



## **NOTICE OF WEED CONTROL APPLICATION**

**Date of Application:** February 16,2024

**Location:** Maule/Hualapai Paseo

**Reason for Application:** A pre-emergent for broadleaf weeds in planter areas.

**Product Manufacturer Name:** Snapshot 2.5 TG

-EPA registration no. 62719-175

-Active ingredients: Trifluralin and isoxaben

-Precautionary statement: Causes moderate eye irritation. Harmful if swallowed or inhaled. Prolonged or frequently repeated skin contact may cause allergic reaction in some.

**\*No applications within 25 feet of playgrounds**

**\*See attached label and SDS sheet**

**\*Dates are subject to change due to weather**

# Specimen Label



# Snapshot\* 2.5 TG

## Specialty Herbicide

\*Trademark of Dow AgroSciences LLC

A selective preemergence herbicide for control of certain broadleaf weeds and annual grasses in:

- Landscape Ornamentals
- Christmas Tree Plantations
- Container Grown Ornamentals
- Field Grown Ornamentals
- Ground Covers / Perennials
- Non-bearing Fruit and Nut Trees
- Non-bearing Vineyards
- Non-cropland

### Active Ingredients:

trifluralin: $\alpha, \alpha, \alpha$ -trifluoro-2,6-dinitro- <i>N</i> , <i>N</i> -dipropyl- <i>p</i> -toluidine .....	2.0%
isoxaben: <i>N</i> -[3-(1-ethyl-1-methylpropyl)-5- isoxazolyl]-2,6-dimethoxybenzamide and isomers .....	0.5%
Inert Ingredients .....	97.5%
Total .....	100.0%

Contains 1.25 pounds active ingredient per 50 pound bag.

U.S. Patents 4,636,243 and 5,086,184.

EPA Reg. No. 62719-175

### Keep Out of Reach of Children

## CAUTION PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

**Causes Moderate Eye Irritation • Harmful If Swallowed Or Inhaled • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reaction In Some Individuals**

**Avoid breathing dust or spray mist and contact with eyes or clothing. Wash thoroughly with soap and water after handling.**

### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### First Aid

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.

**If swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for further treatment advice.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

### Environmental Hazards

This pesticide is extremely toxic to freshwater marine, and estuarine fish and aquatic invertebrates including shrimp and oyster. 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 apply in a manner which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**Notice:** Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

**Agricultural Chemical:** Do not ship or store with food, feeds, drugs or clothing.

### Directions for Use

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

Read all Directions for Use carefully before applying.

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.

### 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 of this label about personal protective equipment (PPE), and restricted entry interval. The requirements in the box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Coveralls
- Waterproof gloves
- Shoes plus socks

### Non-Agricultural Use Requirements

The requirements of 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.

For applications in landscape settings and in non-cropland sites, do not enter or allow others to enter the treated area until dusts have settled.

### Storage and Disposal

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

**Storage:** Store in original container only. In case of spill, contain material and dispose as waste.

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

**Container Disposal:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, in accordance with applicable regulations, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## General Instructions and Information

Snapshot\* 2.5 TG herbicide is a preemergence product for control of certain broadleaf weeds and annual grasses in container and landscape ornamentals, nursery stock, Christmas trees, ground covers/perennials, non-bearing fruit and nut trees, non-bearing vineyards and non-cropland areas. Apply Snapshot 2.5 TG anytime prior to germination of target weeds, or immediately after cultivation. Length of weed control will vary with rate of Snapshot 2.5 TG applied, weed population, potting media or soil conditions, temperature, watering regime, and other factors. Following application, user should monitor and observe level of weed control over time to determine when additional applications may be needed.

### General Use Precautions and Restrictions

**In Arizona:** The state of Arizona has not approved Snapshot\* 2.5 TG specialty herbicide for use on plants grown for agricultural/commercial production; such as on Christmas tree plantations, container grown or field grown ornamentals, non-bearing fruit and nut trees and non-bearing vineyards.

Snapshot 2.5 TG controls weeds growing from seed. Snapshot 2.5 TG does not control established weeds, weeds growing from stolens, rhizomes, or root pieces. Existing weeds should be controlled by cultivation or with postemergence herbicides. Weed residues, prunings and trash should be removed or thoroughly mixed into soil prior to treatment. Soil should be in good condition and free of clods at the time of application. A single rainfall or sprinkler irrigation of 0.5 inches or more, or flood irrigation is required to activate Snapshot 2.5 TG. Optimum weed control is obtained when Snapshot 2.5 TG is activated within 3 days of application. If rainfall or irrigation does not occur within 3 days of application and tillage is possible, Snapshot 2.5 TG may be activated using cultivation equipment capable of uniformly mixing the herbicide into the upper 1-2 inches of soil. Failure to activate Snapshot 2.5 TG within 3 days of application may result in erratic control of annual grasses. Do not apply when wind conditions favor drift of Snapshot 2.5 TG granules from the target area.

Repeat applications at 150 pounds per acre and higher should not be made sooner than 60 days after a previous application of Snapshot 2.5 TG. Do not apply over 600 pounds per acre total of Snapshot 2.5 TG within a 12 month period.

**Tolerance of Turfgrass Adjacent to Ornamental Plantings:** Accidental application to turf may occur when applying Snapshot 2.5 TG to ornamental plantings. Snapshot 2.5TG is not recommended for weed control in turfgrasses, but turfgrasses are generally tolerant to small amounts of this product that fall outside of the intended area of application.

Do not aerially apply Snapshot 2.5TG.

### Treatment Species Not Listed on the Label for Snapshot 2.5 TG

Users who wish to use Snapshot 2.5 TG on plant species not recommended on this label may determine the suitability for use by treating a small number of such plants at a recommended rate. Prior to treatment of larger areas, the treated plants should be observed for any sign of herbicidal injury for during 30 to 60 days of normal growing conditions to determine if the treatment is safe to the target plant species. The user assumes responsibility for any plant damage or other liability resulting from use of Snapshot 2.5 TG on plant species not recommended on this label.

## Application Instructions

Apply Snapshot 2.5 TG using a drop or rotary-type spreader designed to apply granular herbicides or insecticides. Calibrate application equipment prior to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or crop injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first.

### Application Techniques for Applying Snapshot 2.5 TG

- When using a drop-type spreader, a splashboard mounted under the hopper will provide more even granule distribution.
- A chain fastened to the side of the spreader and allowed to drag on the soil surface can be used to mark the edge of the treated swath and help prevent skips or overlaps.
- For treating smaller areas or rows of nursery stock or ornamental beds, a hand held or push-type rotary applicator such as a whirlybird or cyclone unit is recommended. For hand held units, walk and turn the crank at a constant rate of speed.
- A shaker-type applicator made from a small container with holes punched in the bottom is recommended for small, difficult to treat areas. Carefully measure the amount of product needed to avoid over application.
- The weight-to-volume conversion table below provides equivalent amounts of Snapshot 2.5 TG.

### Snapshot 2.5 TG Broadcast Rates

Rate lb/Acre	Amount/1000 sq ft		Amount/100 sq ft	
	(lb)	(quarts)	(lb)	(cups)
100	2.30	1.75	0.23	0.7
150	3.45	2.60	0.35	1.0
200	4.60	3.50	0.46	1.4

One pound of Snapshot 2.5 TG = 0.75 quart = 3 cups

### Spreader Settings as a Guide for Calibration

**Note:** These settings are provided as a suggested starting point in calibrating each individual spreader. Since no two spreaders are alike, these settings are not intended to be used as absolute recommendations by Dow AgroSciences or the spreader manufacturer.

Speed (mph)	Settings for Warren T-7 II Spreader		
	Target Rate Of Snapshot 2.5 TG		
	100 lb/acre	150 lb/acre	200 lb/acre
2.0	2-1/2	3-1/4	3-3/4
2.5	3	3-1/2	4-1/4
3.0	3-1/4	4	5

Warren spreader settings are displayed in half-number increments only. The suggested settings that indicate quarter settings can be accomplished by placing the calibration arm between the half number marks on the spreader.

