



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

September 6, 2022

Maryanne M Kellogg  
Regulatory Consultant  
Tide International USA, Inc.  
C/o Pyxis Regulatory Consulting Inc.  
4110 36<sup>th</sup> St. Ct. NW  
Gig Harbor, WA 98332

Subject: Registration Review Label Mitigation for Hexazinone  
Product Name: Tide USA Hexazinone 2SL  
EPA Registration Number: 84229-35  
Application Date: 4/29/2019  
Decision Number: 586348

Dear Maryanne Kellogg:

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 Hexazinone 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 stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently

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approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Srijana Shrestha by phone at 202-566-2329, or via email at [shrestha.srijana@epa.gov](mailto:shrestha.srijana@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

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

Enclosure: Stamped Label

[Note to reviewer: [Text] in brackets denotes optional text]

HEXAZINONE	GROUP	5	HERBICIDE
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# Tide USA Hexazinone 2SL

[Alternate Brand Names: Tide Hexar™ 2SL, Tide Hexazinone 2SL]

Water Dispersible Liquid

<b>ACTIVE INGREDIENT:</b>	<b>By Weight</b>
Hexazinone [3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4(1H,3H)-dione].....	25.0%
<b>OTHER INGREDIENTS:</b> .....	75.0%
<b>TOTAL:</b> .....	100.0%

Contains 2 lbs. active ingredient per gallon.

## KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
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 CHEMTREC at 1-800-424-9300 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

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

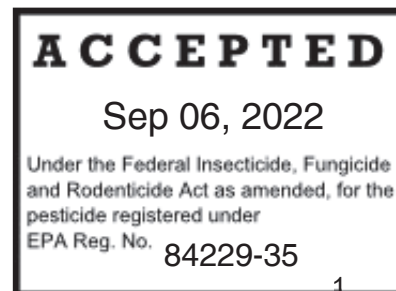
EPA Reg. No. 84229-35

EPA Est. No.

**Manufactured for:**

Tide International, USA, Inc.  
21 Hubble  
Irvine, CA 92618

**Net Contents:**



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
WARNING**

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear protective eyewear such as goggles, face shield or safety glasses. 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
- Shoes plus socks
- Protective eyewear
- Chemical resistant gloves including barrier laminate; butyl rubber ≥ 14 mils; nitrile rubber ≥ 14 mils; neoprene rubber ≥ 14 mils; polyvinyl chloride (PVC) ≥ 14 mils; viton ≥ 14 mils

Discard clothing and 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 personal PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Mixers and loaders supporting aerial application to all non-crop sites (including forestry, Christmas trees, pasture/rangeland, bermudagrass/bahiagrass, and uncultivated areas), and mixers, loaders, and applicators using mechanically pressurized hand-guns** must wear a minimum of a NIOSH-approved particulate respirator with R or P filter; OR a NIOSH-approved elastomeric particulate respirator with R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

**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 put on clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

The active ingredient hexazinone, in this product is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

**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 area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**PHYSICAL OR CHEMICAL HAZARDS**

**FLAMMABLE.** Keep away from heat and open flame. Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

## DIRECTIONS FOR USE

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

Tide USA Hexazinone 2SL must be used only in accordance with instructions on this label, or in supplemental Tide International, USA, Inc. labeling.

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

The correct use rates by crop and geographical area, specified on the label, and proper mixing/loading site considerations and application procedures must be followed to minimize potential for hexazinone movement into ground water. Users are encouraged to consult with their state Department of Agriculture, Extension Service, or other pesticide lead agency for information regarding soil permeability, aquifer vulnerability, and best management practices for their area.

### 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.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1)
- 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 15 miles per hour at the application site.
- If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

### SPRAY DRIFT

#### **Ground Boom Applications:**

- Apply with the nozzle height recommended by the manufacture, but no more than 4 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 4 feet from the target vegetation.
- 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.

### 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 manufactures recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

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.

### **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.

## **PRODUCT INFORMATION**

Tide USA Hexazinone 2SL is a water-dispersible liquid that is mixed in water and applied as a spray for weed control in certain crops, Christmas trees, forestry site preparation and release areas, and industrial areas. It may also be applied undiluted as a basal soil treatment for brush control in reforestation areas, rangeland, pastures and noncrop areas or by stem injection for brush control.

Tide USA Hexazinone 2SL is an effective general herbicide providing both contact and residual control of many annual, biennial and perennial weeds and woody plants.

Tide USA Hexazinone 2SL is noncorrosive to equipment.

Care must be exercised when applying Tide USA Hexazinone 2SL near desirable trees or shrubs as they can absorb Tide USA Hexazinone 2SL through roots extending into treated areas.

This product may be applied on agricultural and non-agricultural sites that contain areas of temporary surface water caused by collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps and bogs after water has receded, as well as seasonally dry flood deltas. **DO NOT** make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

## **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

Tide USA Hexazinone 2SL is absorbed through the roots and foliage. Moisture is required to activate Tide USA Hexazinone 2SL in the soil. Best results are obtained when the soil is moist at the time of application and ¼ - ½ inches of rainfall occurs within 2 weeks after application.

For best results, apply Tide USA Hexazinone 2SL preemergence or postemergence when weeds are less than 2 inches in height or diameter. Foliar activity is most effective under conditions of high temperature (above 80°F), high humidity, and good soil moisture. Foliar activity may be reduced when vegetation is dormant, semi-dormant, or under stress.

On herbaceous plants, symptoms usually appear within 2 weeks after application under warm, humid conditions, while 4-6 weeks may be required when weather is cool or dry, or when plants are under stress. If rainfall after application is inadequate to activate Tide USA Hexazinone 2SL in the soil, plants may recover from contact effects and continue to grow.

On woody plants, symptoms usually appear within 3-6 weeks after sufficient rainfall has carried the herbicide into the root zone during periods of active growth. Defoliation and refoliation may occur, but susceptible plants are killed.

The degree and duration of control will depend on the following:

- Use rate
- Weed spectrum and size at time of application
- Environmental conditions at and following treatment

Where a rate range is shown, use the higher levels of the dosage range on hard-to-control species, fine-textured soils, or soils containing greater than 5% organic matter or carbon. Use the lower levels of the dosage range on coarse-textured soils and/or on soils low in organic matter. Refer to specific uses for rate ranges.

## **APPLICATION INFORMATION**

Tide USA Hexazinone 2SL may be applied by ground equipment and where permitted, aerial equipment. Use rates, minimum spray gallonage, and other application information are described for various uses.

Dispose of the equipment washwater by applying it to a use-site listed on this label or in accordance with directions given in the STORAGE AND DISPOSAL section of this label.

Before spraying, calibrate equipment to determine the quantity of water necessary to uniformly and thoroughly cover the vegetation and soil in a measured area to be treated.

## **TANK MIXTURES**

Tide USA Hexazinone 2SL may be tank mixed with other herbicides and/or adjuvants registered for the uses (crops) specified on this label.

Refer to the label of the tank mix partner(s) for any additional use instructions or restrictions. The most restrictive label provisions apply. If other label instructions conflict with this label, do not tank mix the herbicide and/or adjuvant with Tide USA Hexazinone 2SL.

When the air temperature is around 32°F, tank mixtures of paraquat dichloride plus Tide USA Hexazinone 2SL may form a hard sludge in the spray tank. This effect is most likely to occur when the tank mixture comes into contact with aluminum.

## **INVASIVE SPECIES MANAGEMENT**

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants. Effective EDRR systems address invasions by eradicating



the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is advised, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

## **MODE OF ACTION**

Hexazinone is a Group 5 herbicide based on the mode of action classification system of the Weed Science Society of America and a C1 photosynthesis photosystem II inhibitor as classified by the Herbicide Resistance Action Committee (HRAC).

## **WEED RESISTANCE MANAGEMENT**

For resistance management, Tide USA Hexazinone 2SL is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to Tide USA Hexazinone 2SL and other Group 5 herbicides. Weed species with acquired resistance to Group 5 herbicides may eventually dominate the weed population if Group 5 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 Tide USA Hexazinone 2SL or other Group 5 herbicides. Users should scout before and after application. Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

To delay herbicide resistance:

- Avoid the consecutive use of Tide USA Hexazinone 2SL or other target site of action Group 5 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern (an herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides)
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Tide International, USA, Inc. representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.



## INTEGRATED PEST MANAGEMENT

This product may be used as a part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## SPRAY TANK CLEAN OUT

Thoroughly clean all traces of Tide USA Hexazinone 2SL from application equipment immediately after use. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).

## AGRICULTURAL USES

### 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 apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- Chemical-resistant gloves including barrier laminate; butyl rubber  $\geq$  14 mils; nitrile rubber  $\geq$  14 mils; neoprene rubber  $\geq$  14 mils; polyvinyl chloride (PVC)  $\geq$  14 mils; viton  $\geq$  14 mils
- Shoes plus socks
- Protective eyewear

## CHEMIGATION

Apply this product through irrigation equipment **only** to crops and diseases for which the chemigation use is specified. Apply this product only through center pivot or linear-move sprinkler irrigation systems. Do not apply Tide USA Hexazinone 2SL through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water, apply the mixture for the proper length of time and ensure sprinkler produces a uniform water pattern. Do not permit run-off during chemigation. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the; supervision of the responsible person, must shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Pesticide may be applied continuously for the duration of the water application.

### **POSTING OF AREAS TO BE TREATED**

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

#### **Posting must conform to all the following requirements:**

- Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas.
- The printed side of the sign must face away from the treated area towards the sensitive area. The signs shall be printed in English.
- Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.
- All words shall consist of letters at least 2 ½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATION WATER".
- Posting required for chemigation does not replace other posting and reentry requirements for farm worker safety.

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### **ALFALFA**

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Tide USA Hexazinone 2SL is labeled for control of certain weeds in established alfalfa grown for hay or seed production.

#### **USE RESTRICTIONS - ALFALFA**

- Do not apply within 30 days of harvest (cutting for hay), or feeding of forage or grazing.
- Do not exceed 6 pints Tide USA Hexazinone 2SL (1.5 pounds active ingredient hexazinone) per acre per application.
- Do not exceed 6 pints Tide USA Hexazinone 2SL (1.5 pounds active ingredient hexazinone) per acre per year.

## APPLICATION INFORMATION

### NON-DORMANT AND SEMI-DORMANT VARIETIES

In the following states, make a single application of Tide USA Hexazinone 2SL during the winter months when alfalfa plants are in the least active stage of growth.

Arizona	Montana	Oklahoma	Washington
California	Nebraska	Oregon	Wyoming
Colorado	Nevada	South Dakota	
Idaho	New Mexico	Texas	
Kansas	North Dakota	Utah	

In the following states, make a single application of Tide USA Hexazinone 2SL either in the spring before new growth exceeds 2 inches in height or to alfalfa stubble after cutting, following hay removal and before regrowth exceeds 2 inches in height.

Arkansas	Maine	New Jersey	Vermont
Connecticut	Maryland	New York	Virginia
Delaware	Massachusetts	North Carolina	West Virginia
Illinois	Michigan	Ohio	Wisconsin
Indiana	Minnesota	Pennsylvania	
Iowa	Missouri	Rhode Island	
Kentucky	New Hampshire	Tennessee	

**PRECAUTION:** Severe alfalfa injury may result following application, if after cutting the regrowth is more than 2 inches high, or there is significant stubble left after cutting or grazing, or the air temperature is above 90°F.

### DORMANT VARIETIES

Make a single application of Tide USA Hexazinone 2SL after alfalfa becomes dormant and before new growth exceeds 2 inches in height in the spring. Where weeds have emerged, use a surfactant.

### USE RATES

Use higher rates on hard-to-control species, (see **Weeds Controlled** section below) fine textured soils, soils containing greater than 5% organic matter, or under adverse environmental conditions such as temperature extremes or when weeds are stressed due to low rainfall.

For dormant alfalfa, use a surfactant approved for crops at the rate of 0.25% v/v (1 quart per 100 gallons of spray solution).

Select the appropriate rate for soil texture and organic matter content as follows:

Soil Texture Description	Tide USA Hexazinone 2SL (pints/acre) Percent Organic Matter in Soil		
	<1%	1-5%	>5%
<b>Coarse</b> Loamy sand, sandy loam	2-3 (0.5 - 0.75 lb ai)	2-3 (0.5 - 0.75 lb ai)	4-6 (1.0 – 1.5 lbs ai)
<b>Medium</b> Loam, silt loam, silt, clay loam, sandy clay loam	2-3 (0.5 - 0.75 lb ai)	3-6 (0.75 – 1.5 lbs ai)	4-6 (1.0 – 1.5 lbs ai)
<b>Fine</b> Silty clay loam, sandy clay, silty clay, clay	3-6 (0.75 – 1.5 lbs ai)	3-6 (0.75 – 1.5 lbs ai)	4-6 (1.0 – 1.5 lbs ai)

#### RESTRICTIONS:

- In the states of MT, ND, SD, and WY, do not exceed a use rate of 4 pints Tide USA Hexazinone 2SL (1.0 lb ai) per acre on medium and fine textured soils.
- In the state of Montana (MT), do not apply to soils with less than 1.5% organic matter.
- In the state of Wyoming (WY):

-Do not apply to soils with less than 0.5% organic matter.  
 -Apply to irrigated alfalfa only.

