Container Label

GROUP 4 HERBICIDE

### **BANVEL® VM HERBICIDE**

### SOLUTION

### COMMERCIAL

Banvel VM herbicide controls deciduous and coniferous brush species and broadleaf weeds in pasture and rangeland, and non-cropland areas, such as roadsides, hydro, pipeline and railway rights-of-way, airports, military bases, wasteland and similar non-cropland areas, as well as broadleaf weeds in established turf

**REGISTRATION NO.** 29249

PEST CONTROL PRODUCTS ACT

POISON



### 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 ATTACHED BROCHURE BEFORE USING KEEP OUT OF REACH OF CHILDREN

BASF Canada Inc. 5025 Creekbank Road Building A, 2nd Floor Mississauga, Ontario L4W 0B6 1-877-371-2273

BANVEL is a registered trade-mark of BASF Corporation, used under license by BASF Canada Inc.

### 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.

Aerial applicators must wear long pants and long-sleeved shirt. Aerial mixer/loaders must wear long pants and a long-sleeved shirt and chemical resistant gloves. Must use closed cab aircraft. Mixer/loader and applicator must be different individuals. No human flaggers are permitted.

For pastures and rangeland, DO NOT enter treated fields until 12 hours after application. For non-crop areas, DO NOT enter treated areas without protective clothing until sprays have dried.

For high volume handwand applications, applicators must limit volume of solution used per day to 400 L (broadleaf control spot treatment only).

### **ENVIRONMENTAL PRECAUTIONS**

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

### FIRST AID INSTRUCTIONS

**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

### For Recyclable Containers

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/territorial requirements.

### **Returnable-Refillable Containers**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

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

### 1000 L – Bulk Container Refilling

The container is to be refilled only with Banvel VM Herbicide.

- 1. Reseal and return to an authorized BASF bulk site.
- 2. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.
- 3. Check for leaks after refilling and before transportation.
- 4. Do not refill or transport damaged or leaking containers.
- 5. 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.
- 6. If the container is not being refilled, refer to Section on "Disposal".

# STORAGE

- 1. Store this product away from food or feed.
- 2. Store Banvel VM Herbicide in its original container only, away from other pesticides or fertilizer.
- 3. Keep the container closed to prevent spills and contamination.
- 4. 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.

Booklet

GROUP 4 HERBICIDE

### **BANVEL® VM HERBICIDE**

### SOLUTION

### COMMERCIAL

Banvel VM herbicide controls deciduous and coniferous brush species and broadleaf weeds in pasture and rangeland, and non-cropland areas, such as roadsides, hydro, pipeline and railway rights-of-way, airports, military bases, wasteland and similar non-cropland areas, as well as broadleaf weeds in established turf

**REGISTRATION NO.** 29249

# PEST CONTROL PRODUCTS ACT

POISON



# 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. 5025 Creekbank Road Building A, 2nd Floor Mississauga, Ontario L4W 0B6 1-877-371-2273

BANVEL is a registered trade-mark of BASF Corporation, used under license by BASF Canada Inc.

# ABOUT BANVEL VM HERBICIDE

Banvel VM herbicide controls deciduous and coniferous brush species and broadleaf weeds in pasture and rangeland, and non-cropland areas, such as roadsides, hydro, pipeline and railway rights-of-way, airports, military bases, wasteland and similar non-cropland areas, as well as broadleaf weeds in established turf.

# 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 spray 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 25°C.
- 4. Avoid spraying under conditions of high humidity or fog.

# **ENVIRONMENTAL PRECAUTIONS**

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

### Surface Runoff

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 filter strip between the treated area and the edge of the water body.

### Leaching

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.

### **DIRECTIONS FOR USE**

### **Tank Mixing**

This product may be tank mixed with a fertilizer, a supplement or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact BASF Canada Inc. at 1-877-371-2273 for information before mixing any pesticide that is not specifically recommended on this label.

#### Tank Mix Compatibility Determination

To determine compatibility, mix all components of the finished spray in proportionate quantities in a small jar. Add components to the test jar in the following order: wettable powders and water dispersible granules, liquid flowables and suspensions, emulsifiable concentrate formulations, and solutions. If the mixture does not ball-up or form flakes, sludge, jelly, oily films or layers, or other precipitates within 2 hours after mixing and can easily be resuspended with agitation, then the tested spray-mix is compatible. Always follow the most restrictive label regarding any precautions when tank mixing.

