

PMRA Approved  
20219-2605  
2020-09-04

GROUP	2	HERBICIDE
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Container

## **Katana™ 25WG Herbicide**

**COMMERCIAL**

**WATER DISPERSIBLE GRANULE**

A HERBICIDE FOR USE IN CONIFER TREES (ORNAMENTALS, CHRISTMAS TREES, CONIFER RELEASE AND FORESTRY)

ACTIVE INGREDIENT: Flazasulfuron .....25.0 %

REGISTRATION NO: 33129 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND BOOKLET BEFORE USING  
KEEP OUT OF REACH OF CHILDREN

Net Contents: 0.1-60 kg

Manufactured by:  
ISK Biosciences Corporation  
7470 Auburn Road, Suite A  
Concord, Ohio  
44077  
USA  
1-877-706-4640

Distributed By:  
Belchim Crop Protection Canada  
104 Cooper Drive, Unit 3  
Guelph, ON  
N1C 0A4  
Canada  
866-613-3336

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

Avoid breathing vapor or spray mist. Do not swallow or allow to absorb through the skin. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash separately from other laundry before reuse.

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing and loading. Gloves are not required during application within a closed cab and/or cockpit. Mixers and loaders must wear chemical-resistant coveralls and chemical-resistant footwear, in addition to wearing the personal protective equipment (PPE) listed above, when using groundboom equipment and handling more than 48kg of Katana 25WG Herbicide in a day. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protection equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Keep and wash PPE separately from other laundry.

Do not graze treated fields to livestock.

DO NOT apply by air unless otherwise specified under a restricted use on the label.

Do not apply using handheld misting or fogging equipment.

Do not apply to plants that are under stress due to drought, standing water, heavy insect and/or disease pressure, low soil fertility etc.

Do not incorporate into the soil.

Do not apply through any irrigation system.

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

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

Do not use in residential areas. Residential areas are defined as any use site where bystanders including children could be exposed during or after application. This includes homes, schools, parks, playgrounds, playing fields, public buildings, or any other area where the general public including children could be exposed.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into

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consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

## **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 centre or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:** Move the person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

## **TOXICOLOGICAL INFORMATION**

There is no specific antidote for this product. Treat symptomatically.

## **ENVIRONMENTAL PRECAUTIONS**

**TOXIC to aquatic plants and non-target terrestrial plants.** Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of Katana 25 WG Herbicide in areas where soils are permeable (e.g., sandy soil), particularly where the water table is shallow, may result in ground water contamination.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

***IN CASE OF EMERGENCY INVOLVING A POISONING CALL***  
***1-888-484-7546***

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL CALL***  
***1-800-424-9300***

## **STORAGE**

Store in a cool, dry, secure and well ventilated area. To prevent contaminations store this product away from food or feed. Keep pesticide in original container. Not for use or storage in or around the home. Do not store near open flame.

## **DISPOSAL**

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

### **Container Disposal** **Recyclable container**

Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Empty container thoroughly into spray tank. Triple- or pressure rinse the empty container. Add the rinsings to the spray mixture in the tank
2. Make the empty, rinsed container unsuitable for further use.

If there is no container site in your area, dispose of the container in accordance with provincial requirements.

## **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

Katana is a trademark of Ishihara Sangyo Kaisha, Ltd.

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Booklet

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## RESISTANCE MANAGEMENT

For resistance management, Katana 25WG Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Katana 25WG Herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of Katana 25WG Herbicide or other Group 2 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact ISK Biosciences Corporation at 1-877-706-4640 or at [www.iskbc.com](http://www.iskbc.com).

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## **DIRECTIONS FOR USE**

### **Product Specific Precautions:**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-877-706-4640 or obtain technical advice from the distributor or your provincial agricultural representative. Application of the specific product must meet and/or conform to the following:

### **General Use Information:**

Katana 25WG Herbicide is a selective herbicide for preemergence and postemergence control of certain broadleaf weeds and grasses in conifer trees (ornamentals, Christmas trees, conifer release and forestry).

