

PROOF
Proof date:02/01/2019
Customer: Tide USA
Job number: TiC-HER8422935
Label size: 145× 185mm
Leaflet flat size: 306× 185mm
Leaflet floided size: 161× 185mm
Label colors: PANTONE Process Black C, PANTONE 359 C
Leaflet "in" colors: Black
Leaflet "out" colors: PANTONE Process Black C, White
PANTONE 359 C

# Tide Hexazinone 2SL

GROUP

5

HERBICIDE

PEEL BACK BOOK HERE AND RESEAL AFTER OPENING

## Water Dispersible Liquid

 ACTIVE INGREDIENT:
 By Weight

 Hexazinone: [3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4(1H, 3H)-dione]
 ...25.0%

 OTHER INGREDIENTS:
 .75.0%

 TOTAL:
 100.0%

Contains 2.0 lbs. active ingredient per gallon.

# 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
If in eyes:	<ul> <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>
lf on skin or clothing:	Take off contaminated clothing.     Rinse skin immediately with plenty of water for 15-20 minutes.     Call a poison control center or doctor for treatment advice.
lf swallowed:	<ul> <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 posion 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 aslo contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information

## NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

EPA Reg. No.: 84229-35 Batch No.: See Container NET CONTENTS: ☐ 2.5 Gallons ☐ 20 Gallons

Manufactured for: Tide International USA,Inc. 21 Hubble,Irvine, CA 92618, USA

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

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed thorough 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

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.

## **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.

#### 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 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.

## PRODUCT INFORMATION

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

Tide Hexazinone 2SL is noncorrosive to equipment.

Care must be exercised when applying Tide Hexazinone 2SL near desirable trees or shrubs as they can absorb Tide 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 Hexazinone 2SL is absorbed through the roots and foliage. Moisture is required to activate Tide Hexazinone 2SL in the soil. Best results are obtained when the soil is moist at the time of application and  $\frac{1}{4}$  -  $\frac{1}{2}$  inches of rainfall occurs within 2 weeks after application.

For best results, apply Tide 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 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 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 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 Hexazinone 2SL.

When the air temperature is around 32°F, tank mixtures of paraquat dichloride plus Tide 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).

#### RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field

Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide instructions available in your area.

#### 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 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 made of any waterproof material
- Shoes plus socks
- Protective eyewear

## SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. Preventing spray drift is the responsibility of the applicator.

#### IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

## CONTROLLING DROPLET SIZE -GROUND APPLICATION

- Nozzle Type Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray
  angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.
- Pressure The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure
  reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher
  capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.
- Flow Rate/Orifice Size Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

#### **CONTROLLING DROPLET SIZE - AIRCRAFT**

- Nozzle Type Solid stream, or other low drift nozzles produce the coarsest droplet spectra.
- Number of Nozzles Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will
  produce a coarser droplet spectrum.
- Nozzle Orientation Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest
  droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back parallel to the airstream will
  produce a coarser droplet spectrum than other orientations.
- Pressure Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed
  reduces spray drift potential. For some nozzle types such as solid streams, lower pressures can produce finer droplet
  spectra and increase drift potential.

## **BOOM LENGTH (AIRCRAFT), AND APPLICATION HEIGHT**

- Boom Length (aircraft) Using shorter booms decreases drift potential. Boom lengths are expressed as a percentage
  of an aircraft's wingspan or a helicopter's rotor blade diameter. Shorter boom length and proper positioning can minimize
  drift caused by wingtip or rotor vortices.
- Application Height (aircraft) Applications made at the lowest height that are consistent with pest control objectives and
  the safe operation of the aircraft will reduce the potential for spray drift.
- Application Height (ground) Applications made at the lowest height consistent with pest control objectives, and that
  allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of
  spray droplets to evaporation and wind, and reduce spray drift potential.

#### WIND

Drift potential is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a constant direction. Many factors, including droplet size and equipment type also determine drift potential at any given wind speed. DO NOT APPLY DURING GUSTY OR WINDLESS CONDITIONS.

Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

## TEMPERATURE AND HUMIDITY

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

## SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause small, suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground, or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. Smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SHIELDED SPRAYERS

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

## AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

#### SENSITIVE AREAS

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

#### DRIFT CONTROL ADDITIVES

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

#### 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 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.

#### ALFALFA

Tide 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 per acre per application.
- Do not exceed 6 pints (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 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	
ldaho	New Mexico	Texas	
Kansas	North Dakota	Utah	

In the following states, make a single application of Tide 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	
lowa	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 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.

#### HISE BATES

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:

	Tide Hexazinone 2SL (pints/acre) Percent Organic Matter in Soil		
Soil Texture Description	<1%	1-5%	>5%
Coarse	2-3	2-3	4-6
Loamy sand, sandy loam			
Medium Loam, silt loam, silt, clay loam, sandy clay loam	2-3	3-6	4-6
Fine Silty clay loam, sandy clay, silty clay, clay	3-6	3-6	4-6

## RESTRICTIONS:

- In the states of MT, ND, SD, and WY, do not exceed a use rate of 4 pints 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 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:

	1-2 Pints/Acre	
ſ	Tansymustard	Descurainia pinnata

2-4 Pints/Acre		
Bluegrass, annual	Poa annua	
Brome, downy (cheatgrass)	Bromus tectorum	
Buckwheat, wild	Polygonum convolvulus	
Catchfly, English	Silene gallica	
Chamomile, mayweed (dogfennel)	Anthemis cotula	
Chickweed, common	Stellaria media	
Fiddleneck, tarweed	Amsinckia lycopsoides	
Filaree	Erodium spp.	
Flixweed	Descurainia Sophia	
Groundsel, common	Senecio vulgaris	
Henbit*	Lamium amplexicaule	
Lettuce, Miner's	Montia perfoliata	
Mustard, blue	Chorispora tenella	

