

<<Outer Package Label>>

GROUP	5	HERBICIDE
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VELPAR® L CU HERBICIDE

For Use in Established Seed Alfalfa and Blueberries

Water Dispersible Solution

COMMERCIAL

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

ACTIVE INGREDIENT: Hexazinone 240 g/L

REGISTRATION NUMBER 18197 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 2.5-10 Litres



CAUTION

FLAMMABLE

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

DANGER - CORROSIVE TO EYES

Tessenderlo Kerly, Inc.
2910 N. 44th Street
Suite 100
Phoenix, Arizona 85018 USA
Phone: (602) 889-8397

PRECAUTIONS:

- DO NOT get in eyes.
- Avoid contact with skin and clothing. Avoid breathing spray mist.
- Harmful if swallowed.
- Keep away from heat, sparks and open flame.
- Keep container closed .
- Wear a long-sleeved shirt, long pants and shoes plus socks during application. In addition, wear chemical-resistant gloves and goggles or a face shield during mixing/loading, clean-up or repair activities and when using handheld application equipment..
- DO NOT enter or allow entry into treated area until 48 hours after application.

FIRST AID

If swallowed: Call a poison control centre 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 a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

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 person to fresh air. If 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 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.

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

For medical emergencies call 1-800-525-2803 (24 hours).

STORAGE

Store product in original container only, away from other pesticides, fertilizers, food or feed.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer or the provincial regulatory agency in case of a spill and for cleanup of spills.

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.

<<DFU Booklet>>

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CAUTION

FLAMMABLE

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

DANGER - CORROSIVE TO EYES

Tessenderlo Kerly, Inc.
2255 N. 44th Street - Suite 300
Phoenix, AZ 85008-3279
United States
1-800-525-2803

PRECAUTIONS:

- DO NOT get in eyes.
- Avoid contact with skin and clothing. Avoid breathing spray mist.
- Harmful if swallowed.
- Keep away from heat, sparks and open flame.
- Keep container closed .
- Wear a long-sleeved shirt, long pants and shoes plus socks during application. In addition, wear chemical-resistant gloves and goggles or a face shield during mixing/loading, clean-up or repair activities and when using handheld application equipment.
- DO NOT enter or allow entry into treated area until 48 hours after application.

FIRST AID

Eye Contact: 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.

Skin or Clothing Contact: 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.

Ingestion: Call a poison control centre 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 a poison control centre 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 by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

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

For medical emergencies call 1-800-525-2803 (24 hours).

IMPORTANT

Injury to or loss of desirable trees or other plants may result from failure to observe the following:

DO NOT drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. DO NOT USE on lawns, walks, driveways, tennis courts, or similar areas. Prevent spray drift to desirable plants. Keep from contact with fertilizers, insecticides, fungicides and seeds. DO NOT contaminate any body of water.

DO NOT use VELPAR® L CU Herbicide on gravelly or rocky soils, or sand. DO NOT apply to any soils with less than 1% organic matter. DO NOT apply to sites whose physical state will prevent penetration of VELPAR® L CU Herbicide into the root zone of the target species. This includes frozen and snow-covered soils, sites which are water-saturated or sites in which the water table is close to the surface. Do not use on sloped sites where there is the potential for run-off to sensitive areas. To allow sufficient soil penetration, do not apply late in the season close to freeze up. Refer to the "Soil Definitions" section for soil type information. If help is required to identify soil conditions of environmental concern, contact the Tessenderlo Kerly Inc. representative.

For information on buffer zones required for the protection of water bodies and terrestrial habitat, please refer to the buffer zones specified under DIRECTIONS FOR USE.

Observe provincial guidelines or regulations that regulate treatment on slopes, establishment of buffer zones around water bodies and guidelines that prescribe the manner in which treatments may be applied. In the absence of such guidelines or regulations, read and observe the section "TREATMENT ON SLOPES".

