We create chemistry

# Safety Data Sheet
## Banvel® VM Herbicide



## 1. Identification

### Product identifier used on the label

# Banvel® VM Herbicide

### Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, herbicide

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

### Details of the supplier of the safety data sheet

Company:
BASF Canada Inc.
5025 Creekbank Road
Building A, Floor 2
Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

### Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: (800) 454-COPE (2673)

### Other means of identification

Molecular formula: C8 H6 Cl2 O3 . C4 H11 N O2
PCP # 29249
Synonyms: diglycolamine salt of dicamba

## 2. Hazards Identification

**According to Hazardous Products Regulations (HPR) (SOR/2015-17)**

### Classification of the product

| | | |
|---|---|---|
| Skin Corr./Irrit. | 1B | Skin corrosion/irritation |
| STOT SE | 3 (May cause drowsiness and | Specific target organ toxicity — single exposure |

| | | |
|---|---|---|
| | dizziness.) | |
| STOT SE | 3 (irritating to respiratory system) | Specific target organ toxicity — single exposure |
| Aquatic Acute | 1 | Hazardous to the aquatic environment - acute |
| Aquatic Chronic | 2 | Hazardous to the aquatic environment - chronic |

**Label elements**

Pictogram:

Signal Word:
Danger

Hazard Statement:

| | |
|---|---|
| H314 | Causes severe skin burns and eye damage. |
| H336 | May cause drowsiness or dizziness. |
| H335 | May cause respiratory irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H400 | Very toxic to aquatic life. |

Precautionary Statements (Prevention):

| | |
|---|---|
| P280 | Wear protective gloves, protective clothing and eye protection or face protection. |
| P273 | Avoid release to the environment. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P260 | Do not breathe dust/gas/mist/vapours. |
| P264 | Wash contaminated body parts thoroughly after handling. |

Precautionary Statements (Response):

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or physician. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P301 + P330 + P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |

Precautionary Statements (Storage):

| | |
|---|---|
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |

Precautionary Statements (Disposal):

| | |
|---|---|
| P501 | Dispose of contents/container in accordance with local regulations. |

## 3. Composition / Information on Ingredients

**According to Hazardous Products Regulations (HPR) (SOR/2015-17)**

Benzoic acid, 3,6-dichloro-2-methoxy-, compd. with 2-(2-aminoethoxy) ethanol (1:1)
CAS Number: 104040-79-1
Content (W/W): 58.1 %
Synonym: Dicamba diglycolamine salt

## 4. First-Aid Measures

### Description of first aid measures

**General advice:**
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

**If inhaled:**
Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

Keep patient calm, remove to fresh air, seek medical attention. If not breathing, give artificial respiration.

**If on skin:**
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

Rinse skin immediately with plenty of water for 15 - 20 minutes.

**If in eyes:**
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

**If swallowed:**
Do not induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

### Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

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

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## 5. Fire-Fighting Measures

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray

### Special hazards arising from the substance or mixture
Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides
The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

**Further information:**
Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures
Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

### Environmental precautions
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

### Methods and material for containment and cleaning up
Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

## 7. Handling and Storage

### Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:
The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

### Conditions for safe storage, including any incompatibilities
Segregate from foods and animal feeds.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination.
Protect from temperatures below: 0 °C
Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.
Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

## 8. Exposure Controls/Personal Protection

**Users of a pesticidal product should refer to the product label for personal protective equipment requirements.**

No substance specific occupational exposure limits known.

**Advice on system design:**
Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

**Personal protective equipment**

**Respiratory protection:**
Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

**Hand protection:**
Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

**Eye protection:**
Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

**Body protection:**
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

**General safety and hygiene measures:**
Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Remove contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

## 9. Physical and Chemical Properties

| | | |
|---|---|---|
| Form: | liquid | |
| Odour: | mild, pleasant, sweetish | |
| Odour threshold: | Not determined due to potential health hazard by inhalation. | |
| Colour: | light blue-green | |
| pH value: | approx. 8.0<br>( 25 °C)<br>(measured with the undiluted substance) | |
| Freezing point: | < 0 °C<br>Information applies to the solvent. | |
| Boiling point: | approx. 100 °C<br>Information applies to the solvent. | |
| Flash point: | No flash point - Measurement made up to the boiling point. | |
| Flammability: | Based on the structure or composition there is no indication of flammability | |
| Lower explosion limit: | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. | |
| Upper explosion limit: | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. | |
| Autoignition: | 465 °C<br>The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. | (Directive 92/69/EEC, A.15) |
| Vapour pressure: | approx. 23.3 hPa<br>( 20 °C)<br>Information applies to the solvent. | |
| Density: | approx. 1.23 g/cm3<br>( 25 °C) | |
| Vapour density: | not determined | |

| | | |
|---|---|---|
| *Information on: dicamba* | | |
| Partitioning coefficient n-octanol/water (log Pow): | -0.55<br>( 25 °C)<br>-1.8<br>( 25 °C)<br>-1.9<br>( 25 °C) | (OECD Guideline 107)<br>(OECD Guideline 107)<br>(OECD Guideline 107) |
| --- | | |
| Self-ignition temperature: | not self-igniting The statements are based on the properties of the individual components. | |
| Thermal decomposition: | approx. 230 °C<br>The values mentioned are those of the active ingredient. No decomposition if stored and handled as prescribed/indicated. | |
| Viscosity, dynamic: | 22.4 mPa.s<br>( 25 °C) | |
| Viscosity, kinematic: | approx. 18.36 mm2/s | (calculated (from dynamic viscosity)) |
| Particle size: | The substance / product is marketed or used in a non solid or granular form. | |
| Solubility in water: | soluble | |
| Evaporation rate: | not applicable | |
| Other Information: | If necessary, information on other physical and chemical parameters is indicated in this section. | |

## 10. Stability and Reactivity

### Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

### Chemical stability
The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions
The product is chemically stable.
Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

### Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

### Incompatible materials
strong acids, strong bases, strong oxidizing agents

### Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
approx. 230 °C
The values mentioned are those of the active ingredient. No decomposition if stored and handled as prescribed/indicated.

