

QUIZALOFOP GROUP 1 HERBICIDE

# Suffice

**A Selective Post-Emergence Herbicide that Controls Emerged Annual and Perennial Grasses in Quizalofop-p-ethyl Resistant Rice.**

<b>ACTIVE INGREDIENT:</b>	<b>WT. BY %</b>
Quizalofop-P-ethyl: Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yl oxy)phenoxy]propionate* .....	10.3%
<b>OTHER INGREDIENTS:</b> .....	89.7%
<b>TOTAL:</b> .....	<b>100.0%</b>

\* Equivalent to 0.88 lb. a.i./gal.  
Contains petroleum-based distillates.

## KEEP OUT OF REACH OF CHILDREN DANGER / PELIGRO

Si usted no entiende la 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	
<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 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 SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give any liquid to the person.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<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 mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage. Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	

**See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.**

**Manufactured For:**



7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

EPA Reg. No. 83529-174  
EPA Est. No. 39578-TX-001

**Net Contents: 2.5 Gals.**

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### DANGER

Corrosive. Causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through the skin. **DO NOT** get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or Viton
- Shoes plus socks
- Protective eyewear

### USER SAFETY REQUIREMENTS

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

### ENGINEERING CONTROL STATEMENTS

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

### USER SAFETY RECOMMENDATIONS

#### Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Wash outside of gloves then remove after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and invertebrates. For terrestrial uses, **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 aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate. This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

### PHYSICAL AND CHEMICAL HAZARDS

Combustible. Keep away from heat, sparks, and open flames. Keep container closed.

## 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 can be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

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

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

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

- Coveralls
- Chemical-resistant gloves made of barrier laminate or Viton
- Shoes plus socks
- Protective eyewear

## PRODUCT INFORMATION

**Suffice** is a selective post-emergence herbicide that controls emerged annual and perennial grasses in Quizalofop-p-ethyl resistant rice. **Suffice** does not control sedges or broadleaf weeds. Applied at specified rates and timings, **Suffice** controls the grasses listed in the **Quizalofop-p-ethyl Resistant Rice - Weeds Controlled and Rate Selection** table.

Use only in Quizalofop-p-ethyl resistant rice for the control of red rice, volunteer rice types (conventional, Clearfield® or hybrid volunteer rice), annual, and perennial grasses in rice production.

- Apply **Suffice** at 13 - 15.5 fl. oz. (0.09 - 0.11 lb. a.i.) per acre by ground or by air to Quizalofop-p-ethyl resistant rice at the 2- to 3-leaf stage (BBCH 12 - 13) followed by a second **Suffice** application at 13 - 15.5 fl. oz. (0.09 - 0.11 lb. a.i.) per acre before Panicle Initiation (BBCH 29).
- A sequential application program is necessary for complete control of red and volunteer rice due to extended emergence. Separate sequential applications by at least 10 days.
- **DO NOT** apply more than a total of 31 fl. oz. (0.21 lb. a.i.) of **Suffice** per acre or per year.
- Apply petroleum-based crop oil concentrate at 1% v/v (1 gal. of product per 100 gals. of spray solution), by ground or aerial application. **DO NOT** use less than 1 pt. per acre crop oil concentrate with low-volume (less than 12.5 gals. per acre) aerial or ground application.

### Precautions:

Injury to or loss of desirable trees, vegetation or adjacent sensitive crops may result from failure to observe the following:

- Prevent spray drift to desirable plants (refer to **SPRAY DRIFT MANAGEMENT** section of this label).
- Take all necessary precautions to avoid all or direct contact (including spray drift) with non-target plants or areas. Most grass crops, including wheat, barley, rye, oats, sorghum, rice, and corn are highly sensitive to **Suffice**.
- Carefully observe all sprayer clean-up instructions both before and after using this product, as spray tank residue may damage crops other than those included in the **CROP ROTATION** section.