Mustard, Jim Hill (tumble)	Sisymbrium altissimum	
Mustard, wild	Brassica kaber	
Orchardgrass (seedling)	Dactylis glomerata	
Pennycress, field	Thlaspi arvense	
Pigweed, redroot	Amaranthus retroflexus	
Radish, wild	Raphanus raphanistrum	
Rocket, London	Sisymbrium irio	
Rocket, common yellow	Barbarea vulgaris	
Salsify	Tragopogon spp.	
Shepherdspurse	Capsella bursa-pastoris	
Speedwell, purslane	Veronica peregrina	
Spurry, corn	Spergula arvensis	

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

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

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

2-6 Pints/Acre	
Crabgrass	Digitaria spp.
Fleabane	Conyza spp.
Foxtail	Setaria spp.
Jimsonweed	Datura stramonium
Lambsquarters, common	Chenopodium album
Pigweed, redroot	Amaranthus retroflexus

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

Tide 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 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 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 Hexazinone 2SL on fields with sandy loam or loamy sand soils having less than 1% organic matter.
- Do not exceed 2 pints per acre on fields with sandy loam or loamy sand soils having 1-2% organic matter.
- Do not exceed 2 pints per acre on seed alfalfa that has been established for only one growing season.

# SEED ALFALFA WALLA WALLA COUNTY, WASHINGTON

Tide 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.

Use Rates 4 to 6 pints per acre	
Kochia	Kochia scoparia
Lettuce, prickly*	Lactuca serriola
Quackgrass*	Elytrigia repens
Thistle, Canada (seedling)	Cirsium arvense

<sup>\*</sup>Suppression

## USE RESTRICTIONS - SEED ALFALFA

#### WALLA WALLA COUNTY WASHINGTON

- Do not exceed 6 pints Tide Hexazinone 2SL 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 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 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 Hexazinone 2SL at 1 pint per acre to stubble after cutting, following hay removal, and before regrowth exceeds 2" in height. Apply Tide 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 Hexazinone 2SL and continue agitation.
- 3. Once the Tide Hexazinone 2SL is fully dispersed, maintain agitation and continue filling tank with water.
- 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 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 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 per acre. Sites with use rates higher than 2 pints per acre must not be replanted to
  any root crop within 2 years after application of Tide 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 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 Hexazinone 2SL, except potassium nitrate or sodium nitrate. Do not use Tide Hexazinone 2SL an limestage.

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 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 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 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 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 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 Hexazinone 2SL

Fertilizer	Tide Hexazinone 2SL Rate Per Acre			
Rate/Acre	2 Pints	3 Pints	4 Pints	6 Pints
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 Hexazinone 2SL to impregnated per ton of dry fertilizer.

Pints Tide Hexazinone 2SL Per Acre x 1 Ton Fertilizer = Pints Tide Hexazinone 2SL per Ton of Fertilizer

#### **APPLICATION**

Uniform application of Tide 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 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
  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 Hexazinone 2SL applications.
- In California, fall planted alfalfa may be treated in the following winter months with Tide Hexazinone 2SL at 1 to 2 pints 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 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 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 Hexazinone 2SL when treating non-dormant alfalfa.
- Do not use Tide Hexazinone 2SL on gravelly or rocky soils, exposed subsoils, hardpan, sand poorly drained soil, or alkali soils.

## **BLUEBERRY**

#### HIGH BUSH BLUEBERRIES

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

#### APPLICATION INFORMATION

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

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

#### **USE PRECAUTIONS - HIGH BUSH BLUEBERRIES**

Since the effect of Tide 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	4	5
loamy sand, sandy loam (50-85% sand)		
Medium	-	8
loam, silt loam, silt, clay loam, sandy clay loam		
Fine	4-6*	8
silty clay loam, clay loam, sandy clay, silty clay, clay		

<sup>\*</sup>Use the higher rate as the soil organic matter approaches 3%.

#### **LOW BUSH BLUEBERRIES**

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

#### APPLICATION INFORMATION

Tide 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 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 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	4	5
loamy sand, sandy loam (50-85% sand)		
Medium		6
loam, silt loam, silt, clay loam, sandy clay loam		
Fine	4-8*	8-12**
silty clay loam, clay loam, sandy clay, silty clay, clay		

<sup>\*</sup>Use the higher rate as the soil organic matter approaches 3%

#### IMPREGNATION ON DRY BULK FERTILIZER

Dry bulk fertilizer may be impregnated or coated with Tide 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 Hexazinone 2SL, except potassium nitrate or sodium nitrate. Do not use Tide 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 fertilize with Tide 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 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 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 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 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.

<sup>\*\*</sup>Use the higher rate for harder to control species.

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

Fertilizer	Tide Hexazinone 2SL Rate Per Acre			
Rate/Acre	2 Pints	3 Pints	4 Pints	6 Pints
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 Hexazinone 2SL to be impregnated per ton of dry fertilizer.

Pints Tide Hexazinone 2SL Per Acre x 1 Ton Fertilizer = Pints Tide Hexazinone 2SL per Ton of Fertilizer

## APPLICATION

Uniform application of Tide 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  $\frac{1}{2}$  the labeled rate and overlap 50%. This results in the best distribution pattern.