## Weeds Controlled or Suppressed by Snapshot 2.5 TG

### Weeds Controlled When Applied at 100 lb/acre (2.3 lb/1000 sq ft)

Common Name	Scientific Name
aster, slender	<i>Aster exilis</i>
barnyardgrass	<i>Echinochloa crus-galli</i>
bluegrass, annual	<i>Poa annua</i>
bursage, annual	<i>Ambrosia acanthicarpa</i>
celery, wild	<i>Apium leptophyllum</i>
chickweed, common	<i>Stellaria media</i>
clover white	<i>Trifolium repens</i>
crabgrass	<i>Digitaria</i> spp.
cudweed, purple	<i>Gnaphalium purpureum</i>
cupgrass, southwestern	<i>Eriochloa gracilis</i>
fiddleneck, coast	<i>Amsinckia intermedia</i>
filaree, redstem	<i>Erodium cicutarium</i>
fleabane, blackleaved	<i>Conyza bonariensis</i>
fleabane, dwarf	<i>Conyza ramosissima</i>
foxtail, yellow	<i>Setaria glauca</i>
groundcherry, lanceleaf	<i>Physalis lanceifolia</i>
henbit	<i>Lamium amplexicaule</i>
horseweed	<i>Conyza canadensis</i>
junglerice	<i>Echinochloa colonum</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
lambsquarters, common	<i>Chenopodium album</i>
mallow, little	<i>Malva parviflora</i>
mustard, Indian	<i>Brassica juncea</i>
mustard, wild	<i>Sinapis arvensis</i>
nightshade, black	<i>Solanum nigrum</i>
oat, wild	<i>Avena fatua</i>
panicum, fall	<i>Panicum</i> <i>dichotomiflorum</i>
pepperweed, Virginia	<i>Lepidium virginicum</i>
pigweed	<i>Amaranthus</i> spp.
pineappleweed	<i>Matricaria</i> <i>matricarioides</i>
plantain, slender	<i>Plantago elongata</i>
purslane, common	<i>Portulaca oleracea</i>
radish, wild	<i>Raphanus raphanistrum</i>
ragweed, common	<i>Ambrosia artemisiifolia</i>
rocket, London	<i>Sisymbrium irio</i>
rockpurslane, desert	<i>Calandrinia ciliata</i>
shepherdspurse	<i>Capsella bursa-pastoris</i>
sibara	<i>Sibara virginica</i>
smartweed, Pennsylvania	<i>Polygonum</i> <i>pensylvanicum</i>
sowthistle, annual	<i>Sonchus oleraceus</i>
speedwell, purslane	<i>Veronica peregrina</i>
sprangletop, Mexican	<i>Leptochloa univervia</i>
telegraphplant	<i>Heterotheca grandiflora</i>
thistle, Russian	<i>Salsola iberica</i>
witchgrass	<i>Panicum capillare</i>

**In Addition to the Weeds Listed at the 100 lb/acre Rate, the Following Weeds Will Be Controlled at 150 lb/acre (3.5 lb/1000 sq ft)**

<b>Common Name</b>	<b>Scientific Name</b>
aster, heath	<i>Aster ericoides</i>
bittercress	<i>Cardamine oligosperma</i>
bittercress, hairy	<i>Cardamine hirsuta</i>
brassbuttons, southern	<i>Cotula australis</i>
carrot, wild	<i>Daucus carota</i>
chamberbitter	<i>Phyllanthus urinaria</i>
chickweed, mouseear	<i>Cerastium vulgatum</i>
dandelion	<i>Taraxacum officinale</i>
eclipta	<i>Eclipta prostrata</i>
fireweed	<i>Erechtites hieracifolia</i>
foxtail, giant	<i>Setaria faberi</i>
galinsoga, hairy	<i>Galinsoga ciliata</i>
geranium, Carolina	<i>Geranium carolinianum</i>
groundsel, common	<i>Senecio vulgaris</i>
ladysthumb	<i>Polygonum persicaria</i>
lettuce, prickly	<i>Lactuca scariola</i>
lovegrass	<i>Eragrostis</i> spp.
mallow, dwarf	<i>Malva rotundifolia</i>
marestail	<i>Hippuris vulgaris</i>
mayweed	<i>Anthemis cotula</i>
morningglory, ivyleaf	<i>Ipomoea hederacea</i>
mustard, black	<i>Brassica nigra</i>
pennywort	<i>Hydrocotyle</i> spp.
phyllanthus, long-stalk	<i>Phyllanthus tenellus</i>
plantain, bracted	<i>Plantago aristata</i>
plantain, broadleaf	<i>Plantago major</i>
plantain, buckhorn	<i>Plantago lanceolata</i>
pokeweed, common	<i>Phytolacca americana</i>
rockpurslane, redmaids	<i>Calandrinia ciliata</i> var. <i>menziesii</i>
ryegrass, annual	<i>Lolium multiflorum</i>
sida, prickly	<i>Sida spinosa</i>
sorrell, red	<i>Rumex acetosella</i>
speedwell, thymeleaf	<i>Veronica serpyllifolia</i>
spurge, hyssop	<i>Euphorbia hyssopifolia</i>
spurge, spotted	<i>Euphorbia maculata</i>
sweetclover, yellow	<i>Melilotus officinalis</i>
tansymustard, green	<i>Descurainia pinnata</i>
velvetleaf	<i>Abutilon theophrasti</i>
woodsorrel, yellow	<i>Oxalis stricta</i>

**In Addition to the Weeds Listed at the 100 lb/acre and 150 lb/acre Rates, the Following Weeds Will Be Controlled at 200 lb/acre (4.6 lb/1000 sq ft)**

<b>Common Name</b>	<b>Scientific Name</b>
barley, hare	<i>Hordeum leporinum</i>
bromegrass	<i>Bromus</i> spp.
burclover, California	<i>Medicago polymorpha</i>
cheat	<i>Bromus secalinus</i>
datura	<i>Datura</i> spp.
dogfennel	<i>Eupatorium capillifolium</i>
eveningprimrose	<i>Oenothera</i> spp.
fescue, rattail	<i>Vulpia myuros</i>

filaree, whitestem  
goosefoot, nettleleaf  
goosegrass  
jimsonweed  
knotweed, silversheath

kochia  
medic, black  
mullein, turkey  
nettle, burning  
nettle, stinging  
ox tongue, bristly  
pimpernel, scarlet  
sandbur, field  
signalgrass  
sowthistle, spiny  
spurge, petty  
spurge, prostrate  
stinkgrass  
sunflower  
swinecress  
thistle, musk  
willoweed, panicle  
woodsorrel, creeping

*Erodium moschatum*  
*Chenopodium murale*  
*Eleusine indica*  
*Datura stramonium*  
*Polygonum*  
*argyrocoleon*  
*Kochia scoparia*  
*Medicago lupulina*  
*Eremocarpus setigerus*  
*Urtica urens*  
*Urtica dioica*  
*Picris echioides*  
*Anagallis arvensis*  
*Cenchrus incertus*  
*Brachiaria* spp.  
*Sonchus asper*  
*Euphorbia peplus*  
*Euphorbia humistrata*  
*Eragrostis ciliaris*  
*Helianthus* spp.  
*Coronopus didymus*  
*Carduus nutans*  
*Epilobium paniculatum*  
*Oxalis corniculata*

**In Addition to the Weeds Controlled, the Following Weeds Will Be Partially Controlled or Suppressed at 200 lb/acre (4.6 lb/1000 sq ft)**

<b>Common Name</b>	<b>Scientific Name</b>
bindweed, field	<i>Convolvulus arvensis</i>
carpetweed	<i>Mollugo verticillata</i>
dock, curly	<i>Rumex crispus</i>
johnsongrass (seedling)	<i>Sorghum halepense</i>
mallow, Venice	<i>Hibiscus trionum</i>
milkweed, honeyvine	<i>Ampelamus albidus</i>
morningglory, tall	<i>Ipomoea purpurea</i>
panicum, Texas	<i>Panicum texanum</i>
pusley, Florida	<i>Richardia scabra</i>
shattercane	<i>Sorghum bicolor</i>

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**Labeled Uses**

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**Ornamental Plantings**

Snapshot 2.5 TG is recommended as a preemergence treatment for control of certain broadleaf weeds and annual grasses in container grown ornamentals, landscape ornamentals, field grown ornamentals, ground covers/perennials, Christmas trees, non-bearing fruit and nut crops, and non-bearing vineyards. Apply Snapshot 2.5 TG anytime prior to germination of target weeds, or immediately after cultivation.

Refer to the "General Information" section of this label for General Use Precautions and information on application, application rates and weeds controlled.

### Special Use Precautions

To avoid possible injury, do not apply Snapshot 2.5 TG to:

- nursery, forest, or Christmas tree: seedling beds, cutting beds, or transplant beds.
- nursery seedbeds or forest or Christmas tree seedling transplant beds.
- unrooted liners or cuttings that have been planted in pots for the first time.
- pots less than four inches wide.
- bedding plants or areas where bedding plants will be planted or transplanted within one year following application.
- ground covers until they are established and well rooted.