### WEEDS CONTROLLED

Tide USA Hexazinone 2SL, when applied preemergence or early postemergence at the following rates, is labeled for the control or suppression of the following species in alfalfa:

<b>1-2 Pints/Acre (0.25 – 0.5 lb ai/acre)</b>	
Tansymustard	<i>Descurainia pinnata</i>

<b>2-4 Pints/Acre (0.5 – 1.0 lb ai/acre)</b>	
Bluegrass, annual	<i>Poa annua</i>
Brome, downy (cheatgrass)	<i>Bromus tectorum</i>
Buckwheat, wild	<i>Polygonum convolvulus</i>
Catchfly, English	<i>Silene gallica</i>
Chamomile, mayweed (dogfennel)	<i>Anthemis cotula</i>
Chickweed, common	<i>Stellaria media</i>
Fiddleneck, tarweed	<i>Amsinckia lycopoides</i>
Filaree	<i>Erodium spp.</i>
Flixweed	<i>Descurainia Sophia</i>
Groundsel, common	<i>Senecio vulgaris</i>
Henbit*	<i>Lamium amplexicaule</i>
Lettuce, Miner's	<i>Montia perfoliata</i>
Mustard, blue	<i>Chorispora tenella</i>
Mustard, Jim Hill (tumble)	<i>Sisymbrium altissimum</i>
Mustard, wild	<i>Brassica kaber</i>
Orchardgrass (seedling)	<i>Dactylis glomerata</i>
Pennycress, field	<i>Thlaspi arvense</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Radish, wild	<i>Raphanus raphanistrum</i>
Rocket, London	<i>Sisymbrium irio</i>
Rocket, common yellow	<i>Barbarea vulgaris</i>
Salsify	<i>Tragopogon spp.</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Speedwell, purslane	<i>Veronica peregrina</i>
Spurry, corn	<i>Spergula arvensis</i>

<b>4-6 Pints/Acre (1.0 – 1.5 lbs ai/acre)</b>	
Alfalfa* (seedling)	<i>Medicago sativa</i>
Barley, foxtail (seedling)	<i>Hordeum jubatum</i>
Bluegrass, perennial* (spring only)	<i>Poa spp.</i>
Cockle, white*	<i>Melandrium album</i>
Dandelion, common*	<i>Taraxacum officinale</i>
Dandelion, false* (spotted catsear)	<i>Hypochaeris radicata</i>
Foxtail*	<i>Setaria spp.</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters, common	<i>Chenopodium album</i>
Lettuce, prickly*	<i>Lactuca serriola</i>
Mallow, common	<i>Malva neglecta</i>
Ryegrass, Italian (annual)	<i>Lolium multiflorum</i>
Quackgrass*	<i>Elytrigia repens</i>
Speedwell, ivyleaf	<i>Veronica hederifolia</i>
Tea, Mexican*	<i>Chenopodium ambrosioides</i>
Thistle, Canada (seedling)	<i>Cirsium arvense</i>
Thistle, Russian	<i>Salsola iberica</i>

\*Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

Tide USA Hexazinone 2SL, when applied late in spring or after cutting at the following rates, will control these species listed below:

<b>2-6 Pints/Acre (0.5 – 1.5 lbs ai/acre)</b>	
Crabgrass	<i>Digitaria</i> spp.
Fleabane	<i>Conyza</i> spp.
Foxtail	<i>Setaria</i> spp.
Jimsonweed	<i>Datura stramonium</i>
Lambsquarters, common	<i>Chenopodium album</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>

### **SEED ALFALFA (CA, ID, MT, NV, OR, UT, WA)**

Tide USA Hexazinone 2SL may be used for general broadleaf weed and grass control in established alfalfa grown for seed.

#### **DORMANT VARIETIES**

Make a single application of Tide USA Hexazinone 2SL after alfalfa becomes dormant and before new growth exceeds 2 inches in height in the spring. Where weeds have emerged, use a surfactant.

#### **NON-DORMANT AND SEMI-DORMANT VARIETIES**

Make a single application of Tide USA Hexazinone 2SL during the winter months when alfalfa plants are in the least active stage of growth.

#### **WEEDS CONTROLLED**

Refer to the Alfalfa – Weeds Controlled section for specific use rates and weeds controlled.

#### **USE RESTRICTIONS - SEED ALFALFA**

- Do not apply within 30 days of harvest (cutting for hay), or feeding of forage or grazing.
- Do not use Tide USA Hexazinone 2SL on fields with sandy loam or loamy sand soils having less than 1% organic matter.
- Do not exceed 2 pints Tide USA Hexazinone 2SL (0.5 lb active ingredient hexazinone) per acre on fields with sandy loam or loamy sand soils having 1-2% organic matter.
- Do not exceed 2 pints Tide USA Hexazinone 2SL (0.5 lb active ingredient hexazinone) per acre on seed alfalfa that has been established for only one growing season.

### **SEED ALFALFA**

#### **WALLA WALLA COUNTY, WASHINGTON**

Tide USA Hexazinone 2SL may be used for the suppression of prickly lettuce and quackgrass and control of Canada thistle (seedling), kochia, and certain other weeds in established alfalfa grown for seed.

<b>Use Rates 4 to 6 pints per acre (1 – 1.5 lbs ai/acre)</b>	
Kochia	<i>Kochia scoparia</i>
Lettuce, prickly*	<i>Lactuca serriola</i>
Quackgrass*	<i>Elytrigia repens</i>
Thistle, Canada (seedling)	<i>Cirsium arvense</i>

\*Suppression

#### **USE RESTRICTIONS - SEED ALFALFA**

#### **WALLA WALLA COUNTY WASHINGTON**

- Do not exceed 6 pints Tide USA Hexazinone 2SL (1.5 lbs active ingredient hexazinone) per acre per application.
- Do not exceed 6 pints (1.5 pounds active ingredient hexazinone) per acre per year.
- Do not apply within 30 days of harvest (cutting or hay), or feeding of forage or grazing.

## SPRAY EQUIPMENT

Apply Tide USA Hexazinone 2SL using a fixed boom power sprayer or aerial equipment. For ground applications apply in a minimum of 20 gallons of spray solution per acre and by air in a minimum of 5 gallons. Use at least 5 pints of water per each 1 pint of Tide USA Hexazinone 2SL.

## CHEMIGATION - ALFALFA

Apply this product to alfalfa only through center pivot or linear-move sprinkler irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

Severe alfalfa injury may result following application after cutting if either the regrowth is more than 2" high or significant stubble is left after alfalfa cutting.

## SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## DORMANT APPLICATIONS - ALFALFA

Select the appropriate rate (see **Use Rates** section) for soil texture and organic matter content using 0.25" to 0.75" of sprinkler irrigation as a continuous injection during the application. Best results are obtained when soil is moist at time of application, and when weeds have not germinated or are less than 2" tall or across.

## APPLICATION AFTER CUTTING

Apply Tide USA Hexazinone 2SL at 1 pint (0.25 lb ai) per acre to stubble after cutting, following hay removal, and before regrowth exceeds 2" in height. Apply Tide USA Hexazinone 2SL using 0.25" to 0.75" of sprinkler irrigation as a continuous injection during the application. Best results are obtained when soil is moist at time of application and when weeds have not germinated or are less than 2" tall or across.

**PRECAUTION:** Making an application when daily temperatures are forecast to be in the mid-to-high 90 degree range within 3 to 5 days after treatment may increase the potential for crop injury.

## MIXING INSTRUCTIONS

1. Fill the supply tank 1/4 to 1/3 full of water
2. While agitating, add the required amount of Tide USA Hexazinone 2SL and continue agitation.
3. Once the Tide USA Hexazinone 2SL is fully dispersed, maintain agitation and continue filling tank with water.
4. As the tank is filling, add tank mix partners (if desired). Follow use precautions and directions on the tank mix partner label.
5. After thorough mixing, the agitation system can be stopped to prevent excessive foaming in the tank. Once thoroughly mixed the solution in the supply tank does not require additional agitation unless specified on the companion products label. If foaming occurs in the injection supply tank, a defoaming agent (defoamer) may be added.
6. Apply Tide USA Hexazinone 2SL spray mixture within 48 hours of mixing.



## **CROP ROTATION FOLLOWING ALFALFA**

- Corn may be planted 12 months after the last treatment in areas of moderate to high rainfall (greater than 20 inches), provided the use rate did not exceed 3 pints (0.75 lb ai) per acre.
- Root crops such as potatoes, sugarbeets, radish and carrots may be planted 12 months after the last treatment, provided the use rate does not exceed 2 pints (0.5 lb ai) per acre. Sites with use rates higher than 2 pints (0.5 lb ai) per acre must not be replanted to any root crop within 2 years after application of Tide USA Hexazinone 2SL, or unacceptable crop injury may result.  
In areas where irrigation is needed to produce the crop, the crop rotation intervals listed may need to be extended if the normal irrigation amount is reduced for any reason.
- Sugarcane may be planted any time following treatment.
- Do not replant treated areas to any crop except corn, root crops, or sugarcane within two years after treatment, as crop injury may result.
- In California, do not replant seed alfalfa to any crop within two years after treatment, as crop injury may result.

### **Field Bioassay**

In arid climates (10 inches of rainfall or less per year) or areas where drought conditions have prevailed for one or more years, a field bioassay must be completed prior to planting any desired crop.

The results of this bioassay may require the rotation intervals listed above to be extended.

A successful bioassay means growing to maturity a test strip of the crop(s) intended for production. The test crop(s) strip must cross the entire field including knolls, low areas, and areas where any berms were located.

In areas where irrigation is needed to produce the crop, the crop rotation intervals listed may need to be extended if the normal irrigation amount is reduced for any reason.

## **ALFALFA – IMPREGNATION ON DRY BULK FERTILIZER (EXCEPT CALIFORNIA AND ARIZONA)**

Dry bulk fertilizer may be impregnated or coated with Tide USA Hexazinone 2SL for application to established alfalfa. All instructions and precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation, as dusty fertilizer will result in poor distribution during application. The dry fertilizer must be properly impregnated and uniformly applied to the alfalfa to prevent crop injury and/or poor weed control.

To impregnate the fertilizer, use a system consisting of a conveyor or closed drum used to blend dry bulk fertilizer. Any commonly used fertilizer can be impregnated with Tide USA Hexazinone 2SL, except potassium nitrate or sodium nitrate. Do not use Tide USA Hexazinone 2SL on limestone.

Use a minimum of 250 lb. dry bulk fertilizer per acre and up to a maximum of 450 lb. per acre. To impregnate or coat the dry bulk fertilizer with Tide USA Hexazinone 2SL, direct the nozzles to deliver a fine spray of this suspension toward the fertilizer for thorough coverage while avoiding spray contact with mixing equipment. Uniform impregnation of Tide USA Hexazinone 2SL to dry bulk fertilizer will vary, and if the absorptivity is not adequate, the use of an absorptive powder may be required to produce a dry, free-flowing mixture. "Microcel E" is the absorbent powder of choice. When another herbicide is used with Tide USA Hexazinone 2SL, mix and impregnate the fertilizer immediately.

Apply impregnated fertilizer as soon as possible after impregnation for optimum performance.

Select the rate of Tide USA Hexazinone 2SL to apply per acre from the appropriate section of this label. Then refer to the rate chart below to determine the amount of Tide USA Hexazinone 2SL that is to be impregnated on a ton of dry bulk fertilizer, based on the amount of fertilizer to be distributed in one acre.



## Rate Chart for Impregnating Fertilizer with Tide USA Hexazinone 2SL

Fertilizer Rate/Acre	Tide USA Hexazinone 2SL Rate Per Acre			
	2 Pints (0.5 lb ai)	3 Pints (0.75 lb ai)	4 Pints (1 lb ai)	6 Pints (1.5 lb ai)
250 lbs.	16 pts./ton	24 pts./ton	32 pts./ton	48 pts./ton
300 lbs.	13.4 pts./ton	20 pts./ton	26.8 pts./ton	40.2 pts./ton
350 lbs.	11.4 pts./ton	17.2 pts./ton	22.8 pts./ton	34.2 pts./ton
400 lbs.	10 pts./ton	15 pts./ton	20 pts./ton	30 pts./ton
450 lbs.	8.8 pts./ton	13.2 pts./ton	17.6 pts./ton	26.4 pts./ton

For rates other than those listed, use the following formula to calculate the amounts of Tide USA Hexazinone 2SL to impregnated per ton of dry fertilizer.

$$\frac{\text{Pints Tide USA Hexazinone 2SL}}{\text{Per Acre}} \times \frac{1 \text{ Ton}}{\text{Fertilizer}} = \frac{\text{Pints Tide USA Hexazinone 2SL}}{\text{Ton of Fertilizer}}$$

### APPLICATION

Uniform application of Tide USA Hexazinone 2SL -impregnated dry fertilizer is essential for satisfactory weed control. Accurate calibration of the application equipment is essential for uniform distribution to the surface. The customary method of application is to apply ½ the labeled rate and overlap 50%. This results in the best distribution pattern.

### USE PRECAUTIONS - ALFALFA

- Best results are obtained when ½ - 1 inch of rainfall or sprinkler irrigation occurs within two weeks after application, when soil is moist at time of application, and when weeds have not germinated or are less than 2 inches in height or diameter. Heavy rainfall or excessive irrigation after application may result in crop injury or poor performance of the herbicide.
- On soils high in organic matter (greater than 5%), the effectiveness of Tide USA Hexazinone 2SL can be significantly reduced and weed control may be unsatisfactory.
- Prevent overlapping of spray swaths and shut off spray booms while starting, turning, slowing or stopping or crop injury may result.
- Crop injury, including mortality, may result in fields with restricted root growth due to non-uniform soil profiles such as gravel bases and clay lenses.
- Crop injury may result if hot weather, mid-to-high 90 degree range or higher, occurs within a few days after application.
- Crop injury to alfalfa can be influenced by several factors including alfalfa variety, soil conditions, uniformity of application and environmental conditions, etc., if no prior use history for the site or variety, treat only a small area when first using Tide USA Hexazinone 2SL.
- If abnormally dry conditions exist following application, restrict the first irrigation to no more than ½ acre inch of water.
- Temporary yellowing of alfalfa may occur following Tide USA Hexazinone 2SL applications.
- In California, fall planted alfalfa may be treated in the following winter months with Tide USA Hexazinone 2SL at 1 to 2 pints (0.25 – 0.5 lb ai) per acre (use higher rate for fine textured soils) provided:
  - alfalfa root growth exceeds 6 inches in length
  - vegetative top growth of alfalfa has lateral development of secondary growth
  - alfalfa is healthy and vigorous, not growing under stress from insect, disease, winter injury or other types of stress.
- To prevent injury to alfalfa plants, treat only stands of alfalfa established for one year or for one growing season (except in California), provided:
  - The alfalfa stand has a well-developed tap root structure that is at least 10 inches in length (0.25 inch diameter below the crown) throughout the field and the crop is healthy, vigorous, and not under stress from weather conditions, low fertility, insects or disease damage.
  - In areas with shorter growing seasons, such as, higher elevations, adequate alfalfa tap root growth may not occur and especially when alfalfa is grown together with a cover or nurse crop.