# WEEDS CONTROLLED

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

Aster, heath*	Aster ericoides	
Barnyardgrass	Echinochloa crus-galli	
Blackberry* (briar)	Rubus spp.	
Bluegrass, Kentucky (perennial)*	Poa pratensis	
Brome, downy (cheatgrass)	Bromus tectorum	
Broomsedge*	Andropogon virginicus	
Carrot, wild*	Daucus carota	
Catchfly, English	Silene gallica	
Chamomile, mayweed	Anthemis cotula	
Cherry, wild	Prunus serotia	
Chickweed, common	Stellaria media	
Cinquefoil	Potentilla spp.	
Cockle, white*	Melandrium album	
Dandelion, common*	Taraxacum officinale	
Dandelion, false* (spotted catsear)	Hypochaeris radicata	
Daisy, oxeye	Chrysanthemum leucanthemum	
Dock, curly*	Rumex crispus	
Dogfennel	Eupatorium capillifolium	
Fescue*	Festuca spp.	
Fiddleneck, tarweed	Amsinckia lycopsoides	
Filaree	Erodium spp.	
Fireweed* (willowweed)	Epilobium angustifolium	
Fleabane, flax-leaved	Conyza bonariensis	
Flixweed	Descurainia Sophia	
Foxtail, yellow	Setaria lutescens	
Goldenrod	Solidago spp.	
Groundsel, common	Senecio vulgaris	
Hawkweed	Hieracium spp.	
Horseweed/marestail	Conyza canadensis	
Jimsonweed	Datura stramonium	
Lambsquarters, common	Chenopodium album	
Lettuce, Miner's	Montia perfoliata	

Lettuce, prickly*	Lactuca serriola	
Mustard, blue	Chorispora tenella	
Mustard, Jim Hill (tumble)	Sisymbrium altissimum	
Orchardgrass*	Dactylis glomerata	
Orchardgrass (seedling)	Dactylis glomerata	
Panicgrass (witchgrass)	Panicum capillare	
Panicum, fall	Panicum dichotomiflorum	
Pearly everlasting	Anaphalis margaritacea	
Pennycress, field	Thlaspi arvense	
Pigweed, redroot	Amaranthus retroflexus	
Quackgrass	Agropyron repens	
Radish, wild	Raphanus raphanistrum	
Ragweed, common	Ambrosia elatior	
Raspberry* (briar)	Rubus spp.	
Rocket, London	Sisymbrium irio	
Rocket, common yellow	Barbarea vulgaris	
Ryegrass, Italian (annual)	Lolium multiflorum	
Ryegrass, perennial*	Lolium perenne	
Salsify	Tragopogon spp.	
Shepherdspurse	Capsella bursa-pastoris	
Smartweed, Pennsylvania	Polygonum pensylvanicum	
Sorrel, red	Rumex acetosella	
Sorrel, sheep	Rumex angiocarpus	
Spurry, com	Spergula arvensis	
Strawberry, wild	Fragaria virginiana	
Tansymustard (pinnate)	Descurainia pinnata	
Tea, Mexican*	Chenopodium ambrosioides	
Velvetgrass	Holcus lanatus	
Yarrow	Achillea spp.	
8 to 12 Pints/Acre		
Dogbane**	Apocynum spp.	
Meadow-sweet	Filipendula ulmaria	
Blackberry, trailing	Rubus ursinus	
Laurel, sheep	Kalmia angustifolia	
Rose, wild**	Rosa spp.	

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

# CHRISTMAS TREES

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

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

<sup>\*\*</sup>Harder to control species.

Unless otherwise directed in separately published Tide International USA, Inc. instructions, do not use Tide 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 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 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 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  $\frac{1}{2}$  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 Hexazinone 2SL per year.

	Tide Hexazinone 2SL (Pints/Acre)		
Soils	First Year Plantings	Established Trees	
Coarse Texture			
Loamy sand, sandy loam (50-85% sand)	4	4-5	
Medium Texture			
Loam, silt loam, silt, clay loam, sandy clay loam	4-5	5-7	
Fine Texture			
Silty clay loam, clay loam, sandy clay, silty clay, clay	5-6	7-8	

First year plantings – Transplant stock that is 2 years old or more (1 year old for loblolly pine). Apply Tide 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 Hexazinone 2SL is labeled for the control or suppression of the following weed species in Christmas tree crops:

•••	
Aster, heath*	Aster ericoides
Barnyardgrass	Echinochloa crus-galli
Bentgrass, common	Agrostis alba
Bluegrass, annual	Poa annua
Bromegrass	Bromus spp.
Burnweed, American*	Erechtites hieracifolius
Carrot, wild	Daucus carota
Crabgrass*	Digitaris spp.
Curly dock*	Rumex crispus
Daisy, oxeye	Chrysanthemum leucanthemum
Dandelion, common*	Taraxacum officinale
Dandelion, false* (spotted catsear)	Hypochaeris radicata

Fescue*	Festuca spp.	
Fleabane	Conyza spp.	
Foxtail	Setaria spp.	
Goldenrod*	Solidago spp.	
Groundsel, common	Senecio vulgaris	
Horseweed/marestail	Conyza canadensis	
Orchardgrass*	Dactylis glomerata	
Ragweed, common	Ambrosia elatior	
Ryegrass, Italian (annual)	Lolium multiflorum	
Ryegrass, perennial*	Lolium perenne	
Smartweed, Pennsylvania	Polygonum pensylvanicum	
Velvetgrass, common	Holcus lanatus	

<sup>\*</sup>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 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 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 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 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 Hexazinone 2SL at broadcast rates exceeding 4.5 pints per acre.
- Livestock may be grazed immediately following a broadcast application of Tide Hexazinone 2SL at rates of 4.5 pints 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.

