



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 24, 2021

Frank Carey
Sr. Regulatory Expert Manager
Valent U.S.A. LLC
1600 Riviera Ave. Suite 200
Walnut Creek, CA 94596-8025

Subject: Registration Review Label Mitigation for Bispyribac-Sodium
Product Name: TRADEWIND HERBICIDE
EPA Registration Number: 59639-165
Application Date: October 2, 2017
Decision Number: 560472

Dear Mr. Carey:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Bispyribac-Sodium Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact DeMariah Koger by phone at 703-347-0425, or via email at koger.demariah@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure



BISPYRIBAC-SODIUM GROUP 2 HERBICIDE

[Bracketed information is optional text]

Tradewind[®] Herbicide

REDLINE COPY

For selective management of surface, submersed and emergent aquatic weeds in bayous, drainage ditches, lakes, marshes, non-irrigation canals, ponds and reservoirs

Active Ingredient	By Wt
Bispyribac-sodium (sodium 2,6-bis[(4,6-dimethoxypyrimidin-2-yl)oxy]benzoate)	80.0%
Other Ingredients	<u>20.0%</u>
Total	100.0%

Tradewind[®] Herbicide is a soluble powder containing 80% active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET CONTENTS 32 OUNCES (4/8 OUNCE WSP)

ACCEPTED
Feb 24, 2021
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 59639-165

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.

FIRST AID	
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 800-892-0099 for emergency medical treatment information.	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical resistant gloves such as barrier laminate or butyl rubber \geq 14 mils or nitrile rubber \geq 14 mils or viton rubber \geq 14 mils, shoes plus socks.

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 CONTROLS STATEMENT

Water soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607 (d)]. Mixers and loaders handling this product while it is enclosed in intact water soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks and chemical-resistant gloves. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in emergency, such as a spill or equipment break-down.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This product is phytotoxic to some non-target plants. Follow use directions in order to minimize impacts to non-target vegetation. Do not apply to water except as specified on the label.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

SURFACE WATER ADVISORY STATEMENT: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of Bispyribac-sodium from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

GROUNDWATER ADVISORY STATEMENT: This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Do not apply this product in a way that will contact workers or other persons, either directly or through spray drift. Only protected handlers may be in the treatment area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

See precautionary language before using treated water for irrigation.

PRODUCT INFORMATION

Tradewind Herbicide is a selective herbicide that will control aquatic weeds in lakes, ponds, non-irrigation canals and other water bodies with limited or no outflow. *Tradewind* Herbicide is formulated as an 80 percent soluble powder and is packaged in water soluble packets that are mixed with water and applied to aquatic areas.

Tradewind Herbicide may be applied as a subsurface application targeting submerged aquatic weeds or as a surface application targeting floating and emergent undesirable aquatic weeds. *Tradewind* Herbicide controls weeds by inhibiting acetolactate synthase (ALS), a key enzyme in the biosynthesis of the branched-chain amino acids isoleucine, leucine, and valine. Symptoms of aquatic plants after treatment with ALS inhibitors include cessation of growth, discoloration of plant tissue with some yellowing and reddening of leaves and stems, followed by necrosis and death of plants. Symptoms occur slowly and may take two months or longer to fully affect target plants. The level and speed of control will be influenced by species, growth stage, growth rate and exposure time of targeted species, and the rate and timing of application. For best results, apply *Tradewind* Herbicide in the spring when plants are actively growing. Application to more mature or slow growing plants may decrease the speed and/or level of control.

Tradewind Herbicide may be applied to the following slow moving or quiescent bodies of water where there is minimum or no outflow:

- Bayous
- Drainage ditches
- Lakes
- Marshes
- Non-irrigation canals
- Ponds
- Reservoirs

Efficacy of subsurface applications may be decreased if exposure of targeted plants can not be maintained for a sufficient time. Insufficient exposure time may result from rapid inflow of fresh water into treated areas, and/or small spot or shoreline treatment within larger water bodies.

