

# SAFETY DATA SHEET

## BIFLEX 10 WP

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS # : 1482-7-A

Revision date: 2019-10-14

Format: EU

Version 1

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) 1482-7-A

Product Name BIFLEX 10 WP

#### Synonyms

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label.

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

**Supplier** CHEMINOVA A/S, a subsidiary of FMC Corporation  
Thyborønvej 78  
DK-7673 Harbøre  
Denmark  
+45 9690 9690  
SDS.Ronland@fmc.com

For further information, please contact:

**Contact point** (+45) 97 83 53 53 (24 h; for emergencies only)

#### 1.4. Emergency telephone number

**Emergency telephone** Medical Emergencies: 1-6516326793  
For leak, fire, spill or accidents: 972-37630639 (CHEMTREC)

### Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 (H302)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 (H332)
Carcinogenicity	Category 2 (H351)
Specific target organ toxicity (repeated exposure)	Category 1 (H372)
Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

#### 2.2. Label elements

Hazard pictograms



**Signal Word**  
Danger

#### Hazard Statements

H302 - Harmful if swallowed  
H332 - Harmful if inhaled  
H351 - Suspected of causing cancer  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects  
EUH401: Follow the instructions for use to avoid risks to human health and the environment.

#### Precautionary Statements

P281 - Use personal protective equipment as required  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P273 - Avoid release to the environment  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P405 - Store locked up  
P501: Dispose of contents/container as hazardous waste in accordance with local regulations.

#### 2.3. Other hazards

None of the ingredients in the product meets the criteria for being PBT or vPvB. Excessive dust formation may pose a dust explosion hazard.

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

The product is a mixture, not a substance.

#### 3.2 Mixtures

Chemical name	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Bifenthrin	-	82657-04-3	10	Acute Tox. 2 (H300) Acute Tox. 3 (H331) Skin Sens. 1B (H317) Carc. 2 (H351) STOT RE 1 (H372) Aquatic Acute 1 (H400) M=10000 Aquatic Chronic 1 (H410) M (Chronic)= 100000	No data available
Kaolin	310-194-1	1332-58-7	40-50	Not classified	No data available
Sodium N-methyl-N-oleoyltaurine	-	137-20-2	1-5	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	No data available

#### Additional Information

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16

### Section 4: FIRST AID MEASURES

**4.1. Description of 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.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Most important symptoms and effects, both acute and delayed</b>	Central nervous system effects.
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**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	This product contains 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.
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**Section 5: FIRE FIGHTING MEASURES****5.1. Extinguishing media**

**Suitable Extinguishing Media**  
Use CO<sub>2</sub>, dry chemical, or foam.

**Unsuitable extinguishing media**  
No information available

**5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors. Powdered material may form explosive dust-air mixtures.

**5.3. Advice for firefighters**

Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures****Personal Precautions**

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.

For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

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.

### **6.3. Methods and material for containment and cleaning up**

**Methods for Containment** Use a wet sweeping compound or water to prevent dust formation.

**Methods for cleaning up** 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.

### **6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

## **Section 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

#### **Handling**

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

#### **Hygiene measures**

Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **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.

### **7.3. Specific end use(s)**

#### **Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

## **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

Chemical name	European Union	The United Kingdom	France	Spain	Germany
Kaolin 1332-58-7	-	STEL 6 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>	TWA 2 mg/m <sup>3</sup>	-
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Kaolin 1332-58-7	-	TWA 2 mg/m <sup>3</sup> C(A4)	-	TWA 2 mg/m <sup>3</sup>	TWA 2 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Kaolin 1332-58-7	-	TWA 3 mg/m <sup>3</sup>	TWA 10.0 mg/m <sup>3</sup>	-	TWA 2 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** Bifenthrin: 0.0075 mg/kg bw/day (Systemic).

**Predicted No Effect Concentration (PNEC)** Bifenthrin: 0.095 ng/l (aquatic).

### **8.2. Exposure 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.

### Personal protective equipment

<b>Eye/Face Protection</b>	For dust, splash, mist or spray exposure, wear chemical protective goggles.
<b>Hand Protection</b>	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.
<b>Skin and Body Protection</b>	Minimize skin contamination by following good industrial hygiene practices.
<b>Respiratory Protection</b>	For dust, splash, mist or spray exposures, wear a filtering mask.
<b>General information</b>	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
<b>Environmental exposure controls</b>	No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	Solid
<b>Appearance</b>	Powder
<b>Odor</b>	Faint hydrocarbon
<b>Color</b>	Greyish tan
<b>Odor threshold</b>	No information available
<b>pH</b>	8.70 (5 wt% aqueous slurry of powder)
<b>Melting point/freezing point</b>	No information available
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Flammability Limit in Air</b>	
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	No information available
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	Not applicable
<b>Viscosity, dynamic</b>	Not applicable
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	Non-oxidizing

### 9.2. Other information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content (%)</b>	No information available
<b>Relative density</b>	Not applicable
<b>Bulk density</b>	Not applicable
<b>K<sub>st</sub></b>	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None under normal use conditions

**10.2. Chemical stability**

Stable under recommended storage conditions.

**Explosion data**

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

**10.3. Possibility of hazardous reactions****Hazardous polymerization**

Hazardous polymerization does not occur.

