



Revision Date: August 12, 2025



Section 1 – Identification

Product Identifier: Bifender® SM

Recommended use: **Refer to product label for use instructions.**

Manufacturer/Supplier: Vive Crop Protection Inc., 6275 Northam Dr., Suite 1, Mississauga, ON L4V 1Y8, Canada

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Section 2 – Hazard Identification

Classification: The following hazard classification is in accordance with **29 CFR 1910.1200 [OSHA HCS 2012]** in the United States of America, and **WHMIS 2015** in Canada.

Label Elements, Including Precautionary Statements:



Acute Oral 4; Acute Inhalation 4; Skin irritation 3; Eye irritation 2B; Carcinogenicity 2; Acute Aquatic 1; Chronic Aquatic 1

Signal Word: WARNING

Hazard Statements: H302 Harmful if swallowed; H316 Causes mild skin irritation; H332 Harmful if inhaled; H351 Suspected of causing cancer; H400 Very toxic to aquatic life; H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements: P201 Obtain special instructions before use; P202 Do not handle until all safety precautions have been read and understood; P261 Avoid breathing dust/mist/spray; P264 Wash thoroughly after handling; P270 Do not eat, drink or smoke when using this product; P271 Use only outdoors or in a well-ventilated area; P273 Avoid release to the environment; P280 Wear protective gloves; P281 Use personal protective equipment as required

Section 3 – Composition/Information on Ingredients

| Component | CAS | Wt % |
|------------|------------|-------|
| Bifenthrin | 82657-04-3 | 12.0% |

Contains other ingredients not otherwise classified as hazardous or present in concentrations which warrant inclusion in this SDS.

Section 4 – First-Aid Measures

| | |
|--------------|---|
| Ingestion | P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. |
| Inhalation | P304 + P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell. |
| Eye Contact | P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing; P337 + P313 If eye irritation persists: Get medical attention |
| Skin Contact | P302 + P312 IF ON SKIN: Call a POISON CENTER or physician if you feel unwell P332 + P313 If skin irritation occurs: Get medical advice. |

Symptoms/Effects, Acute and Delayed: Ingestion or inhalation may cause incoordination, tremors, salivation, vomiting, diarrhea, and irritability to sound and touch. Dermal exposure may cause tingling sensations, rash, redness, irritation, or inflammation.

Section 5 – Fire Fighting Measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Specific hazards: May produce toxic and irritant vapors

Special protective equipment: Wear self-contained breathing apparatus for fire fighting

Section 6 – Accidental Release Measures

Personal Precautions: Wear respiratory protection. Wear protective gloves/protective clothing. Do not breathe mist/spray. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environment Precautions: Do not let product enter drains. Discharge into the environment must be avoided.

Methods and Materials for Containment and Cleaning Up: Absorb using inert materials and dispose of in accordance with local regulations. Do not let the material dry before cleaning the spill.

Section 7 – Handling and Storage

GHS Precautions for Safe Handling: P264 Wash thoroughly after handling; P261 Avoid breathing dust/mist/spray; P270 Do not eat, drink or smoke when using this product; P271 Use only outdoors or in a well-ventilated area; P273 Avoid release to the environment

Conditions for Safe Storage: P403 +P233 – Store in a well-ventilated place. Keep container tightly closed; P405 - Store locked up; Avoid extreme temperatures

Section 8 - Exposure Controls/Personal Protection:

| Component | OSHA PEL | ACGIH TLV | AOEL |
|------------|----------|-----------|------------------|
| Bifenthrin | - | - | 0.0075 mg/kg/day |

Engineering Controls: This product is intended to be used outdoors. If necessary, provide local exhaust ventilation and use appropriate containment procedures to maintain airborne levels at a safe concentration.

Personal Protective Equipment:

Applicators and other handlers (other than mixers and loaders) must wear: Long-sleeved shirt and long pants; Shoes plus socks; Chemical resistant gloves made of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils or viton ≥ 14 mils

Mixers and loaders must wear:

Long-sleeved shirt and long pants; Shoes plus socks; Chemical resistant gloves made of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils or viton ≥ 14 mils; Protective eyewear

Section 9 – Physical and Chemical Properties

| | |
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| Appearance | Off-white Liquid |
| Odor | Mild unsaturated |
| Odor threshold | Not available |
| pH | 6-8 |
| Melting point | Not available |



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| Freezing point | Not available |
| Initial Boiling point/Boiling Range | Not available |
| Flash point | Not available |
| Evaporation rate | Not available |
| Flammability (solid, gas) | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapor pressure | Not available |
| Vapor density | Not available |
| Relative Density | Not available |
| Solubility | 1.01 – 1.11 g/mL (20°C) |
| Partition coefficient (n-octanol/water) | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Viscosity | Not available |