Application to public aquatic areas may require approval and/or permits. Consult with local or state agencies, if required.

Tank Mixes With Other Aquatic Herbicides

Tradewind Herbicide may be tank mixed with other aquatic herbicides and applied as a foliar or subsurface treatment for aquatic weed control. Consult with Valent U.S.A. LLC prior to applications for the most updated application information.

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.

<i>Tradewind</i> Herbicide Rate Summary	
oz of <i>Tradewind</i> Herbicide	Pounds of Active Ingredient
1	0.05
2	0.1
4	0.3
8	0.4

USE RESTRICTIONS FOR ALL APPLICATIONS

- Do not apply into flowing water, intertidal or estuarine areas.
- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g. swimming, fishing).
- Do not apply to water utilized for crayfish farming.
- **Important:** This product is a herbicide and is active at low concentrations.
- Do not use water treated with *Tradewind* Herbicide for hydroponic farming or to irrigate food crops, golf course greens or ornamental plants grown in greenhouses or nurseries until the concentration of bispyribac-sodium in water is less than or equal to 1 ppb.
- Water treated with *Tradewind* Herbicide may be used to irrigate bermudagrass (except golf course greens) and St. Augustinegrass if the concentration of bispyribac-sodium is below 30 ppb. Repeated irrigation of St. Augustinegrass may cause chlorosis and growth regulation if the concentration of bispyribac-sodium in water is greater than 30 ppb. Prior to irrigating other turf species or landscape ornamentals with water treated with *Tradewind* Herbicide, confer with Valent U.S.A. LLC if the concentration of bispyribac-sodium in treated irrigation water exceeds 1 ppb.
- Analyze water samples for bispyribac-sodium with Enzyme-Linked Immunosorbent Assay (ELISA) or other approved analytical methods.
- When applying foliar sprays, do not allow spray mist to drift on to desirable broadleaf plants or injury may result. To minimize potential for spray drift, refer to the Spray Drift Management section of this label.

Resistance Management

For resistance management, *Tradewind* Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to *Tradewind* Herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of *Tradewind* Herbicide or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. 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. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method for example hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.
- For further information or to report lack of performance or suspected resistance, contact Valent U.S.A. LLC at 800-6-VALENT (682-5368).

RESISTANCE MANAGEMENT

This product is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to *Tradewind* Herbicide and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same area 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 this product or other Group 2 herbicides.

To delay herbicide resistance:

- Alternate herbicides used for aquatic weed control when possible.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated weed populations for loss of efficacy.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and other management practices.
- Treatment sites should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. 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. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by mechanical means.
- Contact your local extension specialist, other experts appropriate to aquatic use, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations.
- For further information or to report suspected resistance, you may contact Valent U.S.A. LLC at the following toll-free number: 800-89-VALENT (898-2536).

SPRAY DRIFT MANAGEMENT

MANDATORY SPRAY DRIFT

Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a Medium or ultra coarse spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

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

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage.

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications:

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

Handheld Technology Applications:

- Take precautions to minimize spray drift.

APPLICATION AND SPRAYER INFORMATION

Properly maintain and calibrate all aerial, ground and watercraft based application equipment.

Instructions for Using Water Soluble Packages Directly into Spray Tanks:

Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607(d)].

Handling Instructions

Follow these steps when handling pesticide products in WSPs.

1. Mix in spray tank only.
2. Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
3. Keep the WSP(s) in outer packaging until just before use.
4. Keep the WSP dry prior to adding to the spray tank.
5. Handle with dry gloves and according to the label instructions for PPE.
6. Keep WSP intact. **DO NOT** cut or puncture WSP.
7. Reseal the WSP outer packaging to protect any unused WSP(s).

Mixing Instructions

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all mixed products do not conflict. **DO NOT** tank mix this product with products that prohibit tank mixing or have conflicting mixing directions.

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.

