



Tradewind™

HERBICIDE



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	20.0%
Total	100.0%

Tradewind™ Herbicide is a soluble powder containing 80% active ingredient.

EPA Reg. No. 59639-165 EPA Est. 065387-AR-001

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

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.

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. 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:** 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. (continued)

FIRST AID (continued)

- 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 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.

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):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow instructions for category A on an EPA chemical resistant category selection chart.

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.

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.

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.

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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LIMITATION OF LIABILITY

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.

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. Aquatic plant managers should consult with Valent U.S.A. Corporation prior to application for the latest recommendations.

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 chlo-

rosis 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. Corporation 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

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.
- 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. Corporation at the following toll-free number: 800-89-VALENT (898-2536).

SPRAY DRIFT MANAGEMENT FOR FOLIAR OR SURFACE APPLICATIONS

Do not apply under circumstances where possible drift to unprotected persons or to food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur. These precautions do not apply when *Tradewind* Herbicide is injected into water by closed systems.

- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by using appropriate spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
- Make aerial, ground or watercraft-based applications when wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph.

- Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

APPLICATION AND SPRAYER INFORMATION

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

MIXING INSTRUCTIONS

Water soluble packets containing *Tradewind* Herbicide should completely dissolve in the spray tank within approximately five minutes. The rate at which water soluble packets dissolve may be slowed by cold water, lack of agitation or water containing high concentrations of boron or sulfur.

1. Fill clean spray tank 1/3 to 1/2 of desired level with clean water.
2. While agitating, add *Tradewind* Herbicide and ensure it has dissolved completely before proceeding. Agitation should create a rippling or rolling action on the water surface.
3. Fill spray tank to desired level with water. Continue agitation until spray solution has been applied.
4. Mix only the amount of spray solution that can be applied the day of mixing.
5. Apply *Tradewind* Herbicide within 24 hours after mixing with water in spray tank.

ADDITIVES

When applying *Tradewind* Herbicide to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic habitats. Valent recommends the use of a Chemical Producers and Distributors Association certified adjuvant. 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>
Water Pennywort	<i>Hydrocotyle</i> spp.

Surface Application

Apply *Tradewind* Herbicide as a broadcast spray at 1 to 2 ounces of formulated product per acre. Use higher rate for more mature, denser weed growth. Apply in a minimum of 30 gal of water per acre to ensure adequate coverage. Allow 30 days between applications and apply no more than 8 oz 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

Allow 30 days between applications. For surface applications apply no more than 8 oz of product per acre per year. Do not exceed 4 applications per year. Apply *Tradewind* Herbicide by air at 1 to 2 oz of formulated product per acre. To obtain satisfactory weed control, aerial application of *Tradewind* Herbicide must provide uniform coverage of weeds. 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. 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 gal of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gal 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 such as 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. Do not place nozzles on the outer 25% of the wings or rotors.

Adjuvants

Refer to the ADDITIVES section or the tank mix partners label for adjuvant recommendation.

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
Hydrilla	<i>Hydrilla verticillata</i>
Pondweed, Sago	<i>Potamogeton pectinatus</i>
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>

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. Do not reapply within 14 days after initial application. Do not exceed 4 applications per year.

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). A maximum of 4 applications is allowed per year.

The use of ELISA (Enzyme-Linked Immunosorbent Assay) analysis or other analytical methods is recommended to 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.

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 (0.8)	0.07 (1.1)	0.08 (1.3)	0.1 (1.6)	0.12 (1.9)	0.13 (2.1)	0.15 (2.4)
2	0.10 (1.6)	0.13 (2.1)	0.17 (2.7)	0.2 (3.2)	0.23 (3.7)	0.27 (4.3)	0.3 (4.8)
3	0.15 (2.4)	0.20 (3.2)	0.25 (4)	0.3 (4.8)	0.35 (5.6)	0.4 (6.4)	0.45 (7.2)
4	0.20 (3.2)	0.27 (4.3)	0.33 (5.3)	0.4 (6.4)	0.47 (7.5)	0.53 (8.5)	0.6 (9.6)
5	0.25 (4)	0.33 (5.3)	0.42 (6.7)	0.5 (8)	0.58 (9.3)	0.67 (10.7)	0.75 (12)
6	0.30 (4.8)	0.40 (6.4)	0.5 (8)	0.6 (9.6)	0.7 (11.2)	0.8 (12.8)	0.9 (14.4)
7	0.35 (5.6)	0.47 (7.5)	0.58 (9.3)	0.7 (11.2)	0.82 (13.1)	0.93 (14.9)	1.05 (16.8)
8	0.40 (6.4)	0.53 (8.5)	0.67 (10.7)	0.8 (12.8)	0.93 (14.9)	1.06 (17.0)	1.2 (19.2)

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). Do not open water soluble bags.

STORAGE AND DISPOSAL

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

PESTICIDE 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.

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Manufactured for:

Valent U.S.A. Corporation

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Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status or call 800-89-VALENT (898-2536).



For state registration and/or supplemental labels, please call or visit us online.

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