

GROUP	<b>4</b>	HERBICIDE
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**BANVEL® VM HERBICIDE**

**SOLUTION**

**COMMERCIAL**

**GUARANTEE:** Dicamba, present as the diglycolamine salt ..... 480 g ae/L

**REGISTRATION NO.** 29249

**PEST CONTROL PRODUCTS ACT**



**CAUTION**

**POISON**

**WARNING - EYE IRRITANT**

**IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY  
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT  
1-800-454-2673**

**NET CONTENTS:** 1 L to 1000 L

**READ THE LABEL AND BROCHURE BEFORE USING  
KEEP OUT OF REACH OF CHILDREN**

BASF Canada Inc.  
100 Milverton Drive, 5th Floor  
Mississauga, Ontario  
L5R 4H1  
1-877-371-2273

BANVEL® VM Herbicide is a registered trademark of BASF.

## **ABOUT BANVEL VM HERBICIDE**

Banvel VM Herbicide controls broadleaf weeds in pastures and rangeland grasses, and crop-free land.

### **GENERAL PRECAUTIONS**

1. Banvel VM Herbicide should not be applied on or near desirable trees or plants.
2. Apply Banvel VM Herbicide when air temperature is between 10 and 25°C. Do not apply when there is a risk of severe fall in night temperature after use.
3. Do not contaminate domestic or irrigation water. Thoroughly clean application equipment.
4. Do not treat areas where movement of the chemical into the soil or surface washing may bring Banvel VM Herbicide into contact with roots of desirable plants.
5. Unless otherwise specified, do not use additives such as oil, wetting agents, emulsifiers, detergents, spreaders, sticking agents, or dispersing agents with Banvel VM Herbicide on crops.
6. For information on feeding and grazing, refer to Grazing Restrictions found herein.
7. If Banvel VM Herbicide is tank-mixed with another product, such as 2,4-D, consult that product's label for additional safety precautions, restrictions, application rates, timings and additional weeds controlled.
8. Ensure that spray equipment used to apply Banvel VM Herbicide is properly cleaned before re-using to apply any other chemicals. See section on suggested procedure for cleaning spray equipment.

### **SPRAY DRIFT PRECAUTIONS**

Banvel VM Herbicide may cause injury to desirable trees and plants, particularly soybeans, flowers, fruit trees, grapes, ornamentals, peas, potatoes, tomatoes, tobacco, and other broadleaf plants especially in their developmental and growing stage. Follow these precautions when spraying in the vicinity of sensitive crops:

1. Treat when wind is 3 to 15 km/hr. Do not apply during periods of dead calm or when weather conditions may cause drift from target areas to adjacent sensitive crops. Leave an adequate buffer zone between treatment areas and sensitive plants.
2. Use coarse sprays since they are less likely to drift than fine sprays. Select nozzles which minimize amounts of the fine spray particles. Keep the spray pressure below 150 kPa and the spray volume above 220 L/ha unless otherwise required by the nozzle manufacturer.
3. Do not spray when the temperature is expected to exceed 30°C.
4. Avoid spraying under conditions of high humidity or fog.

## **ENVIRONMENTAL HAZARDS**

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

## **DIRECTIONS FOR USE**

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine or marine habitats.

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

### **Surface Runoff**

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay).

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

Avoid applying this product when heavy rain is forecast.

### **Leaching**

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

### **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) coarse classification (according to the appropriate buffer zone table). Boom height must be 60 cm or less above the crop or ground.

### **Buffer Zones**

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer, spot treatment and inter-row hooded sprayer.

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

When a tank mixture is used, consult the labels of the tank mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

Method of Application	Crop	Buffer Zones (metres) Required for the Protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat
		< 1 m	> 1 m	< 1 m	> 1 m	
Field sprayer*	Pasture and rangeland, non-cropland	1	1	0	0	10

\* 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%.

## PASTURES, RANGELAND AND NON-CROP AREAS

### HERBACEOUS BROADLEAF WEED CONTROL

Apply Banvel VM Herbicide or Banvel VM Herbicide tank-mixes in 110-220 L of water/ha when weeds are actively growing. Thorough coverage of foliage is necessary to control weeds. Do not apply Banvel VM Herbicide or Banvel VM Herbicide tank-mixes if pasture is underseeded to legumes.

DO NOT apply by air.

Herbaceous Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
bindweed, <i>field</i> daisy, <i>English</i> dock, <i>curled</i> * goldenrod ragwort, <i>tansy</i> sow-thistle, <i>perennial</i> thistle, <i>Canada</i>	Banvel VM Herbicide alone at 2.1 L/ha	none
beard, <i>goat's</i> cherry, <i>ground</i> knapweed, <i>diffuse</i> sage, <i>pasture</i> sorrel, <i>sheep</i> spurge, <i>thyme-leafed</i> weed, <i>poverty</i>	Banvel VM Herbicide alone at 4.6 L/ha	none
Poison ivy	Banvel VM Herbicide at 1.65 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation) in 560 L of water/ha
wild carrot <i>plus</i> additional weeds found on the 2,4-D amine label	Banvel VM Herbicide at 2.1 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation)
<u>All of the above plus</u> additional weeds found on the 2,4-D amine label	Banvel VM Herbicide at 2.1 L/ha +	1.83 L of 2,4-D L.V. ester (600 g/L formulation)

\* top growth control only

## BRUSH WEED CONTROL

Banvel VM Herbicide is effective in controlling many deciduous brush species that are found growing along fence rows and in other areas around the farm where they may be undesirable. Apply Banvel VM Herbicide tank-mixes in spring or early summer to deciduous species (leaves should be fully expanded) either as a leaf stem treatment or as a broadcast ground application.

