

# SAFETY DATA SHEET

## BIFLEX 10 WP

SDS # : 1482-1-A  
Revision date: 2019-10-10  
Format: NA  
Version 1



### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name** BIFLEX 10 WP

#### Other means of identification

**Product Code(s)** 1482-1-A

**Synonyms** BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl (1R,3R)-rel-3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylate (CAS name); 2-methyl-3-phenylbenzyl (1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name)

**Active Ingredient(s)** Bifenthrin

**Chemical Family** Pyrethroid

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

**Recommended Use:** Insecticide

**Restrictions on Use:** Use as recommended by the label.

#### Supplier Address

FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104  
(215) 299-6000 (General Information)  
SDS-Info@fmc.com (E-Mail General Information)

#### Emergency telephone number

Medical Emergencies :  
1 800 / 331-3148 (U.S.A. & Canada)  
1 651 / 632-6793 (All Other Countries - Collect)

For leak, fire, spill or accident emergencies, call:  
1 800 / 424-9300 (CHEMTREC - U.S.A.)  
1 703 / 741-5970 (CHEMTREC - International)  
1 703 / 527-3887 (CHEMTREC - Alternate)

### 2. HAZARDS IDENTIFICATION

#### Classification

#### OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 2

Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

**GHS Label elements, including precautionary statements**

**EMERGENCY OVERVIEW**

**Danger**

**Hazard Statements**

H302 - Harmful if swallowed  
H332 - Harmful if inhaled  
H351 - Suspected of causing cancer  
H370 - Causes damage to organs  
H372 - Causes damage to organs through prolonged or repeated exposure



**Precautionary Statements - Prevention**

P202 - Do not handle until all safety precautions have been read and understood  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

P308 + P311 - If exposed or concerned: Call a POISON CENTER or doctor  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
P330 - Rinse mouth

**Precautionary Statements - Storage**

P405 - Store locked up

**Precautionary Statements - Disposal**

P501 - Dispose of contents/container according to label directions

**Hazards not otherwise classified (HNOC)**

No hazards not otherwise classified were identified.

**Other Information**

Very toxic to aquatic life with long lasting effects.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Family** Pyrethroid.

Chemical name	CAS-No	Weight %
Kaolin	1332-58-7	40-50
Bifenthrin	82657-04-3	10
Petroleum distillates, solvent dewaxed light paraffinic	64742-56-9	1-5
Crystalline silica, quartz	14808-60-7	1-5

Synonyms are provided in Section 1.

#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
<b>Skin Contact</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
<b>Inhalation</b>	Move person to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
<b>Ingestion</b>	Call a poison control center 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 center or doctor. Do not give anything by mouth to an unconscious person.
<b>Most important symptoms and effects, both acute and delayed</b>	Central nervous system effects. Hives. Itching. Rashes. Redness.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Treat symptomatically. This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use CO <sub>2</sub> , dry chemical, or foam.
<b>Specific Hazards Arising from the Chemical</b>	Powdered material may form explosive dust-air mixtures.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	No information available.
<b>Sensitivity to Static Discharge</b>	No information available.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Isolate and post spill area. Remove all sources of ignition. Ventilate the area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.
<b>Other</b>	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
<b>Environmental Precautions</b>	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. Keep out of waterways.
<b>Methods for Containment</b>	Use a wet sweeping compound or water to prevent dust formation.
<b>Methods for cleaning up</b>	Sweep up and shovel into suitable containers for disposal. Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

#### 7. HANDLING AND STORAGE

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Do not contaminate
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other pesticides, fertilizers, water, food, or feed by storage or disposal.

**Storage**

Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.

**Incompatible products**

None known

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Kaolin (1332-58-7)	TWA: 2 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	Mexico: TWA 2 mg/m <sup>3</sup>
Crystalline silica, quartz (14808-60-7)	TWA: 0.025 mg/m <sup>3</sup>	TWA: 50 µg/m <sup>3</sup>	IDLH: 50 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	Mexico: TWA 0.025 mg/m <sup>3</sup>
Chemical name	British Columbia	Quebec	Ontario TWA EV	Alberta
Kaolin (1332-58-7)	TWA: 2 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> respirable	TWA: 2 mg/m <sup>3</sup>
Crystalline silica, quartz (14808-60-7)	TWA: 0.025 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.10 mg/m <sup>3</sup> respirable	TWA: 0.025 mg/m <sup>3</sup>

**Appropriate engineering controls****Engineering measures**

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment. Ventilate all transport vehicles prior to unloading.