Katana 25WG Herbicide is absorbed through the root and foliage of plants, rapidly inhibiting the growth of susceptible weeds. For preemergence application, rainfall or irrigation is needed for herbicide activation. Length of control is a function of environmental factors such as soil type, soil moisture, temperature and amount of moisture after the application. Existing weeds or crop residue may reduce the length and level of residual control. Weed control may also be reduced due to environmental stress to the weeds at the time of the application.

Weed growth stops within hours after the application, however progress from discoloration or chlorosis to necrosis generally requires from 2 to 4 weeks. Speed of control is generally a function of weather with faster action during warmer weather and actively growing weeds. The best control is obtained when Katana 25WG Herbicide is applied either to weeds just prior to germination or to young, actively growing weeds.

For optimal herbicidal activity, prior to application, the bed or soil surface should be reasonably even and clear of crop and weed residue. Before herbicide application, crop and weed residue can be mixed into the soil through cultivation, or removed by blowing the area to be treated. Any practices that cause disturbance of the soil surface after herbicide treatment will decrease herbicidal activity. If rainfall does not occur within 2 weeks after a preemergence application, then 0.5 to 1.25 cm of irrigation water should be applied. Do not apply more than 2.5 cm of irrigation water.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air unless otherwise specified under a restricted use on the label.

## **SPRAY BUFFER ZONES**

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,

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- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage,
- soil drench or soil incorporation.

For application to rights-of-way, spray buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies which minimize off-site drift, including meteorological conditions (e.g., wind direction, low wind speed) and spray equipment (e.g., coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified spray buffer zones for protection of sensitive aquatic habitats.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of:		
		Freshwater Habitat of Depths:		Terrestrial Habitat:
		Less than 1 m	Greater than 1 m	
Field Sprayer	Conifer trees (ornamental production and Christmas trees), non-agricultural areas	10	5	10
	Forestry conifer release, airports, roadside, railroad and utility rights-of-way	10	5	N/A*

\* Spray buffer zones for the protection of terrestrial habitats are not required

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

#### **Mixing and Loading Instructions:**

Ensure the spray system is clean and free of residues from previous applications. Fill the spray tank 1/2 full with clean water. Ensure the agitation system is operating and sufficient to provide uniform spray mixing during application and until the spray tank has been emptied. Add the appropriate amount of this product to the spray tank. Complete filling the spray tank to the desired level.

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Prepare no more spray mixture than is needed for the immediate application. Avoid the overnight storage of Katana 25WG Herbicide spray mixtures.

**Tank Mixtures:**

Tank mixes are generally used to broaden or extend control of the weed spectrum present. Tank mix herbicides must be registered for intended use. Read and follow all label directions for each tank mix herbicide. When applied as a tank-mix combination, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product used in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact ISK Biosciences Corporation at 1-877-706-4640 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.

For tank mixtures, add individual components to the spray tank in the following sequence: water, water dispersible granules (this product), water-soluble bags, dry flowables, emulsifiable concentrates, drift control additives, water-soluble liquids, and nonionic surfactants.

**Additive Use Requirements:**

The use of a non-ionic surfactant at 0.25 percent by volume (0.25 litre/100 litres spray volume) provides a maximum performance for all postemergence applications. Surfactant products must contain at least 50% nonionic surfactant (see label of adjuvant). Petroleum crop oil concentrate or methylated seed oil at 1% by volume (1 litre/100 litres) can also enhance herbicide performance. Oil adjuvants must contain at least 15% surfactant emulsifiers and 80% high quality petroleum or methylated seed oil (see label of crop or seed oil). If another herbicide is tank mixed with Katana 25WG Herbicide, select additives authorized for use with both products.

**Compatibility Test:**

Additives and tank mixes should be tested for compatibility by mixing in a small container prior to mixing in spray tank.

In a lidded glass jar (~1 litre size) add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly.

If mixture forms precipitates (flakes or sludge), gels, balls-up or forms oily films or layers, this indicates incompatibility. Though signs of incompatibility will typically be seen within 5 minutes of mixing, mixture should be observed for approximately 30 minutes.

If compatibility agents do not facilitate mixing, the mixture is incompatible and should not be used.