If an adequate tap root is not present, delay application of Tide USA Hexazinone 2SL until the alfalfa has gone through a minimum of two growing seasons.

## USE RESTRICTIONS- ALFALFA

- Do not apply to snow-covered or frozen ground.
- Do not use Tide USA Hexazinone 2SL on seedling alfalfa, alfalfa-grass mixtures, or other mixed stands as injury may result to the seedling alfalfa or companion crop.
- Do not use a surfactant with Tide USA Hexazinone 2SL when treating non-dormant alfalfa.
- Do not use Tide USA Hexazinone 2SL on gravelly or rocky soils, exposed subsoils, hardpan, sand poorly drained soil, or alkali soils.

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## BLUEBERRY

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### HIGH BUSH BLUEBERRIES

Tide USA Hexazinone 2SL is labeled for control of certain herbaceous and woody weeds in established high bush blueberry fields.

### APPLICATION INFORMATION

Tide USA Hexazinone 2SL may be applied to high bush blueberries that have been established for 3 or more years. Apply Tide USA Hexazinone 2SL in the spring before the lower leaves of the blueberry plant have fully expanded. Avoid contact of the leaves with the spray solution.

Using calibrated ground spray equipment, make the application in sufficient water then provide thorough and uniform coverage to the treated area (usually 20 gallons per acre). Shut off spray booms when starting, turning, slowing or stopping, or injury to the crop may result.

### USE PRECAUTIONS - HIGH BUSH BLUEBERRIES

- Since the effect of Tide USA Hexazinone 2SL on blueberries varies with soil type, plant vigor, uniformity of applications and amount of rainfall, it is suggested that growers limit their first use to small areas.

### USE RESTRICTIONS - HIGH BUSH BLUEBERRIES

- Do not apply through any type of irrigation system.
- Do not apply within 90 days of harvest.
- Do not apply to flooded field with standing water.
- Do not apply to blueberry foliage or crop injury will occur.

### USE RATES (Pints/Acre) HIGH BUSH BLUEBERRIES

Soil Texture	less than or equal to 3% organic matter	greater than 3% organic matter
Coarse loamy sand, sandy loam (50- 85% sand)	4 (1 lb ai)	5 (1.25 lbs ai)
Medium loam, silt loam, silt, clay loam, sandy clay loam	--	8 (2 lbs ai)
Fine silty clay loam, clay loam, sandy clay, silty clay, clay	4-6* (1 – 1.5 lbs ai)	8 (2 lbs ai)

\*Use the higher rate as the soil organic matter approaches 3%.

## LOW BUSH BLUEBERRIES

Tide USA Hexazinone 2SL may be used for the control of certain weeds in low bush blueberries.

### APPLICATION INFORMATION

Tide USA Hexazinone 2SL may only be applied to pruned blueberry fields in the spring before leaf emergence. Using calibrated ground spray equipment make the application in sufficient water to provide thorough and uniform coverage to the treated area (20 gallons per acre). Shut off spray booms when starting, turning, slowing or stopping, or injury to the crop may result.

### USE PRECAUTIONS - LOWBUSH BLUEBERRIES

- Since the effect of Tide USA Hexazinone 2SL on blueberries varies with soil type, plant vigor, uniformity of applications and amount of rainfall, it is suggested that growers limit their first use to small areas. If excessive leaf drop is observed after treatment, reduce rate in future applications.

### USE RESTRICTIONS - LOWBUSH BLUEBERRIES

- Do not apply through any type of irrigation system.
- Do not apply to flooded field with standing water.
- Do not apply within 450 days of harvest.
- Do not exceed 8 pints (2 lbs ai) per acre if field has been treated with hexazinone within the past 8 years.
- Do not apply to blueberry foliage or crop injury will occur.
- Maintain a 50-foot buffer from any well head or water reservoir.

### LOW BUSH BLUEBERRIES (PINTS/ACRE)

Soil Texture	less than or equal to 3% organic matter	greater than 3% organic matter
Coarse loamy sand, sandy loam (50- 85% sand)	4 (1 lb ai)	5 (1.25 lbs ai)
Medium loam, silt loam, silt, clay loam, sandy clay loam	--	6 (1.5 lbs ai)
Fine silty clay loam, clay loam, sandy clay, silty clay, clay	4-8* (1 – 2 lbs ai)	8-12** (2 – 3 lbs ai)

\*Use the higher rate as the soil organic matter approaches 3%.

\*\*Use the higher rate for harder to control species.

### IMPREGNATION ON DRY BULK FERTILIZER

Dry bulk fertilizer may be impregnated or coated with Tide USA Hexazinone 2SL for application to established high bush or low bush blueberries. All instructions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation, as dusty fertilizer will result in poor distribution during application. The dry fertilizer must be properly impregnated and uniformly applied to prevent crop injury and/or poor weed control.

To impregnate the fertilizer, use a system consisting of a conveyor or closed drum used to blend dry bulk fertilizer. Any commonly used fertilizer can be impregnated with Tide USA Hexazinone 2SL, except potassium nitrate or sodium nitrate. Do not use Tide USA Hexazinone 2SL on limestone.

Use a minimum of 250 lbs. dry bulk fertilizer per acre and up to a maximum of 450 lbs. per acre. To impregnate or coat the dry bulk fertilizer with Tide USA Hexazinone 2SL, direct the nozzles to deliver a fine spray of this suspension toward the fertilizer for thorough coverage while avoiding spray contact with mixing equipment. Uniform impregnation of Tide USA Hexazinone 2SL to dry bulk fertilizer will vary, and if the

absorptivity is not adequate, the use of an absorptive powder may be required to produce a dry, free-flowing mixture. "Microcel E" is the absorbent powder of choice. When another herbicide is used with Tide USA Hexazinone 2SL, mix and impregnate the fertilizer immediately.

Apply impregnated fertilizer as soon as possible after impregnation for optimum performance.

Select the rate of Tide USA Hexazinone 2SL to apply per acre from the appropriate section of this label. Then refer to the rate chart below to determine the amount of Tide USA Hexazinone 2SL that is to be impregnated on a ton of dry bulk fertilizer, based on the amount of fertilizer to be distributed in one acre.

### Rate Chart for Impregnating Fertilizer with Tide USA Hexazinone 2SL

Fertilizer Rate/Acre	Tide USA Hexazinone 2SL Rate Per Acre			
	2 Pints (0.5 lb ai)	3 Pints (0.75 lb ai)	4 Pints (1 lb ai)	6 Pints (1.5 lbs ai)
250 lbs.	16 pts./ton	24 pts./ton	32 pts./ton	48 pts./ton
300 lbs.	13.4 pts./ton	20 pts./ton	26.8 pts./ton	40.2 pts./ton
350 lbs.	11.4 pts./ton	17.2 pts./ton	22.8 pts./ton	34.2 pts./ton
400 lbs.	10 pts./ton	15 pts./ton	20 pts./ton	30 pts./ton
450 lbs.	8.8 pts./ton	13.2 pts./ton	17.6 pts./ton	26.4 pts./ton

For rates other than those listed, use the following formula to calculate the amounts of Tide USA Hexazinone 2SL to be impregnated per ton of dry fertilizer.

$$\text{Pints Tide USA Hexazinone 2SL Per Acre} \times \frac{1 \text{ Ton Fertilizer}}{\text{Pints Tide USA Hexazinone 2SL per Ton of Fertilizer}} = \text{Pints Tide USA Hexazinone 2SL per Ton of Fertilizer}$$

### APPLICATION

Uniform application of Tide USA Hexazinone 2SL -impregnated dry fertilizer is essential for satisfactory weed control. Accurate calibration of the application equipment is essential for uniform distribution to the surface. The customary method of application is to apply ½ the labeled rate and overlap 50%. This results in the best distribution pattern.

### WEEDS CONTROLLED

Tide USA Hexazinone 2SL will control or suppress the following weed species in High and Low Bush Blueberry crops:

Aster, heath*	<i>Aster ericoides</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Blackberry* (briar)	<i>Rubus</i> spp.
Bluegrass, Kentucky (perennial)*	<i>Poa pratensis</i>
Brome, downy (cheatgrass)	<i>Bromus tectorum</i>
Broomsedge*	<i>Andropogon virginicus</i>
Carrot, wild*	<i>Daucus carota</i>
Catchfly, English	<i>Silene gallica</i>
Chamomile, mayweed	<i>Anthemis cotula</i>
Cherry, wild	<i>Prunus serotia</i>
Chickweed, common	<i>Stellaria media</i>
Cinquefoil	<i>Potentilla</i> spp.
Cockle, white*	<i>Melandrium album</i>
Dandelion, common*	<i>Taraxacum officinale</i>
Dandelion, false* (spotted catsear)	<i>Hypochaeris radicata</i>
Daisy, oxeye	<i>Chrysanthemum leucanthemum</i>
Dock, curly*	<i>Rumex crispus</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Fescue*	<i>Festuca</i> spp.

Fiddleneck, tarweed	<i>Amsinckia lycopoides</i>
Filaree	<i>Erodium</i> spp.
Fireweed* (willowweed)	<i>Epilobium angustifolium</i>
Fleabane, flax-leaved	<i>Conyza bonariensis</i>
Flixweed	<i>Descurainia Sophia</i>
Foxtail, yellow	<i>Setaria lutescens</i>
Goldenrod	<i>Solidago</i> spp.
Groundsel, common	<i>Senecio vulgaris</i>
Hawkweed	<i>Hieracium</i> spp.
Horseweed/marestail	<i>Conyza canadensis</i>
Jimsonweed	<i>Datura stramonium</i>
Lambsquarters, common	<i>Chenopodium album</i>
Lettuce, Miner's	<i>Montia perfoliata</i>
Lettuce, prickly*	<i>Lactuca serriola</i>
Mustard, blue	<i>Chorispora tenella</i>
Mustard, Jim Hill (tumble)	<i>Sisymbrium altissimum</i>
Orchardgrass*	<i>Dactylis glomerata</i>
Orchardgrass (seedling)	<i>Dactylis glomerata</i>
Panicgrass (witchgrass)	<i>Panicum capillare</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Pearly everlasting	<i>Anaphalis margaritacea</i>
Pennycress, field	<i>Thlaspi arvense</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Quackgrass	<i>Agropyron repens</i>
Radish, wild	<i>Raphanus raphanistrum</i>
Ragweed, common	<i>Ambrosia elatior</i>
Raspberry* (briar)	<i>Rubus</i> spp.
Rocket, London	<i>Sisymbrium irio</i>
Rocket, common yellow	<i>Barbarea vulgaris</i>
Ryegrass, Italian (annual)	<i>Lolium multiflorum</i>
Ryegrass, perennial*	<i>Lolium perenne</i>
Salsify	<i>Tragopogon</i> spp.
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Sorrel, red	<i>Rumex acetosella</i>
Sorrel, sheep	<i>Rumex angiocarpus</i>
Spurry, corn	<i>Spergula arvensis</i>
Strawberry, wild	<i>Fragaria virginiana</i>
Tansymustard (pinnate)	<i>Descurainia pinnata</i>
Tea, Mexican*	<i>Chenopodium ambrosioides</i>
Velvetgrass	<i>Holcus lanatus</i>
Yarrow	<i>Achillea</i> spp.
<b>8 to 12 Pints/Acre (2 – 3 lbs ai/acre)</b>	
Dogbane**	<i>Apocynum</i> spp.
Meadow-sweet	<i>Filipendula ulmaria</i>
Blackberry, trailing	<i>Rubus ursinus</i>
Laurel, sheep	<i>Kalmia angustifolia</i>
Rose, wild**	<i>Rosa</i> spp.

\*Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

\*\*Harder to control species.

## CHRISTMAS TREES

Tide USA Hexazinone 2SL is labeled for control of certain weeds where the following species are grown:

Fir, Douglas (western US only)	<i>Pseudotsuga menziesii</i>
Fir, Fraser	<i>Abies fraseri</i>
Fir, grand	<i>Abies grandis</i>
Fir, noble	<i>Abies procera</i>
Pine, Austrian	<i>Pinus nigra</i>
Pine, loblolly	<i>Pinus taeda</i>
Pine, ponderosa	<i>Pinus ponderosa</i>
Pine, Scotch	<i>Pinus sylvestris</i>
Spruce, Sitka	<i>Picea sitchensis</i>

Unless otherwise directed in separately published Tide International USA, Inc. instructions, do not use Tide USA Hexazinone 2SL on Christmas trees in the following states:

Alabama	Louisiana	New Jersey	Texas
Arkansas	Maine	New York	Vermont
Connecticut	Maryland	North Carolina	Virginia
Delaware	Massachusetts	Pennsylvania	West Virginia
Georgia	Mississippi	Rhode Island	
Florida	New Hampshire	South Carolina	

## APPLICATION INFORMATION

### EASTERN US

Apply Tide USA Hexazinone 2SL as a broadcast spray in the spring prior to bud break. If application is made after bud break, use directional spray equipment to prevent contact with foliage.

### WESTERN US

Areas of greater than 20 inches annual rainfall – Tide USA Hexazinone 2SL may be applied as a broadcast spray in the spring prior to conifer bud break. If application is made after bud break, use directional spray equipment to prevent contact with foliage.

Areas of less than 20 inches annual rainfall – Tide USA Hexazinone 2SL may be applied in the fall before the soil freezes or in the spring after snow cover melts, but before conifer bud break occurs.