Do not apply Snapshot 2.5 TG to newly transplanted ornamentals, nursery stock, Christmas trees, ground covers, non-bearing fruit and nut trees and non-bearing vineyards until soil or potting media has been settled by packing and irrigation or rainfall and no cracks are present or injury may occur.

Repeat applications at 150 pounds per acre and higher should not be made sooner than 60 days after a previous application of Snapshot 2.5 TG. Do not apply over 600 pounds per acre total of Snapshot 2.5 TG within a 12 month period.

Where loss of stand has occurred in field grown ornamentals, use untreated soil as fill around roots when replacing plants or injury may occur.

**Note: Injury on the following plant species has been observed following applications of Snapshot 2.5 TG and use is not recommended.**

*Acanthus mollis* (oak leaf acanthus)  
*Ajuga* spp. (bugle)  
*Arenaria montana* (mountain sandwort)  
*Brassica* spp. (mustard)  
*Dicentra luxuriant* (*luxuriant bleeding heart*)  
*Digitalis purpurea* (foxglove)  
*Echinacea purpurea* (purple coneflower)  
*Euonymus alatus 'compacta'* (dwarf burning bush)  
*Euphorbia* spp. (spurge)  
*Geranium cinereum 'Ballerina'* (*ballerina cranesbill*)  
*Gypsophila paniculata* (*white festival baby's breath*)  
*Hydrangea* spp. (*hydrangea*)  
*Iberis* spp. (candytuft)  
*Juniperus horizontalis 'Prince of Wales'* (*Prince of Wales juniper*)  
*Melaleuca quinquenervia* (*cajeput tree*)  
*Phlox paniculata* (*summer phlox*)  
*Pulmonaria longifolia* (*Bertram Anderson lingwort*)  
*Rhododendron carolinianum* (*Carolina rhododendron*)  
*Rhododendron catawbiense 'Roseum elegans'* (*Roseum elegans rhododendron*)  
*Sedum* spp. (*stonecrop*)  
*Vinca minor 'Atropurpurea'* (*wine periwinkle*)  
*Yucca recurvifolia* (*green yucca*)

### Snapshot 2.5 TG May Be used On the Following Established Plant Species

(Note: Limitations on recommended treatment methods)

Trees		Recommended Treatment Method: C = Container Grown F = Field Grown
Scientific Name	Common Name	
<i>Abies balsamea</i>	Fir, balsam	C, F
<i>Abies concolor</i>	Fir, white	F
<i>Abutilon hybridum</i>	Albus-flowering maple	C, F
	Luteus-flowering maple	C, F
	Roseus-flowering maple	C, F
	Tangerine-flowering maple	C, F
	Vesuvius red-flowering maple	F
<i>Acer ginnala</i>	Flame maple	F
<i>Acer rubrum</i>	Red maple	F
	Red sunset maple	F
<i>Acer saccharinum</i>	Silver maple	C, F
<i>Alsophila australis</i>	Australian tree fern	C, F
<i>Arecastrum romanzoffianum</i>	Queen palm	C, F
<i>Betula nigra</i>	Birch, river	C, F
<i>Betula papyrifera</i>	Paper birch	F
<i>Brachychiton populneus</i>	Bottle tree	C, F
<i>Bucida buceras</i>	Black olive	F
<i>Ceratonia siliqua</i>	Carob	F
<i>Cercis canadensis</i>	Redbud	C, F
<i>Chamaecyparis obtusa</i>	Filicoides-fernspray cypress	F
<i>Chamaecyparis obtusa</i>	Gracilis-slender Hinoki cypress	F
<i>Chamaecyparis pisifera</i>	Sawara-false cypress	F
	Squarrosa-moss cypress	F
<i>Chamaedorea</i>	Cat Palm	F
<i>cataractarum</i>	Palm	C, F
<i>Chamaedorea</i>	Palm	C, F
<i>costaricana</i>		
<i>Chamaedorea elegans</i>	Parlor palm	C, F
<i>Cornus florida</i>	Cloud nine dogwood	C, F
	Dogwood, flowering	C, F
<i>Crataegus viridis</i>	Green hawthorn	F
<i>Cryptomeria japonica</i>	Cryptomeria, Japanese	C, F
<i>Cupaniopsis</i>	Carrot wood	F
<i>anacardioides</i>		
<i>Cupressocyparis x 'Emerald Isle'</i>	Emerald island leyland cypress	C, F
<i>Cupressus arizonica</i>	Arizona cypress	
<i>Cupressus glabra</i>	Arizona cypress	F
<i>Cupressus sempervirens</i>	Italian cypress	C, F
<i>Dicksonia antarctica</i>	Tasmanian tree fern	C, F
<i>Elaeagnus angustifolia</i>	Russian olive	C, F
<i>Elaeagnus x 'Gilt edge'</i>	Gilt edge strawberry	C, F
<i>Eucalyptus camaldulensis</i>	Red gum eucalyptus	F
<i>Eucalyptus cinerea</i>	Eucalyptus, mealy	F
	Silver dollar eucalyptus	F
<i>Eucalyptus microtheca</i>	Coolibah tree	C, F
<i>Eucalyptus sideroxylon</i>	Eucalyptus, red ironbark	F
<i>Ficus benjamina</i>	Ficus	C, F
	Mini ficus	C, F
<i>Fraxinus udhei</i>	Shamel ash	C, F
<i>Ginkgo biloba</i>	Ginkgo (Maidenhair tree)	F

<i>Gleditsia triacanthos</i>	Honey locust	F
	Shademaster honey locust	F
<i>Heteromeles arbutiflora</i>	Toyon	F
<i>Illicium floridanum</i>	Florida anise-tree	C, F
<i>Juniperus virginiana</i>	Redcedar, Eastern	C, F
<i>Liquidambar styraciflua</i>	Sweetgum, American	F
<i>Magnolia grandiflora</i>	Magnolia, Southern	C, F
<i>Morus alba</i>	White mulberry	F
<i>Musa aluminata</i>	Banana	C, F
<i>Oxydendrum arboreum</i>	Sourwood	C, F
<i>Picea abies</i>	Pendula-weeping Norway spruce	C, F
	Repens-spreading Norway spruce	C, F
	Spruce, Norway	C, F
<i>Picea glauca</i>	Conica-dwarf Alberta spruce	C, F
<i>Picea glauca conica</i>	Dwarf Alberta spruce	F
<i>Picea pungens</i>	Dwarf globe blue spruce	C, F
	Glauca-Colorado blue spruce	C, F
	Hoopsii-Hoop's blue spruce	C, F
	Koster-Koster blue spruce	F
<i>Pinus aristata</i>	Bristlecone pine	F
<i>Pinus canariensis</i>	Canary Island pine	F
<i>Pinus contorta</i>	Shore pine, beach pine	F
<i>Pinus eldarica</i>	Eldarica pine	C, F
<i>Pinus leucodermis</i>	Bosnian pine	C, F
<i>Pinus mugo</i>	Pumilio-shrubby swiss mountain pine	C, F
<i>Pinus nigra</i>	Austrian black pine	C, F
<i>Pinus radiata</i>	Monterey pine	F
<i>Pinus strobus</i>	Eastern white pine	C, F
<i>Pinus strobus</i>	white pine	C, F
<i>Pinus sylvestris</i>	Columnar Scotch pine	C, F
	Scotch pine	C, F
<i>Pinus thunbergiana</i>	Japanese black pine	C, F
<i>Platanus occidentalis</i>	American sycamore	F
<i>Platanus racemosa</i>	Califorina sycamore	F
<i>Podocarpus</i> spp.	Podocarpus	F
<i>Populus deltoides</i>	Cottonwood	F
<i>Prosopis chilensis</i>	Chilean mesquite	C, F
<i>Prunus yedoensis</i>	Yoshino flowering cherry	F
<i>Quercus ilicifolia</i>	Bear oak	F
<i>Quercus palustris</i>	Pin oak	F
<i>Quercus phellos</i>	Willow oak	C, F
<i>Quercus rubra</i>	Red oak	C, F
<i>Quercus virginiana</i>	Live oak	C, F
<i>Salix babylonica</i>	Babylon weeping willow	F
	Corkscrew willow	F
<i>Sequoiadendron giganteum</i>	Giant sequoia	F
<i>Swietenia mahogany</i>	Mahogany	F
<i>Tabebuia caraiba</i>	Yellow tab	F
<i>Tsuga canadensis</i>	Eastern hemlock	C, F
<i>Ulmus parvifolia</i>	Chinese elm	F
<i>Washingtonia robusta</i>	Mexican fan palm	F