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### **Spray Equipment Clean Out:**

After spraying Katana 25WG Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain tank; thoroughly rinse inside of spray tanks with clean water (rinse about 1 minute per 100 litres of tank capacity). Loosen and physically remove any visible deposits with a stiff brush.
2. Fill the tank with clean water and add 1 litre of household ammonia (contains at least 3% active ingredient) for every 100 litres of water. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Flush the cleaning solution through the hoses, boom and nozzles (1/4 volume of tank capacity) and then drain the tank.
3. Repeat step 1.
4. Repeat step 2.
5. Remove the nozzles and screen and clean separately in a bucket containing cleaning agent and water.
6. Rinse the tank, boom and hoses with clean water.
7. If only ammonia is used as a cleaner, the rinsate solution from both steps 2 and 4 may be applied back to the crop(s) as recommended on the label. Do not exceed the maximum label use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.  
(Attention: **Do Not** use Chlorine bleach with ammonia as a dangerous gas will form).

## **GROUND APPLICATION**

### **Preemergence Weed Control:**

Apply Katana 25WG Herbicide in a broadcast spray volume of 150 to 450 L/ha of water in a uniform application to the soil surface. Soil surfaces should be clean from crop residue and weed-free at the time of the application. If weeds, weed residue or crop residue is present, these should be removed by light mechanical incorporation or other means. Once the application has been made, the soil surface should not be disturbed.

### **Postemergence Weed Control:**

Applications for postemergence weed control should be made in 150 to 450 L/ha of water. Use the higher water volumes if vegetation or crop residue is present. For directed sprays a spray volume of 200 L of water or more per hectare is recommended. Best results are obtained when weeds are small and actively growing. Broadleaf weeds should be no larger than 5 to 10 cm and grasses should be no taller than 10 cm and prior to first tillering. Once the application has been made, the soil surface should not be disturbed.

### **Sprayer Preparation:**

Apply Katana 25WG Herbicide with spray equipment that has been cleaned and is free of pesticide deposits from previous pesticide use. Clean spray equipment according to manufacturer's directions, see previous pesticide label for appropriate cleanup directions, or use Katana 25WG Herbicide Spray Equipment Clean Out procedures.

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**Broadcast Application:**

Apply Katana 25WG Herbicide using conventional low-pressure ground spray equipment with flat fan or flood nozzles (preemergence applications only). Follow manufacturer's recommendation for spraying pressure and boom height. Check spray equipment daily for proper maintenance and calibration.

**Directed Spray Application:**

Apply Katana 25WG Herbicide as a low-pressure coarse spray in at least 200 litres of water per hectare. Follow manufacturer's recommendations for nozzle spacing and operating pressure. Nozzles should be adjusted to adequately cover the weed foliage but minimize contact with the crop. Do not apply with hollow cone nozzles.

**Spot application:**

For spot applications apply sprays uniformly to the soil for preemergence weed control or to weeds for postemergence weed control. Mix the required amount of Katana 25WG Herbicide with the recommended amount of water. For preemergence application use 10 to 20 litres per 100 m<sup>2</sup>. For postemergence application use a minimum of 20 litres per 100 m<sup>2</sup> and add a non-ionic surfactant at 5 ml per litre of spray. If applying within an established crop use coarse low-pressure sprays and direct the spray to the soil beneath the plants. Do not allow spray to contact leaves or green stems of woody plants. Use 0.5 g/L of water. Thoroughly agitate the spray solution thoroughly prior to application.

**Note:** Katana 25WG Herbicide must be only applied once per year.

**WEEDS CONTROLLED**

The application of Katana 25WG Herbicide alone at the rate range of 150-200 g/ha controls the following weed species. The high rate is for control of large weeds and heavy weed infestation.