### Restrictions:

- **DO NOT** apply more than 15.5 fl. oz. (0.11 lb. a.i.) of **Suffice** per acre per application.
- **DO NOT** apply **Suffice** through any type of irrigation equipment.
- **DO NOT** apply to any body of water except Quizalofop-p-ethyl resistant rice fields.
- **DO NOT** apply more than a total of 31 fl. oz. (0.21 lb. a.i.) of **Suffice** per acre or per year.
- **DO NOT** make more than 2 applications of **Suffice** to Quizalofop-p-ethyl resistant rice per year, with at least 10 days between applications.
- **DO NOT** apply **Suffice** to rice fields that will be used for mollusc production during the treatment year.
- **DO NOT** apply **Suffice** to Quizalofop-p-ethyl resistant rice earlier than 2- to 3-leaf stage (BBCH 12 - 13) for the first application.
- **DO NOT** make second **Suffice** to Quizalofop-p-ethyl resistant rice application once Panicle Initiation begins (BBCH 30).
- **DO NOT** release flood water from treated fields for 7 days after the second **Suffice** application.
- **DO NOT** use flood water from treated fields for irrigation purposes for any other food/feed crops.
- Take all necessary precautions to avoid all direct or indirect contact (including spray drift) with non-target plants or areas. Most grass crops, including wheat, barley, rye, oats, sorghum, rice (conventional and Clearfield®), and corn are sensitive to **Suffice**.
- **DO NOT** apply **Suffice** or any other herbicide that contains the active ingredient quizalofop-P-ethyl as a pre-plant burndown treatment before planting Quizalofop-p-ethyl resistant rice.

## ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

**Suffice** is a systemic herbicide that is rapidly absorbed by treated foliage and translocated to the roots and other growing points of the plant. When affected, younger plant tissues become chlorotic/necrotic and eventually die, leaving treated plants stunted and non-competitive. In general, these symptoms are first observed within 7 to 14 days after application depending on the grass species treated and the environmental conditions.

The degree of control and duration of the effect of **Suffice** depend upon the rate used, weed spectrum, weed size and variability, growing conditions at and following treatment, soil moisture, precipitation, tank mixtures, and spray adjuvant used.

Conditions conducive to healthy, actively growing plants optimize the performance of **Suffice**. Unacceptable control may occur if **Suffice** is applied to grasses stressed from abnormal weather (excessive heat or cold, or widely fluctuating temperatures), hail damage, drought, water saturated soils, mechanical injury, or prior herbicide injury. Grasses under these conditions are often less sensitive to herbicide activity. Delay application until the stress passes and weeds and crop resume growth. Before making applications of **Suffice** to crops previously under stress, or injured from other pesticide applications, the crop needs to be fully recovered and growing vigorously.

**Suffice** is rainfast 1 hour after application.

## CROP ROTATION

- **DO NOT** rotate to crops other than Barley, Canola, Cotton, Crambe, Dry Beans, Flax, Lentils, Mint (Spearmint and Peppermint, Peas (Dry and Succulent Peas), Snap Beans, Soybeans, Sugarbeets, Sunflowers, or Wheat within 120 days after application.
- **DO NOT** plant Quizalofop-p-ethyl resistant rice in consecutive years in the same field except in the case of crop failure. In the case of crop failure, Quizalofop-p-ethyl resistant rice may be replanted in the same year; but the 31 fl. oz. (0.21 lb. a.i.) per acre yearly maximum still applies even if an application was made before crop failure.
- In other rotational crops use a residual herbicide for red rice and grass control, including dimethenamide-P, sulfafenacil + dimethenamid-P, pyroxsulfone, or metolachlor containing herbicides.
- **DO NOT** fallow fields following Quizalofop-p-ethyl resistant rice without repeated field tillage or glyphosate treatments to control volunteer red rice.
- **DO NOT** allow any Quizalofop-p-ethyl resistant rice to go to seed in a non-rice year. This includes any fallow or crawfish production fields.
- When practical, cultivate all rotational crops regardless of herbicide program.