## PINEAPPLE

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

## APPLICATION INFORMATION

Mix the proper amount of Tide 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 finetextured soils or in areas where rainfall is less than 65 inches per year.

Intercrop period - Apply Tide Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints per acre. For aerial application, use at least 10 gallons water per acre.

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

**Post plant, before planted material starts active growth** – Apply Tide Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints 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 Hexazinone 2SL as a broadcast spray in 100-400 gallons of water per acre at the rate of 0.9-7 pints per acre.

**Directed postemergence (pineapple and weeds) interspace application** – Apply Tide 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 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 per 100 gallons of water as a spot treatment.

Treatments to field edges and roadsides – Apply Tide Hexazinone 2SL at 7-14.5 pints per acre in 100-400 gallons of water.

## WEEDS CONTROLLED

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

Ageratum, tropic	Ageratum conycoides
Balsamapple	Momordica charantia
Castorbean	Ricinus communis
Crabgrass	Digitaria spp.
Crotalaria	Crotolaria spp.
Dallisgrass	Paspalum dilatatum
Guineagrass	Panicum maximum
Junglerice	Echinochloa colonum
Kao haole*	Leucaena glauca
Moana loa vine*	Canavalia cathartica
Morningglory	Ipomoea spp.
Oxalis	Oxalis spp.
Popolo	Solanum sandwicense
Richardsonium	Richardsonia spp.
Vaseygrass	Paspalum urvillei

<sup>\*</sup>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 Hexazinone 2SL per acre per crop.
- Do not apply Tide Hexazinone 2SL within 181 days of harvest.

## SUGARCANE

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

## APPLICATION INFORMATION

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

#### **HAWAII**

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

Soil Texture Description	Tide Hexazinone 2SL (Pints/Acre) (Plus surfactant 0.25% by volume)	
Coarse		
Sand, loamy sand, sandy loam	1.8-3.5	
Medium		
Loam, silt loam, silty clay loam	1.8-7.0	
Fine		
Clay, gray hydromorphic clay	7.0-14.5	

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 Hexazinone 2SL may be applied with aerial equipment using at least 10 gallons of spray per acre.

Apply Tide Hexazinone 2SL as a spot spray application for emerged weeds in sugarcane. Mix 3 to 12 pints of Tide Hexazinone 2SL 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 14.4 pints 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 1.8-3.5 pints of Tide Hexazinone 2SL 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 per acre may be followed by a spring treatment of 1.8-3 pints per acre. Do not apply more than 6 pints per year. Use the higher rates on fine textured soils.

#### PUERTO RICO

For preemergence treatments, apply 0.9-1.8 pints of Tide Hexazinone 2SL per acre.

For postemergence treatments, apply 0.9-1.8 pints of Tide Hexazinone 2SL 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 Hexazinone 2SL per acre.

For spot treatment of emerged weeds, Tide Hexazinone 2SL may be applied with a knapsack sprayer in concentrations of 0.9-1.8 pints 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 Hexazinone 2SL per acre.

Do not apply more than 3.6 pints of Tide Hexazinone 2SL per acre per application.

#### **TEXAS**

Apply 1.8-7 pints of Tide Hexazinone 2SL per acre. On plant cane, apply the herbicide before the cane emerges or as a directed layby treatment. On stubble cane, apply Tide 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 Hexazinone 2SL per acre per season.

Use the following rates according to the different soil textures:

	Tide Hexazinone 2SL (Pints/Acre)	
Soils Texture Description	cription Preemergence + Layby	
Coarse*	_	
Sandy loam	1.8	1.8
Medium		
Loam, silt loam	2.7	2.7
Fine		
Clay loam	3.5	3.5

<sup>\*</sup> 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

Ageratum, tropic*	Ageratum conycoides
Alexandergrass	Brachiaria plantaginea
Balsamapple	Momordica charantia
Barnyardgrass	Echinochloa crus-galli
Bermudagrass*	Cynodon dactylon
Burnweed, American (fireweed)	Erechtites hieracifolius
Chickweed, common	Stellaria media
Crabgrass, large	Digitaria sanguinalis
Crabgrass, smooth	Digitaria ischaemum
Crotalaria, fuzzy	Crotalaria incana
Crotalaria, showy	Crotalaria spectabilis
Cuphea, tarweed	Cuphea carthagenensis
Dallisgrass	Paspalum dilatatum
Fingergrass, radiate	Chloris radiate
Fingergrass, swollen	Chloris barbata
Foxtail, bristly	Setaria verticillata
Foxtail, yellow	Setaria lutescens
Geranium, Carolina	Geranium carolinianum
Goosegrass	Elusine indica
Guineagrass	Panicum maximum
Henbit	Lamium amplexicaule
Itchgrass*	Rottboellia cochinchinensis
Job's-tears	Coix lacryma
Johnsongrass (seedling)	Sorghum halepense
Junglerice	Echinochloa colonum
Lambsquarters, common	Chenopodium album
Millet, Texas	Panicum texanum
Morningglory, hairy	Ipomoea pentaphylla
Morningglory, threelobe	Ipomoea triloba
Mustard, wild	Sinapis arvensis
Oxalis	Oxalis spp.
Paintbrush, Flora's	Emilia sonchifolia
Panicum, browntop	Panicum fasciculatum
Paspalum, ricegrass	Panicum rasciculatum Paspalum orbiculare
Paspalum, sour	
	Paspalum conjugatum
Pigweed, redroot	Amaranthus retroflexus
Pigweed, slender (green)	Amaranthus viridus
Pigweed, smooth	Amaranthus chlorostachys
Popolo	Solanum sandwicense
Purslane, common	Portulaca oleracea
Sandbur	Cenchrus spp.
Sensitive plant (hila hila)	Mimosa spp.
Signalgrass, broadleaf	Brachiaria platyphylla
Sowthistle, common	Sonchus oleraceus
Spanishneedles	Bidens bipinnata
Sprangletop	Leptochloa spp.
Spurge, prostrate	Euphorbia humistrata
Spurge, graceful	Chamaesyce hypericifolia
Sunflower	Helianthus spp.
Vaseygrass	Paspalum urvillei
1 310 0 7 31 31 31	1 200 200 200 200 200 200 200 200 200 20