1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
3. Stop adding water and stop any agitation.
4. Place intact/unopened WSP(s) into the tank.
5. **DO NOT** spray water from a hose or fill pipe to break or dissolve the WSP(s).

6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
8. Stop agitation before tank lid is opened.
9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
10. **DO NOT** add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
11. Once the WSP have fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
12. Use the spray solution when mixing is complete.
13. Maintain agitation of the diluted pesticide mix during transport and application.
14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

ADDITIVES

When applying *Tradewind* Herbicide to the foliage of floating or emerged aquatic weeds, mix with a Chemical Producers and Distributors Association certified adjuvant approved for use in aquatic habitats. Mix *Tradewind* Herbicide with a non-ionic surfactant containing at least 80% active ingredient. Follow adjuvant manufacturer's label rates. Verify mixing compatibility with a jar test before using.

SPRAYER CLEANUP

If spray equipment is dedicated to application of aquatic herbicides, completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all inline screens.

Trace amounts of *Tradewind* Herbicide in or on mixing or spraying equipment may have an adverse effect on subsequently sprayed plants. Therefore, if spray equipment will be used for purposes other than applying aquatic herbicides, the following steps must be used to clean the spray equipment after application of *Tradewind* Herbicide:

1. Completely drain the spray tank and rinse the spray equipment thoroughly, including the inside and outside of the tank and all inline screens.
2. Fill the tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank with clean water.
4. Circulate through sprayer for 5 minutes.
5. Then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
6. Drain tank completely.
7. Remove all nozzles and screens and rinse again with clean water.

CONTROL OF FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

Table 1 lists floating and emergent aquatic weeds that *Tradewind* Herbicide will control when applied as a broadcast spray with appropriate equipment. Plants that are partially controlled may show herbicide stress during active growth, but are less likely to be killed by treatment. Use of lower labeled rates will increase the level of selectivity to desirable vegetation. For best results, apply *Tradewind* Herbicide to the foliage of actively growing weeds.

Table 1. Floating and Emergent Weeds

Common Name	Scientific Name
Alligatorweed	<i>Alternanthera philoxeroides</i>
Duckweed	<i>Lemna</i> spp
Mosquito fern	<i>Azola caroliniana</i>
Parrotfeather	<i>Myriophyllum aquaticum</i>
Water Fern	<i>Salvinia</i> spp
Water Hyacinth	<i>Eichhornia crassipes</i>
Water Lettuce	<i>Pistia stratiotes</i>
[Watermeal	<i>Wolffia columbiana</i>]
Water Pennywort	<i>Hydrocotyle</i> spp

Surface Application

Apply *Tradewind* Herbicide as a broadcast spray at 1 to 2 oz (0.05 to 0.1 lb ai) of formulated product per acre. Use higher rate for more mature, denser weed growth. Apply in a minimum of 30 gallons of water per acre to ensure adequate coverage.

Restrictions

- Do not apply more than 2 oz (0.1 lb ai) of product per application.
- Allow 30 days between applications and apply no more than 8 oz (0.4 lb ai) of product per acre per year.
- Do not exceed 4 applications per year.

When applying to densely packed actively growing surface weeds, ensure adequate coverage. A second application may be required for complete control under these conditions.

Tradewind Herbicide may be tank mixed with 2,4-D, diquat or other registered foliar applied aquatic herbicides for enhanced control of floating and emergent weeds.

Application Equipment

Apply *Tradewind* Herbicide with sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Apply by backpack or handgun sprayer, airboat, helicopter, airplane or other application equipment that will ensure thorough coverage of target plant foliage.

AERIAL APPLICATION

Restrictions

- Do not apply more than 2 oz (0.1 lb ai) of product per acre per application.
- For surface applications apply no more than 8 oz (0.40 lb ai) of product per acre per year.
- Do not exceed 4 applications per year.
- Allow 30 days between applications.
- Do not apply by air when drift is possible or when wind velocity is more than 10 mph.
- Do not spray *Tradewind* Herbicide within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas.
- Do not place nozzles on the outer 25% of the wings or rotors.