## RESISTANCE MANAGEMENT

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**Suffice** contains quizalofop and is classified in the Aryloxyphenoxy-propionate ("FOPs") chemical class as a Group 1 herbicide, Acetyl CoA Carboxylase (ACCase) Inhibitor. Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Suffice** and other Group 1 herbicides. Weed species with acquired resistance to Group 1 herbicides may eventually dominate the weed population if Group 1 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Suffice** or other Group 1 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices including mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds must be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, **DO NOT** allow weed escapes to produce seeds, roots, or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program must consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. **DO NOT** use more than 2 applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to Sharda USA LLC or their representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

## SPRAY DRIFT MANAGEMENT

The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. **AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.**

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply coarse or larger spray droplets as defined by the ASABE standard ANSI/ASAE S572.1 (March 2009). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See the **Wind, Temperature and Humidity**, and **Temperature Inversions** sections.

### Controlling Droplet Size – General Techniques

- **Flow Rate/Orifice Size** - Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.
- **Pressure** - The lowest spray pressures advised for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **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.

### Controlling Droplet Size – Aircraft

- **Number of Nozzles** - Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum.
- **Nozzle Orientation** - Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest droplet spectra. For some nozzles including solid stream, pointing the nozzles straight back parallel to the airstream will produce a coarser droplet spectrum than other orientations.
- **Nozzle Type** - Solid stream nozzles (including disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Pressure** - Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed reduces spray drift potential. For some nozzle types including solid streams, lower pressures can produce finer droplet spectra and increase drift potential.
- **Boom Length** - The boom length must not exceed 3/4 of wing or rotor length, longer booms increase drift potential.
- **Application Height** - Application more than 10 ft. above the canopy increases the potential for spray drift.

## BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom must remain level with the crop and have minimal bounce.

## WIND

Apply when wind speeds are less than 15 mph. The wind speed range for optimum performance is between 3 and 10 mph. At wind speeds less than 3 mph temperature inversions may exist, and at wind speeds above 10 mph spray patterns may be compromised. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS. Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

## TEMPERATURE AND HUMIDITY

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

## TEMPERATURE INVERSIONS

**DO NOT** apply during temperature inversions. Drift potential is high during a temperature inversion. Surface temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground, or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. Smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are minimizing drift potential and not interfering with uniform deposition of the product.

## SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of spray drift.

## DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read, and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Council of Producers and Distributors of Agrotechnology (CPDA).

## UPWIND SWATH DISPLACEMENT

When applications are made with a crosswind the swath will be displaced downwind. An adjustment for swath displacement is made on the downwind edge of the application site by shifting the path of the application equipment upwind.

## SPRAY DRIFT CONTROL RESTRICTIONS

Where states have more stringent regulations they must be observed.

## APPLICATION EQUIPMENT

See **SPRAY DRIFT MANAGEMENT** section for additional information and precautions.

### Ground Application - Broadcast Application:

- When applying by ground, use spray nozzles that will deliver medium or larger spray droplets as defined in the American Society of Agricultural and Biological Engineers (ASABE) standard ANSI/ASAE S572.1 (March 2009). Refer to the **SPRAY DRIFT MANAGEMENT** section for additional information).
- Use flat fan or hollow cone nozzles at 25 - 60 PSI.
- **DO NOT** use flood, rain drop, whirl chamber, or any other nozzle types that produce coarse, large spray droplets. In addition, **DO NOT** use Controlled Droplet Applicator (CDA) type nozzles as poor weed control or excessive spray drift may result.
- Use a minimum of 10 gals. of water per acre in non-arid areas.
- Use a minimum of 15 gals. of water per acre in arid areas.
- **DO NOT** exceed 40 gals. of water per acre.
- Increase spray volume and pressure as weed or crop density and size increase.
- Applications with wind speeds greater than 15 miles per hour are prohibited.
- Applications into temperature inversions are prohibited.
- Apply spray at the lowest height that is consistent with pest control objectives.

### Aerial Application:

- When applying by air, use spray nozzles that will deliver coarse or larger spray droplets as defined in the American Society of Agricultural and Biological Engineers (ASABE) standard ANSI/ASAE S572.1 (March 2009). Refer to the **SPRAY DRIFT MANAGEMENT** section for additional information.
- Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.
- Use a minimum of 10 gals. of water per acre.
- The boom length must not exceed 75% of the wingspan or 80% of the rotor blade diameter.