## 11. Toxicological information

**Primary routes of exposure**

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

**Acute Toxicity/Effects**

Acute toxicity
Assessment of acute toxicity: Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Oral
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg (OECD Guideline 423)
No mortality was observed.

Inhalation
Type of value: LC50
Species: rat
Value: > 5.3 mg/l
Exposure time: 4 h

Dermal
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg

Assessment other acute effects
Assessment of STOT single:
Possible narcotic effects (drowsiness or dizziness). Causes temporary irritation of the respiratory tract.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion
Assessment of irritating effects: Not irritating to eyes and skin.

Skin
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye
Species: rabbit
Result: non-irritant

Method: OECD Guideline 405

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

modified Buehler test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Aspiration Hazard
not applicable

**Chronic Toxicity/Effects**

Repeated dose toxicity
Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 2-(2-aminoethoxy)ethanol*
*Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals. After repeated administration the prominent effect is the induction of corrosion. Causes mortality through prolonged or repeated exposure.*
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Genetic toxicity
Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity
Assessment of carcinogenicity: The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Reproductive toxicity
Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 2-(2-aminoethoxy)ethanol*
*Assessment of reproduction toxicity: Animal studies indicated reproductive effects only at doses also toxic to the parental animals.*
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Teratogenicity
Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Other Information
Misuse can be harmful to health.

Medical conditions aggravated by overexposure
Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

## 12. Ecological Information

### Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Acutely toxic for aquatic plants.

Toxicity to fish
LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss

Aquatic invertebrates
EC50 (48 h) > 100 mg/l, Daphnia magna (static)

Aquatic plants
EC50 (7 d) > 100 mg/l, Lemna gibba

EC10 (7 d) 1.7 mg/l, Lemna gibba

Toxicity to fish

*Information on: dicamba*
*LC50 (96 h) > 98.5 mg/l, Brachydanio rerio*
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Aquatic plants

*Information on: dicamba*
*EC50 (72 h) > 87 mg/l (growth rate), Pseudokirchneriella subcapitata*
*No observed effect concentration (72 h) 43 mg/l, Pseudokirchneriella subcapitata*
*EC50 (14 d) 0.94 mg/l (growth rate), Myriophyllum spicatum*
*EC20 (14 d) 0.35 mg/l (growth rate), Myriophyllum spicatum*
*No observed effect concentration (14 d) 0.27 mg/l, Myriophyllum spicatum*
*EC50 (14 d) > 3.2 mg/l (growth rate), Lemna gibba*
*The value meets the highest applied test concentration.*
*No observed effect concentration (14 d) 0.19 mg/l, Lemna gibba*
---

Chronic toxicity to fish

*Information on: dicamba*
*No observed effect concentration (25 d) 10 mg/l, Pimephales promelas*
---

Chronic toxicity to aquatic invertebrates

*Information on: dicamba*
*No observed effect concentration (35 d) 5.8 mg/l, Mysidopsis bahia*
---

Assessment of terrestrial toxicity
With high probability not acutely harmful to terrestrial organisms.

Other terrestrial non-mammals
LC50 1,265 mg/kg, Colinus virginianus

### Persistence and degradability

Assessment biodegradation and elimination (H2O)
The product has not been tested. The statement has been derived from the properties of the individual components.

### Bioaccumulative potential

Assessment bioaccumulation potential
The product has not been tested. The statement has been derived from the properties of the individual components.

### Mobility in soil

Assessment transport between environmental compartments
The product has not been tested. The statement has been derived from the properties of the individual components.

### Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

## 13. Disposal considerations

**Waste disposal of substance:**
See product label for disposal and recycling instructions.

**Container disposal:**
Rinse the container or liner as needed for disposal. Add rinsate to spray tank. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Consult the product label for additional details.

## 14. Transport Information

**Land transport**
TDG

| | |
|---|---|
| Hazard class: | 9 |
| Packing group: | III |
| ID number: | UN 3082 |
| Hazard label: | 9, EHSM |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DICAMBA) |

**Sea transport**
IMDG

| | |
|---|---|
| Hazard class: | 9 |
| Packing group: | III |
| ID number: | UN 3082 |

| | |
|---|---|
| Hazard label: | 9, EHSM |
| Marine pollutant: | YES |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DICAMBA) |

**Air transport**
IATA/ICAO

| | |
|---|---|
| Hazard class: | 9 |
| Packing group: | III |
| ID number: | UN 3082 |
| Hazard label: | 9, EHSM |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DICAMBA) |

**Further information**
Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

## 15. Regulatory Information

**Federal Regulations**

**Registration status:**
Crop Protection DSL, CA released / exempt

**Labeling requirements under Pest Control Products Act**

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

This chemical is a pest control product regulated by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:

Caution: Poison
WARNING:
Eye irritant.
KEEP OUT OF REACH OF CHILDREN.
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
Avoid contact with the skin, eyes and clothing.

There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

## 16. Other Information

**SDS Prepared by:**
BASF NA Product Regulations
SDS Prepared on: 2025/03/12

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.


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