Apply *Tradewind* Herbicide by air at 1 to 2 oz (0.05 to 0.1 lb ai) of formulated product per acre. To obtain satisfactory weed control, aerial application of *Tradewind* Herbicide must provide uniform coverage of weeds. To obtain satisfactory application and minimize drift, observe the following directions when applying by air:

Volume and Pressure

Apply *Tradewind* Herbicide in 5 to 10 gallons of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gallons per acre may not provide adequate weed control. Higher gallonage applications generally provide more consistent weed control.

Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles including diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward.

Adjuvants

Refer to the ADDITIVES section or the tank mix partner's label.

CONTROL OF SUBMERSED WEEDS USING SUBSURFACE APPLICATION

Table 2 lists submersed aquatic plants that *Tradewind* Herbicide will control when applied subsurface with appropriate equipment. Plants that are partially controlled may show herbicide stress during active growth, but are less likely to be killed by treatment. Use of lower labeled rates will increase the level of selectivity to desirable vegetation.

Table 2. Submersed Weeds Controlled by Subsurface Application

Common Name	Scientific Name
[Bacopa	<i>Bacopa</i> spp.]
[Egeria, Brazilian Elodea	<i>Egeria densa</i>]
[Cabomba, Fanwort	<i>Cabomba caroliniana</i>]
Hydrilla	<i>Hydrilla verticillata</i>
Pondweed, Sago	<i>Potamogeton pectinatus</i>
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>
[Water primrose	<i>Ludwigia</i> spp.]

Best results with *Tradewind* Herbicide will be achieved when applied to young and actively growing submersed weeds that have limited biomass.

Subsurface Application Rates

Apply *Tradewind* Herbicide at a rate that will produce an initial concentration of 20 to 45 ppb in the water column of the treatment zone. Use the higher concentrations when weed biomass is heavy, when weeds are more mature and topped out, and/or when treating less susceptible plants. Use Table 3 to determine amount of *Tradewind* Herbicide needed to achieve desired concentration at different water depths. For optimal control, repeat applications to maintain desired water column concentrations of *Tradewind* Herbicide for 60 to 90 days after initial application, or until target weeds are controlled.

Restrictions

- Refer to Table 3 Subsurface Application Rates for application rate per acre.
- Do not exceed 4 applications per year.
- Retreatment interval: minimum 14 days.
- For an 8 foot deep lake, do not exceed 4.8 lb of *Tradewind* Herbicide (3.8 lb bispyribac-sodium) per acre per year.
- For an 8 foot deep lake, do not apply more than 1.2 lb of *Tradewind* Herbicide (0.95 lb bispyribac-sodium) per acre per application.

Multiple applications (up to 4 per year) of *Tradewind* Herbicide at lower rates may be needed in water bodies where there is a requirement for selective weed control, or the need to control weed species with a longer exposure time requirement.

For subsurface applications, do not allow the water concentration to exceed 45 ppb of *Tradewind* Herbicide in the treatment zone for any application (either initial or when retreating to maintain the effective water concentration).

Use ELISA (Enzyme-Linked Immunosorbent Assay) analysis or other analytical methods to help determine if and when it is necessary to make sequential applications of *Tradewind* Herbicide.

Application Equipment

To ensure adequate coverage, apply *Tradewind* Herbicide with weighted trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. *Tradewind* Herbicide may also be applied with handguns to the water surface and will adequately mix with the water column. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation.

Tank Mixes With Other Aquatic Herbicides

Tradewind Herbicide may be tank mixed with other aquatic herbicides. Where rapid control of hydrilla is desired, apply *Tradewind* Herbicide in combination or sequence with contact herbicides that are approved for aquatic use.

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.