SOIL DEFINITIONS

- Gravelly soils are soils having more than 70% by volume of coarse fragments (gravel, cobbles, or stones) with too little fine fraction to fill spaces larger than 1 mm. DO NOT apply to gravelly soils.
- Rocky soils are soils where 25-90 % is occupied by rock outcrops and most of the remainder by shallow soils.

- DO NOT apply to rocky soils.
- Light or coarse soils consist of sand, loamy sand, or sandy loam. DO NOT apply to sand.
- Medium soils consist of loam, silt loam, silt, sandy clay or sandy clay loam.
- Heavy or fine soils consist of silty clay, silty clay loam, clay or clay loam.
- • DO NOT apply to any soils with less than 1% organic matter.

TREATMENT ON SLOPES

To reduce down-slope movement of the herbicide or treated soil particles into sensitive areas (for example aquatic systems or wetlands) consider the characteristics/conditions of the site before treatment. Site characteristics/conditions that may lead to such occurrences following heavy rainfall include compacted soils, fine textured soils, absence of organic layer, absence of harvest residue or forest floor litter and angle of slope. Potential for contamination of sensitive areas as a result of run off will be reduced by inclusion of buffer-zones at or near the bottom of slope.

GENERAL INFORMATION

VELPAR® L CU Herbicide is a water dispersible solution to be mixed in water and applied as a broadcast spray for selective control of certain weeds and brush in blueberries, and in alfalfa grown for seed. It may also be applied undiluted to the soil for brush control. It is non-corrosive to equipment.

VELPAR® L CU Herbicide provides preemergence and postemergence control of undesirable vegetation. Applications to plants before leaves are fully expanded are more effective than later treatments. Applications should not be made after target deciduous species have achieved full annual growth.

Foliar applications when vegetation is dormant or semi-dormant may not be effective in herbaceous plants.

VELPAR® L CU Herbicide is absorbed through the roots and may demonstrate contact activity on foliage. There is, however, limited long-term effect on woody species following foliar application only.

For brush control, soil applications are most effective.

Best results are obtained when VELPAR® L CU Herbicide is present in the root zone during active growth of the target vegetation.

Symptoms usually appear in herbaceous plants within 2 weeks after application under warm, humid conditions, while 4 to 6 weeks may be required when weather is cool. If rainfall after application is inadequate to activate VELPAR® L CU Herbicide in the soil, plants may recover from contact effects and continue to grow until sufficient rainfall moves VELPAR® L CU Herbicide into the root zone.

Symptoms usually appear within 3 weeks in actively growing woody plants after sufficient rainfall has carried the herbicide into the root zone. Defoliation and subsequent refoliation may occur until root reserves are exhausted at which time susceptible plants die. The degree of control and duration of effect will vary with amount of chemical applied, soil texture and organic matter, rainfall, temperature, weed or brush species, soil moisture and other conditions.

Moisture is required to activate VELPAR® L CU Herbicide in the soil.

The effectiveness of VELPAR® L CU Herbicide may be reduced as the level of organic matter in the soil increases.

DIRECTIONS FOR USE

Calibrate equipment before spraying.

Do not use excessive agitation after initial mixing as foaming may result. Avoid storing mixed solutions of VELPAR® L CU Herbicide overnight where temperatures may fall below 7 degrees C. Do not apply more than 18 L/Ha per year. Do not apply to frozen or snow covered soil. Avoid overlapping and shut off spray while starting, turning, slowing or stopping in order to avoid injury to desirable trees. Do not use mist blowers.

BLUEBERRIES LOWBUSH BLUEBERRIES (Ground Application Only, Do Not Apply by Air)

Apply VELPAR® L CU Herbicide in the spring after pruning operations (burning or mowing) but before blueberries emerge. VELPAR® L CU Herbicide controls most common grasses and many perennial broadleaved weeds, and such woody weeds as trailing blackberry, lamb-kill and hardhack. Canada blueberry (*Vaccinium myrtilloides*) and some clones of the lowbush blueberry (*Vaccinium angustifolium*) are sensitive. Temporary defoliation of the lower leaves of the lowbush blueberry will occur, but plants recover.