## Shrubs

## Recommended Treatment Method

C = Container Grown

F = Field Grown

Scientific Name	Common Name	
<i>Abelia grandiflora</i>	Edward Goucher abelia	C, F
	Glossy abelia	C, F
<i>Acacia abyssinica</i>	Abyssinica acacia	C, F
<i>Acacia redolens</i>	Acacia, prostrate	C, F
<i>Acacia stenophylla</i>	Shoestring acacia	C, F
<i>Acalypha wilkesiana</i>	Copper leaf	C, F
<i>Acer ginnala</i>	Amur maple	C, F
<i>Acer palmatum</i>	Coral bark Japanese maple	C, F
	Dwarf Japanese maple	C, F
<i>Agapanthus africanus</i>	Queen Anne Lily of the Nile	C, F
<i>Agave americana</i>	Century plant	F
<i>Anisodonta</i>	Cape mallow	C, F
<i>hypomandarum</i>		
<i>Aptenia cordifolia</i>	Red apple aptenia	C, F
<i>Ardisia japonica</i>	Chirimen marlberry	C, F
<i>Astible arendsii</i>	false spiraea	C, F
<i>Astilbe chinensis</i>	Astilbe/false spirea	C, F
<i>Athyrium nipponimcum</i>	Japanese painted fern	C, F
<i>Baccharis pilularis</i>	coyotebush	F
<i>Berberis gladwynensii</i>	William Penn barberry	C, F
<i>Berberis mentorensis</i>	Mentor barberry	C, F
<i>Berberis thunbergii</i>	Aurea-golden Japanese barberry	F
	Crimson pygmy barberry	C, F
	Rose glow barberry	C, F
	Atropurea-redleaf Japanese barberry	F
	Cherry bomb barberry	C, F
<i>Bougainvillea</i> spp.	Barbara Karst	C, F
	California gold	C, F
	Pink pixie	C, F
	Scarlet O'Hara	C, F
	Temple fire	C, F
	Texas dawn	C, F
<i>Buxus x 'Green velvet'</i>	Green velvet boxwood	C, F
<i>Buxus microphylla</i>	Boxwood, Japanese	C, F
<i>japonica</i>		
<i>Buxus microphylla</i>	Korean boxwood	F
<i>Koreana</i>		
<i>Buxus sempervirens</i>	Boxwood, common	C, F
<i>Callistemon citrinus</i>	Bottlebrush, lemon	F
<i>Callistemon viminalis</i>	Weeping bottlebrush	C, F
<i>Calluna vulgaris</i>	spring torch scotch heather	C, F
<i>Camellia japonica</i>	Camellia	C, F
<i>Caryopteris x clandonen</i>	Dark knight bluebeard	C, F
<i>Cassia artemisioides</i>	Cassia, feathery	C, F
<i>Ceanothus</i> spp.	Wild lilac	F
<i>Cephalotaxus drupacae</i>	Plum yew	C, F
<i>Cerastium tomentosum</i>	Snow-in-summer	C, F
<i>Chamaecyparis obtusa</i>	Kosteri cypress	C, F
	Nana-dwarf Hinoki cypress	C, F
	Torulosa cypress	C, F
<i>Chamaecyparis pisifera</i>	baileyi-dogwood	F
	Flaviramea-dogwood	F
	Squarrosa Minima cypress	C, F
<i>Chamaecyparis pisifera</i> spp.	Filifera-thread cypress	C, F

<i>Chrysalidocarpus lutescens</i>	Areca palm	F	<i>Hibiscus syriacus</i>	Rose of Sharon, Red Bird	C, F
<i>Clethra alnifolia</i>	Summersweet	C, F		Rose of Sharon, Red Heart	F
<i>Cleyera japonica</i>	Cleyera, Japanese	C, F		Rose of Sharon, Woodbridge	C, F
<i>Coleonema pulchrum</i>	Pink breath of heaven	C, F		Rose of Sharon, Aphrodite	
<i>Convolvulus cneorum</i>	Bush morning glory	C, F	<i>Ilex aquifolium</i>	Rose of Sharon, Helene	
<i>Cornus alba</i>	Sibirica-Siberian dogwood	C, F		Balkans holly	F
<i>Cornus stolonifera</i>	Baileyi-red-osier dogwood	F	<i>Ilex aquipernyi</i>	Gold coast holly	F
	Flaviramea-yellowtwig dogwood	F	<i>Ilex attenuata</i>	San Jose holly	C, F
<i>Cotinus coggygria</i>	Royal purple smoke tree	C, F	<i>Ilex cornuta</i>	Savannah holly	C, F
<i>Cotinus dammeri</i>	Coral beauty smoke tree	C, F		Burford holly	C, F
	Eichholz smoke tree	C, F		dwarf Burford holly	C, F
<i>Cotoneaster adpressus</i>	Praecox-early cotoneaster	C, F	<i>Ilex crenata</i>	needle point holly	C, F
<i>Cotoneaster apiculatus</i>	Cotoneaster, cranberry	C, F	<i>Ilex crenata</i>	Compacta-dwarf Japanese holly	C, F
<i>Cotoneaster congestus</i>	Cotoneaster, Pyrenees	C, F		Convexa holly	C, F
<i>Cotoneaster dammeri</i>	Cotoneaster, bearberry	C, F		Dwarf Chinese holly	C, F
<i>Cotoneaster himalayan</i>	Himalayan cotoneaster	C, F		Green luster holly	C, F
<i>Cotoneaster horizontalis</i>	Cotoneaster, rock	C, F		Helleri-Heller's Japanese holly	C, F
				Hetzii's Japanese holly	C, F
<i>Cotoneaster opiculata</i>	Cotoneaster	C, F	<i>Ilex glabra</i>	Stokesii Japanese holly	C, F
<i>Cycas revoluta</i>	Sago palm	C, F		compacta-compact inkberry holly	C, F
<i>Cytisus praecox</i>	Hollandia-warminster broom	C, F	<i>Ilex meserveae</i>	Nordica-inkberry holly	C, F
<i>Cytisus scoparius</i>	Lena-Scotch broom	C, F		Blue boy holly	C, F
<i>Cytisus spp.</i>	Hollandia-Scotch broom	F		Blue girl holly	C, F
<i>Daphne odora</i>	Fragrant daphne	C, F		China boy holly	
<i>Deutzia crenata</i>	Nakiana-dwarf deutzia	C, F		China girl holly	
<i>Deutzia gracilis</i>	Slender gracilis	C, F	<i>Ilex vomitoria</i>	Ebony magic holly	F
<i>Dodonea viscosa</i>	Hopseed bush	F		Nana-dwarf yaupon holly	C, F
<i>Elaeagnus pungens</i>	Fruitland silver berry	C, F		Pendula-weeping yaupon holly	C, F
<i>Erica cinerea</i>	Purple bell heather	C, F	<i>Illicium annisatum</i>	yaupon holly	C, F
<i>Erica vagans</i>	Cornish heather	C, F	<i>Itea ilicifolia</i>	Mystery gardenia	C, F
<i>Erica x darleyensa</i>	Mediterranean pink heather	C, F	<i>Ixora collinea</i>	Henry Garnet holly leaf sweetspire	C, F
<i>Eugenia myrtifolia</i>	Dwarf brush cherry	C, F	<i>Juniperus chinensis</i>	Ixora	C, F
<i>Euonymus x 'Aureo variegatus'</i>	Gold spot euonymus	C, F		hollywood juniper	C, F
<i>Euonymus x 'Chollipo'</i>	Chollipo euonymus	C, F		Media-old gold juniper	C, F
<i>Euonymus fortunei</i>	Canadale gold euonymus	C, F		pfitzer juniper	C, F
	Emerald'n gold euonymus	F		Pfitzerana glauca-blue juniper	C, F
	Sunspot euonymus	C, F		Pfitzerana-pfitzer juniper	C, F
<i>Euonymus japonica</i>	Silver king euonymus	F	<i>Juniperus conferta</i>	Sea green juniper	F
	Variiegated evergreen euonymus	C, F		Torulosa-hollywood juniper	C, F
<i>Euonymus kiatschovica</i>	Spreading euonymus	C, F		Emerald sea shore juniper	C, F
<i>Euonymus vegetus</i>	Bigleaf wintercreeper	C, F	<i>Juniperus horizontalis</i>	Shore juniper	C, F
<i>Euryops pectinatus</i>	Dwarf euryops	C, F		Andorra juniper	C, F
<i>Fatsyhedera japonica</i>		C, F		Bar Harbor juniper	C, F
<i>Fatsia japonica</i>	Japanese aralia	C, F		Blue chip juniper	C, F
<i>Felicia ameloides</i>	Blue marguerite	C, F		Blue rug juniper	C, F
<i>Forsythia intermedia</i>	Forsythia, border	C, F		Creeping juniper	C, F
<i>Forsythia x 'Spring glory'</i>	Spring glory forsythia	C, F		Dwarf Andorra juniper	C, F
<i>Gardenia jasminoides</i>	August beauty gardenia	C, F	<i>Juniperus procumbens</i>	Huntington blue juniper	C, F
	Gardenia	C, F		Plumosa-Andorra juniper	C, F
	Radican gardenia	C, F		Wiltonii-blue carpet juniper	C, F
<i>Gaultheria shallon</i>	Salal/lemon leaf	C, F	<i>Juniperus prostrata</i>	Nana-dwarf Japanese garden juniper	C, F
<i>Gelsemium sempervirens</i>	Carolina jessamine	C, F		Prostrata juniper	C, F
<i>Genista pilosa</i>	Woadwaxen	C, F			
<i>Hibiscus rosa-sinensis</i>	Ross Estey-hibiscus	C, F			