<sup>\*</sup> 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 plant any crop other than sugarcane following an application of Tide Hexazinone 2SL.
- Do not feed sugarcane forage to livestock.
- Do not apply Tide 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 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 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 Hexazinone 2SL on varieties known to be susceptible to herbicides.

#### **FORESTRY**

## SITE PREPARATION

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

## **EASTERN US AND LAKE STATES**

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

## **WESTERN US**

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

#### APPLICATION INFORMATION

#### **EASTERN US**

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

	Tide Hexazinone 2SL (Quarts/Acre)	
Soil Texture Description	Eastern US	
Coarse		
Sand, loamy sand, sandy loam	4-6	
Medium		
Loam, silt loam, sandy clay loam	6-8	
Fine		
Silty clay loam, clay loam, sandy clay, silt, silty clay, clay	8-10	

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 Hexazinone 2SL may be applied at 2 to 6 quarts 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 Hexazinone 2SL may be applied if the user has prior experience with Tide 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 Hexazinone 2SL in these areas within the site preparation area. Conifer species that are sensitive to Tide 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 Hexazinone 2SL.

#### PLANTS CONTROLLED

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

## **HERBACEOUS PLANTS**

Asters	
Aster, heath*	Aster ericoides
Barnyardgrass	Echinochloa crus-galli
Bentgrass	Agrostis spp.
Bluegrass, annual	Poa annua
Bromegrass	Bromus spp.
Carrot, wild	Daucus carota
Crabgrass*	Digitaria spp.
Daisy, oxeye	Chrysanthemum leucanthemum
Dandelion, common*	Taraxacum officinale
Dandelion, false* (spotted catsear)	Hypochaeris radicata
Dock, curly*	Rumex crispus
Elksedge	Carex geyeri
Fescue*	Festuca spp.
Fireweed* (willowweed)	Epilobium angustifolium
Fleabane	Conyza spp.

Foxtail	Setaria spp.	
Goldenrod*	Solidago spp.	
Groundsel, common	Senecio vulgaris	
Horseweed/marestail	Conyza canadensis	
Mullein, common**	Verbascum thapsus	
Orchardgrass*	Dactylis glomerata	
Pinegrass	Calamagrostis rubescens	
Quackgrass*	Agropyron repens	
Ragweed, common	Ambrosia elatior	
Ryegrass, Italian (annual)	Lolium multiflorum	
Ryegrass, perennial*	Lolium perenne	
Smartweed, Pennsylvania	Polygonum pensylvanicum	
Squawcarpet	Ceanothus prostrates	
Thistle, Canada*	Cirsium arvense	
Velvetgrass, common	Holcus lanatus	

<sup>\*\*</sup>For Western US site preparation, apply at 6 quarts per acre.

## WOODY PLANTS

Ash	Fraxinus spp.
Aspen, big tooth	Populus grandidentata
Aspen, trembling	Populus tremuloides
Birch	Betula spp.
Blackgum	Nyssa sylvatica
Cherry, black	Prunus serotina
Deerbrush	Ceanothus integerrimus
Dogwood, flowering*	Cornus florida
Elm	Ulmus spp.
Hawthorn	Crataegus spp.
Hazel	Corylus spp.
Hickory	Carya spp.
Honeysuckle*	Lonicera spp.
Manzanita, Greenleaf	Arctostaphylos patula
Maple, red*	Acer rubrum
Oaks	Quercus spp.
Poplar, balsam	Populus balsamifera
Snowbrush (varnishleaf)	Ceanothus velutinus)
Sourwood*	Oxydendrum arboretum
Sweetgum	Liquidambar spp.
Willows	Salix 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 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 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 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 of Tide Hexazinone 2SL.

#### **GRID APPLICATION**

Apply undiluted Tide 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 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 Hexazinone 2SL Suspension			
	ML/Spot	Grid (Ft)	Quarts/Acre
Coarse	0.6	3x3	3
	2.0	4x4	6
	3.1	4x6	6
Medium/Fine	1.6	3x3	8
	2.8	4x4	8
	3.5	4x4	10
	5.2	4x6	10

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

Apply undiluted Tide 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 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 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 Hexazinone 2SL, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the Tide 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 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 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 Hexazinone 2SL.

## FORESTRY - RELEASE

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

#### **EASTERN US AND LAKE STATES**

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

## **WESTERN US**

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

## APPLICATION INFORMATION

## **EASTERN US**

Apply Tide 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 Hexazinone 2SL.