**WEEDS CONTROLLED PREEMERGENCE**

<b>Grasses</b>	
Bluegrass, annual	<i>Poa annua</i>
Barley, hare	<i>Hordeum leporinum</i>
Bentgrass, creeping	<i>Agrostis stolonifera</i>
Brome, downy	<i>Bromus tectorum</i>
Fescue, rough	<i>Festuca scabrella</i>
Fescue, sheep	<i>Festuca ovina</i>
Fescue, tall	<i>Festuca arundinacea</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Sandbur, long-spined	<i>Cenchrus longispinus</i>

<b>Broadleaves</b>
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Burnclover, California	<i>Medicago polymorpha</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouse-ear	<i>Cerastium vulgatum</i>
Clover, crimson	<i>Trifolium incarnatum</i>
Dandelion	<i>Taraxacum officinales</i>
Dandelion, Cat's-ear	<i>Hypochoeris radicata</i>
Filaree, redstem	<i>Erodium cicutarium</i>
Fleabane, hairy	<i>Conyza bonariensis</i>
Geranium Carolina	<i>Geranium carolinianum</i>
Groundsel	<i>Senecio sp.</i>
Groundsel, common	<i>Senecio vulgaris</i>
Henbit	<i>Lamium amplexicaule</i>
Lambs-quarters, common	<i>Chenopodium album</i>
Mallow, common	<i>Malva neglecta</i>
Mallow, little	<i>Malva parviflora</i>
Mustard	<i>Sinapsis sp.</i>
Mustard, Indian	<i>Brassica juncea</i>
Mustard, wild	<i>Brassica kaber</i>
Pigweed, prostrate	<i>Amaranthus litoides</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Purslane, common	<i>Portulaca oleracea</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Sowthistle, annual	<i>Sonchus oleraceus</i>
Speedwell, corn	<i>Vernonica arvensis</i>
Spurge, creeping	<i>Euphorbia serpens</i>
Spurge, prostrate	<i>Euphorbia humistrata</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Willoweed, panicle	<i>Epilobium brachycarpum</i>

<b>Sedges</b>	
Yellow Nutsedge	<i>Cyperus esculentus</i>

#### WEEDS SUPPRESSED PREEMERGENCE

<b>Grasses</b>	
Crabgrass, large	<i>Digitaria sanguinalis</i>
Witchgrass	<i>Panicum capillare</i>

<b>Broadleaves</b>	
Horseweed, Canada/Mare's tail	<i>Erigeron canadensis</i> / <i>Conyza canadensis</i>
Oxtongue, bristly	<i>Picris echioides</i>
Sowthistle	<i>Sonchus sp.</i>

## WEEDS CONTROLLED POSTEMERGENCE

### Grasses

Bluegrass, annual	<i>Poa annua</i>
Bentgrass, creeping	<i>Agrostis stolonifera</i>
Brome, downy	<i>Bromus tectorum</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Fescue, rough	<i>Festuca scabrella</i>
Fescue, sheep	<i>Festuca ovina</i>
Fescue, tall	<i>Festuca arundinacea</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Sandbur, long-spined	<i>Cenchrus longispinus</i>

### Broadleaves

Bedstraw, catchweed	<i>Galium aparine</i>
Burclover, California	<i>Medicago polymorpha</i>
Carrot, wild	<i>Daucus carota</i>
Chamomile, mayweed	<i>Anthemis cotula</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouse-ear	<i>Cerastium vulgatum</i>
Clover, crimson	<i>Trifolium incarnatum</i>
Clover, Hop	<i>Trifolium aureum</i>
Clover, Large Hop	<i>Trifolium campestre</i>
Filaree, redstem	<i>Erodium cicutarium</i>
Fleabane, hairy	<i>Conyza bonariensis</i>
Geranium Carolina	<i>Geranium carolinianum</i>
Groundsel	<i>Senecio sp.</i>
Groundsel, common	<i>Senecio vulgaris</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed, Canada/Mare's tail	<i>Erigeron canadensis / Conyza canadensis</i>
Lambs-quarters, common	<i>Chenopodium album</i>
Mallow, common	<i>Malva neglecta</i>
Mallow, little	<i>Malva parviflora</i>
Mustard	<i>Sinapsis sp.</i>
Mustard, Indian	<i>Brasica juncea</i>
Mustard, tumble	<i>Sisymbrium altissimum</i>
Pansy, field	<i>Viola rafinesquil</i>
Pepperweed, field	<i>Lepidium campestre</i>
Pigweed, prostrate	<i>Amaranthus litoides</i>