<i>Juniperus sabina</i>	Broadmoor juniper	C, F	<i>Pinus mugo</i>	Mugo-mugho pine	C, F
	Foemina-Hicks juniper	C, F	<i>Pittosporum tobira</i>	Green pittosporum	C, F
	Savin juniper	C, F		Wheeler's dwarf pittosporum	C, F
	Tamariscifolia-Tam juniper	C, F	<i>Plumbago ariculata</i>	Blue cape plumbago	F
<i>Juniperus scopulorum</i>	Emerald green juniper	F	<i>Plumbago capensis</i>	Plumbago	C, F
<i>Juniperus squamata</i>	Blue juniper	C, F	<i>Podocarpus</i>	Yewpine	C, F
	Blue star juniper	C, F	<i>macrophyllus</i>		
	Parsonii juniper	C, F	<i>Polygala dalmatiana</i>	Sweet pea shrub	C, F
<i>Kalmia latifolia</i>	Laurel, mountain	C, F	<i>Polystichum</i>	Tassel fern	C, F
<i>Lagerstroemia indica</i>	Crape myrtle	C, F	<i>polyblepharum</i>		
<i>Lantana</i> spp.	Lantana	C, F	<i>Potentilla fragiformis</i>	Cinquefoil	F
<i>Lavandula angustifolia</i>	English lavender	C, F	<i>Potentilla fruticosa</i>	Cinquefoil	C, F
<i>Lavandula latifolia</i>	English spike lavender	C, F		Gold drop potentilla	F
<i>Lavandula officianalis</i>	English lavender	C, F		Goldfinger potentilla	C, F
<i>Leptospermum scoparium</i>	New Zealand tea tree	C, F		Red ace potentilla	C, F
				Sunset potentilla	C, F
<i>Leucothoe axillaris</i>	Leucothoe, coast	C, F		Tangerine potentilla	C, F
<i>Leucothoe fontanesiana</i>	Leucothoe, drooping	C, F	<i>Potentilla verna</i>	Spring cinquefoil	C, F
<i>Ligustrum japonicum</i>	Privet, Japanese wax ligustrum	C, F	<i>Prunus glandulosa</i>	Dwarf pink flowering almond	C, F
	wax ligustrum	C, F	<i>Pyracantha fortuneana</i>	Lolendei Monrovia pyracantha	C, F
	yellow tip ligustrum	C, F		Monon pyracantha	F
<i>Ligustrum lucidum</i>	Privet, glossy	C, F		Red elf hybrid pyracantha	F
<i>Ligustrum ovalifolium</i>	California privet	F		Rutgers hybrid pyracantha	C, F
<i>Ligustrum texanum</i>	Howardi privet	C, F		Santa Cruz pyracantha	C, F
	wax leaf privet	C, F		Victory pyracantha	F
<i>Ligustrum vicaryi</i>	Privet, golden	F	<i>Raphiolepis indica</i>	Charisma-Monruce raphiolepis	C, F
	Vicary golden privet	F		Enchantress-Monness raphiolepis	F
<i>Ligustrum vulgare</i>	Lodense privet	C, F		Raphiolepis (India hawthorn)	C, F
<i>Livistona chinensis</i>	Chinese fountain palm	F		Springtime-Monme raphiolepis	F
<i>Lonicera fragrantissima</i>	Winter honeysuckle	C, F	<i>Raphiolepis ovata</i>	Roundleaf raphiolepis	C, F
<i>Lonicera periclymenum</i>	Flowering woodbine	C, F	<i>Rhododendron calendulaceum</i>	Cannon's double azalea	C, F
	Serotina woodbine	C, F		Flame azalea	F
<i>Lonicera sempervirens</i>	Trumpet honeysuckle	C, F		Golden flare azalea	C, F
<i>Loropetalum chinense</i>	Fringe flower	C, F	<i>Rhododendron campylocarpum</i>	Klondike azalea	C, F
<i>Mahonia aquifolium compacta</i>	Dwarf Oregon grape	C, F	<i>Rhododendron carolinianum x daurium</i>	Butterfly rhododendron	F
<i>Mahonia bealei</i>	Leather leaf mahonia	C, F	<i>Rhododendron catawbiense</i>		
<i>Mahonia repens</i>	Creeping mahonia	C, F		Catawba album rhododendron	C, F
<i>Myrica cerifera</i>	Wax myrtle	C, F		Catawba rhododendron	C, F
<i>Nandina domestica</i>	Compacta-dwarf heavenly bamboo	C, F		Lord Roberts rhododendron	C, F
	Harbour dwarf-heavenly bamboo	C, F		Rocket rhododendron	C, F
	Heavenly bamboo (Nandina)	C, F	<i>Rhododendron caucasicum x ponticum</i>	Cunninham White rhododendron	C, F
	Nana compacta-heavenly bamboo	C, F	<i>Rhododendron exbury</i>		
	Nana purpurea-heavenly bamboo	C, F		Cannon's double azalea	C, F
	Woods dwarf-heavenly bamboo	C, F		golden flare azalea	C, F
<i>Nerium oleander</i>	Hardy red oleander	C, F		Klondike azalea	C, F
	Oleander	C, F	<i>Rhododendron forrestii repens</i>	Gomer Waterer rhododendron	C, F
	Ruby lace oleander	C, F	<i>Rhododendron forrestii x griersonianum</i>		
<i>Osmanthus fortunei</i>	Fortunes osmanthus	C, F	<i>Rhododendron griffithianum</i>	Elizabeth rhododendron	C, F
<i>Pachysandra terminalis</i>	Japanese spurge	C, F		Jean Marie rhododendron	C, F
<i>Phoenix roelofenii</i>	Pigmy date palm	C, F			
<i>Photinia fraseri</i>	Fraser's photinia	C, F			
<i>Pieris japonica</i>	Lily-of-the-valley	C, F			
	Mountain fire lily-of-the-valley	C, F			
	Snowdrift lily-of-the-valley	C, F			
	Temple bells lily-of-the-valley	C, F			
	Valley rose lily-of-the-valley	C, F			
	Valley valentine lily-of-the-valley	C, F			
<i>Pieris japonica x forestii</i>	Forest flame lily-of-the-valley	C, F			