- Applications with wind speeds greater than 15 miles per hour are prohibited.
- Applications into temperature inversions are prohibited.
- Spray must be released at the lowest height consistent with pest control objectives and flight safety.
- Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size spectrum.

#### APPLICATION INSTRUCTIONS

##### Timing

**Suffice** will control emerged grasses when applied at specific rates and timings. Apply **Suffice** to young, actively growing grasses according to the rate chart that follows. Grasses that emerge following the first **Suffice** application will require an additional sequential treatment. Applications made to grasses that are larger than the sizes listed in the rate charts or to grasses under stress may result in unsatisfactory control.

Flood rice field within 2 days following second **Suffice** application, if not flooded before that application.

##### Spot/Small Area Spray Instructions

To spot treat small areas of grasses:

1. Use a 0.375% v/v solution of **Suffice** and water.

Spray Volume	Suffice	Crop Oil Concentrate
1 gal.	0.5 fl. oz. (1 tbsp.) (0.03 lb. a.i.)	1.25 fl. oz. (2.5 tbsp.)
25 gals.	12 fl. oz. (0.75 pt.) (0.08 lb. a.i.)	32 fl. oz. (1 qt.)
50 gals.	24 fl. oz. (1.5 pts.) (0.17 lb. a.i.)	64 fl. oz. (2 qts.)
100 gals.	48 fl. oz. (3 pts.) (0.33 lb. a.i.)	128 fl. oz. (1 gal.)

2. **DO NOT** spot treat grasses using a tank mix of **Suffice** and broadleaf herbicides.
3. Include a nonphytotoxic crop oil concentrate at 1 gal. per 100 gals. of spray solution (1% v/v).
4. Treat plants on a spray-to-wet basis to ensure good coverage.
5. **DO NOT** treat >10% of the total treated area as spot/small area treatment. **DO NOT** exceed the maximum specified rate per acre per year for the Quisalofop-p-ethyl resistant rice crop that is planted when additional applications are made as spot treatment or small area treatment.
6. **DO NOT** exceed the maximum specified rate per acre per year for the crop that is going to be planted when additional applications are made as spot or small area treatment.

#### MIXING INSTRUCTIONS

##### Tank Mixes

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.

**DO NOT** use tank mixtures of **Suffice** with any pesticide or spray adjuvant except as directed on this label.

Refer to the labels of all tank mix products for information regarding use information (including rates, timing, application information, and sprayer clean-up) and product precautions and restrictions (especially adjuvants – **Suffice** requires the use of an adjuvant). The most restrictive provisions apply. If those instructions conflict with this label, **DO NOT** tank mix the herbicide with **Suffice**.

Sharda USA LLC also advises that you first consult your State Experiment Station, University, or Extension agent, Agricultural dealer, or Sharda USA LLC representative as to the potential for any adverse interactions (resulting in unacceptable grass control and/or crop injury) before using new herbicide, insecticide, and fungicide mixtures. If no information is available, limit the initial use of **Suffice** and the new herbicide, insecticide, or fungicide product to a small area.

Always conduct a jar test to evaluate physical compatibility before applying a particular mixture to crops for the first time.

Tank mixes of **Suffice** with post-emergence broadleaf herbicides may result in reduced grass control. If grass control is reduced, an additional application of **Suffice** may be required after grass plants begin to develop new leaves.

**Broadleaf Weed Control:** For optimum control **Suffice** must be applied separately from broadleaf herbicides. However, with tank mix applications of **Suffice** and broadleaf herbicides, use the higher rate of **Suffice** and follow the restrictions of the most restrictive herbicide. Potential tank mix partners are quinclorac, pendimethalin, sodium bentazon, clomazone, halosulfuron, and halosulfuron-methyl + thifensulfuron. Due to potential weed control antagonism, **DO NOT** tank mix **Suffice** with products containing Propanil, Triclopyr, or Penoxsulam.

**Application with Broadleaf Herbicides:** Under arid or stressful environmental conditions, tank mixtures with other broadleaf herbicides may show a small reduction in control of some grass species. Activity of the post-emergence broadleaf herbicide in the tank mixture is not affected.