### USE RATES

The rates listed below are for broadcast application. For band application, use proportionately less; for example, use ½ of the broadcast rates when treating a 3-foot band where row spacing is 6 feet. Use the higher end of the rate range on the heavier soil type.

Do not make more than one application of Tide USA Hexazinone 2SL per year.

Soils	Tide USA Hexazinone 2SL (Pints/Acre)	
	First Year Plantings	Established Trees
<b>Coarse Texture</b>		
Loamy sand, sandy loam (50-85% sand)	4 (1 lb ai)	4-5 (1 - 1.25 lbs ai)
<b>Medium Texture</b>		
Loam, silt loam, silt, clay loam, sandy clay loam	4-5 (1 - 1.25 lbs ai)	5-7 (1.25 - 1.75 lbs ai)
<b>Fine Texture</b>		
Silty clay loam, clay loam, sandy clay, silty clay, clay	5-6 (1.25 - 1.5 lbs ai)	7-8 (1.75 - 2 lbs ai)

**First year plantings** – Transplant stock that is 2 years old or more (1 year old for loblolly pine). Apply Tide USA Hexazinone 2SL only if rainfall has settled the soil around the base and root systems of the transplants.

**Established trees** – Trees that have been planted in the plantation for 1 year or more.

### WEEDS CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following weed species in Christmas tree crops:

Aster, heath*	<i>Aster ericoides</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bentgrass, common	<i>Agrostis alba</i>
Bluegrass, annual	<i>Poa annua</i>
Bromegrass	<i>Bromus spp</i>
Burnweed, American*	<i>Erechtites hieracifolius</i>
Carrot, wild	<i>Daucus carota</i>
Crabgrass*	<i>Digitaria spp.</i>
Curly dock*	<i>Rumex crispus</i>
Daisy, oxeye	<i>Chrysanthemum leucanthemum</i>
Dandelion, common*	<i>Taraxacum officinale</i>
Dandelion, false* (spotted catsear)	<i>Hypochaeris radicata</i>
Fescue*	<i>Festuca spp.</i>
Fleabane	<i>Conyza spp.</i>
Foxtail	<i>Setaria spp.</i>
Goldenrod*	<i>Solidago spp.</i>
Groundsel, common	<i>Senecio vulgaris</i>
Horseweed/marestail	<i>Conyza canadensis</i>
Orchardgrass*	<i>Dactylis glomerata</i>
Ragweed, common	<i>Ambrosia elatior</i>
Ryegrass, Italian (annual)	<i>Lolium multiflorum</i>
Ryegrass, perennial*	<i>Lolium perenne</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Velvetgrass, common	<i>Holcus lanatus</i>

\*Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

### SPRAY EQUIPMENT

Tide USA Hexazinone 2SL may be applied by ground equipment or by air.

Select a spray volume that will ensure a through and uniform application. Apply a minimum of 5 gallons per acre by air and a minimum of 10 gallons per acre by ground equipment.

### USE PRECAUTIONS - CHRISTMAS TREES

- Weed control results from spring applications depend on sufficient moisture to activate Tide USA Hexazinone 2SL.
- Poor weed and brush control may result from the following:
  - Heavy duff or slash present at the time of application.
  - Use on poorly drained sites.
  - Applications made when soil is saturated with water and rain is imminent within 24 hours.
  - Applications to soils high in organic matter (greater than 5%).
- Injury may occur when Tide USA Hexazinone 2SL is used on the following:
  - Trees that show poor vigor, insect damage, disease, winter injury, or other stress conditions.
  - Any soil containing less than 1% organic matter
  - Loamy sand or sandy loam with less than 2% organic matter (except Jeffrey Pine and Ponderosa Pine).
  - Foliage after bud break.



- Gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soil with 85% or more sand.

## USE RESTRICTIONS - CHRISTMAS TREES

- Do not use Tide USA Hexazinone 2SL in nurseries, seed beds, or ornamental plantings.
- Do not add a surfactant in applications over the top of conifers.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of Tide USA Hexazinone 2SL at broadcast rates exceeding 4.5 pints (1.125 lb ai) per acre.
- Livestock may be grazed immediately following a broadcast application of Tide USA Hexazinone 2SL at rates of 4.5 pints (1.125 lb ai) per acre or less. Do not feed livestock treated vegetation for 38 days following application. Treated vegetation may be cut, dried, and fed after 38 days.

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## PINEAPPLE

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Tide USA Hexazinone 2SL is labeled for control of certain weeds in pineapple.

### APPLICATION INFORMATION

Mix the proper amount of Tide USA Hexazinone 2SL in water. Add a surfactant at the rate of 0.25% by volume of water.

Use the lower rates on coarse-textured soils or in areas where rainfall exceeds 65 inches per year. Use the higher rates on fine-textured soils or in areas where rainfall is less than 65 inches per year.

**Intercrop period** – Apply Tide USA Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints (0.22 – 1.75 lbs ai) per acre. For aerial application, use at least 10 gallons water per acre.

**Post mulch, preplant** – Apply Tide USA Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints (0.22 – 1.75 lbs ai) per acre.

**Post plant, before planted material starts active growth** – Apply Tide USA Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints (0.22 – 1.75 lbs ai) per acre. When weed growth has escaped control by other herbicide applications, a post-planting application may be made after the planted cuttings start to grow.

**Post-plant crop harvest, prior to forcing first ratoon** – Apply Tide USA Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints (0.22 – 1.75 lbs ai) per acre.

**Directed postemergence (pineapple and weeds) interspace application** – Apply Tide USA Hexazinone 2SL as a directed spray 3-10 months after planting in 50-200 gallons of water per acre (broadcast basis) at the rate of 0.9-7 pints (0.22 – 1.75 lbs ai) per acre (broadcast basis) using a stroller boom or knapsack.

**Directed spot treatments for perennial grasses before floral induction** – Spray perennial grasses postemergence to wet (50-200 gallons per acre depending on size) with 3.5-7 pints (0.88 – 1.75 lbs ai) per 100 gallons of water as a spot treatment.

**Treatments to field edges and roadsides** – Apply Tide USA Hexazinone 2SL at 7-14.5 pints (1.75 – 3.62 lbs ai) per acre in 100-400 gallons of water.

### WEEDS CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following species in pineapple crops:

Ageratum, tropic	<i>Ageratum conyzoides</i>
Balsamapple	<i>Momordica charantia</i>

Castorbean	<i>Ricinus communis</i>
Crabgrass	<i>Digitaria</i> spp.
Crotalaria	<i>Crotalaria</i> spp.
Dallisgrass	<i>Paspalum dilatatum</i>
Guineagrass	<i>Panicum maximum</i>
Junglerice	<i>Echinochloa colonum</i>
Kao haole*	<i>Leucaena glauca</i>
Moana loa vine*	<i>Canavalia cathartica</i>
Morningglory	<i>Ipomoea</i> spp.
Oxalis	<i>Oxalis</i> spp.
Popolo	<i>Solanum sandwicense</i>
Richardsonium	<i>Richardsonia</i> spp.
Vaseygrass	<i>Paspalum urvillei</i>

\*Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

## USE RESTRICTIONS-PINEAPPLE

- Do not exceed 1.8 gallons Tide USA Hexazinone 2SL (3.6 lbs ai) per acre per crop.
- Do not apply Tide USA Hexazinone 2SL within 181 days of harvest.

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## SUGARCANE

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Tide USA Hexazinone 2SL is labeled for selective weed control in sugarcane except in the State of Florida.

### APPLICATION INFORMATION

Apply a single treatment of Tide USA Hexazinone 2SL per year using a fixed-boom sprayer and a minimum of 25 gallons per acre unless otherwise directed.

#### HAWAII

Apply Tide USA Hexazinone 2SL pre- or postemergence at the following rates for the indicated soil texture:

Soil Texture Description	Tide USA Hexazinone 2SL (Pints/Acre) (Plus surfactant 0.25% by volume)
<b>Coarse</b>	
Sand, loamy sand, sandy loam	1.8-3.4 (0.45 – 0.85 lb ai)
<b>Medium</b>	
Loam, silt loam, silty clay loam	1.8-3.4 (0.45 - 0.85 lb ai)
<b>Fine</b>	
Clay, gray hydromorphic clay	3.4 (0.85 lb ai)

Use the higher levels of the labeled rate ranges on soils high in organic matter.

Add an adjuvant for all uses.

For preemergence use only, Tide USA Hexazinone 2SL may be applied with aerial equipment using at least 10 gallons of spray per acre.

Apply Tide USA Hexazinone 2SL as a spot spray application for emerged weeds in sugarcane. Mix 3 to 12 pints of Tide USA Hexazinone 2SL (0.75 – 3 lbs ai) per 100 gallons of water. Apply a sufficient volume of spray solution to thoroughly wet weed foliage but do not exceed a use rate of 3.4 pints (0.85 lb ai) per acre. Use the lower concentrations on coarse-textured soils that are low in organic matter, and use the higher concentrations on fine-textured soils that are high in organic matter.

#### LOUISIANA

Apply 1.8-3.4 pints of Tide USA Hexazinone 2SL (0.45 – 0.85 lb ai) per acre broadcast in the fall before sugarcane emerges or in the spring before active cane tillering begins. Fall treatments of 1.8-3 pints (0.45

– 0.75 lb ai) per acre may be followed by a spring treatment of 1.8-3 pints (0.45 – 0.75 lb ai) per acre. Do not apply more than 6 pints (1.5 lbs ai) per year. Use the higher rates on fine textured soils.

## PUERTO RICO

For preemergence treatments, apply 0.9-1.8 pints of Tide USA Hexazinone 2SL (0.22 – 0.45 lb ai) per acre.

For postemergence treatments, apply 0.9-1.8 pints of Tide USA Hexazinone 2SL (0.22 – 0.45 lb ai) per acre to weeds after they have emerged. Use the lower rates on coarse-textured soils and the higher rates on fine-textured soils (high in clay or organic matter). Each ratoon may receive up to 1.8 pints of Tide USA Hexazinone 2SL (0.45 lb ai) per acre.

For spot treatment of emerged weeds, Tide USA Hexazinone 2SL may be applied with a knapsack sprayer in concentrations of 0.9-1.8 pints (0.22 – 0.45 lb ai) per 100 gallons of water. Apply a sufficient spray volume to wet the weed foliage. Do not exceed 100 gallons of spray per treated acre. Use the lower concentration on coarse-textured soils and the higher concentration on fine-textured soils.

For “spot” knapsack applications, do not exceed the rate equivalent of 1.8 pints Tide USA Hexazinone 2SL (0.45 lb ai) per acre.

Do not apply more than 3.4 pints of Tide USA Hexazinone 2SL (0.85 lb ai) per acre per application.

## TEXAS

Apply 1.8-3.4 pints of Tide USA Hexazinone 2SL (0.45 – 0.85 lb ai) per acre. On plant cane, apply the herbicide before the cane emerges or as a directed layby treatment. On stubble cane, apply Tide USA Hexazinone 2SL preemergence or early postemergence (up to the 3-leaf stage) or as a directed layby treatment. A pre- or early postemergence treatment may be followed by a layby treatment, provided at least 60 days have elapsed and 3 inches of rainfall or sprinkler irrigation have occurred since the first treatment.

Do not apply more than 7 pints of Tide USA Hexazinone 2SL (1.75 lb ai) per acre per season.

Use the following rates according to the different soil textures:

Soils Texture Description	Tide USA Hexazinone 2SL (Pints/Acre)	
	Preemergence	+ Layby
<b>Coarse*</b>		
Sandy loam	1.8 (0.45 lb ai)	1.8 (0.45 lb ai)
<b>Medium</b>		
Loam, silt loam	2.7 (0.67 lb ai)	2.7 (0.68 lb ai)
<b>Fine</b>		
Clay loam	3.4 (0.85 lb ai)	3.4 (0.85 lb ai)

\* With at least 2% organic matter.

On dormant cane, a surfactant may be added to the spray mixture to increase control of emerged weeds.

## WEEDS CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following species in sugarcane crops:

Ageratum, tropic*	<i>Ageratum conyzoides</i>
Alexandergrass	<i>Brachiaria plantaginea</i>
Balsamapple	<i>Momordica charantia</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bermudagrass*	<i>Cynodon dactylon</i>
Burnweed, American (fireweed)	<i>Erechtites hieracifolius</i>
Chickweed, common	<i>Stellaria media</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>

Crabgrass, smooth	<i>Digitaria ischaemum</i>
Crotalaria, fuzzy	<i>Crotalaria incana</i>
Crotalaria, showy	<i>Crotalaria spectabilis</i>
Cuphea, tarweed	<i>Cuphea carthagenensis</i>
Dallisgrass	<i>Paspalum dilatatum</i>
Fingergrass, radiate	<i>Chloris radiate</i>
Fingergrass, swollen	<i>Chloris barbata</i>
Foxtail, bristly	<i>Setaria verticillata</i>
Foxtail, yellow	<i>Setaria lutescens</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass	<i>Elusine indica</i>
Guineagrass	<i>Panicum maximum</i>
Henbit	<i>Lamium amplexicaule</i>
Itchgrass*	<i>Rottboellia cochinchinensis</i>
Job's-tears	<i>Coix lacryma</i>
Johnsongrass (seedling)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Lambsquarters, common	<i>Chenopodium album</i>
Millet, Texas	<i>Panicum texanum</i>
Morningglory, hairy	<i>Ipomoea pentaphylla</i>
Morningglory, threelobe	<i>Ipomoea triloba</i>
Mustard, wild	<i>Sinapis arvensis</i>
Oxalis	<i>Oxalis spp</i>
Paintbrush, Flora's	<i>Emilia sonchifolia</i>
Panicum, browntop	<i>Panicum fasciculatum</i>
Paspalum, ricegrass	<i>Paspalum orbiculare</i>
Paspalum, sour	<i>Paspalum conjugatum</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, slender (green)	<i>Amaranthus viridus</i>
Pigweed, smooth	<i>Amaranthus chlorostachys</i>
Popolo	<i>Solanum sandwicense</i>
Purslane, common	<i>Portulaca oleracea</i>
Sandbur	<i>Cenchrus spp</i>
Sensitive plant (hila hila)	<i>Mimosa spp</i>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>
Sowthistle, common	<i>Sonchus oleraceus</i>
Spanishneedles	<i>Bidens bipinnata</i>
Sprangletop	<i>Leptochloa spp</i>
Spurge, prostrate	<i>Euphorbia humistrata</i>
Spurge, graceful	<i>Chamaesyce hypericifolia</i>
Sunflower	<i>Helianthus spp</i>
Vaseygrass	<i>Paspalum urvillei</i>
Waltheria (hia loa)	<i>Waltheria spp.</i>

\* Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

## USE PRECAUTIONS – SUGARCANE

- Extremely heavy rainfall after application may result in poor weed control and/or crop injury, especially if the application is made to dry soil.