Apply VELPAR® L CU Herbicide at the rate of 6.0-8.0 litres per hectare, depending on percent organic matter and soil type. Use lower rates on low organic matter soils. Use higher rates on medium or heavy soils or on light soils containing >5% organic matter. Do not apply VELPAR® L CU Herbicide to gravelly or rocky soils or to sand. DO NOT apply to any soils with less than 1% organic matter. DO NOT apply where the terrain does not permit even and accurate application. Avoid treating fields that may be subject to erosion following improved weed control, or areas of fields that are wet or poorly drained. Overlapping applications or those made after blueberries emerge may cause severe crop injury.

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR SPECIAL USE APPLICATIONS.

The Directions for Use for this product for the uses described below were developed by persons other than Tessenderlo Kerly, Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion Program. Tessenderlo Kerly, Inc. itself makes no representation of warranty with respect to product performance (efficacy) and crop tolerance (phytotoxicity) of this product when used on the crop listed below. Accordingly, the Buyer and User assume all liability arising, and agree to hold Tessenderlo Kerly Inc. harmless from any claims based on efficacy or phytotoxicity in connection with these uses.

LOWBUSH BLUEBERRY (Nova Scotia, Prince Edward Island, and New Brunswick)

POST EMERGENT APPLICATION:

Apply VELPAR® L CU Herbicide at a rate of 4.2-5.6 litres per hectare to control: golden rod, sheep sorrel, aster and poverty grass.

Apply VELPAR® L CU Herbicide in the spring of the fruiting year, but no later than the early bloom stage of growth (before the flower buds separate and show white petals). Application should be made using ground equipment only. Make one post-emergent application per year. Serious crop injury and yield loss may

result if application is made after the recommended timing of application. Only apply to those areas of the field where weed density will cause yield loss or harvest problems. Do not apply with any other pesticide as this may reduce crop tolerance. Do not apply VELPAR® L CU Herbicide to gravelly or rocky soils or to sand. DO NOT apply to any soils with less than 1% organic matter. DO NOT apply where the terrain does not permit even and accurate application. Avoid treating fields that may be subject to erosion following improved weed control or areas of fields that are wet or poorly drained.

HIGHBUSH BLUEBERRIES - BLUECROP VARIETY ONLY
(For Use in British Columbia Only)

For control of annual and perennial grasses and broadleaf weeds in highbush blueberries (Bluecrop variety only), apply 4 to 8 litres per ha, before weeds are 30 cm tall and prebloom to blueberry. Use the lower rate on light soils or other soils low in organic matter. Do not apply more than 8 litres per ha in any year. Do not apply within 60 days of harvest.

WEEDS CONTROLLED
(in blueberries only)

colonial bent grass (*Agrostis capillaris*)
poverty oat grass (*Danthonia spicata*)
blue grass (*Poa pratensis*)
sheep fescue (*Festuca ovina*)
timothy (*Phleum pratense*)
----- (*Panicum boreale*)
yellow rattle (*Rhinanthus crista-galli*)
goldenrod (*Solidago* spp)
aster (*Aster* spp)
yarrow (*Achillea millefolium*)
cinquefoil (*Potentilla* spp)
hawkweed (*Hieracium* spp)
fireweed (*Epilobium angustifolium*)
pearly everlasting (*Anaphalis margaritacea*)
ox-eye daisy (*Chrysanthemum leucanthemum*)
black medick (*Medicago lupulina*)
trailing blackberry (*Rubus hispidus*)
hardhack (*Spirea tomentosa*)
lamb-kill (*Kalmia angustifolia*)
wild red raspberry (*Rubus idaeus*)
poplar (*Populus* spp)

ESTABLISHED SEED ALFALFA
(Ground Application Only, Do Not Apply by Air)

For control of dandelion, quack grass and sow thistle, apply 2.1 - 4.2 L/ha in a minimum of 200 L water per hectare. Use the lower rate on medium textured soils low in organic matter. For control of narrow leaved hawk's-beard and scentless chamomile apply 4.2 L/ha in a minimum of 200 L water per hectare. Apply only to alfalfa grown for seed that has been established for at least 18 months, in the late fall or early spring when alfalfa is dormant. If fall irrigation and/or burning is to be carried out, do not apply VELPAR® L CU Herbicide until after completion of these operations.