**Individual protection measures, such as personal protective equipment****Eye/Face Protection**

For dust, splash, mist or spray exposure, wear chemical protective goggles.

**Skin and Body Protection**

Use coveralls or long-sleeved uniform and head covering. For large exposures as in case of a spill, use barrier suit covering the entire body, such as a waterproof PVC suit. Leather items, including shoes, belts and watchbands, that have been contaminated should be removed and destroyed. Wash all work clothing before reuse (separately from clothing commonly used).

**Hand Protection**

Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

**Respiratory Protection**

For dust, splash, mist or spray exposures, wear a filtering mask.

**Hygiene measures**

Must have clean water available for washing in case of eye or skin contamination. Wash skin before eating, drinking, chewing gum, or using snuff. Shower after work. Remove contaminated clothing and wash before reuse. Wash all work clothing separately; do not mix with household laundry.

**General information**

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties****Appearance**

Powder

**Physical State**

Dry powder

**Color**

Beige

Odor	Faint hydrocarbon
Odor threshold	No information available
pH	8.36 @ 25°C
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	0.29-0.40 g/mL
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available
Bulk density	288.36 kg/m <sup>3</sup>

## 10. STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat Keep away from open flames, hot surfaces and sources of ignition
Incompatible materials	None known.
Hazardous Decomposition Products	Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride, Sulfur dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

LD50 Oral	335 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation	3.35 mg/L 4 hr (rat)
Serious eye damage/eye irritation	May cause slight irritation.
Skin corrosion/irritation	Non-irritating.
Sensitization	Non-sensitizing

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Kaolin (1332-58-7)	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	
Bifenthrin (82657-04-3)	55 mg/kg ( rat )	> 2000 mg/kg ( rat )	0.8 mg/L ( female, rat ) 4 h
Petroleum distillates, solvent dewaxed light paraffinic (64742-56-9)	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	> 5399 mg/m <sup>3</sup> ( Rat ) 4 h

### Information on toxicological effects

Symptoms	Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including
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convulsions, tremors and bloody nasal discharge.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Chronic toxicity</b>	Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure
<b>Mutagenicity</b>	Bifenthrin: Not genotoxic in laboratory studies.
<b>Carcinogenicity</b>	Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice.
<b>Neurological effects</b>	Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure.
<b>Reproductive toxicity</b>	Bifenthrin: No toxicity to reproduction in animal studies.
<b>Developmental toxicity</b>	Bifenthrin: Not teratogenic in animal studies.
<b>STOT - single exposure</b>	Causes damage to organs. See listed target organs below.
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure. See listed target organs below.
<b>Target organ effects</b>	Bifenthrin: Central Nervous System
<b>Neurological effects</b>	Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure.
<b>Aspiration hazard</b>	No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Petroleum distillates, solvent dewaxed light paraffinic 64742-56-9	A2	Group 1	Known	
Crystalline silica, quartz 14808-60-7	A2	Group 1	Known	X

#### **Legend:**

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

## 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

<b>Bifenthrin (82657-04-3)</b>				
Active Ingredient(s)	Duration	Species	Value	Units
Bifenthrin	96 h LC50	Fish	0.1	µg/L
	72 h EC50	Algae	0.822	mg/L
	48 h EC50	Crustacea	0.11	µg/L
	21 d NOEC	Fish	0.012	µg/L
	21 d NOEC	Crustacea	0.0013	µg/L

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Sodium Borate 1330-43-4	96 h EC50: 2.6 - 21.8 mg/L (Pseudokirchneriella subcapitata) static 96 h EC50: = 158 mg/L	96 h LC50: = 340 mg/L (Limanda limanda)	48 h LC50: 1085 - 1402 mg/L (Daphnia magna)