**Split Applications with Post-Emergence Broadleaf Herbicides:** Applying **Suffice** immediately before or following an application of a post-emergence broadleaf herbicide may reduce control of some grasses. For best results, follow these instructions when making split applications:

- Apply post-emergence broadleaf herbicides at least 24 hours after applying **Suffice**.
- Apply **Suffice** when grass begins to develop new leaves (generally 7 days after the post-emergence broadleaf herbicide application) in fields treated with a post-emergence broadleaf herbicide.

### Spray Adjuvants

Applications of **Suffice** must include a crop oil concentrate. For optimal performance, always mix **Suffice** with a high-quality Crop Oil Concentrate. If another herbicide is tank mixed with **Suffice** to increase the weed spectrum, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients. Apply petroleum-based crop oil concentrate at 1% v/v (1 gal. of product per 100 gals. of spray solution), by ground or aerial application. **DO NOT** use less than 1 pt. per acre crop oil concentrate with low-volume (less than 12.5 gals. per acre) aerial or ground application.

### Quizalofop-p-ethyl Resistant Rice - Weeds Controlled and Rate Selection

Annual Grasses <sup>1</sup>			
Weeds Controlled	Maximum Size at Application (Leaf)	Suffice <sup>2</sup> Applied Alone per Acre	Suffice <sup>2</sup> Tank Mixed with Broadleaf Herbicide per Acre
Barnyardgrass ( <i>Echinochloa crus-galli</i> )	6	13 - 15.5 fl. oz. (0.09 - 0.11 lb. a.i.)	<b>Sequential:</b> The maximum use rate <b>Suffice</b> is 31 fl. oz. (0.21 lb. a.i.) per year.
Corn, Volunteer ( <i>Zea mays</i> ) <sup>3</sup>	10		
Crabgrass, Large ( <i>Digitaria sanguinalis</i> )	6*		
Crabgrass, Smooth ( <i>Digitaria ischaemum</i> )	6*		
Goosegrass ( <i>Eleusine indica</i> )	6*		
Johnsongrass, Seedling ( <i>Sorghum halepense</i> )	8		
Junglerice ( <i>Echinochloa colonum</i> )	6		
Panicum, Fall ( <i>Panicum dichotomiflorum</i> )	6		
Panicum, Texas ( <i>Panicum texanum</i> )	4		
Rice, Red ( <i>Oryza sativa</i> )	4		
Rice, Volunteer (Conventional, Clearfield, hybrids)	4		
Shattercane ( <i>Sorghum bicolor</i> )	10		
Signalgrass, Broadleaf ( <i>Brachiaria platyphylla</i> )	6		
Sprangletop ( <i>Leptochloa</i> spp.)	6		
Witchgrass ( <i>Panicum capillare</i> )	6		
Perennial Grasses <sup>1</sup>			
Weeds Controlled	Maximum Size at Application (Leaf)	Suffice <sup>2</sup> Applied Alone per Acre	Suffice <sup>2</sup> Tank Mixed with Broadleaf Herbicide per Acre
Bermudagrass ( <i>Cynodon dactylon</i> )	3" tall (or up to 6" runners)	13 - 15.5 fl. oz. (0.09 - 0.11 lb. a.i.)	<b>Sequential:</b> The maximum use rate <b>Suffice</b> is 31 fl. oz. (0.21 lb. a.i.) per year.
Johnsongrass, Rhizome ( <i>Sorghum halepense</i> )	24		

<sup>1</sup> For annual and perennial grasses, up to 13 - 15.5 fl. oz. (0.09 - 0.11 lb. a.i.) per acre may be applied, based upon local experience. Under arid conditions use the higher use rate.

<sup>2</sup> Sequential application applied 10 - 21 days apart to allow for late emerging red rice or other annual grasses. **DO NOT** exceed a total of 31 fl. oz. (0.21 lb. a.i.) per acre or per year.

<sup>3</sup> Control includes Roundup Ready® (glyphosate-resistant), Liberty Link® (glufosinate-resistant), and IMI-Corn (imidazolinone-resistant).

\* Length of lateral growth.