## **USE RATES**

The rates listed below are for broadcast application. Do not use more than one application of Tide 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 Hexazinone 2SL (Quarts/Acre) Established Trees
Loblolly pine	Loamy sand, sandy loam	2-3
Longleaf pine	Loam, silt loam, silt, sandy clay loam	2-4
Shortleaf pine Virginia pine Slash pine	Silty clay loam, clay loam, sandy clay, silty clay, clay	4.5-6
Red pine	Loamy sand, sandy loam	2-4
•	Loam, silt loam, silt, sandy clay loam	4-6
	Silty clay loam, clay loam, sandy clay, silty clay, clay	6-8

### **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 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 Hexazinone 2SL (Quarts/Acre)
Loamy sand, sandy loam	2-4.5
Loam, silt loam, sandy clay loam	3.5-6
Silt, silty clay loam, clay loam, sandy clay, silty clay, clay	5-6

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 Hexazinone 2SL only if rainfall has settled the soil around the base and root systems of the transplants.

## **BRUSH CONTROLLED**

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

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

<sup>\*</sup> 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 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 of Tide Hexazinone 2SL.

#### **GRID APPLICATION**

Apply undiluted Tide 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 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 Hexazinone 2SL			
	ML/Spot	Grid (Ft)	Quarts/Acre
Coarse	0.5	3x4	2*
	1.2	3x6	3
	2.1	4x6	4
Medium/Fine	1.2	3x3	6
	2.3	3x6	6
	1.6	3x3	8
	3.1	3x6	8

<sup>\*</sup> Use on deep sands with pines four years or more of age.

#### BASAL (SOIL) SINGLE STEM TREATMENT

Apply undiluted Tide 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 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 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 Hexazinone 2SL, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the Tide 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 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 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 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 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 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 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 Hexazinone 2SL.

#### IISE RATES

The rates listed below are for broadcast application. For band application, use proportionately less. For example, use  $\frac{1}{2}$  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**

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

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

Asters	Aster spp.
Aster, heath*	Aster ericoides
Barnyardgrass	Echinochloa crus-galli
Bentgrass	Agrostis spp.
Bluegrass, annual	Poa annua
Brackenfern	Pteridium aquilinum
Bromegrass	Bromus spp.
Carrot, wild	Daucus carota
Crabgrass*	Digitaria spp.
Daisy, oxeye	Chrysanthemum leucanthemum
Dandelion, common*	Taraxacum officinale
Dandelion, false* (spotted catsear)	Hypochaeris radicata
Dock, curly*	Rumex crispus

Fescue*	Festuca spp.
Fireweed* (willowweed)	Epilobium angustifolium
Fleabane	Conyza spp.
Foxtail	Setaria spp.
Goldenrod*	Solidago spp.
Groundsel, common	Senecio vulgaris
Horseweed/marestail	Conyza canadensis
Orchardgrass*	Dactylis glomerata
Panicums	Panicum spp.
Pinegrass	Calamagrostis rubescens
Ragweed, common	Ambrosia elatior
Ryegrass, Italian (annual)	Lolium multiflorum
Ryegrass, perennial*	Lolium perenne
Smartweed, Pennsylvania	Polygonum pensylvanicum
Squawcarpet	Ceanothus prostrates
Velvetgrass, common	Holcus lanatus

<sup>\*</sup> 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 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 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 Hexazinone 2SL to be applied per acre. Apply this amount of Tide 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 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 Hexazinone 2SL as herbicidal action will be lost.

#### **USE PRECAUTIONS - FORESTRY**

- On tracts of land where various soil types are present and Tide 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 Hexazinone 2SI
- Where burning is desired, burn vegetation after any brush has completely defoliated, at least twice, allowing for sufficient root uptake of Tide Hexazinone 2SL.
- Weed control results from spring applications depend on sufficient moisture to activate Tide Hexazinone 2SL.
- Crop injury may occur when Tide 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**

- Do not use Tide Hexazinone 2SL in nurseries, seedbeds, or ornamental plantings.
- Do not use Tide Hexazinone 2SL on frozen soils; use in spring after snow melt.
- Leave treated soil undisturbed to reduce the potential for Tide 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 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 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 Hexazinone 2SL at broadcast rates exceeding 4.5 pints per acre.

#### YELLOW POPLAR PLANTINGS

Tide 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 per acre of Tide 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 of Tide Hexazinone 2SL.

For broader spectrum control, Tide 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 Hexazinone 2SL.

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

- Applications of Tide Hexazinone 2SL and tank mixes of Tide Hexazinone 2SL and Escort<sup>®</sup> 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 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 Hexazinone 2SL and tank mixes of Tide 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 Hexazinone 2SL is labeled for control of brush and weeds in pasture

## BERMUDAGRASS/BAHIAGRASS

Tide 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 Hexazinone 2SL per year when weeds are actively growing.

### WEEDS CONTROLLED - USE RATES

Tide 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.

2 ¾ to 4 ½ Pints/Acre		
Barley, little	Hordeum pusillum	
Barnyardgrass	Echinochloa crus-galli	
Dogfennel	Eupatorium capillifolium	
Fescue	Festuca spp.	
Lespedeza	Lespedeza cuneata	
Oxalis	Oxalis spp.	
Passionflower, maypop	Passiflora incarnate	
Pepperweed, Virginia	Lepidium virginicum	
Pigweed	Amaranthus spp.	
Smutgrass*	Sporobolus indicus	

<sup>\*</sup>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 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
  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 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 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 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 Hexazinone 2SL at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried and fed after 38 days.