Section 10 – Stability and Reactivity

| | |
|----------------------------------|---|
| Reactivity | Not compatible with strong oxidizers. |
| Chemical Stability | Relatively stable in neutral and weakly basic media. |
| Hazardous Reactions | When heated to decomposition, will emit toxic vapors of fluorine and chlorine |
| Conditions to Avoid | High temperatures, strong oxidizers |
| Incompatible Materials | Strong oxidizers |
| Hazardous Decomposition Products | No data Available. In the event of a fire, see section 5 |

Section 11 – Toxicological information:

| | |
|----------------------------|---|
| Acute Oral LD50 | 1360 mg/kg |
| Acute Dermal LD50 | > 5000 mg/kg |
| Acute Inhalation LD50 | 2.05 mg/L |
| Eye Irritation / Corrosion | Rabbit: Minimally irritating. Irritation cleared by 48 hours. |

| | |
|-----------------------------|---|
| Skin Irritation / Corrosion | Rabbit: Slightly irritating. Irritation cleared by 72 hours. |
| Dermal Sensitization | Guinea Pig: No skin sensitization |
| Germ Cell Mutagenicity | No data available |
| Carcinogenicity | Not classified as carcinogenic by NTP, IARC or ACGIH. Bifenthrin is listed as possible human carcinogen (Category C) by the US-EPA HED-CPRC1. |
| Reproductive Toxicity | Not a developmental or reproductive toxicant (bifenthrin). |
| STOT-Single Exposure | No data available |
| STOT-Repeated Exposure | No data available |
| Aspiration Hazard | No data available |
| Acute Exposure Symptoms | Acute exposure of bifenthrin may lead to tremors, twitching, uncoordinated movement/ataxia, convulsions and skin irritation/rash. |
| Chronic Exposure Symptoms | Chronic exposure of bifenthrin may lead to tremors, twitching, uncoordinated movement/ataxia, and convulsions. |
| Interactions | None known |

Section 12 – Ecological Information:

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|---------------------------------|-------------|
| Bird LD50 | 18000 mg/kg |
| Bird Dietary LD50 | 4450 mg/kg |
| Fish Acute 96-h | 2.6 µg/L |
| Fish Chronic 30-d | 0.12 µg/L |
| Aquatic Invertebrate Acute EC50 | 1.1 µg/L |
| Aquatic Crustacean Acute LC50 | 0.012 µg/L |
| Algae Acute 72-h | 0.882 µg/L |
| Honeybee Acute 48-h | 0.1 µg/Bee |

| | |
|---------------------------|----------------|
| Earthworm Acute 14-d | >8 µg/kg |
| Soil Degradation DT50 | 26d |
| Aqueous Photolysis DT50 | pH 7: 255 d |
| Aqueous Hydrolysis DT50 | pH 5-9: stable |
| Bioaccumulation Potential | 1703 |

Section 13 – Disposal: P501 – Dispose of contents/container in accordance with local/regional/national/international regulations. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA regional Office for guidance. Dangerous to the environment. Avoid all releases to sewer.

Section 14 – Transportation Information:

DOT (US) Ground – Non-Bulk (<= 119 Gallons):

UN-Number: 3352

Class: 6.1

Packing Group: III

Proper Shipping Name: Pyrethroid pesticide, liquid, toxic (Bifenthrin mixture)

DOT (US) – Marine or Bulk (> 119 Gallons):

UN-Number: 3352

Class: 6.1

Packing Group: III

Proper Shipping Name: Pyrethroid pesticide, liquid, toxic (Bifenthrin mixture)

Other: Marine pollutant

Air Transport (IATA)

UN-Number: 3352

Class: 6.1

Packing Group: III

Proper Shipping Name: Pyrethroid pesticide, liquid, toxic (Bifenthrin mixture)

Other: Marine pollutant



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Section 15 – Regulatory Information:

Pesticidal use is only permitted in compliance with small-scale testing which conforms to the requirements of 40 CFR 172.3 (b).]

FIFRA: This mixture is a pesticide product as per the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS) and material safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear, if appropriate. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

EPA Registration Number: 89118-8

Section 16 – Other Information:

LEGAL NOTICE: Vive Crop Protection, Inc. requests all users of this product to study this Material Safety Data Sheet (SDS) and become aware of all product hazards and safety information. The data in this SDS relate only to the specific product designated herein and do not relate to use of such product in combination with any other material or in any process. To promote the safe use of this product, all users should notify their employees, agents and contractors of the information in this SDS and any other product hazards and safety information.

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