw, catchweed	Galium aparine)	
Beggarweed, Florida	Desmodium tortuosum)	
Bittercress	Cardamine spp.	
Black Medic	Medicago lupulina	
Buttercups	Ranunculus spp.	
Carolina geranium	Geranium carolinianum	
Carpetweed	Mollugo verticillata	
Chickweed, common	Stellaria media	
Chickweed, mousear	Cerastium vulgatum	
Cinquefoil	Potentilla spp.	
Clover	Trifolium spp.	
Copperleaf	Ascalypha spp.	
Cudweed	Gnaphalium spp.	
Dandelion	Taraxacum officinale	
Dock, curly	Rumex crispus	
Evening primrose	Oenothera biennis	
Dollarweed	Hydrocotyl umbellata	
Eclipta	Eclipta prostrata)	
Evening primrose	Oenothera biennis	
Fiddleneck	Amsinckia spp.	
Filaree	Erodium spp.	
Galinsóga	Galinsoga ciliate	
Goldenrod	Solidago spp.	
Ground ivy	Glechema hederasea	
Groundsel, common	Senecio vulgaris	
Henbit	Lamium amplexicaule	
Knawel	Scleranthus annuus)	
Knotweed, prostrate	Polygonum aviculare	
Kochia	Kochia scoparia	
Lawn burweed (spurweed)	Soliva pterosperma	
Lambsquarters, common	Chenopodium album	
Lawn burweed	Soliva pterosperma	
Lespedeza, common	Lespedeza striata	
Mallow, common	Malva neglecta	
Parsley piert	Alchemilla arvensis	

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Amaranthus retroflexus
Amaranthus hybridus)
Amaranthus albus
Matricaria matricariode
Plantago lanceolata
Tribulus terrestris
Portulaca oleracea
Richardia scabra
Melochia corchorifolia
Sisymbrium irio
Capsella bursa-pastoris)
Polygonum pensylvanicum
Rumex acetosella
Veronica spp.
Euphorbia spp.
Euphorbia humistrata
Euphorbia maculata
Omithogalum umbellatum
Abutilon theophrasti
Viola pratincola
Viola rafeinesquii)
Allium vineale
Allium canadense
Oxalis corniculata
Oxalis stricta

# **Postemergence Control of Sedges**

SUREPYC may be applied at the rate of 4 to 12 fluid ounces per acre (0.092 to 0.275 fluid ounces/1,000 square feet) to established ornamentals for the control or suppression of sedges. Select the correct SUREPYC use rate from table above and apply the highest rate consistent with the rate needed for ornamental safety. Rates lower than 12.0 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control/suppress sedges for at least 60 days. A rate of 12.0 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some ornamental species may result from use of surfactant. Use of surfactants is not recommended.

When applied as directed, SUREPYC will provide control or suppression of the following sedges.		
Common Name	Scientific Name	
Kyllinga, green	Kyllinga brevifolia	
Kullinga, false green	Kyllinga gracillima	
Nutsedge, purple*	Cyperus rotundus	
Nutsedge, yellow	Cyperus esculentus	
Sedge, cylindrical	Cyperus retrorsus	
Sedge, globe	Cyperus globulosus	
Sedge, Surinam	Cyperus surinamensis	
Sedge, Texas	Cyperus polystachyos	

<sup>\*</sup>Purple nutsedge: Split applications are recommended for optimum control of purple nutsedge. Apply 4 - 8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. **DO NOT** exceed the maximum rate per acre based on the ornamental variety as listed in table above on tolerant grasses.

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# RIGHTS-OF WAYS - INCLUDING RAILROAD, HIGHWAY, ROADSIDE, PIPELINE, UTILITY, INDUSTRIAL AREAS, FENCE ROWS AND OTHER LISTED NON-CROP SITES

# **Application**

Apply SUREPYC to the following sites:

- Railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments to control weeds and maintain bare ground.
- 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 electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.
- 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.
- Apply alone or in combination with other herbicides for residual control of weeds in early Spring, late Summer or Fall, or early Spring to insure adequate moisture for soil activation.

# **Method and Rate of Application**

Apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 lb active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre for residual control of germinating weeds in non-crop land.

Use labeled rates of burndown herbicides such as glyphosate, diquat, 2,4-D, dicamba, etc. as tank mixtures with SUREPYC. Use recommended adjuvants for the herbicide tank mix partner. Refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions for all products used in tank mixes.

- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC in a single application.
- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.

Railroads Right-Of-Way Crop Weed List		
Amaranth, Palmer	Amaranthus palmeri	
Beggarweed, Florida	Desmodium tortuosum	
Carpetweed	Mollugo verticillata	
Chickweed, common	Stellaria media	
Copperleaf, hophornbeam	Acalypha ostryeafolia	
Crabgrass species	Digitaria spp.	
Croton, tropic	Croton glandulosus	
Daisy, American	Coreopsis grandiflora	
Dayflower, common	Commelina communis	
Dayflower, Virginia	Commelina virginica	
Dock, curly	Rumex crispus	
Flixweed	Descurainia sophia	
Galinsoga, hairy	Galinsoga ciliata	
Groundcherry, clammy (seedling)	Physalis heterophylla	
Groundcherry, cutleaf	Physalis angulata	
Jimsonweed	Datura stramonium	
Kochia (ALS and Triazine Resistant)	Kochia scoparia	
Lambsquarters, common	Chenopodium album	
Lettuce, wild	Lactuca virosa	
Mallow, common	Malva neglecta wall r.	
Mayweed, Chamomile	Anthemis cotula I.	
Mexicanweed	Caperonia castanifolia	
Milkweed, honeyvine	Ampelamus albidus	
Morningglory species	Ipomoea spp.	

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Mustard, species	Brassica spp.
Nightshade species	Solanum spp.
Nutsedge speices	Cyperus spp.
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Texasweed	Caperonia palustrus
Thistle, Russian	Salsola iberica
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos

#### Restrictions

- **DO NOT** apply SUREPYC to soils classified as sand with less than 1% Organic Matter.
- **DO NOT** apply more than 12.0 fluid ounces (0.375 lb active) per acre of SUREPYC per twelve month period. The twelve month period is considered to begin upon the initial SUREPYC application.

# STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal or cleaning of equipment.

#### **Pesticide Storage and Disposal**

Store product in original container only. Keep container closed when not in use, away from food or feed, fertilizer and other pesticides. Store in a cool dry place and avoid excess heat. DO NOT store below 30°F degrees. Wastes resulting from the use of this product that cannot be used should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures. For more information contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

# **Container Handling**

Nonrefillable container - DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: 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.

# LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; and (b) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions. THIS WARRANTY DOES NOT EXTEND TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

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