Do not graze the treated crop or cut for hay; there are not sufficient data available to support such use.

Do not apply to frozen soil.

Do not apply to any soils with less than 1% organic matter.

Do not apply to gravelly or rocky soils, or sand. Crop injury may occur in fields where alfalfa root growth has been restricted by hard pans or other physical barriers to root growth.

Do not treat fields that are to be planted to other crops within 24 months. See REPLANTING TO OTHER CROPS section below.

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) coarse classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air.

Buffer Zones:

Use of the following spray methods or equipment **DOES NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

For application to rights-of-way, 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 buffer zones for protection of sensitive aquatic habitats.

The 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) and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Buffer Zones (metres) required for the protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths		Terrestrial habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	

Field Sprayer*	Lowbush blueberry	2	1	1	1	5
	Highbush blueberry	1	1	1	1	5
	Established seed and forage alfalfa	1	1	1	1	5

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the

labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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 buffer zones for products containing hexazinone can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

REPLANTING TO OTHER CROPS

Information enabling specific recommendations for rotational crops and recropping intervals is limited. Do not seed any crop following alfalfa that has been treated with VELPAR® L CU Herbicide until a successful field bioassay shows that the crop in question may be grown safely. A successful field bioassay means growing to maturity a test strip of the crop across the field.

Persistence of VELPAR® L CU Herbicide in the soil is influenced by temperature, rainfall, soil type and organic matter.

Seeding of field bioassays is not recommended less than 24 months after the last VELPAR® L CU Herbicide application.

FIELD BIOASSAY

Select a representative area or areas of the field previously treated with VELPAR® L CU Herbicide to plant the bioassay crop(s). Be sure to consider factors such as size of field, soil texture, drainage and turn around areas when selecting the site(s) that are most representative of the soil conditions in the field. On large fields, more than one site may be needed in order to obtain reliable results.

Use standard tillage and seeding equipment to plant the bioassay. Plant the test strips perpendicular to the direction in which the field was sprayed. The strips should be long enough to cross the width of several spray swaths. Large test strips are more reliable than small ones.

Prepare a seedbed and plant the crops and varieties you want the option of growing the following year. It is important to use the same planting time, conditions, techniques and cultural practices you normally use to plant and grow the bioassay crop(s). Also plant an adjacent area not treated with VELPAR® L CU Herbicide to use as a comparison.

With crop emergence and growth, examine these key points in VELPAR® L CU Herbicide treated and non-treated areas:

- crop stand
- plant colour and vigour
- rate of growth
- yield

Allow the bioassay crop(s) to grow to maturity while making your observations.

Do not overspray the test strips with herbicides that may damage the bioassay crop(s).

If the bioassay indicates that VELPAR® L CU Herbicide residues are still present, repeat the bioassay again the following year. Do not rotate to other crops until bioassay results indicate that susceptible crops are growing normally.

RESISTANCE-MANAGEMENT RECOMMENDATIONS:

For resistance management, VELPAR® L CU Herbicide is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to VELPAR® L CU Herbicide and other Group 5 herbicides. The resistance 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 VELPAR® L CU Herbicide or other Group 5 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 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 your local Tessengerlo Kerly Inc. representative or the Tessengerlo Kerly Inc. hotline at 1-800-525-2803 for further information.

ENVIRONMENTAL PRECAUTIONS

TOXIC to aquatic organisms and non-target terrestrial plants.

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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.

STORAGE

Store product in original container only, away from other pesticides, fertilizers, food or feed.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer or the provincial regulatory agency in case of a spill and for cleanup of spills.

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.

The seller warrants that the purchase by the buyer and the use of this product, as such, will not infringe any Canadian patent.