#### PASTURE/RANGELAND BRUSH CONTROL

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

Alder	Alnus spp.
Ash	Fraxinus spp.
Aspen	Populus spp.
Birch	Betula spp.
Blackgum	Nyssa sylvatica
Bay, sweet	Magnolia virginiana
Cactus, cholla**	Optunia imbricata
Catclaw acacia	Acacia greggii
Cedar, Eastern red	Juniperus virginiana
Cherry, black	Prunus serotina
Chinaberry*	Melia azedarach
Deerbrush	Ceanothus integerrimun
Dogwood, flowering*	Cornus florida
Elm, American	Ulmus Americana
Elm, Chinese	Ulmus parvifolia
Hackberry, common	Celtis occidentalis
Hawthorn	Crataegus spp.
Hazel	Corylus spp.
Hickory	Carya spp.
Huisache	Acacia famesiana
Juniper	Juniperus spp.
Locust	Robinia spp.
Lotebush	Ziziphus obtusifolia
Manzanita, Greenleaf	Arctostaphylos patula
Maple, red	Acer rubrum
Mesquite	Prosopis glandulosa
Mulberry	Morus spp.
Oaks	Quercus spp.
Osage-orange	Maclura pomifera
Persimmon	Diospyros spp.

Plum, wild	Prunus munsoniana
Poplar, balsam	Populus balsamifera
Poplar, yellow	Liriodendron tulipifera
Privet	Ligustrum spp.
Rose, multiflora	Rosa multiflora
Sassafras*	Sassafras albidum
Soapweed, small (yucca)	Yucca glauca
Snowbrush (varnishleaf)	Ceanothus velutinus
Sourwood	Oxydendrum arboretum
Sumac	Rhus spp.
Sweetgum	Liquidambar spp.
Tallow, Chinese	Sapium sebiferum
Waxmyrtle	Myrica cerifera
Whitebrush	Aloysia gratissima
Willow	Salix spp.

<sup>\*</sup>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 AND APPLICATION TECHNIQUES

**Basal (Soil) Undiluted** – Apply Tide Hexazinone 2SL undiluted with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply Tide 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 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 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 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 Hexazinone 2SL.

#### **USE RESTRICTIONS - PASTURE/RANGELAND**

- Do not use Tide Hexazinone 2SL on frozen soils.
- Weed and brush control results depend on sufficient moisture to activate Tide Hexazinone 2SL.
- When Tide 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 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 Hexazinone 2SL at broadcast rates exceeding 4.5 pints per acre.

<sup>\*\*</sup>For Cholla cactus (tree-type cactus) apply Tide 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.

## NON-AGRICULTURAL USES

## 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.

## APPLICATION INFORMATION

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

# APPLICATION INFORMATION

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

## WEEDS CONTROLLED - USE RATE

Tide Hexazinone 2SL effectively controls the following weeds when applied at the use rates shown in industrial sites. When applied at lower rates, Tide 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.

1 – 2 ½ Gallons/Acre		
Barnyardgrass	Echinochloa crus-galli	
Bindweed, field*	Convolvulus arvensis	
Bouncingbet*	Saponaria officinalis	
Bromegrass	Bromus spp.	
Buffalograss*	Buchloe dactyloides	
Burdock	Arctium spp.	
Cocklebur	Xanthium spp.	
Crabgrass	Digitaria spp.	
Crown vetch	Coronilla varia	
Curly dock*	Rumex crispus	
Dandelion, common*	Taraxacum officinale	
Dandelion, false* (spotted catsear)	Hypochaeris radicata	
Dogbane*	Apocynum cannabinum	
Fiddleneck, tarweed	Amsinckia lycopsoides	
Filaree	Erodium spp.	
Fleabane, flax-leaved	Conyza bonariensis	
Goatsbeard vine (sweet briar)	Aruncus sylvester	
Goldenrod	Solidago spp.	
Horseweed/marestail	Conyza canadensis	
Lespedeza	Lespedeza cuneata	
Milkweed, common*	Asclepias syriacea	
Mustard, wild	Sinapis arvensis	
Nutsedge*	Cyperus spp.	
Oats, wild*	Avena fatua	
Orchardgrass*	Dactylis glomerata	

Orchardgrass (seedling)	Dactylis glomerata
Oxalis	Oxalis spp.
Paragrass	Panicum purpurascens
Parsnip, wild	Pastinaca sativa
Pigweed	Amaranthus spp.
Purslane, common	Portulaca oleracea
Quackgrass	Agropyron repens
Ryegrass, Italian (annual)	Lolium multiflorum
Smartweed	Polygonum spp.
Spurge	Euphorbia spp.
Star thistle	Centaurea spp.
Trumpetcreeper*	Campsis radicans
3-4 Gallons/Acre	
Aster, heath	Aster ericoides
Bahiagrass*	Paspalum notatum
Bermudagrass*	Cynodon dactylon
Blackberry	Rubus spp.
Bluegrass	Poa spp.
Broomsedge	Andropogon virginicus
Camphorweed	Heterotheca subaxillaris
Canada thistle*	Cirsium arvense
Carrot, wild	Daucus carota
Chickweed	Stellaria media
Clovers	Trifolium spp.
Dewberry	Rubus trivialis
Dogfennel	Eupatorium capillifolium
Fescue*	Festuca spp.
Fingergrass	Digitaria ciliaris
Foxtail	Setaria spp.
Guineagrass	Panicum maximum
Honeysuckle	Lonicera spp.
Horseweed/marestail	Conyza canadensis
Lantana	Lantana camara
Lettuce, prickly	Lactuca serriola
Natalgrass (red top)	Rhynchelytrum repens
Plantain	Plantago spp.
Ragweed, common	Ambrosia elatior
Smutgrass**	Sporobolus indicus
Spanishneedles	Bidens bipinnata
Vaseygrass	Paspalum urvillei
,	p

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

SPECIFIC WEED PROBLEMS

Control of Canada Thistle in Crown Vetch – Tide 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 Hexazinone 2SL 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.