**Hazardous reactions**

None under normal processing.

**10.4. Conditions to avoid**

Excessive heat. Keep away from open flames, hot surfaces and sources of ignition.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride, Sulfur dioxide.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

<b>LD50 Oral</b>	395 mg/kg (male rat) 355 mg/kg (female rat)
<b>LD50 Dermal</b>	> 2000 mg/kg (rabbit)
<b>LC50 Inhalation (dust)</b>	8.62 mg/L 4 hr (male rat) 3.35 mg/L, 4hr (female rat)

<b>Skin corrosion/irritation</b>	Rabbit: Non-irritating.
<b>Serious eye damage/eye irritation</b>	Mildly irritating (rabbit).
<b>Sensitization</b>	Guinea pig: Non-sensitizing.
<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.

Chronic exposure to silica dust may increase the risk of developing pneumoconiosis or silicosis, chronic diseases affecting the lungs, characterized by labored breathing, cough, reduction of work capacity, reduction of lung capacity, heart enlargement and failure.

<b>Mutagenicity</b>	Bifenthrin: Not genotoxic in laboratory studies.
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<b>Carcinogenicity</b>	Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice.
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<b>Reproductive toxicity</b>	Bifenthrin: No toxicity to reproduction in animal studies. Contains ingredients that are suspected reproductive hazards.
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<b>Developmental toxicity</b>	Bifenthrin: Not teratogenic in animal studies.
<b>STOT - single exposure</b>	Bifenthrin: No specific effects after single exposure have been observed.
<b>STOT - repeated exposure</b>	Bifenthrin: Causes damage to organs through prolonged or repeated exposure. See listed target organs below.
<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>Target organ effects</b>	Bifenthrin: Central Nervous System.
<b>Symptoms</b>	Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge.
<b>Aspiration hazard</b>	The product does not present an aspiration pneumonia hazard.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

There are no data available for this product.

<b>Bifenthrin (82657-04-3)</b>				
Active Ingredient(s)	Duration	Species	Value	Units
	14-day LC50	Eisenia fetida	> 8	mg/kg soil
	LD50	Bobwhite quail	1800	mg/kg
	96 h LC50	Salmo gairdneri	0.1	µg/L
	48 h EC50	Daphnia magna	0.11	µg/L
	21 d NOEC	Daphnia magna	0.00095	µg/L
	21 d NOEC	Pimephales promelas	1.86	µg/L
	30 d NOEC	Salmo gairdneri	0.012	µg/L

### 12.2. Persistence and degradability

Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.

### 12.3. Bioaccumulative potential

Bifenthrin: The substance has a potential for bioconcentration.

### 12.4. Mobility in soil

#### **Mobility in soil**

No information available.

#### **Mobility**

Bifenthrin: Immobile. Not expected to reach groundwater.

### 12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

No information available

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

<b>Residual waste</b>	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.
<b>Contaminated containers and packages</b>	Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.
<b>OTHER INFORMATION</b>	NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

## Section 14: TRANSPORT INFORMATION

### IMDG/IMO

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin)
14.3 Hazard class	9
14.4 Packing Group	III
Description	
14.5 Marine Pollutant	Bifenthrin
Environmental Hazard	Marine Pollutant
14.6 Special Provisions	None
EmS No.	F-A, S-F
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	The product is not transported in bulk by ship.

### RID

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	None

### ADR/RID

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	None

### ICAO/IATA

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin)
14.3 Hazard class	9
14.4 Packing Group	III
Description	
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	None

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture



**National regulations**

Seveso category in Annex 1 to Dir. 2012/18/EU: dangerous for the environment.

**European Union****Authorizations and/or restrictions on use:**

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not Applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not Applicable

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Bifenthrin 82657-04-3				X	X	X		
Kaolin 1332-58-7	X	X	X		X	X	X	X
Sodium N-methyl-N-oleoyltaurine 137-20-2	X	X	X	X	X	X	X	X

**15.2. Chemical safety assessment**

A chemical safety assessment is not required to be included for this product.

<b>Section 16: OTHER INFORMATION</b>
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**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H300 - Fatal if swallowed

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H331 - Toxic if inhaled

H332 - Harmful if inhaled

H350 - May cause cancer

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

**Legend**

<b>ADR:</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>CAS:</b>	CAS (Chemical Abstracts Service)
<b>Ceiling:</b>	Maximum limit value:
<b>DNEL:</b>	Derived No Effect Level (DNEL)
<b>EINECS:</b>	EINECS (European Inventory of Existing Chemical Substances)
<b>GHS:</b>	Globally Harmonized System (GHS)
<b>IATA:</b>	International Air Transport Association (IATA)

ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods (IMDG)  
LC50: LC50 (lethal concentration)  
LD50: LD50 (lethal dose)  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail  
STEL: Short term exposure limit  
SVHC: SVHC: Substances of Very High Concern for Authorization:

TWA: time weighted average  
vPvB: very Persistent and very Bioaccumulative

**Classification procedure**

Test data

**Key literature references and sources for data**

Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Revision date: 2019-10-14

Reason for revision: Format Change.

**Training Advice** This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

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FMC Corporation

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**End of Safety Data Sheet**