

## **ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS - PREEMERGENCE**

### General Information

#### GENERAL INFORMATION

SureGuard is a preemergence and early postemergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers grown outdoors in containers or in the field (in ground) and to maintain bare ground non-crop areas.

SureGuard controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil applied herbicide.

Preemergence weed control with SureGuard is most effective when applied to clean, weed free soil surfaces. The most effective postemergence weed control with SureGuard occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Follow specific site use directions prior to using surfactant as certain over the top applications restrict the use of the surfactants.

SureGuard may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of SureGuard is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.

**IMPORTANT:** When applied as directed, plants listed on the label have shown tolerance to SureGuard. However, SureGuard is a very active herbicide and the user should exercise responsible judgment and caution until familiarity is gained with this product.

Due to variability within species, crop growth stage, environmental conditions and application techniques, it is recommended that users test this product under local growing conditions on a small number of plants and evaluate for 4 to 6 weeks for phytotoxicity. Testing SureGuard on a small number of plants will determine if the herbicide can be used safely on a widespread application. Neither the seller nor the manufacturer of SureGuard has investigated the safety to plants not listed on the label.

#### GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply in enclosed greenhouse structures.
- Do not apply when weather conditions favor spray drift from treated areas.
- Do not graze treated fields or feed treated forage or hay to livestock.
- Do not incorporate into soil after application.
- Do not apply this product through any type of irrigation system.
- Only apply to healthy established trees and ornamentals.
- Do not apply when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- Do not apply to turfgrass.
- Do not apply this product to concrete or other impermeable surfaces.

#### RESISTANCE MANAGEMENT

Any weed population may contain or develop plants naturally resistant to herbicides in various modes of action. Resistant biotypes may eventually dominate the weed population if the same class of chemistry/mode of action herbicides are used repeatedly in the same field or in successive years. These resistant biotypes may not be adequately controlled by herbicides in a mode of action class for which resistance has developed. A gradual or total loss of weed control may occur over time. Other resistance mechanisms that are not linked to site of action, such as enhanced metabolism, may also exist. Appropriate resistance management

strategies should be followed.

#### To Delay Herbicide Resistance

- Avoid the use of herbicides that have a similar target site mode of action in consecutive years.
- Herbicide use should be based on an Integrated Pest Management (IPM) program that includes scouting, record keeping, and consideration of cultivation practices, water management, weed free crop seed, crop rotation, and other chemical or cultural control practices.
- Monitor treated weed population for resistance development and report suspected resistance.
- Contact your local extension or crop expert (advisor) for any additional pesticide resistance management and/or IPM recommendations for specific crops and weed biotypes.
- For further information contact Valent U.S.A. Corporation at the following toll free number 800-682-5368.

#### PREEMERGENCE APPLICATION

Preemergence applications of SureGuard must be made prior to weed emergence. Moisture is necessary to activate SureGuard on soil for residual weed control. Dry weather following application of SureGuard may reduce effectiveness. However, when adequate moisture is received after dry conditions, SureGuard will control susceptible germinating weeds.

When adequate moisture is not received soon after SureGuard is applied to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (1/2" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. Deep cultivation reduces the effectiveness of SureGuard and should be avoided.

#### POSTEMERGENCE APPLICATION

For best results, apply SureGuard to actively growing weeds. Applying SureGuard under conditions that do not promote active weed growth will reduce herbicide

effectiveness. SureGuard is most effective when applied under sunny conditions at temperatures above 65°F.

SureGuard is rainfast one hour after application.

Applications should not be made if rain is expected within one hour of application or efficacy may be reduced.

## SOIL CHARACTERISTICS

Application of SureGuard to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/ or low clay content. Application to cloddy seedbeds can result in reduced weed control.

## CARRIER VOLUME AND SPRAY PRESSURE

### PREEMERGENCE APPLICATION

To ensure uniform coverage when using boom sprayers, use 10 to 30 gals of spray solution per acre.

When making backpack applications, apply 100 gals of spray solution per acre. Nozzle selection should meet manufacturer's gallonage and pressure recommendation for preemergence herbicide application.

### POSTEMERGENCE APPLICATION

To ensure thorough coverage when using boom sprayers apply 15 to 30 gals of spray solution per acre. Apply 20 to 30 gals per acre when using a boom sprayer if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 100 gals of spray solution per acre. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application.

Apply SureGuard, and SureGuard tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.

### BAND APPLICATION

When banding, use proportionately less water and SureGuard per acre.

## BACKPACK APPLICATION

When applying SureGuard with a backpack sprayer follow all above restrictions. Calibrate backpack sprayers to deliver 100 gals of spray solution per acre with 1 gal of spray solution covering 436 sq ft (example: 87' X 5').

## AERIAL APPLICATION

To obtain satisfactory weed control with aerial application of SureGuard, coverage must be uniform. Do not spray when drift is possible or when wind velocity is more than 10 mph. Avoid spraying SureGuard within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

### Volume Pressure

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

Refer to the label regarding tank mix information.

### Limitations, Restrictions, and Exceptions

## DIRECTIONS FOR USE IN ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS

SureGuard may be applied in a single or split application to established container and field grown conifers. The conifer tree species listed in Table 2 of the \"Tolerant Conifers\" Section have shown tolerance to applications of SureGuard only when applied to hardened off plant material. All over the top applications of SureGuard should be applied prior to spring bud break or delayed until conifers have sufficiently hardened off prior to herbicide application. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. Do not apply to conifers within 2 years of seedling emergence.

## PREEMERGENCE APPLICATION

Apply as preemergence (prior to weed emergence) application. SureGuard will provide preemergence control of broadleaf weeds and grasses listed in Table 1. SureGuard may be incorporated with 0.5 to 0.75 inch of water following application. Mechanically incorporating SureGuard will disturb soil surfaces, which may reduce herbicidal efficacy.

Preemergence applications of SureGuard should be made to tilled weed free established conifer plantings or to weed free container grown conifers. A preemergence application of SureGuard may be sprayed directly over conifers provided bud break has not occurred. Do not make applications of SureGuard over conifers when plants have moist or wet foliage.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Directed](#)

#### Rates

[field rates 0](#)

[field rates 1](#)

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#### Restricted Entry Interval

12 hours

#### Timings

[Preemergence \(Weed\)](#)