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.

### 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.

For application to turf by tractor-pulled field sprayers (e.g., golf courses and sod farms), 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.

### 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 15 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) coarse classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wingspan or rotor span.

### Spray Buffer Zones

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with foliage.

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, 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.

# Spray Buffer Zones for Uses in Non-Cropland and Turf Using ASAE Coarse Applications

Method of Crop		Spray Buffer Zones (metres) Required for the Protection of:					
Application	Application			er Habitat epths:	Estuarine Habitats o		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m		
Field sprayer	Pasture and rangeland, non-cropland **		1	1	0	0	10
Aerial	Non-cropland **	Fixed wing	45	30	0	0	800
		Rotary wing	30	20	0	0	525

\*\* Spray buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way, including railroad ballast, rail and hydro rights-of-way, utility easements, roads, and training grounds and firing ranges on military bases.

# Spray Buffer Zones for Uses in Turf (for liquid commercial class products that may be applied by tractor-pulled field sprayers, e.g., to golf courses or sod farms)

Method of Application	Сгор	Spray Buffer Zones (metres) Required for the Protection of:		
		Aquatic Habit	ats of Depths:	Terrestrial
		Less than 1 m	Greater than 1 m	Habitat
Field sprayer	Turf (up to 135 g a.i./ha)	0	0	3

When tank mixes are permitted, 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 Pesticides portion of the Canada.ca website.

# 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.

l Herbicide ate	Tank Mix
l Herbicide one	none
5 L/ha	
l Herbicide one L/ha	none

Herbaceous Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
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

\*\* Use Banvel VM Herbicide at 2.3 L/ha

# **BRUSH WEED CONTROL**

Banvel VM Herbicide is effective in controlling many deciduous and coniferous brush species. Apply Banvel VM Herbicide tank-mixes in spring or early summer to deciduous and coniferous species (leaves should be fully expanded) either as a leaf stem treatment or as a broadcast ground application. Stop applications at least 3 weeks prior to change of leaf colour in the fall.

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. Control of balsam poplar, as well as other species, may be improved using a tankmix with 2,4-D L.V. ester herbicide, especially under periods of hot, dry weather.

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)
balsam fir balsam poplar basswood birch	Banvel VM Herbicide at 4.0 L /1000 L of water +	8.0 L of 2,4-D amine (500 g/L formulation) <b>OR</b>

Brush Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
black cottonwood bur oak elm hickory pine red oak spruce tamarack vine maple white cedar		6.6 L of 2,4-D L.V. (600 g/L formulation)
sugar maple white ash	Banvel VM Herbicide at 5.2 L /1000 L of water +	7.1 L of 2,4-D L.V. ester (350 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.

Brush Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
aspen poplar * white (paper) birch willow	Banvel VM Herbicide at 4.2 L/ha +	8.0 L/ha of 2,4-D amine (500 g/L formulation) <b>OR</b> 6.6 L of 2,4-D L.V. (600 g/L formulation)
	OR	
	Banvel VM Herbicide at 5.2 L/ha +	7.2 L/ha of 2,4-D (350 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)

\* For control of small aspen popular weeds, a reduced rate of Banvel VM Herbicide at 3.25 L/ha may be tank-mixed with 4.4 L/ha of 2,4-D amine (500 g/L formulation) **OR** 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation).

# Aerial Application Use Instructions (non-crop areas only)

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. Must use closed cab aircraft.

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**

No human flaggers are permitted.

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

Mixer/loader and applicator must be different individuals.

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

Aerial applicators must wear long pants and a long-sleeved shirt. Aerial mixers/loaders must wear long pants and a long-sleeved shirt and chemical-resistant gloves and 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 1-877-371-BASF (2273) 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:

- 1. Banvel VM Herbicide tankmixes may be applied aerially in not less than 85 litres of water per hectare.
- 2. 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.
- 3. Do not use nozzle pressure above 300 kPa.
- 4. Do not spray when wind is blowing towards nearby desirable trees or plants.