## USE RESTRICTIONS – SUGARCANE

- Do not exceed 3.4 pints Tide USA Hexazinone 2SL (0.85 pound active ingredient hexazinone) per acre per application.
- Do not plant any crop other than sugarcane following an application of Tide USA Hexazinone 2SL.

- Do not feed sugarcane forage to livestock.
- Do not apply Tide USA Hexazinone 2SL:
  - Within 180 days of harvest in Hawaii.
  - Within 234 days of harvest in Louisiana.
  - Within 288 days of harvest in Puerto Rico.
  - Within 234 days of harvest in Texas.

Do not use Tide USA Hexazinone 2SL on cane that shows poor vigor because of insect damage, disease or winter injury, or shows symptoms of other stress conditions such as drought stress. Do not add a surfactant in applications unless otherwise specified or allowed. Do not use Tide USA Hexazinone 2SL on gravelly or rocky soils, thinly covered subsoils, or coarse-textured soils (sands to sandy loams) with less than 1% organic matter. Temporary chlorosis of the crop may result from application over emerged cane. Applications during active cane growth must be directed to cover the weeds and soil while minimizing crop contact. Do not use Tide USA Hexazinone 2SL on varieties known to be susceptible to herbicides.

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## FORESTRY

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### SITE PREPARATION

Tide USA Hexazinone 2SL is labeled for weed and brush control in areas where the following species are grown:

#### EASTERN US AND LAKE STATES

Fir, balsam	<i>Abies balsamea</i>
Pine, Austrian	<i>Pinus negra</i>
Pine, loblolly	<i>Pinus taeda</i>
Pine, longleaf	<i>Pinus palustris</i>
Pine, ponderosa	<i>Pinus ponderosa</i>
Pine, red	<i>Pinus resinosa</i>
Pine, Scotch	<i>Pinus sylvestris</i>
Pine, shortleaf	<i>Pinus echinata</i>
Pine, slash	<i>Pinus elliotii</i>
Pine, Virginia	<i>Pinus virginiana</i>
Spruce, black	<i>Picea mariana</i>
Spruce, red	<i>Picea rubens</i>
Spruce, white	<i>Picea glauca</i>

#### WESTERN US

Fir, Douglas	<i>Pseudotsuga menziesii</i>
Fir, grand	<i>Abies grandis</i>
Fir, Noble	<i>Abies procera</i>
Fir, white	<i>Abies concolor</i>
Pine, Jeffrey	<i>Pinus jeffreyi</i>
Pine, Lodgepole	<i>Pinus contorta</i>
Pine, ponderosa	<i>Pinus ponderosa</i>
Spruce, blue	<i>Picea pungens</i>
Spruce, Engelman	<i>Picea englemannii</i>
Spruce, Sitka	<i>Picea sitchensis</i>

### APPLICATION INFORMATION

#### EASTERN US

Apply Tide USA Hexazinone 2SL from early spring to early summer after hardwoods have broken bud and before the foliage has hardened off.

Soil Texture Description	Tide USA Hexazinone 2SL (Quarts/Acre) Eastern US
<b>Coarse</b>	
Sand, loamy sand, sandy loam	4-6 (1 – 1.5 lbs ai)
<b>Medium</b>	
Loam, silt loam, sandy clay loam	6-8 (1.5 – 2 lbs ai)
<b>Fine</b>	
Silty clay loam, clay loam, sandy clay, silt, silty clay, clay	8-10 (2 – 2.5 lbs ai)

The rates listed are for broadcast application. Use the lower rates on coarse textured soils and soils low in organic matter. Use the higher rates where weeds identified with in this label as “partial control or suppression” predominate.

## WESTERN US

For **SITE PREPARATION**, Tide USA Hexazinone 2SL may be applied at 2 to 6 quarts (1 – 3 lbs ai) per acre. Use the lower rates on coarse textured soils and soils low in organic matter. Use the higher rates on fine textured soils and soils high in organic matter. Use the higher rates where weeds identified in this label as “partial control or suppression” predominate.

In areas where other conifer species may be mixed in with the conifers listed above, Tide USA Hexazinone 2SL may be applied if the user has prior experience with Tide USA Hexazinone 2SL on the other conifer species. With no prior experience, it is advised that either a small area of plantings be tested for conifer safety prior to treating larger areas, or make no application of Tide USA Hexazinone 2SL in these areas within the site preparation area. Conifer species that are sensitive to Tide USA Hexazinone 2SL (hexazinone) such as, sugar pine and western larch, require 18 months before interplanting on treated sites.

Applications made to shelter wood sites may also result in mortality to over-story conifers. Factors that may influence conifer sensitivity in these sites could include application rate, conifer species, soil characteristics, uniformity of spray distribution across the treatment swath and environmental stress.

**Rain Belt** (areas of high spring rainfall): For best results, apply in late winter or spring when weeds and brush are actively growing.

**Snow Belt** (areas of low spring rainfall): For best results, apply in the fall before soil freezes, or in the spring after snow cover melts in anticipation of rainfall. Weed and brush control results from spring applications will be dependent on sufficient rainfall following application to activate Tide USA Hexazinone 2SL.

## PLANTS CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following species in site preparations for forestry crops:

### HERBACEOUS PLANTS

Asters	
Aster, heath*	<i>Aster ericoides</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bentgrass	<i>Agrostis</i> spp.
Bluegrass, annual	<i>Poa annua</i>
Bromegrass	<i>Bromus</i> spp.
Carrot, wild	<i>Daucus carota</i>
Crabgrass*	<i>Digitaria</i> spp.
Daisy, oxeye	<i>Chrysanthemum leucanthemum</i>
Dandelion, common*	<i>Taraxacum officinale</i>

Dandelion, false* (spotted catsear)	<i>Hypochaeris radicata</i>
Dock, curly*	<i>Rumex crispus</i>
Elksedge	<i>Carex geyeri</i>
Fescue*	<i>Festuca</i> spp.
Fireweed* (willowweed)	<i>Epilobium angustifolium</i>
Fleabane	<i>Conyza</i> spp.
Foxtail	<i>Setaria</i> spp.
Goldenrod*	<i>Solidago</i> spp.
Groundsel, common	<i>Senecio vulgaris</i>
Horseweed/marestail	<i>Conyza canadensis</i>
Mullein, common**	<i>Verbascum thapsus</i>
Orchardgrass*	<i>Dactylis glomerata</i>
Pinegrass	<i>Calamagrostis rubescens</i>
Quackgrass*	<i>Agropyron repens</i>
Ragweed, common	<i>Ambrosia elatior</i>
Ryegrass, Italian (annual)	<i>Lolium multiflorum</i>
Ryegrass, perennial*	<i>Lolium perenne</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Squawcarpet	<i>Ceanothus prostrates</i>
Thistle, Canada*	<i>Cirsium arvense</i>
Velvetgrass, common	<i>Holcus lanatus</i>

\*\*For Western US site preparation, apply at 6 quarts per acre.

#### WOODY PLANTS

Ash	<i>Fraxinus</i> spp.
Aspen, big tooth	<i>Populus grandidentata</i>
Aspen, trembling	<i>Populus tremuloides</i>
Birch	<i>Betula</i> spp.
Blackgum	<i>Nyssa sylvatica</i>
Cherry, black	<i>Prunus serotina</i>
Deerbrush	<i>Ceanothus integerrimus</i>
Dogwood, flowering*	<i>Cornus florida</i>
Elm	<i>Ulmus</i> spp.
Hawthorn	<i>Crataegus</i> spp.
Hazel	<i>Corylus</i> spp.
Hickory	<i>Carya</i> spp.
Honeysuckle*	<i>Lonicera</i> spp.
Manzanita, Greenleaf	<i>Arctostaphylos patula</i>
Maple, red*	<i>Acer rubrum</i>
Oaks	<i>Quercus</i> spp.
Poplar, balsam	<i>Populus balsamifera</i>
Snowbrush (varnishleaf)	<i>Ceanothus velutinus</i>
Sourwood*	<i>Oxydendrum arboretum</i>
Sweetgum	<i>Liquidambar</i> spp.
Willows	<i>Salix</i> spp.

\*Suppression is a visible reduction in plant competition (reduced population and/or vigor) as compared to an untreated area. Degree of suppression will vary with rate applied, size of plants at application and environmental conditions following treatment. Species indicated above, especially resprouts of these species, may require a follow up treatment for acceptable control. Burning, as a follow up treatment, will enhance control of resprouts.

Within several weeks after Tide USA Hexazinone 2SL activation by rainfall, affected vegetation may be burned, if desired. This burn may further enhance control of vegetation. Burn the vegetation only after any residual stand is completely defoliated, at least twice, allowing for sufficient root uptake of Tide USA Hexazinone 2SL. In the West, results may take one to two years in areas of low rainfall.



## SPRAY EQUIPMENT

When applied as a liquid spray using water as the carrier, Tide USA Hexazinone 2SL may be applied by ground equipment or by air (helicopter only).

For ground application, use enough water for thorough coverage (a minimum of 25 gallons per acre). For aerial applications, use at least 5 gallons of water per acre and at least 5 gallons of water for every 1 gallon (2 lbs ai) of Tide USA Hexazinone 2SL.

### Restriction:

When using a mechanically-pressurized handgun, do not exceed 4.5 pints Tide USA Hexazinone 2SL (1.12 lbs ai) per gallon.

## GRID APPLICATION

Apply undiluted Tide USA Hexazinone 2SL directly to the soil surface in a grid pattern using an exact delivery handgun applicator. This equipment delivers a thin stream of predetermined volume. Tide USA Hexazinone 2SL must be applied during the period from hardwood bud break to early summer.

Application rate and grid pattern will depend on soil texture and woody plant composition. Use the lower rates on coarse textured soils and when the major components of the hardwoods are susceptible species. Use the high rates on fine-textured soils and where weeds identified in this label as “partial control or suppression” predominate.

Application Patterns and Rates for Tide USA Hexazinone 2SL Suspension			
	ML/Spot	Grid (Ft)	Quarts/Acre
<b>Coarse</b>	0.6	3x3	3 (1.5 lbs ai)
	2.0	4x4	6 (3 lbs ai)
	3.1	4x6	6 (3 lbs ai)
<b>Medium/Fine</b>	1.6	3x3	8 (4 lbs ai)
	2.8	4x4	8 (4 lbs ai)
	3.5	4x4	10 (5 lbs ai)
	5.2	4x6	10 (5 lbs ai)

## BASAL (SOIL) SINGLE STEM TREATMENT

Apply undiluted Tide USA Hexazinone 2SL with an exact-delivery handgun applicator. Apply at the rate of 2-4 ml for each inch of stem diameter at breast height. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of Tide USA Hexazinone 2SL is needed per stem, make application on opposite sides of the stem.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply Tide USA Hexazinone 2SL at the rate of 2-4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4-8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).

When treating brush that requires more than a single 4 ml application of Tide USA Hexazinone 2SL, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the Tide USA Hexazinone 2SL on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or other mechanical methods, the rate of application must be proportional to the original tree size, not just the small regrowth of sprouts.

## INJECTION

**No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.**

Inject 1 ml of undiluted Tide USA Hexazinone 2SL through the bark of undesirable trees. Make injections at 4 inch intervals around the circumference of the tree. When using tubular injection equipment, inject

near the ground level. When using the “Hypo-Hatchet” Tree Injector or a similar device, inject at waist height. Best results if treatments are made in the summer. Woody species controlled include black cherry, oaks, and sweetgum.

### USE PRECAUTIONS - SITE PREPARATION

- Following harvest, allow sufficient time for stumps and injured trees to adequately resprout before applying Tide USA Hexazinone 2SL.

### USE RESTRICTIONS - SITE PREPARATION

- Where burning is desired, burn the vegetation only after any residual brush has completely defoliated, at least twice, allowing for sufficient root uptake of Tide USA Hexazinone 2SL.

## FORESTRY – RELEASE

Tide USA Hexazinone 2SL is labeled for conifer release where the following species are grown:

### EASTERN US AND LAKE STATES

Fir, balsam	<i>Abies balsamea</i>
Pine, loblolly	<i>Pinus taeda</i>
Pine, longleaf	<i>Pinus palustris</i>
Pine, red	<i>Pinus resinosa</i>
Pine, shortleaf	<i>Pinus echinata</i>
Pine, slash	<i>Pinus elliotii</i>
Pine, Virginia	<i>Pinus virginiana</i>
Spruce, black	<i>Picea mariana</i>
Spruce, Norway	<i>Picea abies</i>
Spruce, red	<i>Picea rubens</i>
Spruce, white	<i>Picea glauca</i>

### WESTERN US

Fir, Douglas	<i>Pseudotsuga menziesii</i>
Fir, grand	<i>Abies grandis</i>
Fir, Noble	<i>Abies procera</i>
Fir, white	<i>Abies concolor</i>
Hemlock, Western	<i>Tsuga heterophylla</i>
Pine, Jeffrey	<i>Pinus jeffreyi</i>
Pine, lodgepole	<i>Pinus contorta</i>
Pine, ponderosa	<i>Pinus ponderosa</i>
Spruce, blue	<i>Picea pungens</i>
Spruce, Engleman	<i>Picea englemannii</i>
Spruce, Sitka	<i>Picea sitchensis</i>

## APPLICATION INFORMATION

### EASTERN US

Apply Tide USA Hexazinone 2SL from early spring to early summer after hardwoods have broken bud and before full leaf expansion.