<i>Rhododendron hybrid</i> spp.	America rhododendron	C, F	<i>Solanum rantonetii</i>	Paraguay nightshade	C, F
	English Roseum rhododendron	F	<i>Spiraea bumalda</i>	Anthony Waterer spiraea	C, F
	Nova Zembla rhododendron	C, F	<i>Spiraea x cinerea</i>	First snow spiraea	
	Scintillation rhododendron	C, F	'Grefsheim'		
<i>Rhododendron impeditum</i>	Rhododendron	C, F	<i>Spiraea japonica</i>	Dolchia spiraea	C, F
<i>Rhododendron indica</i>	Formosa azalea	C, F		Japanese alpine spiraea	C, F
<i>Rhododendron indica</i>	Waucabusa azalea	C, F	<i>Spiraea vanhouttei</i>	Shirobana spiraea	C, F
<i>Rhododendron kaempferi</i>	Blue danube azalea	C, F	<i>Syringa rothomagensis</i>	Bridal wreath	C, F
<i>Rhododendron kerume</i>	Coral bells azalea	C, F	<i>Syringa vulgaris</i>	Chinese lilac	C, F
	Hino crimson azalea	C, F	<i>Taxus cuspidata</i>	Lilac, common	F
	Hino pink azalea	C, F	<i>Tecomaria capensis</i>	Yew, Japanese	F
	Mildred azalea	C, F	<i>Temstroemia gymnanthera</i>	Cape honeysuckle	C, F
	Snow azalea	C, F	<i>Thuja occidentalis</i>	Ternstroemia, Japanese	C, F
<i>Rhododendron maximum</i>	Rhodie max (rosebay)	C, F		Emerald arborvitae	C, F
<i>Rhododendron mucronulatum</i>	Rhododendron	F		Globosa-globe arborvitae	C, F
<i>Rhododendron obtusum</i>	Hino-crimson azalea	C, F		Little giant-dwarf arborvitae	C, F
<i>Rhododendron ponticum</i>	Chioniodes rhododendron	C, F		Nigra-dark American arborvitae	C, F
<i>Rhododendron ponticum</i>	Daphnoides rhododendron	C, F	<i>Thuja occidentalis</i>	Pyramidalis arborvitae	C, F
<i>Rhododendron x 'purple gem'</i>	Purple gem rhododendron	C, F	<i>Thuja orientalis</i>	Rheingold arborvitae	C, F
<i>Rhododendron racemosum</i>	Dwarf scarlet wonder rhododendron	C, F		Techny arborvitae	F
	Tribly rhododendron	C, F		Woodwardii arborvitae	C, F
	Unique rhododendron	C, F	<i>Veitchia merrilli</i>	Aureus nana-dwarf golden arborvitae	C, F
	Vulcan rhododendron	C, F	<i>Viburnum bodnantense</i>	Minima glauca-dwarf arborvitae	C, F
<i>Rhododendron sassthigiatim x carolinianum</i>	Ramapo rhododendron	C, F	<i>Viburnum carlesii</i>	Christmas palm	F
<i>Rhododendron satuski</i>	Gumpo pink azalea	C, F	<i>Viburnum davidii</i>	Pink dawn viburnum	C, F
	Higasa azalea	F	<i>Viburnum japonicum</i>	Koreanspice viburnum	C, F
	Reijn azalea	C, F	<i>Viburnum judd</i>	David viburnum	C, F
<i>Rhododendron spp. hybrids</i>	Carror azalea	C, F	(v. <i>X juddii</i> )	Viburnum	F
	Fashion azalea		<i>Viburnum lantana</i>	Viburnum	C, F
	Gerard Christina azalea	F	<i>Viburnum lanata</i>	Wayfaring tree	F
	Girard Roberta azalea	C, F	<i>Viburnum opulus sterile</i>	Common snowball viburnum	F
	Golden flare exbury azalea	F	<i>Viburnum plicatum tomentosum</i>	Doublefile viburnum	C, F
	Helmut vogel azalea	F	<i>Viburnum setigerum</i>	Tea viburnum	F
	Hersey red azalea	F	<i>Viburnum tinus compactum</i>	Spring bouquet viburnum	F
	Hot shot azalea	C, F	<i>Viburnum trilobum</i>	Cranberry bush	C, F
	Hume azalea	F	<i>Viburnum trilobum compactum</i>	Dwarf cranberry bush	C, F
	Inga azalea	F	<i>Viburnum x pragense</i>	Viburnum	C, F
	Irene Koster azalea	C, F	<i>Weigela florida</i>	Bristol ruby weigela	C, F
	President Clay azalea	C, F		Java red weigela	C, F
	Tradition azalea	C, F	<i>Xylosma congestum</i>	Minuet weigela	C, F
<i>Rhus lancea</i>	Sumac, African	C, F	<i>Yucca filamentosa</i>	Xylosma	F
<i>Rosa rugosa</i>	Ramanas rose	C, F		Yucca	C, F
<i>Rosmarinus officinalis</i>	Rosemary	F			
<i>Senecio cineraria</i>	Dusty-miller/silver ragweed	C, F			
<i>Skimmia japonica</i>	Japanese skimmia	C, F			
<i>Skimmia revesiana</i>	Reeve's skimmia	C, F			

**Groundcovers/  
Perennials**

**Recommended Treatment Method:**  
C = Container Grown  
F = Field Grown

Scientific Name	Common Name				
<i>Achillea millefolium</i>	Common yarrow	C, F	<i>Fuchsia x 'Santa Claus'</i>	Santa Claus Fuchsia	C, F
<i>Agapanthus africanus</i>	Lily of the Nile	C, F	<i>Gaillardia aristata</i>	Blanket flower	C, F
<i>Agapanthus "Peter Pan"</i>		C, F	<i>Gaillardia grandiflora</i>	Goblin blanket flower	C, F
<i>Alstroemeria aurea</i>	Peruvian lily	C, F	<i>Gaura lindheimeri</i>	Gaura	C, F
<i>Ammophila breviligulata</i>	Beechgrass	C, F	<i>Gazania rigens</i>	Gazania, trailing	C, F
<i>Antirrhinum majus</i>	Snapdragon	C, F	<i>leucolaena</i>		
<i>Arctotheca calendula</i>	Cape weed	F	<i>Gazania</i> spp.	Gazania	C, F
<i>Argyranthemum frutescens</i>	Paris daisy	C, F	<i>Geranium incanum</i>	Cranesbill	C, F
<i>Artemisia schmidtiana</i>	Angels' hair	C, F	<i>Geranium subcaulescens</i>	Black eyed magenta cranesbill	C, F
<i>Asparagus retrofractus</i>	Fern	C, F	<i>Hakonechloa macroaureola</i>	Golden hakonechloa	C, F
<i>Asteriscus maritimus</i>	Gold coin daisy	C, F	<i>Hedera canariensis</i>	Ivy, Algerian	F
<i>Astilbe Deutschland</i>	Deutschland astilbe	C, F	<i>Hedera helix</i>	Ivy, English	C, F
<i>Asparagus retrofractus</i>	(No common name)	C, F	<i>Helichrysum petiolatum</i>	White licorice plant	C, F
<i>Asparagus variegata</i>	Tree fern	C, F	<i>Hemerocallis</i> spp.	Daylily	C, F
<i>Aster novae-angliae</i>	New England aster	C, F	<i>Hesperaloe parviflora</i>	Red yucca	C, F
<i>Aster novi-belgii</i>	New York aster	C, F	<i>Heuchera americana</i>	Palace purple	C, F
<i>Begonia cordifolia</i>	Heartleaf begonia	C, F	<i>Heuchera micrantha</i>	Coral bells	C, F
<i>Begonia semperflorans</i>	White ambassador begonia	C, F	<i>Hippeastrum hybrid</i>	Amaryllis	C, F
<i>Bidens ferulifolia</i>	Peter's Gold Bidens	C, F	<i>Hosta 'Francee'</i>	Francee plantain lily	C, F
<i>Brachycome x 'New amethyst'</i>	Swan River Daisy New Amethyst	C, F	<i>Hosta lancifolia</i>	Albo-marginata hosta	C, F
<i>Callistephus chinensis</i>	China aster	C, F	<i>Hosta 'Patriot'</i>	Patriot plantain lily	C, F
<i>Carex</i> spp.	Variiegated carex	C, F	<i>Hymenoxys acaulis</i>	Angelita daisy	C, F
<i>Carpobrotus edulis</i>	Ice plant, largeleaf (see label)	F	<i>Hypericum</i> spp.	St. Johnswort	C, F
<i>Catharanthus roseus</i>	Madagascar periwinkle	C, F	<i>Impatiens wallerana</i>	Busy lizzie	C, F
<i>Cerastium tomentosum</i>	Snow in the summer	C, F	<i>Iris pumila</i>	Yellow dwarf bearded iris	C, F
<i>Ceratostigma plumbaginoides</i>	Dwarf plumbago	C, F	<i>Iris siberica</i>	Blue siberian iris	C, F
<i>Chrysanthemum morifolium</i>	Florist's chrysanthemum	C, F	<i>Jasminum nitidum</i>	Angelwing jasmine	C, F
<i>Chrysanthemum sp.</i>	Chrysanthemum species	C, F	<i>Lampranthus spectabilis</i>	Trailing iceplant	F
<i>Clematis integrifolia caerulea</i>	Blue bell clematis	C, F	<i>Leptospermum scoparium</i>	Broom teatree/manuka	C, F
<i>Clivia miniata</i>	Kafir lily	C, F	<i>Liatris spicata</i>	Gay feather	C, F
<i>Coreopsis verticillata</i>	Coreopsis, threadleaf	C, F	<i>Limonium perezii</i>	Statice	C, F
<i>Cortaderia selloana</i>	Pampas grass	C, F	<i>Liriope gigantea</i>	White lily turf	C, F
<i>Cuphea hyssopifolia</i>	False or Mexican heather	C, F	<i>Liriope muscari</i>	Lilac beauty lily turf	C, F
<i>Cyperus albostratus</i>	Dwarf umbrella grass	C, F	<i>Liriope spicata</i>	green/creeping lily turf	C, F
<i>Dahlia x 'Royal dahlia pink'</i>	Dwarf dahlia Wendy pink	C, F	<i>Lobelia erinus</i>	Lobelia	C, F
<i>Delosperma alba</i>	White iceplant	F	<i>Lobularia maritima</i>	Sweet alyssum	C, F
<i>Descampsia caespitosa</i>	Descampsia	C, F	<i>Lonicera japonica</i>	Honeysuckle, Japanese	F
<i>Dianthus gratianopolitanus</i>	Crimson treasure cheddar pink	C, F	<i>Lysimachia punctata</i>	Dotted loosestrife	C, F
<i>Dietes vegeta</i>	Fortnight lily	C, F	<i>Mathiola incana</i>	Stock	C, F
<i>Drosanthemum floribundum</i>	Trailing rosea iceplant	F	<i>Miscanthus sinensis</i>	Eulalia grass	C, F
<i>Drosantheumum hispidum</i>	Iceplant	C, F	<i>Monarda didyma</i>	Bee balm	C, F
<i>Ensete ventricosum</i>	Red abyssinian banana	C, F	<i>Moraea iridiodes</i>	African iris	C, F
<i>Equisetum scirpoides</i>	Dwarf horsetail	C, F	<i>Oenothera speciosa</i>	Siskiyou evening primrose	C, F
<i>Erianthus ravennae</i>	Hardy pampasgrass	C, F	<i>Ophiopogon japonicus</i>	Dwarf Mondo grass	C, F
<i>Erysimum "Bowles mauve"</i>	Wallflower	C, F	<i>Osteospermum fruticosum</i>	Mondo grass	C, F
<i>Euryops pectinatus</i>	Dwarf euryops	C, F	<i>Pachysandra terminalis</i>	Freeway daisy	C, F
<i>Eustoma grandiflorum</i>	Pink lisianthus	C, F	<i>Parthenocissus quinquefolia</i>	Japanese spurge	C, F
<i>Festuca ovina glauca</i>	Blue fescue	C, F	<i>Pelargonium x hortorum</i>	Virginia creeper	C, F
			<i>Pelargonium peltatum</i>	Zonal geranium	C, F
			<i>Pennisetum alopecuroides</i>	Ivy geranium	C, F
				Fountain grass	C, F