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Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Purslane, common	<i>Portulaca oleracea</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Sowthistle, annual	<i>Sonchus oleraceus</i>
Speedwell, corn	<i>Veronica arvensis</i>
Spurge, creeping	<i>Euphorbia serpens</i>
Spurge, prostrate	<i>Euphorbia humistrata</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Thistle, bull	<i>Cirsium vulgare</i>
Thistle, Canada	<i>Cirsium arvense</i>
Willoweed, panicle	<i>Epilobium brachycarpum</i>
Wintergreen, chickweed	<i>Trientalis europaea</i>

<b>Sedges</b>	
Yellow Nutsedge	<i>Cyperus esculentus</i>

#### WEEDS SUPPRESSED POSTEMERGENCE

<b>Grasses</b>	
Polypogon, rabbitfoot	<i>Polypogon monspeliensis</i>
Witchgrass	<i>Panicum capillare</i>
Barley, hare	<i>Hordeum leporinum</i>

<b>Broadleaves</b>	
Dandelion	<i>Taraxacum officinale</i>
Fleabane, rough	<i>Erigeron strigosus</i>
Oxtongue, bristly	<i>Picris echioides</i>

#### USE SITES

#### CONIFER TREES

Katana 25WG Herbicide may be applied to container and field grown Conifer Trees (ornamental production and Christmas trees) or for use in forestry for conifer release. See table below for list of tolerant conifers.

Weed Control	Rate (g/ha)	Specific Use Directions
Preemergence	150 to 200	
Postemergence	150 to 200	Apply to broadleaf weeds and grasses less than 10 cm tall and before tillering of grasses. Use sufficient spray volume to obtain complete and uniform coverage. Use higher water volumes on larger weeds. Adjuvant use recommended.  For conifer release, apply where conifers have been

		established for more than a year. Vegetation should not be disturbed immediately prior to or after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur in areas where spray patterns overlap or when applications are made during periods of active growth.
<p><b>Precautions:</b> For postemergence application, use an adjuvant (refer to Additive Use Requirements section). Katana 25WG Herbicide may be applied over-the-top to conifers prior to spring bud break or when conifers are sufficiently hardened off. Some needle burn may be seen on a new flush if plants are actively growing at the time of application but typically there is no effect on subsequent growth. Directed applications are preferred and recommended to reduce phytotoxicity potential.</p> <p>Rates listed above are for broadcast application. If making a banded application, see Banded Application section of the label for calculating appropriate use rate.</p> <p><b>Tank Mixes:</b> For postemergence weed control, consider tank mixing Katana 25WG Herbicide with glyphosate. For longer residual control of annual weeds, consider tank mixing Katana 25WG Herbicide with another residual herbicide labeled for use in conifer trees. Follow all label instructions, restrictions and precautions on both labels. Refer to Tank Mixtures section for additional information regarding tank mixes.</p> <p><b>Crop Restrictions:</b> Do not apply more than one application per year. Do not apply to conifer seedbeds. Do not apply to trees within 1 year of seeding. Directed sprays must not be made to conifers that have new growth or are not sufficiently hardened off.</p> <p><b>Restrictions:</b> DO NOT apply by air except under restricted use conditions as specified within this booklet</p>		

### Tolerant Conifers

Common Name	Scientific Name
Balsam fir	<i>Abies balsamea</i>
Fraser fir	<i>Abies fraseri</i>
Grand fir	<i>Abies grandis</i>
Noble fir	<i>Abies procera</i>
Nordman fir	<i>Abies nordmanniana</i>
White fir	<i>Abies concolor</i>
Blue spruce	<i>Picea pungens</i>
Norway spruce	<i>Picea abies</i>
Eastern white pine	<i>Pinus strobes</i>
Red pine	<i>Pinus resinosa</i>
Scotch pine	<i>Pinus sylvestris</i>
Virginia pine	<i>Pinus virginiana</i>
White pine	<i>Pinus strobes</i>
Douglas fir	<i>Pseudotsuga menziesii</i>
Leyland cypress	<i>Cupressocyperis leylandii</i>
<p>Note: Evaluations have shown the above listed conifers to be tolerant to Katana 25WG Herbicide. However, it is impossible to evaluate the product under all growing conditions. Until the user is familiar with the results under local conditions, normal</p>	

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judgment and care should be exercised. This product may be used on conifers not listed above provided that the user evaluates the effects of Katana 25WG Herbicide on a small number of plants under commercial growing condition at 4 to 6 weeks after the application for phytotoxic effects. This will determine if Katana 25WG Herbicide can safely be used on a large scale application.