Applications made over the top of pines may result in excessive pine injury under conditions of high humidity and temperature (80 degrees F).

### WESTERN US

**Rainbelt** (areas of high spring rainfall): For best results, apply in late winter or spring when brush is actively growing, but prior to conifer budbreak. Dormant trees are less susceptible to injury. Applications where

the spray comes into direct contact with conifers after dormancy break in the spring or before the final resting bud has hardened in the fall may severely injure or kill the trees.

**Snowbelt** (areas of low spring rainfall): For best results, apply in the fall before soil freezes and after final resting bud has hardened on the conifers. Or, spring applications may be made after snow cover melts in anticipation of rainfall prior to conifer bud break. Brush control results from spring treatments will be dependent on sufficient rainfall following application to activate Tide USA Hexazinone 2SL.

### USE RATES

The rates listed below are for broadcast application. Do not use more than one application of Tide USA Hexazinone 2SL per year. Use the higher rate range for harder to control\* (suppression) species in the **PLANTS CONTROLLED** listings of the Site Prep and Release sections.

#### EASTERN US

Crop Species	Soil Texture Description	Tide USA Hexazinone 2SL (Quarts/Acre) Established Trees
Loblolly pine Longleaf pine Shortleaf pine Virginia pine Slash pine	Loamy sand, sandy loam	2-3(1 – 1.5 lbs ai)
	Loam, silt loam, silt, sandy clay loam	2-4 (1 – 2 lbs ai)
	Silty clay loam, clay loam, sandy clay, silty clay, clay	4.5-6 (2.25 – 3 lbs ai)
Red pine	Loamy sand, sandy loam	2-4 (1 – 2 lbs ai)
	Loam, silt loam, silt, sandy clay loam	4-6 (2 – 3 lbs ai)
	Silty clay loam, clay loam, sandy clay, silty clay, clay	6-8 (3 – 4 lbs ai)

#### Established Trees

- 4 years of age from transplanting on coarse-textured soils
- 3 years of age from transplanting on medium-textured soils
- 2 years of age from transplanting for Red Pine

#### WESTERN US

Application rates by soil type for Tide USA Hexazinone 2SL in the following western conifers: Blue spruce, Douglas fir, Engleman spruce, Grand fir, Jeffrey pine, Lodgepole pine, Noble fir, Ponderosa pine, Sitka spruce, Western hemlock and White fir.

Soil Texture Description	Tide USA Hexazinone 2SL (Quarts/Acre)
Loamy sand, sandy loam	2-4.5 (1 – 2.25 lbs ai)
Loam, silt loam, sandy clay loam	3.5-6 (1.75 – 3 lbs ai)
Silt, silty clay loam, clay loam, sandy clay, silty clay, clay	5-6 (2.5 – 3 lbs ai)

For first year plantings utilizing bare root stock, treat only transplant stock that is 2 years old (2-0, 1-1) or more, except (1-0) for Ponderosa and Jeffrey pines. Apply Tide USA Hexazinone 2SL only if rainfall has settled the soil around the base and root systems of the transplants.

### BRUSH CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following species in forestry release sites:

Ash	<i>Fraxinus</i> spp.
Aspen, big tooth	<i>Populus grandidentata</i>
Aspen, trembling	<i>Populus tremuloides</i>
Birch	<i>Betula</i> spp.
Elder, box	<i>Acer negundo</i>
Brambles	<i>Rubus</i> spp.
Cherry, black	<i>Prunus serotina</i>
Cherry, pin	<i>Prunus pensylvanica</i>
Deerbrush	<i>Ceanothus integerrimus</i>
Dogwood, flowering*	<i>Cornus florida</i>
Elm	<i>Ulmus</i> spp.
Hawthorn	<i>Crataegus</i> spp.
Hazel	<i>Corylus</i> spp.
Honeysuckle*	<i>Lonicera</i> spp.
Manzanita, Greenleaf	<i>Arctostaphylos patula</i>
Maple, red*	<i>Acer rubrum</i>
Oaks	<i>Quercus</i> spp.
Poplar, balsam	<i>Populus balsamifera</i>
Snowbrush (varnishleaf)	<i>Ceanothus velutinus</i>
Sourwood*	<i>Oxydendrum arboretum</i>
Sweetgum	<i>Liquidambar</i> spp.
Willows	<i>Salix</i> spp.

\* Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

In addition to brush controlled, herbaceous species listed in **Weeds Controlled** section of **Release-Herbaceous Weed Control** may be controlled with these applications.

### SPRAY EQUIPMENT

When applied as a liquid spray using water as the carrier, Tide USA Hexazinone 2SL may be applied by ground equipment or by air (helicopter only).

For ground application, use enough water for thorough coverage (a minimum of 25 gallons per acre). For aerial applications, use a minimum of 5 gallons per acre and at least 5 gallons of water for every 1 gallon (2 lbs ai) of Tide USA Hexazinone 2SL.

### GRID APPLICATION

Apply undiluted Tide USA Hexazinone 2SL directly to the soil surface in a grid pattern using an exact delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply Tide USA Hexazinone 2SL during the period from hardwood bud break to early summer.

Application rate and grid pattern will depend on soil texture and woody plant composition. Use the lower rates on coarse textured soils and when the major component of the hardwoods are susceptible species. Use the high rates on fine-textured soils and where weeds identified in this label as “partial control or suppression” predominate.

Application Patterns and Rates for Undiluted Tide USA Hexazinone 2SL			
	ML/Spot	Grid (Ft)	Quarts/Acre
<b>Coarse</b>	0.5	3x4	2* (1 lb ai)
	1.2	3x6	3 (1.5 lbs ai)
	2.1	4x6	4 (2 lbs ai)
<b>Medium/Fine</b>	1.2	3x3	6 (3 lbs ai)
	2.3	3x6	6 (3 lbs ai)
	1.6	3x3	8 (4 lbs ai)

	3.1	3x6	8 (4 lbs ai)
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\* Use on deep sands with pines four years or more of age.

### **BASAL (SOIL) SINGLE STEM TREATMENT**

Apply undiluted Tide USA Hexazinone 2SL to the soil with an exact-delivery handgun applicator. Apply at the rate of 2-4 ml for each inch of stem diameter at breast height. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of Tide USA Hexazinone 2SL is needed per stem, make application on opposite sides of the stem.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply Tide USA Hexazinone 2SL at the rate of 2-4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4-8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).

When treating brush that requires more than a single 4 ml application of Tide USA Hexazinone 2SL, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the Tide USA Hexazinone 2SL on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or shredding, the rate of application must be proportional to the original tree size, not just the small regrowth of sprouts.

### **INJECTION**

**No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.**

Inject 1 ml of undiluted Tide USA Hexazinone 2SL through the bark of undesirable trees. Make injections at 4 inch intervals around the circumference of the tree. When using tubular injection equipment, inject Tide USA Hexazinone 2SL near the ground level. When using the "Hypo-Hatchet" Tree Injector or a similar device, inject at waist height. Best results if treatments are made in the summer. Woody species controlled include black cherry, oaks, and sweetgum.

### **USE PRECAUTIONS - RELEASE UNDILUTED APPLICATIONS**

- Application of Tide USA Hexazinone 2SL basal soil spot treatments closer than 36 inches to conifer seedlings in their first season or directly up slope from these seedlings may result in injury or mortality.
- Use Tide USA Hexazinone 2SL on seedlings in their first or fourth year and older. Injury may result from use on two and three year old seedlings where root growth is extensive but hardiness is lacking.

### **RELEASE HERBACEOUS WEED CONTROL**

Tide USA Hexazinone 2SL is labeled for controlling herbaceous weeds where these pine species are grown:

#### **EASTERN US**

Loblolly pine	Slash pine
Longleaf pine	Red pine

#### **WESTERN US**

Blue spruce	Noble fir
Douglas fir	Ponderosa pine
Engleman spruce	Sitka spruce
Grand fir	Western hemlock

Jeffrey pine	White fir
Lodgepole pine	

## APPLICATION INFORMATION

### EASTERN US

Apply Tide USA Hexazinone 2SL as a broadcast or banded spray in the spring prior to conifer bud break to lesson conifer injury potential.

### WESTERN US

**Rainbelt** (areas of high spring rainfall): For best results, apply as a broadcast or banded spray in the late winter or spring when weeds are actively growing, but prior to conifer budbreak. If application is made after conifer bud break, use directional spray equipment to prevent contact with conifer foliage, as injury may result.

**Snowbelt** (areas of low spring rainfall): For best results, apply as a broadcast or banded spray in the fall before soil freezes and after the final resting bud has hardened on the conifers. Or, spring applications may be made after snow cover melts in anticipation of rainfall prior to conifer bud break. Weed control results from spring treatments will be dependent on sufficient rainfall following application to activate Tide USA Hexazinone 2SL.

## USE RATES

The rates listed below are for broadcast application. For band application, use proportionately less. For example, use ½ of the broadcast rates when treating a 3-foot band where row spacing is 6 feet. Use the higher rate range for harder to control (\*suppression) weeds listed in the table below.

### EASTERN US

Soil Texture Description	Tide USA Hexazinone 2SL (Pints/Acre)	
	First Year Plantings	Established Trees
Loamy sand, sandy loam (50 – 85% sand)	4 (1 lb ai)	4-5 (1 – 1.25 lb ai)
Loam, silt loam, silt, sandy clay loam	4-5 (1 – 1.25 lb ai)	5-7 (1.25 – 1.75 lb)
Silty clay loam, clay loam, sandy clay, silty clay, clay	5-6 (1.25 – 1.5 lb ai)	7-8 (1.75 – 2 lb ai)

Red pine only- Refer to labeled rates in the **FORESTRY RELEASE – Use Rates Eastern US** section of the label.

### WESTERN US

Refer to labeled rates in the **FORESTRY RELEASE – Use Rates Western US** section of the label.

## WEEDS CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following species in forestry release sites:

Asters	<i>Aster</i> spp.
Aster, heath*	<i>Aster ericoides</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bentgrass	<i>Agrostis</i> spp.
Bluegrass, annual	<i>Poa annua</i>
Brackenfern	<i>Pteridium aquilinum</i>

Bromegrass	<i>Bromus</i> spp.
Carrot, wild	<i>Daucus carota</i>
Crabgrass*	<i>Digitaria</i> spp.
Daisy, oxeye	<i>Chrysanthemum leucanthemum</i>
Dandelion, common*	<i>Taraxacum officinale</i>
Dandelion, false* (spotted catsear)	<i>Hypochaeris radicata</i>
Dock, curly*	<i>Rumex crispus</i>
Fescue*	<i>Festuca</i> spp.
Fireweed* (willowweed)	<i>Epilobium angustifolium</i>
Fleabane	<i>Conyza</i> spp.
Foxtail	<i>Setaria</i> spp.
Goldenrod*	<i>Solidago</i> spp.
Groundsel, common	<i>Senecio vulgaris</i>
Horseweed/marestail	<i>Conyza canadensis</i>
Orchardgrass*	<i>Dactylis glomerata</i>
Panicums	<i>Panicum</i> spp.
Pinegrass	<i>Calamagrostis rubescens</i>
Ragweed, common	<i>Ambrosia elatior</i>
Ryegrass, Italian (annual)	<i>Lolium multiflorum</i>
Ryegrass, perennial*	<i>Lolium perenne</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Squawcarpet	<i>Ceanothus prostrates</i>
Velvetgrass, common	<i>Holcus lanatus</i>

\* Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

## FORESTRY

### IMPREGNATION ON DRY BULK FERTILIZER

Tide USA Hexazinone 2SL is labeled for impregnating or coating dry bulk fertilizer to be applied on forested sites for the establishment or release of conifer plantations (except longleaf pine) as specified on this label.

### PLANTS CONTROLLED

Fertilizer impregnated with Tide USA Hexazinone 2SL is labeled for the control and suppression of the weeds and brush identified for the specific applications on this label. Consult the appropriate segment of this label to determine the appropriate rate of Tide USA Hexazinone 2SL to be applied per acre. Apply this amount of Tide USA Hexazinone 2SL to the volume of fertilizer to be applied per acre.

### IMPREGNATION EQUIPMENT

To impregnate or coat the fertilizer use a system consisting of conveyor or closed drum used to blend dry bulk fertilizer.

### IMPREGNATION INSTRUCTIONS

Tide USA Hexazinone 2SL may be used undiluted or mixed with a sufficient quantity of water to ensure thorough coverage of the fertilizer.

Direct the spray nozzles of the impregnation equipment to deliver a fine spray of the mixture toward the fertilizer for thorough coverage while avoiding contact with mixing equipment. The use of a colorant or dye may be beneficial to visually determine the uniformity of impregnation.

Uniform impregnation of dry bulk fertilizer may vary. If absorption of the spray is not adequate, the use of an absorptive powder or additive, such as “Microcel E” or “HiSil 233”, may be required to produce a dry, free flowing mixture.

Apply the fertilizer as soon as possible after impregnation for optimum performance. Impregnated fertilizer may become lumpy and difficult to apply following storage.



Diammonium phosphate, potassium chloride, 16-16-16 and 24-4-4-have been successfully impregnated.

### **APPLICATION EQUIPMENT**

Applications of impregnated fertilizer may be made by ground equipment or by air (helicopter or fixed wing). Accurate calibration and patterning of the equipment is essential for uniform distribution of the impregnated fertilizer on the soil surface.

### **USE PRECAUTIONS – FORESTRY IMPREGNATED FERTILIZER**

- Uniform and precise application of the impregnated fertilizer is essential for satisfactory weed and brush control and to minimize pine injury. Overlaps or skips between adjoining swaths or non-uniform distribution of impregnated fertilizer within the swath will deliver poor results and may result in pine injury or mortality.