Brush and trees over 2 meters tall should be cut and regrowth treated when it develops.

Do not apply Banvel VM Herbicide tank-mixes if pasture or rangeland is underseeded to legumes.

### Stem Foliage Treatment Use Instructions

Apply to all foliage and stems to the point of runoff. The volume of spray mix applied per hectare will vary according to the height and density of the woody species present.

DO NOT apply by air.

Brush Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
alder aspen poplar cherry western snowberry (buckbrush) wolf willow (silverwillow) wild rose	Banvel VM Herbicide at 2.1 L /1000 L of water +	4.0 L of 2,4-D amine (500 g/L formulation) <b>OR</b> 3.3 L of 2,4-D L.V. (600 g/L formulation)

### Broadcast Ground Treatment Use Instructions

Apply Banvel VM Herbicide tank-mixes in sufficient dilution to wet all foliage. Normally, 220-230 litres of water/ha is recommended for brush stands.

DO NOT apply by air.

Brush Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
aspen poplar	Banvel VM Herbicide at 3.25 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) <b>OR</b> 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
prickly rose	Banvel VM Herbicide at 3.65 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) <b>OR</b> 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
western snowberry	Banvel VM Herbicide at 3.65 L/ha +	3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)

## **GRAZING RESTRICTIONS**

DO NOT permit lactating dairy animals to graze fields within 7 days after application.

DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated fields at least 3 days before slaughter.

## **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, Banvel VM Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Banvel VM Herbicide and other Group 4 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 Banvel VM Herbicide or other Group 4 herbicides 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.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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 BASF at 1-877-371-2273.

## **PRECAUTIONS**

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

Harmful if swallowed or absorbed through the skin.

Avoid contact with skin, eyes, and clothing.

Thaw if frozen. Shake before use.

Applicators must wear a long-sleeved shirt, long pants and chemical-resistant gloves. For applications to non-crop areas and turf, applicators must also wear coveralls.

For pastures and rangeland, DO NOT enter treated fields until 12 hours after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at [www.croplife.ca](http://www.croplife.ca).

## **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.

## **TOXICOLOGICAL INFORMATION**

Dicamba may cause severe irritation to the eyes and irritation to the skin and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness, loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice. Treat symptomatically.

## **DISPOSAL**

Do not reuse this container for any purpose. This is a recyclable container, and it 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. Triple- or pressure-rinse the empty container. Add the rinsings to spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

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

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.

### **1000 L - Bulk Container Refilling**

1. The container is to be refilled only with Banvel VM Herbicide.
2. Reseal and return to an authorized BASF bulk site.
3. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.
4. Check for leaks after refilling and before transportation.
5. Do not refill or transport damaged or leaking containers.
6. For disposal, this container may be returned to the point of purchase (dealer/distributor). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.
7. If the container is not being refilled, refer to Section on "Disposal".

### **Cleaning Spray Equipment**

#### **Banvel VM Herbicide alone or with 2,4-D**

If you have used Banvel VM Herbicide alone or Banvel VM Herbicide in a tank-mix with 2,4-D, to clean the spray equipment follow these steps:

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill the tank with water, adding 1 L of household ammonia for every 100 L of water. Operate the spray pump to circulate the ammonia solution through the sprayer solution for 15-20 minutes and discharge a small amount of the ammonia solution through the spray boom and nozzles.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.

#### **Banvel VM Herbicide with other Herbicides**

To clean spray equipment used to apply Banvel VM Herbicide as a tank-mix with wettable powders (WP), emulsifiable concentrates (EC) or other types of water-dispersible formulations, follow these steps: (Note that if you use Banvel VM Herbicide tank-mixes with water-dispersible formulation, you must add detergent to the rinse water.)

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.

2. Fill tank with water while adding 1 kg of detergent for every 150 litres of water. Operate the pump to circulate the detergent solution through the sprayer system for 5-10 minutes and discharge a small amount of the solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the detergent solution out of the spray tank through the boom.
4. Repeat step 1 and follow steps 2 and 3.

## **STORAGE**

1. Store Banvel VM Herbicide in its original container only, away from other pesticides, fertilizer, food, or feed.
2. Keep the container closed to prevent spills and contamination.
3. Keep packages dry at all times.

## **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 user assumes the risk to persons or property that arises from any such use of this product.

Approved Banvel VM Herbicide container (2009-2489), September 8, 2010

GROUP

4

HERBICIDE

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**SOLUTION**

**COMMERCIAL**

**GUARANTEE:** Dicamba, present as the diglycolamine salt ..... 480 g ae/L

**REGISTRATION NO.** 29249

**PEST CONTROL PRODUCTS ACT**



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## **ENVIRONMENTAL HAZARDS**

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### **Surface Runoff**

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Avoid applying this product when heavy rain is forecast.

### **Leaching**

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2. Reseal and return to an authorized BASF bulk site.
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4. Check for leaks after refilling and before transportation.
5. Do not refill or transport damaged or leaking containers.

6. For disposal, this container may be returned to the point of purchase (dealer/distributor). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.
7. If the container is not being refilled, refer to Section on "Disposal".

## **STORAGE**

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2. Keep the container closed to prevent spills and contamination.
3. Keep packages dry at all times.

## **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 user assumes the risk to persons or property that arises from any such use of this product.