	(Desmodesmus subspicatus)		
Petroleum distillates, solvent dewaxed light paraffinic 64742-56-9		96 h LC50: > 5000 mg/L (Oncorhynchus mykiss)	48 h EC50: > 1000 mg/L (Daphnia magna)
Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0		96 h LC50: > 5000 mg/L (Oncorhynchus mykiss)	48 h EC50: > 1000 mg/L (Daphnia magna)
Sodium chloride 7647-14-5		96 h LC50: 4747 - 7824 mg/L (Oncorhynchus mykiss) flow-through 96 h LC50: 5560 - 6080 mg/L (Lepomis macrochirus) flow-through 96 h LC50: 6020 - 7070 mg/L (Pimephales promelas) static 96 h LC50: 6420 - 6700 mg/L (Pimephales promelas) static 96 h LC50: = 12946 mg/L (Lepomis macrochirus) static 96 h LC50: = 7050 mg/L (Pimephales promelas) semi-static	48 h EC50: 340.7 - 469.2 mg/L (Daphnia magna) Static 48 h EC50: = 1000 mg/L (Daphnia magna)

**Persistence and degradability** Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.

**Bioaccumulation** Bifenthrin: The substance has a potential for bioconcentration.

**Mobility** Bifenthrin: Immobile. Not expected to reach groundwater.

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods** Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

**Contaminated Packaging** Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

### 14. TRANSPORT INFORMATION

**DOT** This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

**TDG** Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

UN/ID no	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard class	9
Packing Group	III
Marine Pollutant	Bifenthrin.
Description	UN3077, Environmentally hazardous substance, solid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

#### ICAO/IATA

UN/ID no	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard class	9
Packing Group	III
Description	UN3077, Environmentally hazardous substance, solid, n.o.s. (Bifenthrin), 9, PGIII

#### IMDG/IMO

UN/ID no	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Hazard class	9
Packing Group	III
EmS No.	F-A, S-F
Marine Pollutant	Bifenthrin
Description	UN3077, Environmentally hazardous substance, solid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Bifenthrin - 82657-04-3	82657-04-3	10	1.0

#### SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### FIFRA Information

*This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:*

#### **CAUTION**

*May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals*

*This pesticide is extremely toxic to fish and aquatic invertebrates.*

### US State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Kaolin 1332-58-7	X	X	X



Bifenthrin 82657-04-3	X		
Petroleum distillates, solvent dewaxed light paraffinic 64742-56-9		X	
Crystalline silica, quartz 14808-60-7	X	X	X

### International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Kaolin 1332-58-7	X	X	X	-	X	X	X	X
Bifenthrin 82657-04-3				X	X	X		
Petroleum distillates, solvent dewaxed light paraffinic 64742-56-9	X	X	X		X	X	X	X
Crystalline silica, quartz 14808-60-7	X	X	X	X	X	X	X	X

### Mexico - Grade

Moderate risk, Grade 2

Chemical name	Carcinogen Status	Mexico
Kaolin		Mexico: TWA 2 mg/m <sup>3</sup>
Crystalline silica, quartz	A2	Mexico: TWA 0.025 mg/m <sup>3</sup>

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use - Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Bifenthrin	100 2500 kg/yr	100 kg/yr

### CANADA

#### WHMIS Statement

This product has been classified in accordance with the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

#### WHMIS Hazard Class

D1B - Toxic materials  
D2B - Toxic materials



This document has been prepared in accordance with the GHS (Globally Harmonized System). The document consists of 16 points which cover the official Mexican Regulation NOM-018-STPS-2015 Harmonized System for the identification and communication of hazards and risks of dangerous chemical substances, which found in the workplace. 271000.

## 16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2*	Flammability 1	Physical hazard 0	Personal Protection X

\*Indicates a chronic health hazard.

**NFPA/HMIS Ratings Legend**

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

**Revision date:** 2019-10-10  
**Reason for revision:** SDS sections updated

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**End of Safety Data Sheet**