### **USE RESTRICTIONS - FORESTRY IMPREGNATED FERTILIZER**

- If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation. Application of dusty fertilizer which has been impregnated may result in off-target drift and injury to desirable vegetation. Such drift and associated injury may be aggravated by high wind conditions.
- The dry fertilizer must be properly impregnated and uniformly applied to prevent pine injury/mortality and poor weed and brush control.
- Do not impregnate potassium nitrate, sodium nitrate or triple super phosphate fertilizers with Tide USA Hexazinone 2SL as herbicidal action will be lost.

### **USE PRECAUTIONS - FORESTRY**

- On tracts of land where various soil types are present and Tide USA Hexazinone 2SL rate selection is difficult, conifer damage or less-than-expected vegetation suppression may occur due to the different rates required for various soil types.
- Poor weed and brush control may result from the following:
  - Heavy duff or slash present at time of application
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours
  - Applications to soils high in organic matter (greater than 5%)
- Following harvest, allow stumps and injured trees sufficient time to adequately resprout before applying Tide USA Hexazinone 2SL.
- Where burning is desired, burn vegetation after any brush has completely defoliated, at least twice, allowing for sufficient root uptake of Tide USA Hexazinone 2SL.
- Weed control results from spring applications depend on sufficient moisture to activate Tide USA Hexazinone 2SL.
- Crop injury may occur when Tide USA Hexazinone 2SL is used:
  - On trees that show poor vigor, insect damage, disease, winter injury, or other stress conditions
  - On any soil containing less than 1% organic matter
  - On loamy sand or sandy loam with less than 2% organic matter, except Jeffrey pine and Ponderosa pine
  - On conifer foliage after conifer bud break
  - On gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soil with 85% or more sand
  - On crop species not listed on this label

### **USE RESTRICTIONS - FORESTRY**

- When using a mechanically-pressurized handgun, reduce rate to 4.5 pints Tide Hexazinone 2SL (1.12 lbs a.i.) per gallon.
- Do not use Tide USA Hexazinone 2SL in nurseries, seedbeds, or ornamental plantings.

- Do not use Tide USA Hexazinone 2SL on frozen soils; use in spring after snow melt.
- Leave treated soil undisturbed to reduce the potential for Tide USA Hexazinone 2SL movement by soil erosion due to wind or water.
- Do not add a surfactant in applications over the top of conifers.
- When applying Tide USA Hexazinone 2SL after transplanting, wait until rainfall has settled the soil around the base and root systems of the transplants before making the treatment.
- Livestock may be grazed immediately following a broadcast application of Tide USA Hexazinone 2SL at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of Tide USA Hexazinone 2SL at broadcast rates exceeding 4.5 pints per acre.

### **YELLOW POPLAR PLANTINGS**

Tide USA Hexazinone 2SL is labeled for the control of herbaceous weeds in the establishment of yellow poplar plantations. Applications may be made over the top of planted seedlings after the soil has settled around the root systems but before the seedlings have broken dormancy (bud break). A subsequent application may be made before dormancy break in the Spring of the second year.

Apply 4-6 pints (1 – 1.5 lbs ai) per acre of Tide USA Hexazinone 2SL as specified on the package label for “**RELEASE – HERBACEOUS WEED CONTROL**” in pine plantations in the eastern U.S. Follow the label instructions regarding varying the application rate by soil texture.

For ground application, use enough water for thorough coverage, usually a minimum of 25 gallons per acre. For aerial applications, use at least 5 gallons of water per acre and at least 5 gallons of water for every 1 gallon (2 lbs ai) of Tide USA Hexazinone 2SL.

For broader spectrum control, Tide USA Hexazinone 2SL may be tank mixed with Escort® herbicide. Add Escort at a rate of 1/2 ounce per acre to a tank mix with the prescribed rate of Tide USA Hexazinone 2SL.

### **USE PRECAUTIONS - YELLOW POPLAR PLANTINGS**

- Applications of Tide USA Hexazinone 2SL and tank mixes of Tide USA Hexazinone 2SL and Escort® made to yellow poplar seedlings that are suffering from loss of vigor caused by insects, disease, drought, winter damage, animal damage, excessive soil moisture, planting shock or other stresses may injure or kill the seedlings.
- The use of surfactant with Tide USA Hexazinone 2SL is not recommended for applications made over the tops of seedlings.
- Careful consideration must be given by an experienced and knowledgeable forester to ensure the specific growth requirements of yellow poplar will be provided by the selected planting site. Treatment of yellow poplar planted on a site inadequate to meet its requirements may injure or kill the seedlings.

### **USE RESTRICTIONS - YELLOW POPLAR PLANTINGS**

- Applications of Tide USA Hexazinone 2SL and tank mixes of Tide USA Hexazinone 2SL and Escort must only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.

### **PASTURE/RANGELAND**

Tide USA Hexazinone 2SL is labeled for control of brush and weeds in pasture.

### **BERMUDAGRASS/BAHIAGRASS**

Tide USA Hexazinone 2SL is labeled for control of smutgrass and other weeds in established stands of bermudagrass and bahiagrass.

## APPLICATION INFORMATION

Make a single application of Tide USA Hexazinone 2SL per year when weeds are actively growing.

### WEEDS CONTROLLED – USE RATES

Tide USA Hexazinone 2SL effectively controls the following weeds at the rates shown. Use a lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

<b>2 ¾ to 4 ½ Pints/Acre (0.69 – 1.12 lbs ai/acre)</b>	
Barley, little	<i>Hordeum pusillum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Fescue	<i>Festuca</i> spp.
Lespedeza	<i>Lespedeza cuneata</i>
Oxalis	<i>Oxalis</i> spp.
Passionflower, maypop	<i>Passiflora incarnate</i>
Pepperweed, Virginia	<i>Lepidium virginicum</i>
Pigweed	<i>Amaranthus</i> spp.
Smutgrass*	<i>Sporobolus indicus</i>

\*Suppression may result with some of the giant (larger) smutgrass species.

Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

### SPRAY EQUIPMENT

Apply Tide USA Hexazinone 2SL uniformly over the desired area using ground equipment only.

For ground application, use enough water for thorough coverage (a minimum of 25 gallons per acre). The use of a surfactant may increase the potential for bermudagrass or bahiagrass injury.

### USE PRECAUTIONS - BERMUDAGRASS/BAHIAGRASS

- For bermudagrass that may be grown in the states of ID, OR, UT, or WA, determine the suitability of using Tide USA Hexazinone 2SL by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of Tide USA Hexazinone 2SL on bermudagrass.
- Some temporary discoloration of the bermudagrass or bahiagrass may occur after application.
- Treatment of mixed pastures containing forage species other than bermudagrass or bahiagrass may result in injury or mortality to the other forage species.
- Injury may result when desirable grasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
- Injury to or loss of desirable trees or other plants may result if Tide USA Hexazinone 2SL is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Severe crop injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.

### USE RESTRICTIONS - BERMUDAGRASS/BAHIAGRASS

- Use Tide USA Hexazinone 2SL only in stands of bermudagrass and bahiagrass established for at least one year. Do not treat newly sprigged or sodded areas.
- Livestock may be grazed immediately following a broadcast application of Tide USA Hexazinone 2SL at rates of 4.5 pints (1.12 lbs ai) per acre or less, and treated vegetation may be cut, dried and fed after 38 days.

## PASTURE/RANGELAND BRUSH CONTROL

Tide USA Hexazinone 2SL may be used either broadcast or as a basal-soil treatment for the control of undesirable brush in pasture or rangeland.

### APPLICATION INFORMATION

Apply Tide USA Hexazinone 2SL from late winter through summer, pre-budbreak until new growth hardens off.

In areas where the soil remains frozen during the winter and spring rains are usually inadequate for soil activation, a fall or winter treatment may be applied before the soil freezes.

For broadcast rates needed to control the species below, see the **Forestry – Release, Use Rates** section.

### BRUSH CONTROLLED

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following brush species in pasture and rangeland:

Alder	<i>Alnus</i> spp.
Ash	<i>Fraxinus</i> spp.
Aspen	<i>Populus</i> spp.
Birch	<i>Betula</i> spp.
Blackgum	<i>Nyssa sylvatica</i>
Bay, sweet	<i>Magnolia virginiana</i>
Cactus, cholla**	<i>Optunia imbricata</i>
Catclaw acacia	<i>Acacia greggii</i>
Cedar, Eastern red	<i>Juniperus virginiana</i>
Cherry, black	<i>Prunus serotina</i>
Chinaberry*	<i>Melia azedarach</i>
Deerbrush	<i>Ceanothus integerrimus</i>
Dogwood, flowering*	<i>Cornus florida</i>
Elm, American	<i>Ulmus Americana</i>
Elm, Chinese	<i>Ulmus parvifolia</i>
Hackberry, common	<i>Celtis occidentalis</i>
Hawthorn	<i>Crataegus</i> spp.
Hazel	<i>Corylus</i> spp.
Hickory	<i>Carya</i> spp.
Huisache	<i>Acacia farnesiana</i>
Juniper	<i>Juniperus</i> spp.
Locust	<i>Robinia</i> spp.
Lotebush	<i>Ziziphus obtusifolia</i>
Manzanita, Greenleaf	<i>Arctostaphylos patula</i>
Maple, red	<i>Acer rubrum</i>
Mesquite	<i>Prosopis glandulosa</i>
Mulberry	<i>Morus</i> spp.
Oaks	<i>Quercus</i> spp.
Osage-orange	<i>Maclura pomifera</i>
Persimmon	<i>Diospyros</i> spp.
Plum, wild	<i>Prunus munsoniana</i>
Poplar, balsam	<i>Populus balsamifera</i>
Poplar, yellow	<i>Liriodendron tulipifera</i>
Privet	<i>Ligustrum</i> spp.
Rose, multiflora	<i>Rosa multiflora</i>
Sassafras*	<i>Sassafras albidum</i>

Soapweed, small (yucca)	<i>Yucca glauca</i>
Snowbrush (varnishleaf)	<i>Ceanothus velutinus</i>
Sourwood	<i>Oxydendrum arboretum</i>
Sumac	<i>Rhus</i> spp.
Sweetgum	<i>Liquidambar</i> spp.
Tallow, Chinese	<i>Sapium sebiferum</i>
Waxmyrtle	<i>Myrica cerifera</i>
Whitebrush	<i>Aloysia gratissima</i>
Willow	<i>Salix</i> spp.

\*Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

\*\*For Cholla cactus (tree-type cactus) apply Tide USA Hexazinone 2SL at the rate of 4 ml of product for plants up to 2 feet tall. Apply 8 ml of product for Cholla cactus plants between 2 and 6 feet tall. For plants taller than 6 feet, apply 4 ml for each additional 2 feet of height. When treating plants it is desirable to make applications equally spaced around the plant.

### SPRAY EQUIPMENT AND APPLICATION TECHNIQUES

**Basal (Soil) Undiluted** – Apply Tide USA Hexazinone 2SL undiluted with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply Tide USA Hexazinone 2SL at the rate of 2 to 4 ml for each inch of stem diameter at breast height. Do not exceed 1/3 gallon of Tide USA Hexazinone 2SL per acre per year. Direct the treatment to the soil within 3 inches of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of the Tide USA Hexazinone 2SL is needed per stem, make applications on opposite sides of the stem.

### USE PRECAUTIONS - PASTURE/RANGELAND

- Injury to or loss of desirable trees or other plants may result if Tide USA Hexazinone 2SL is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Poor weed and brush control may result from the following:
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours
  - Applications to soils high in organic matter (greater than 5%)
- Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying Tide USA Hexazinone 2SL.

### USE RESTRICTIONS - PASTURE/RANGELAND

- Do not use Tide USA Hexazinone 2SL on frozen soils.
- Weed and brush control results depend on sufficient moisture to activate Tide USA Hexazinone 2SL.
- When Tide USA Hexazinone 2SL is applied as a basal soil treatment, there is no restriction on grazing by domestic animals nor on cutting surrounding vegetation for forage or hay.
- Livestock may be grazed immediately following a broadcast application of Tide USA Hexazinone 2SL at rates of 4.5 pints (1.12 lbs ai) per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of Tide USA Hexazinone 2SL at broadcast rates exceeding 4.5 pints (1.12 lbs ai) per acre.

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## NON-AGRICULTURAL USES

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### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Use on non-crop sites including industrial turfgrasses are not within the scope of the Worker Protection Standard.

When applied as a spray do not enter or allow worker entry into treated areas until sprays have dried.

### Respirator fit testing, medical qualification, and training

Using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134), employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked,
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements

### APPLICATION INFORMATION

Tide USA Hexazinone 2SL is labeled for general weed and brush control as follows: uncultivated nonagricultural areas (such as, airports, highway, railroad and utility right-of ways, sewage disposal areas); uncultivated agricultural areas (non-crop producing, which includes: farmyards, fuel storage areas, fence rows, barrier strips); industrial sites (outdoor, such as, lumberyards, pipeline and tank farms).

### NON-CROP SITES

Tide USA Hexazinone 2SL is labeled for control of many annual, biennial, and perennial weeds in non-crop, industrial sites.

### APPLICATION INFORMATION

Apply Tide USA Hexazinone 2SL as a preemergence or postemergence spray when weeds are actively germinating or growing.

### WEEDS CONTROLLED – USE RATE

Tide USA Hexazinone 2SL effectively controls the following weeds when applied at the use rates shown in industrial sites. When applied at lower rates, Tide USA Hexazinone 2SL provides short-term control of the weeds listed; when applied at higher rates, weed control is increased and extended.