### Mixing Directions

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of **Suffice**. If **Suffice** and a tank mix partner are to be applied together, consult the tank mix partner label for information on which must be added first (normally granules and powders are added first).
3. Continue agitation until the **Suffice** is fully dispersed, at least 5 minutes.
4. Once the **Suffice** is fully dispersed, maintain agitation and continue filling tank with water.
5. As the tank is filling, add the required volume of spray additives, always add these to the spray tank last.
6. Apply **Suffice** spray mixture within a reasonable period of time of mixing to avoid product degradation (24 - 48 hours). If the spray mixture stands for any period of time, thoroughly re-agitate before using.

### Sprayer Clean-Up

The spray equipment must be cleaned before **Suffice** is sprayed. Follow the clean-up procedures specified on the labels of the previously applied products. If no directions are provided, follow the 6 steps outlined in the below **After Spraying Suffice** section. It is very important that any buildup of dried pesticide deposits which have accumulated in the application equipment be removed before spraying **Suffice**. Steam-cleaning spray tanks to facilitate the removal of any caked deposits of previously applied products will help prevent accidental crop injury.

### At the End of the Day

During periods when multiple loads of **Suffice** are applied, at the end of each day of spraying, rinse and partly fill the interior of the tank with fresh water, and flush the boom and hoses. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

### After Spraying Suffice and Before Spraying Crops other than those listed in the CROP ROTATION section

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

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gal. of household ammonia\* (contains 3% active) for every 100 gals. of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 mins. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) listed on this label. **DO NOT** exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

\*Equivalent amounts of an alternate-strength ammonia solution or Sharda USA LLC approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, or applicator or Sharda USA LLC representative for a listing of approved cleaners.

### Notes:

- **CAUTION: DO NOT** use chlorine bleach with ammonia as dangerous gases will form. **DO NOT** clean equipment in an enclosed area.
- Steam-clean spray tanks before performing the above cleanout procedure to facilitate the removal of any caked deposits.
- When **Suffice** is tank mixed with other pesticides, all cleanout procedures must be examined and the most rigorous procedure must be followed.
- In addition to this cleanout procedure, all preclean out guidelines on subsequently applied products must be followed as per the individual labels.
- Where routine spraying practices include shared equipment frequently being switched between applications of **Suffice** and applications of other pesticides to **Suffice**-sensitive crops during the same spray season, dedicate a sprayer to **Suffice** to further reduce the chance of crop injury.



## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store product in original container only. Store in a cool dry place.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional office.

### **CONTAINER HANDLING:**

**Less Than or Equal to 5 Gallons.** Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling if available. 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

**Greater Than 5 Gallons.** Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: 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. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

**For Bulk and Mini-Bulk Containers.** Refillable container. Refill this container with pesticide only. **DO NOT** use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

All trademarks are the property of their respective owners.

## NOTES

QUIZALOFOP GROUP 1 HERBICIDE

# Suffice

A Selective Post-Emergence Herbicide that Controls Emerged Annual and Perennial Grasses in Quizalofop-p-ethyl Resistant Rice.

<b>ACTIVE INGREDIENT:</b>	<b>WT. BY %</b>
Quizalofop-P-ethyl: Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yl oxy)phenoxy]propionate*	10.3%
<b>OTHER INGREDIENTS:</b>	89.7%
<b>TOTAL:</b>	<b>100.0%</b>

\* Equivalent to 0.88 lb. a.i./gal.  
Contains petroleum-based distillates.

## KEEP OUT OF REACH OF CHILDREN DANGER / PELIGRO

Si usted no entiende la 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.)

See label booklet for complete Precautionary Statements and Directions For Use.

FIRST AID	
<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 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 SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li><b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li><b>DO NOT</b> give any liquid to the person.</li> <li><b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<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 mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage. Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	

## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### DANGER

Corrosive. Causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through the skin. **DO NOT** get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and invertebrates. For terrestrial uses, **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 aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate. This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

### PHYSICAL AND CHEMICAL HAZARDS

Combustible. Keep away from heat, sparks, and open flames. Keep container closed.

## 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 can be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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Manufactured For: Sharda USA LLC, 7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707

EPA Reg. No. 83529-174

EPA Est. No. 39578-TX-001

Net Contents: 2.5 Gals.

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