 $<sup>^{\</sup>star\star}$  Suppression may result with some of the giant (larger) smutgrass species.

## **SPRAY EQUIPMENT**

Apply Tide Hexazinone 2SL uniformly over the desired area using ground equipment or helicopter. Do not apply more than 3 gallons per acre of Tide 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 Hexazinone 2SL are used.

## NON-CROP BRUSH CONTROL

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

## APPLICATION INFORMATION

Apply Tide 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 of Tide Hexazinone 2SL per acre as a coarse spray by ground equipment or 2-3 gallons 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 Hexazinone 2SL are used.

#### BASAL (SOIL) SINGLE STEM TREATMENT

**Undiluted** – Apply Tide Hexazinone 2SL undiluted with an exact-delivery handgun applicator. This equipment delivers a thin stream of predetermined volume when triggered. Apply Tide 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 Hexazinone 2SL 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 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 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 Hexazinone 2SL, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the Tide 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 Hexazinone 2SL with 5 or more gallons of water. Apply 2 to 4 gallons of Tide Hexazinone 2SL 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 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		
Alder	Alnus spp.	
Ash	Fraxinus spp.	
Aspen	Populus spp.	
Birch	Betula spp.	
Blackgum	Nyssa sylvatica	
Bay, sweet	Magnolia virginiana	
Cactus, cholla**	Optunia imbricata	
Catclaw acacia	Acacia greggii	
Cedar, Eastern red	Juniperus virginiana	

Cherry, black	Prunus serotina
Chinaberry*	Melia azedarach
Deerbrush	Ceanothus integerrimus
Dogwood, flowering*	Cornus florida
Elm, American	Ulmus Americana
Elm, Chinese	Ulmus parvifolia
Hackberry, common	Celtis occidentalis
Hawthorn	Crataegus spp.
Hazel	Corylus spp.
Hickory	Carya spp.
Huisache	Acacia famesiana
Juniper	Juniperus spp.
Locust	Robinia spp.
Lotebush	Ziziphus obtusifolia
Manzanita, Greenleaf	Arctostaphylos patula
Maple, red	Acer rubrum
Mesquite	Prosopis glandulosa
Mulberry	Morus spp.
Oaks	Quercus spp.
Osage-orange	Maclura pomifera
Persimmon	Diospyros spp.
Plum, wild	Prunus munsoniana
Poplar, balsam	Populus balsamifera
Poplar, yellow	Liriodendron tulipifera
Privet	Ligustrum spp.
Rose, multiflora	Rosa multiflora
Sassafras*	Sassafras albidum
Soapweed, small (yucca)	Yucca glauca
Snowbrush (varnishleaf)	Ceanothus velutinus
Sourwood	Oxydendrum arboretum
Sumac	Rhus spp.
Sweetgum	Liquidambar spp.
Tallow, Chinese	Sapium sebiferum
Waxmyrtle	Myrica cerifera
Whitebrush	Aloysia gratissima
Willow	Salix spp.

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

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

# INDUSTRIAL TURFGRASS

 $\label{thm:control} \mbox{Tide Hexazinone 2SL is labeled for selective weed control in established stands of bermudagrass and/or bahiagrass in noncrop areas.}$ 

## APPLICATION TIMING

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

<sup>\*\*</sup> For Cholla cactus (tree-type cactus) apply Tide 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.

#### WEEDS CONTROLLED - USE RATE

Tide 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

2 3/4 - 4 1/2 Pints/Acre		
Barley, little	Hordeum pusillum	
Barnyardgrass	Echinochloa crus-galli	
Dogfennel	Eupatorium capillifolium	
Fescue	Festuca spp.	
Lespedeza	Lespedeza cuneata	
Oxalis	Oxalis spp.	
Passionflower, maypop	Passiflora incarnate	
Pepperweed, Virginia	Lepidium virginicum	
Pigweed	Amaranthus spp.	
Smutgrass*	Sporobolus indicus	

<sup>\*</sup>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 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
  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 Hexazinone 2SL on bermudagrass.
- Injury to or loss of desirable trees or other plants may result if Tide 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 Hexazinone 2SL.
- Weed and brush control results from spring applications depend on sufficient moisture to activate Tide 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

- Do not use Tide Hexazinone 2SL on frozen soils.
- Leave treated soil undisturbed to reduce the potential for Tide Hexazinone 2SL movement by soil erosion due to wind or water
- Do not use Tide Hexazinone 2SL on lawns, driveways, tennis courts, or other residential or recreational areas.
- Livestock may be grazed immediately following a broadcast application of Tide 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 Hexazinone 2SL at broadcast rates greater than 4.5 pints and up to 3 gallons per acre.
- For Tide Hexazinone 2SL rates above 3 gallons 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 having restrictions for the directed basal-soil applications of Tide Hexazinone 2SL.
- Use Tide 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 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 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.

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