**RESTRICTED USE:  
FOREST AND WOODLAND MANAGEMENT**

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

**NATURE OF RESTRICTION:**

This product is to be used only in the manner authorized. Consult local pesticide regulatory authorities about use permits that may be required.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

This product can be applied aerially for site-preparation or conifer release only. Apply only as prescribed by the conditions of this label.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the areas and the application rates and conditions of this label.

**SITE PREPARATION**

Apply this product as a broadcast treatment in the fall at 150-200 g/ha in a minimum of 50 litres of water per hectare for control and suppression of grasses, broadleaf weeds, and sedges listed in the “Weeds Controlled Pre-emergence” and “Weeds Suppressed Pre-emergence” tables.

For additional control of emerged weeds, apply Katana 25WG Herbicide at 150-200 g/ha in tank mix with one of the listed glyphosate products in a minimum of 50 litres of water per hectare: VisionMAX Silviculture Herbicide, Timberline Herbicide, VP480 Herbicide, Forza Silvicultural Herbicide, GlySil Forestry Herbicide, and Glyfo Silvi Herbicide.

Refer to the Tank Mix section under “Conifer Trees” of this label as well as the respective glyphosate label regarding aerial application instructions for site preparation, weeds controlled, application rates, precautions, and restrictions.

Conifers at one year of age may be transplanted in the prepared site the following year. For conifer tolerance information, refer to the “Tolerant Conifers” table of this label.

**CONIFER RELEASE**

Apply this product as a broadcast treatment at 150-200 g/ha in a minimum of 50 litres of

water per hectare for control and suppression of grasses, broadleaf weeds, and sedges listed in the “Weeds Controlled Pre-emergence” and “Weeds Suppressed Pre-emergence” tables.

For additional control of emerged weeds, apply Katana 25WG Herbicide at 150-200 g/ha in tank mix with one of the listed glyphosate products in a minimum of 50 litres of water per hectare: VisionMAX Silviculture Herbicide, Timberline Herbicide, VP480 Herbicide, Forza Silvicultural Herbicide, GlySil Forestry Herbicide, and Glyfo Silvi Herbicide. Refer to the Tank Mix section under “Conifer Trees” of this label as well as the respective glyphosate label regarding aerial application instructions for conifer release, weeds controlled, application rates, precautions, and restrictions.

Apply where conifers have been established for more than a year prior to spring bud break or when conifers are sufficiently hardened off. For conifer tolerance information, refer to the “Tolerant Conifers” table of this label. The pre-cautionary statement presented in the “Tolerant Conifers” table should be followed when applying Katana 25WG Herbicide alone. The tank mixture of Katana 25WG Herbicide + glyphosate herbicide can be only applied to conifer species that are registered on both products labels.

Make only one application per year. Do not apply to conifers within 1 year of seeding.

Vegetation should not be disturbed immediately prior to or after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur in areas where spray patterns overlap or when applications are made during periods of active growth.

#### **AERIAL APPLICATION (site preparation and conifer release ONLY)**

Aerial application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) fine classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application,

use appropriate marking devices.

### **Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

### **Operator Precautions**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes and protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 877-706-4640 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 50 litres per hectare.

### **SPRAY BUFFER ZONES**

For this restricted use, spray buffer zones are not required, however, the best available application strategies which minimize off-site drift should be used.

**BEFORE AERIAL APPLICATION TO FORESTS** - Consult the most recent

provincially approved topographic maps of the area to be treated (1: 50 000) or more up-to-date information (e.g., GPS Systems) to identify sensitive aquatic habitats.

Sensitive aquatic habitats include:

- a) All running (lotic) and standing (lentic) water bodies, including impoundments, beaver ponds and bog ponds, that appear on the map or GPS system;
- b) Running (lotic) and standing (lentic) water bodies that do not appear on the map or GPS system but are visible from the air.

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