Brush Weeds Controlled	Banvel VM Herbicide Rate	Tank Mix
aspen poplar white (paper) birch	Banvel VM Herbicide at 4.2 L /ha +	8.0 L of 2,4-D amine (500 g/L formulation) <b>OR</b> 6.6 L of 2,4-D L.V. ester (600 g/L formulation)

# **ROADSIDE VEGETATION CONTROL**

Banvel VM Herbicide may be applied in tank-mix with glyphosate for annual vegetation control on 1-2 meter wide roadside shoulders. Only use glyphosate products registered for non-cropland uses. Banvel VM Herbicide tank-mixes with glyphosate and 2,4-D amine herbicide offer a broader spectrum of total control of roadside vegetation.

### Rates

Apply a tankmix of Banvel VM Herbicide at a rate of 1.25 - 2.5 L/ha with glyphosate (amine)<sup>1</sup> at a rate of 0.75 to 1.0 L/ha. For broad spectrum weed control, tank-mix Banvel VM Herbicide at a rate of 0.30 L/ha with 1.2 L/ha of 2,4-D amine (500 g/L formulation) and 0.75 -1.0 L/ha of glyphosate (amine).

<sup>1</sup> Only use glyphosate products registered for roadside use. Adjust product application rate based on active ingredient concentration. Refer to the glyphosate product label for specific weed control and for additional precautions and application instructions.

# ESTABLISHED TURF

Banvel VM Herbicide is effective in providing broadleaf weed control in established turf. Tankmixing Banvel VM Herbicide with 2.2 L/ha of 2,4-D amine (500 g/L) or 2 L/ha of 2,4-D L.V. ester (600 g/L) herbicide will provide additional broadleaf weed control, including the control of dandelion and plantain.

Apply Banvel VM Herbicide or Banvel VM Herbicide tank-mixes in at least 110 litres of water per hectare as a foliar spray when weeds are actively growing. Best results will be obtained if application is made in early spring or in the fall two weeks prior to first frost.

Weeds Controlled	Banvel VM Herbicide Rate
clover erect knotweed mouse-eared chickweed sheep sorrel	0.28 L/ha

# **Restrictions and Limitations**

- This product does not prevent weeds. Apply only when weeds are present. This product works best when applied to the leaves of actively growing weeds.
- DO NOT apply more than two broadcast applications per season. This does not include spot treatments.
- If weed populations do not warrant a broadcast application (e.g. entire lawn), consider spot treatments that target only weedy areas.
- Avoid application of this product when winds are gusty.
- TOXIC to broadleaf terrestrial plants. This product may harm other broadleaf plants in the vicinity of the treatment area. If applying this product using a handheld sprayer, DO NOT directly spray or allow the spray to drift onto ornamentals or gardens.
- DO NOT apply to the exposed roots of trees and ornamentals.
- Do not apply Banvel VM Herbicide or Banvel VM Herbicide tank-mixes closer than the drip line of trees and shrubs.
- To prevent runoff, DO NOT apply to driveways, sidewalks or any other hard surface.
- Do not apply to bent grass lawns.
- Do not rake, mow or water lawn within 24 hours after application.
- DO NOT apply by air.

# **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 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 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.

Aerial applicators must wear long pants and long-sleeved shirt. Aerial mixer/loaders must wear long pants and a long-sleeved shirt and chemical resistant gloves. Must use closed cab aircraft. Mixer/loader and applicator must be different individuals. No human flaggers are permitted.

For pastures and rangeland, DO NOT enter treated fields until 12 hours after application. For non-crop areas, DO NOT enter treated areas without protective clothing until sprays have dried.

For high volume handwand applications, applicators must limit volume of solution used per day to 400 L (broadleaf control spot treatment only).

# FIRST AID INSTRUCTIONS

**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

### For Recyclable Containers

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/territorial requirements.

# **Returnable-Refillable Containers**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

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

# 1000 L – Bulk Container Refilling

The container is to be refilled only with Banvel VM Herbicide.

- 1. Reseal and return to an authorized BASF bulk site.
- 2. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.
- 3. Check for leaks after refilling and before transportation.
- 4. Do not refill or transport damaged or leaking containers.
- 5. 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.
- 6. 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 this product away from food or feed.
- 2. Store Banvel VM Herbicide in its original container only, away from other pesticides or fertilizer.
- 3. Keep the container closed to prevent spills and contamination.
- 4. 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.