<i>Pennisetum setaceum</i>	Chrimson fountaingrass	C, F
<i>Pentas lanceolata</i>	Star cluster	C, F
<i>Penstemon x</i> 'Apple blossom'	Apple blossom penstemon	C, F
<i>Penstemon</i> <i>gentianoides</i>	Hartwig penstemon	C, F
<i>Perovskia atriplicifolia</i>	Russian sage	C, F
<i>Petunia-hybrids</i>	Garden petunias	C, F
<i>Phalaris arundinacea</i> <i>picta</i>	Ribbon grass	C, F
<i>Ratibida columnifera</i>	Mexican hat	C, F
<i>Rudbeckia fulgida</i>	Blackeyed Susan	C, F
<i>Rudbeckia hirta</i>	Blackeyed Susan	C, F
<i>Ruellia brittoniana</i>	Dwarf Katie ruellia	C, F
<i>Salvia grahamii</i>	Graham's sage	C, F
<i>Salvia leucantha</i>	Mexican bush sage	C, F
<i>Sedum x 'Autumn joy'</i>	Autumn joy stonecrop	C, F
<i>Sedum x 'Vera jameson'</i>	Vera jameson stonecrop	C, F
<i>Targetes patula</i> 'Little hero'	Little hero marigold	C, F
<i>Trachelospermum</i> <i>asiaticum</i>	Asian jasmine	C, F
<i>Tulbaghia violacea</i>	Society garlic	C, F
<i>Verbena peruviana</i>	St. Paul verbena	C, F
<i>Vinca major</i>	Periwinkle, bigleaf	C, F
<i>Vinca minor</i>	Periwinkle, dwarf	F
<i>Vinca</i> spp.	Periwinkle	F
<i>Zinnia elegans</i>	Dwarf zinnia	C, F

**Non-bearing Fruit and Nut Tree and Non-bearing Vineyards†**

**Recommended Treatment Method:**  
**C = Container Grown**  
**F = Field Grown**

**Common Name**

almond	F
apple	F
apricot	F
avocado	F
blackberry	F
blueberry	F
boysenberry	F
cherry, sour	F
cherry, sweet	F
currant	F
dewberry	F
elderberry	F
fig	F
filbert	F
gooseberry	F
grape, American	F
grape, European	F
grapefruit	F
kiwi	F
lemon	F
loganberry	F
macadamia nut	F
nectarine	F
olive	F
orange	F
peach	F
pear	F

pecan	F
pistachio	F
plum	F
pomegranate	F
prune	F
raspberry	F
walnut, black	F
walnut, English	F

†Non-bearing fruit and nut trees and non-bearing vineyards are defined as plants which will not bear fruit for at least one year after treatment.

**Ornamental Bulbs**

Do not use Snapshot 2.5 TG in bulb production fields. For use in landscape settings only.

Snapshot 2.5 TG may be applied for control of susceptible annual weeds in ornamental bulbs, e.g., bulbous iris, daffodil (narcissus), hyacinth and tulip. Apply Snapshot 2.5 TG to the soil surface 2 to 4 weeks after planting, but prior to the emergence of annual weeds. Snapshot 2.5 TG may also be applied following bulb emergence but prior to flowering and after flowering. For fall planted bulbs, apply Snapshot 2.5 TG again in late winter or early spring to weed-free soil surfaces.

**Special Use Precautions:**

Do not apply to tulip plants that have emerged to a height greater than 3/4 inch.

Do not apply to gladiolus prior to emergence or if corms are less than one inch in diameter.

Do not apply to bulbs while they are flowering.

**Shadehouse Areas**

Snapshot 2.5 TG may be applied in open shadehouse-type structures where the natural flow of air is unimpeded. Do not apply in enclosed greenhouses or in enclosed shadehouse-type structures. Do not apply within three weeks prior to enclosing greenhouse or poly-type structures.

**Noncropland**

Snapshot 2.5 TG is recommended as a preemergence treatment for control of certain broadleaf weeds and annual grasses on non-cropland areas such as industrial sites, utility substations, highway guardrails, sign posts, delineators, etc. Apply Snapshot 2.5 TG anytime prior to germination of target weeds. Areas to be treated should be free of established weeds or existing weeds should be controlled with postemergence herbicides.

Refer to the "General Information" section of this label for General Use Precautions and information on Application, Application Rates, and Weeds Controlled.

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### **Terms and Conditions of Use**

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If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

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### **Warranty Disclaimer**

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Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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### **Inherent Risks of Use**

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It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

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### **Limitation of Remedies**

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The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer and Inherent Risks of Use above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of the Seller or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

\*Trademark of Dow AgroSciences LLC  
**Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.**

Label Code: D02-082-016  
Replaces Label: D02-082-015

EPA-Accepted 03/20/2002

#### **Revisions:**

#### **Label Changes by Amendment EPA-accepted June 19, 2000:**

1. **Precautionary Statements:** Revised First Aid statement text in accordance with new EPA requirements.
2. **Directions for Use:** (1) Added comment regarding accidental application to turfgrasses adjacent to ornamental plantings. (2) Expanded listing of ornamental plant species (39 new tree, shrub and perennial/ground cover species added) in which Snapshot 2.5 TG may be applied at labeled rates.



# SAFETY DATA SHEET

## DOW AGROSCIENCES LLC

**Product name: SNAPSHOT™ 2.5 TG HERBICIDE**

**Issue Date: 05/15/2015**

**Print Date: 05/26/2015**

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. IDENTIFICATION

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**Product name: SNAPSHOT™ 2.5 TG HERBICIDE**

**Recommended use of the chemical and restrictions on use**

**Identified uses:** End use herbicide product

### COMPANY IDENTIFICATION

DOW AGROSCIENCES LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS IN 46268-1053  
UNITED STATES

**Customer Information Number:**

800-992-5994  
[info@dow.com](mailto:info@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 800-992-5994

**Local Emergency Contact:** 352-323-3500

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Acute toxicity - Category 3 - Inhalation

Carcinogenicity - Category 1A

Specific target organ toxicity - repeated exposure - Category 1

### Label elements

#### Hazard pictograms



Signal word: **DANGER!**

**Hazards**

Toxic if inhaled.

May cause cancer.

Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements****Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Use personal protective equipment as required.

**Response**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician.

IF exposed or concerned: Get medical advice/ attention.

**Storage**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

**Disposal**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

no data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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This product is a mixture.