Table 3. Subsurface Application Rates

Water Depth (ft)	Concentration of <i>Tradewind</i> Herbicide in Water (ppb) Pounds (Ounces) Product per Surface Acre at Given Depth						
	15 ppb	20 ppb	25 ppb	30 ppb	35 ppb	40 ppb	45 ppb
1	0.05 (0.80) 0.04 lb ai	0.07 (1.10) 0.055 lb ai	0.08 (1.30) 0.065 lb ai	0.10 (1.60) 0.08 lb ai	0.12 (1.90) 0.095 lb ai	0.13 (2.10) 0.105 lb ai	0.15 (2.40) 0.12 lb ai
2	0.10 (1.60) 0.08 lb ai	0.13 (2.10) 0.105 lb ai	0.17 (2.70) 0.135 lb ai	0.20 (3.20) 0.16 lb ai	0.23 (3.70) 0.185 lb ai	0.27 (4.30) 0.215 lb ai	0.30 (4.80) 0.24 lb ai
3	0.15 (2.40) 0.12 lb ai	0.20 (3.20) 0.16 lb ai	0.25 (4.00) 0.2 lb ai	0.30 (4.80) 0.24 lb ai	0.35 (5.60) 0.28 lb ai	0.40 (6.40) 0.32 lb ai	0.45 (7.20) 0.36 lb ai
4	0.20 (3.20) 0.16 lb ai	0.27 (4.30) 0.215 lb ai	0.33 (5.30) 0.265 lb ai	0.40 (6.40) 0.32 lb ai	0.47 (7.50) 0.375 lb ai	0.53 (8.50) 0.425 lb ai	0.60 (9.60) 0.48 lb ai
5	0.25 (4.00) 0.2 lb ai	0.33 (5.30) 0.265 lb ai	0.42 (6.70) 0.335 lb ai	0.50 (8.00) 0.4 lb ai	0.58 (9.30) 0.465 lb ai	0.67 (10.70) 0.535 lb ai	0.75 (12.00) 0.6 lb ai
6	0.30 (4.80) 0.24 lb ai	0.40 (6.40) 0.32 lb ai	0.50 (8.00) 0.4 lb ai	0.60 (9.60) 0.48 lb ai	0.70 (11.20) 0.56 lb ai	0.80 (12.80) 0.64 lb ai	0.90 (14.40) 0.72 lb ai
7	0.35 (5.60) 0.28 lb ai	0.47 (7.50) 0.375 lb ai	0.58 (9.30) 0.465 lb ai	0.70 (11.20) 0.56 lb ai	0.82 (13.10) 0.655 lb ai	0.93 (14.90) 0.745 lb ai	1.05 (16.80) 0.84 lb ai
8	0.40 (6.40) 0.32 lb ai	0.53 (8.50) 0.425 lb ai	0.67 (10.70) 0.535 lb ai	0.80 (12.80) 0.64 lb ai	0.93 (14.90) 0.745 lb ai	1.06 (17.00) 0.85 lb ai	1.20 (19.20) 0.96 lb ai

This table is intended to be a guide for determining rate per surface acre. Multiply the rate per surface acre by the total acres to be treated to determine the amount to apply to a given area. For example, if treating 4 surface acres on a 5 foot deep body of water at 30 ppb, apply 2 pounds of product (4 water soluble bags).

STORAGE AND DISPOSAL

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

STORAGE

Store in a cool dry place.

Keep pesticide in original container.

Keep container closed when not in use.

Do not put concentrate or dilute into food or drink containers.

Not for use or storage in or around the home.

For help with any spill, leak, fire or exposure involving this material, call day or night 800-892-0099.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING

Nonrefillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer bag for recycling if available. If recycling is not available, then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**DISCLAIMER, RISKS OF USING THIS PRODUCT,
LIMITED WARRANTY AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product, which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label to the extent consistent with applicable law.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

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To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR 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 THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from the date of application so that an immediate inspection of the affected property can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty** and **Limitation of Liability**, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

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Manufactured for:

Valent U.S.A. LLC

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EPA Reg. No. 59639-165

EPA Est. 065387-AR-1

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