Use lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

<b>1 – 2 ½ Gallons/Acre (2 – 5 lbs ai/acre)</b>	
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, field*	<i>Convolvulus arvensis</i>
Bouncingbet*	<i>Saponaria officinalis</i>



Bromegrass	<i>Bromus</i> spp.
Buffalograss*	<i>Buchloe dactyloides</i>
Burdock	<i>Arctium</i> spp.
Cocklebur	<i>Xanthium</i> spp.
Crabgrass	<i>Digitaria</i> spp.
Crown vetch	<i>Coronilla varia</i>
Curly dock*	<i>Rumex crispus</i>
Dandelion, common*	<i>Taraxacum officinale</i>
Dandelion, false* (spotted catsear)	<i>Hypochaeris radicata</i>
Dogbane*	<i>Apocynum cannabinum</i>
Fiddleneck, tarweed	<i>Amsinckia lycopsoides</i>
Filaree	<i>Erodium</i> spp.
Fleabane, flax-leaved	<i>Conyza bonariensis</i>
Goatsbeard vine (sweet briar)	<i>Aruncus sylvester</i>
Goldenrod	<i>Solidago</i> spp.
Horseweed/marestail	<i>Conyza canadensis</i>
Lespedeza	<i>Lespedeza cuneata</i>
Milkweed, common*	<i>Asclepias syriacea</i>
Mustard, wild	<i>Sinapis arvensis</i>
Nutsedge*	<i>Cyperus</i> spp.
Oats, wild*	<i>Avena fatua</i>
Orchardgrass*	<i>Dactylis glomerata</i>
Orchardgrass (seedling)	<i>Dactylis glomerata</i>
Oxalis	<i>Oxalis</i> spp.
Paragrass	<i>Panicum purpurascens</i>
Parsnip, wild	<i>Pastinaca sativa</i>
Pigweed	<i>Amaranthus</i> spp.
Purslane, common	<i>Portulaca oleracea</i>
Quackgrass	<i>Agropyron repens</i>
Ryegrass, Italian (annual)	<i>Lolium multiflorum</i>
Smartweed	<i>Polygonum</i> spp.
Spurge	<i>Euphorbia</i> spp.
Star thistle	<i>Centaurea</i> spp.
Trumpetcreeper*	<i>Campsis radicans</i>
<b>3-4 Gallons/Acre (6 – 8 lbs ai/acre)</b>	
Aster, heath	<i>Aster ericoides</i>
Bahiagrass*	<i>Paspalum notatum</i>
Bermudagrass*	<i>Cynodon dactylon</i>
Blackberry	<i>Rubus</i> spp.
Bluegrass	<i>Poa</i> spp.
Broomsedge	<i>Andropogon virginicus</i>
Camphorweed	<i>Heterotheca subaxillaris</i>
Canada thistle*	<i>Cirsium arvense</i>
Carrot, wild	<i>Daucus carota</i>
Chickweed	<i>Stellaria media</i>
Clovers	<i>Trifolium</i> spp.
Dewberry	<i>Rubus trivialis</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Fescue*	<i>Festuca</i> spp.
Fingergrass	<i>Digitaria ciliaris</i>
Foxtail	<i>Setaria</i> spp.
Guineagrass	<i>Panicum maximum</i>
Honeysuckle	<i>Lonicera</i> spp.



Horseweed/marestail	<i>Conyza canadensis</i>
Lantana	<i>Lantana camara</i>
Lettuce, prickly	<i>Lactuca serriola</i>
Natalgrass (red top)	<i>Rhynchelytrum repens</i>
Plantain	<i>Plantago</i> spp.
Ragweed, common	<i>Ambrosia elatior</i>
Smutgrass**	<i>Sporobolus indicus</i>
Spanishneedles	<i>Bidens bipinnata</i>
Vaseygrass	<i>Paspalum urvillei</i>

\* Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

\*\* Suppression may result with some of the giant (larger) smutgrass species.

### SPECIFIC WEED PROBLEMS

**Control of Canada Thistle in Crown Vetch** – Tide USA Hexazinone 2SL is labeled for control of Canada thistle in established stands of crown vetch on noncrop sites. Make a single application of 3-5 pints of Tide USA Hexazinone 2SL (0.75 – 1.25 lbs ai) from late spring through mid-summer, when thistle is actively growing prior to flowering. Do not use a surfactant. Some discoloration of the crown vetch foliage may occur after application.

### SPRAY EQUIPMENT

Apply Tide USA Hexazinone 2SL uniformly over the desired area using ground equipment or helicopter. Do not apply more than 3 gallons (6 lbs ai) per acre of Tide USA Hexazinone 2SL by air.

Use enough water for thorough coverage (for ground application, a minimum of 25 gallons per acre). Higher application volumes may be needed to obtain uniform application with handgun equipment. For aerial applications (helicopter only) this is usually a minimum of 5 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of Tide USA Hexazinone 2SL are used.

### NON-CROP BRUSH CONTROL

Tide USA Hexazinone 2SL is labeled for the control of undesirable brush in non-crop sites.

### APPLICATION INFORMATION

Apply Tide USA Hexazinone 2SL from late winter through summer, pre- bud break until new growth hardens off.

In areas where soils remains frozen during the winter and spring rains are usually inadequate for soil activation, a fall or winter treatment may be applied before the soil freezes.

### BROADCAST

Apply 2-4 gallons (4 – 8 lbs ai) of Tide USA Hexazinone 2SL per acre as a coarse spray by ground equipment or 2-3 gallons (4 – 6 lbs ai) per acre by air (helicopter only). Use enough water for thorough coverage. For ground, equipment usually a minimum of 25 gallons per acre. For aerial equipment, usually a minimum of 10 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of Tide USA Hexazinone 2SL are used.

### BASAL (SOIL) SINGLE STEM TREATMENT

**Undiluted** – Apply Tide USA Hexazinone 2SL undiluted with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply Tide USA Hexazinone 2SL at the rate of 2 to 4 ml for each inch of stem diameter at breast height. Do not exceed 4 gallons of Tide USA Hexazinone 2SL (8 lbs ai) per acre per year. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of Tide USA Hexazinone 2SL is needed per stem, make applications on opposite sides of the stem.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply Tide USA Hexazinone 2SL at the rate of 2 to 4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4 to 8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).

When treating brush that requires more than a single 4 ml application of Tide USA Hexazinone 2SL, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the Tide USA Hexazinone 2SL on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or shredding, the rate of application must be proportional to the original tree size, not just the small regrowth of sprouts.

**Diluted** – Mix one gallon of Tide USA Hexazinone 2SL (2 lbs ai) with 5 or more gallons of water. Apply 2 to 4 gallons of Tide USA Hexazinone 2SL (4 – 8 lbs ai) per acre. Direct the spray to the soil in a serpentine pattern so that the swath on the soil is 6 to 12 inches wide at the base of the brush. Swaths must be 2 to 4 feet apart.

### USE RATES

Tide USA Hexazinone 2SL is labeled for the control or suppression of the following species in non-crop sites. Use lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

2-4 Gallons/Acre (4 – 8 lbs ai/acre)	
Alder	<i>Alnus</i> spp.
Ash	<i>Fraxinus</i> spp.
Aspen	<i>Populus</i> spp.
Birch	<i>Betula</i> spp.
Blackgum	<i>Nyssa sylvatica</i>
Bay, sweet	<i>Magnolia virginiana</i>
Cactus, cholla**	<i>Optunia imbricata</i>
Catclaw acacia	<i>Acacia greggii</i>
Cedar, Eastern red	<i>Juniperus virginiana</i>
Cherry, black	<i>Prunus serotina</i>
Chinaberry*	<i>Melia azedarach</i>
Deerbrush	<i>Ceanothus integerrimus</i>
Dogwood, flowering*	<i>Cornus florida</i>
Elm, American	<i>Ulmus Americana</i>
Elm, Chinese	<i>Ulmus parvifolia</i>
Hackberry, common	<i>Celtis occidentalis</i>
Hawthorn	<i>Crataegus</i> spp.
Hazel	<i>Corylus</i> spp.
Hickory	<i>Carya</i> spp.
Huisache	<i>Acacia farnesiana</i>
Juniper	<i>Juniperus</i> spp.
Locust	<i>Robinia</i> spp.
Lotebush	<i>Ziziphus obtusifolia</i>
Manzanita, Greenleaf	<i>Arctostaphylos patula</i>
Maple, red	<i>Acer rubrum</i>
Mesquite	<i>Prosopis glandulosa</i>
Mulberry	<i>Morus</i> spp.
Oaks	<i>Quercus</i> spp.
Osage-orange	<i>Maclura pomifera</i>
Persimmon	<i>Diospyros</i> spp.
Plum, wild	<i>Prunus munsoniana</i>
Poplar, balsam	<i>Populus balsamifera</i>
Poplar, yellow	<i>Liriodendron tulipifera</i>

Privet	<i>Ligustrum</i> spp.
Rose, multiflora	<i>Rosa multiflora</i>
Sassafras*	<i>Sassafras albidum</i>
Soapweed, small (yucca)	<i>Yucca glauca</i>
Snowbrush (varnishleaf)	<i>Ceanothus velutinus</i>
Sourwood	<i>Oxydendrum arboretum</i>
Sumac	<i>Rhus</i> spp.
Sweetgum	<i>Liquidambar</i> spp.
Tallow, Chinese	<i>Sapium sebiferum</i>
Waxmyrtle	<i>Myrica cerifera</i>
Whitebrush	<i>Aloysia gratissima</i>
Willow	<i>Salix</i> spp.

\* Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

\*\* For Cholla cactus (tree-type cactus) apply Tide USA Hexazinone 2SL at the rate of 4 ml of product for plants up to 2 feet tall. Apply 8 ml of product for Cholla cactus plants between 2 and 6 feet tall. For plants taller than 6 feet, apply 4 ml for each additional 2 feet of height.

When treating plants it is desirable to make applications equally spaced around the plant.

### INDUSTRIAL TURFGRASS

Tide USA Hexazinone 2SL is labeled for selective weed control in established stands of bermudagrass and/or bahiagrass in noncrop areas.

### APPLICATION TIMING

Make a single application of Tide USA Hexazinone 2SL per year when weeds are actively growing.

### WEEDS CONTROLLED – USE RATE

Tide USA Hexazinone 2SL effectively controls the following weeds at the rates shown in industrial turf (unimproved only). Use a lower rate on coarse textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

<b>2 ¾ - 4 ½ Pints/Acre (0.69 – 1.12 lbs ai/acre)</b>	
Barley, little	<i>Hordeum pusillum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Fescue	<i>Festuca</i> spp.
Lespedeza	<i>Lespedeza cuneata</i>
Oxalis	<i>Oxalis</i> spp.
Passionflower, maypop	<i>Passiflora incarnate</i>
Pepperweed, Virginia	<i>Lepidium virginicum</i>
Pigweed	<i>Amaranthus</i> spp.
Smutgrass*	<i>Sporobolus indicus</i>

\*Suppression may result with some of the giant (larger) smutgrass species.

Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

### SPRAY EQUIPMENT

Apply Tide USA Hexazinone 2SL uniformly over the desired area using ground equipment only.

For ground application, use enough water for thorough coverage (a minimum of 25 gallons per acre). The use of a surfactant is not advised.

## USE PRECAUTIONS - ALL NON-CROP SITES

- For bermudagrass that may be grown in the states of ID, OR, UT, or WA, determine the suitability of using Tide USA Hexazinone 2SL by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of Tide USA Hexazinone 2SL on bermudagrass.
- Injury to or loss of desirable trees or other plants may result if Tide USA Hexazinone 2SL is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Application spray drift may injure desirable plants.
- Poor weed and brush control may result from the following:
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours.
  - Applications to soils high in organic matter (greater than 5%)
- Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying Tide USA Hexazinone 2SL.
- Weed and brush control results from spring applications depend on sufficient moisture to activate Tide USA Hexazinone 2SL.
- Some discoloration of the bermudagrass or bahiagrass may occur after application.
- Injury may result when desirable grasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
- Severe turfgrass injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.

## USE RESTRICTIONS - ALL NON-CROP SITES

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- Do not use Tide USA Hexazinone 2SL on frozen soils.
- Leave treated soil undisturbed to reduce the potential for Tide USA Hexazinone 2SL movement by soil erosion due to wind or water.
- Do not use Tide USA Hexazinone 2SL on lawns, driveways, tennis courts, or other residential or recreational areas.
- Livestock may be grazed immediately following a broadcast application of Tide USA Hexazinone 2SL at rates of 4.5 pints (1.125 lbs ai) per acre or less, and treated vegetation may be cut, dried and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of Tide USA Hexazinone 2SL at broadcast rates greater than 4.5 pints (1.125 lbs ai) and up to 3 gallons (6 lbs ai) per acre.
- For Tide USA Hexazinone 2SL rates above 3 gallons (6 lbs ai) per acre, do not cut treated vegetation for forage or hay nor graze domestic animals for 1 year following application.
- There are no grazing or haying restrictions for the directed basal-soil applications of Tide USA Hexazinone 2SL.
- Use Tide USA Hexazinone 2SL only in stands of bermudagrass and bahiagrass turfgrasses established for at least one year. Do not treat newly sprigged or sodded areas.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

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

**PESTICIDE DISPOSAL:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING: [NONREFILLABLE CONTAINERS]**

**Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

**(Nonrefillable container ≤ 5 gallons):** 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 puncture and dispose of in a sanitary landfill, or by incineration.

**(Nonrefillable > 5 gallons):** 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill.

#### **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.

Tide International, USA, Inc. 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 abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Tide International, USA, Inc., and Buyer and User assumes the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, TIDE INTERNATIONAL, USA, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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 in the event of ineffectiveness or other unintended consequences that may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Tide International, USA, Inc. 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 Tide International, USA, Inc. and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, in no event shall Tide International, USA, Inc. or Seller 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 AND BUYER, AND THE EXCLUSIVE LIABILITY OF TIDE INTERNATIONAL, USA, INC. 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, AT THE ELECTION OF TIDE INTERNATIONAL, USA, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT, OR COMPENSATION LIMITED TO DAMAGES NOT EXCEEDING THE FAIR MARKET PURCHASE PRICE, AND SHALL NOT INCLUDE INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

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[EPA Approval Date]