<b>Component</b>	<b>CASRN</b>	<b>Concentration</b>
Isoxaben	82558-50-7	0.5%
Trifluralin	1582-09-8	2.0%
Clays, Fuller's earth	8031-18-3	>= 78.5 - <= 86.4 %
Silica, crystalline (quartz)	14808-60-7	>= 0.9 - <= 8.7 %
Balance	Not available	>= 2.4 - <= 18.1 %

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## 4. FIRST AID MEASURES

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### Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

**Skin contact:** 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.

**Eye contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

**Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

### Indication of any immediate medical attention and special treatment needed

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

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## 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

**Unsuitable extinguishing media:** no data available

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen fluoride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** None known.

### Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination.



This material does not burn. Fight fire for other material that is burning. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Keep upwind of spill. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep out of reach of children. Do not swallow. Avoid breathing dust or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Store in a dry place. Store in original container. Do not store near food, foodstuffs, drugs or potable water supplies.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Silica, crystalline (quartz)	OSHA Z-1		
	OSHA Z-3	TWA total dust	30 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2
	OSHA Z-3	TWA respirable	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2
	OSHA Z-3	TWA respirable	250 mppcf / %SiO <sub>2</sub> +5
	ACGIH	TWA Respirable fraction	0.025 mg/m <sup>3</sup> , Silica

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

### Exposure controls

**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

#### Individual protection measures

**Eye/face protection:** Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

#### Skin protection

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Wear clean, body-covering clothing.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

<b>Physical state</b>	Granules.
<b>Color</b>	Yellow
<b>Odor</b>	Aromatic
<b>Odor Threshold</b>	No test data available
<b>pH</b>	7.5 (50% dispersion)
<b>Melting point/range</b>	No test data available
<b>Freezing point</b>	Not applicable
<b>Boiling point (760 mmHg)</b>	Not applicable
<b>Flash point</b>	<b>closed cup</b> Not applicable
<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not applicable
<b>Flammability (solid, gas)</b>	No
<b>Lower explosion limit</b>	Not applicable
<b>Upper explosion limit</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Relative Vapor Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	Not applicable

<b>Water solubility</b>	No test data available
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Auto-ignition temperature</b>	> 537 °C (> 999 °F)
<b>Decomposition temperature</b>	No test data available
<b>Dynamic Viscosity</b>	Not applicable
<b>Kinematic Viscosity</b>	Not applicable
<b>Explosive properties</b>	no data available
<b>Oxidizing properties</b>	no data available
<b>Liquid Density</b>	Not applicable
<b>Bulk density</b>	0.70 g/cm <sup>3</sup> <i>Loose Volumetric</i>
<b>Molecular weight</b>	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** no data available

**Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Active ingredient decomposes at elevated temperatures. Avoid direct sunlight or ultraviolet sources.

**Incompatible materials:** Avoid contact with: Strong oxidizers. Strong acids.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Nitrogen oxides. Hydrogen fluoride.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product:

LD50, Rat, > 2,500 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:  
LD50, Rabbit, > 5,000 mg/kg

**Acute inhalation toxicity**

As product:  
LC50, Rat, male, 4 Hour, Dust, > 4.6 mg/l  
As product:  
LC50, Rat, female, 4 Hour, Dust, > 0.5 - < 4.6 mg/l  
Excessive exposure may cause irritation to upper respiratory tract (nose and throat).  
Prolonged excessive exposure may cause serious adverse effects, even death.

**Skin corrosion/irritation**

Prolonged contact may cause slight skin irritation with local redness.

**Serious eye damage/eye irritation**

Solid or dust may cause irritation due to mechanical action.

**Sensitization**

Did not cause allergic skin reactions when tested in guinea pigs.  
Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:  
No relevant information found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For the active ingredient(s):  
In animals, effects have been reported on the following organs:  
Kidney.  
Liver.  
Blood.  
Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs.

**Carcinogenicity**

Crystalline silica has been shown to cause cancer in laboratory animals and humans. An increase in nonmalignant liver tumors was observed with isoxaben in one of two species tested. A low incidence of urinary tract tumors was seen in only 1 of 5 chronic studies in rats with trifluralin. Trifluralin is not anticipated to be a carcinogenic risk to man.

**Teratogenicity**

For the active ingredient(s): Trifluralin. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Isoxaben. Has caused birth defects in laboratory animals only at doses toxic to the mother.

**Reproductive toxicity**

For the active ingredient(s): Isoxaben. In animal studies, has been shown to interfere with reproduction in females.

**Mutagenicity**

For the active ingredient(s): Trifluralin. In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

Based on information for component(s): Crystalline Silica. In vitro genetic toxicity studies were negative in some cases and positive in other cases.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Carcinogenicity**

Component	List	Classification
Silica, crystalline (quartz)	IARC ACGIH	Group 1: Carcinogenic to humans A2: Suspected human carcinogen

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

**Toxicity****Acute toxicity to fish**

LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, 230 mg/l

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia pulex (Water flea), 48 Hour, > 1,000 mg/l

**Acute toxicity to algae/aquatic plants**

ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, > 1,000 mg/l

**Toxicity to Above Ground Organisms**

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50, Colinus virginianus (Bobwhite quail), > 2000mg/kg bodyweight.

**Toxicity to soil-dwelling organisms**

LC50, Eisenia fetida (earthworms), 14 d, survival, > 10,000 mg/kg

**Persistence and degradability****Isoxaben**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Biodegradation rate may increase in soil and/or water with acclimation.

**Theoretical Oxygen Demand:** 1.98 mg/mg

**Chemical Oxygen Demand:** 1.77 mg/g

**Stability in Water (1/2-life)**

Hydrolysis, half-life, > 5 d, pH 7.0

**Photodegradation**

**Test Type:** Half-life (direct photolysis)

**Method:** Measured

**Photodegradation**

**Test Type:** Half-life (direct photolysis)

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 0.628 Hour

**Method:** Estimated.

**Trifluralin**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 5 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301B or Equivalent

**Chemical Oxygen Demand:** 1.37 mg/mg

**Stability in Water (1/2-life)**

Hydrolysis, half-life, > 1 year, pH 3 - 9, Measured

Photolysis, half-life, 0.19 - 3.08 Hour, Measured

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 5.347 Hour

**Method:** Estimated.

**Clays, Fuller's earth**

**Biodegradability:** Biodegradation is not applicable.

**Silica, crystalline (quartz)**

**Biodegradability:** Biodegradation is not applicable.

**Balance**

**Biodegradability:** No relevant data found.

**Bioaccumulative potential**

**Isoxaben**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.64 Measured

**Trifluralin**

**Bioaccumulation:** Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**Partition coefficient: n-octanol/water(log Pow):** 5.27

**Bioconcentration factor (BCF):** 1,060 - 6,000 *Pimephales promelas* (fathead minnow) Estimated.

**Clays, Fuller's earth**

**Bioaccumulation:** Partitioning from water to n-octanol is not applicable.

**Silica, crystalline (quartz)**

**Bioaccumulation:** Partitioning from water to n-octanol is not applicable.

**Balance**

**Bioaccumulation:** No relevant data found.

**Mobility in soil**

**Isoxaben**

Potential for mobility in soil is low (Koc between 500 and 2000).

**Partition coefficient(Koc):** 700 - 1290

**Clays, Fuller's earth**

No relevant data found.

**Silica, crystalline (quartz)**

No relevant data found.

**Balance**

No relevant data found.

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### 13. DISPOSAL CONSIDERATIONS

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**Disposal methods:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

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### 14. TRANSPORT INFORMATION

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**DOT**

<b>Proper shipping name</b>	Environmentally hazardous substance, solid, n.o.s.(Trifluralin)
<b>UN number</b>	UN 3077
<b>Class</b>	9
<b>Packing group</b>	III
<b>Reportable Quantity</b>	Trifluralin

**Classification for SEA transport (IMO-IMDG):**

**Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code**      Not regulated for transport  
Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**15. REGULATORY INFORMATION**

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**OSHA Hazard Communication Standard**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Acute Health Hazard  
Chronic Health Hazard

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:**

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

<b>Components</b>	<b>CASRN</b>
Trifluralin	1582-09-8
Silica, crystalline (quartz)	14808-60-7

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:**



To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

#### United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

#### Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number: 62719-175

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

#### CAUTION

Causes moderate eye irritation

Harmful if swallowed or inhaled

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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## 16. OTHER INFORMATION

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#### Hazard Rating System

##### NFPA

Health	Fire	Reactivity
2	1	0

#### Revision

Identification Number: 101204129 / A211 / Issue Date: 05/15/2015 / Version: 3.0

DAS Code: FN-3278

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

#### Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
TWA	8-hour, time-weighted average

#### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is

provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.