

# SAFETY DATA SHEET

**Bistar 1,5 ULV**

SDS #: 50002408

Revision date: 27-04-2021

Version 2

Format: MX



## Section 1: PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** Bistar 1,5 ULV

### Other means of identification

**Product Code(s)** 50002408, FO004035-CR-A

**UN/ID no** UN3351

**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

**Formula**  $C_{23}H_{22}ClF_3O_2$  (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.

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

**Address:** FMC Agroquímica de México, S. de R.L. de C.V. Av. Vallarta No. 6503, Local A1-6, Col. Cd. Granja, 45010 Zapopan, Jalisco, México.  
Tel.: 800 FMC AGRO (362 2476)  
contactomexico@fmc.com

### **Emergency telephone number:**

1 703 / 741-5970 (CHEMTREC - International)  
911

Guatemala - Center of Toxicological Information and Assistance - (502) 2251-3560 / 2232-0735

El Salvador - Rosales National Hospital - (503) 2231-9262

Honduras - Hospital School - (504) 232-6105

Nicaragua - National Center of Toxicology - (505) 2289-4700 ext. 1294 cel. 8755-0983

Costa Rica - National Center of Poisoning - (506) 2223-1028; 800-INTOXICA

Panama Center of Research and Information on Medications and Toxicology (507) 523-4948

Dominican Republic - Drug Information and Poisoning Center - (809) 562-6601 Ext. 1801

## Section 2: HAZARDS IDENTIFICATION

### **General Hazards**

This material is considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Aspiration toxicity

Category 1

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

**GHS Label elements, including precautionary statements****Signal Word: Danger****Hazard Statements**

H304 - May be fatal if swallowed and enters airways  
H317 - May cause an allergic skin reaction  
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

**Precautionary Statements****Precautionary Statements - Prevention**

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P281 - Use personal protective equipment as required  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Wear protective gloves  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P273 - Avoid release to the environment

**Precautionary Statements - Response**

P308 + P313 - If exposed or concerned: Get medical advice/attention

**IF ON SKIN**

P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P363 - Wash contaminated clothing before reuse

**IF INHALED**

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

**IF SWALLOWED**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P391 - Collect spillage

**Precautionary Statements - Storage**

P405 - Store locked up

**Precautionary Statements - Disposal**

P501 - Dispose of contents/container according to label directions

**Other Information**

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Pure substance/preparation** Mixture  
**Chemical Family** Pyrethroid

**Hazardous Components**

Chemical name	CAS-No	Weight %
Bifenthrin	82657-04-3	1.73
Petroleum distillates, hydrotreated light	64742-47-8	20-30

Synonyms are provided in Section 1.

**Section 4: FIRST AID MEASURES****FIRST AID MEASURES**

**General Advice** Do not induce vomiting or give anything by mouth to an unconscious person. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Bring the SDS, product label and package insert when seeking medical assistance.

**Eye Contact** 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.

**Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a poison control center or doctor for further treatment advice.

**Inhalation** Move person from contaminated area to fresh air. Seek medical attention immediately. If person is not breathing, give artificial respiration, preferably by mouth-to-mouth, if possible. Call a physician or poison control center immediately.

**Ingestion** Call a physician or poison control center immediately. 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.

**Protection of first-aiders** Avoid contact by using personal protective equipment. See Section 8 for more detail.

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

**Most important symptoms and effects, both acute and delayed** Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

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

**Indication of immediate medical attention and special treatment needed, if necessary** Treat symptomatically. 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.

**Section 5: FIRE FIGHTING MEASURES****Suitable Extinguishing Media**

Dry chemical, carbon dioxide, water spray or regular foam.

**Unsuitable extinguishing media**

Do not spread material with high pressure water streams.

**Specific extinguishing methods**

Evacuate area and fight fire from a safe distance. Very toxic to aquatic life with long lasting effects. Dike to prevent runoff.

**Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides (COx). Hydrogen chloride. Hydrogen cyanide. Chlorine.

**Explosive properties**

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

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

## **Section 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures****Personal Precautions**

Identify the substance from a safe place. Do not inhale, do not touch and do not walk through spilled material. Isolate the area to ensure sufficient breadth to individuals and to facilitate the work control and cleaning. Keep away from unauthorized personnel. Call 911 and wait for help. Stay upwind and out of low areas. Always have a fire extinguisher available, preferably dry chemical (PQS).

**For emergency responders**

Use personal protection recommended in Section 8. Remove all sources of ignition. Very toxic to aquatic life with long lasting effects.

**Environmental Precautions****Environmental Precautions**

Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. Very toxic to aquatic life with long lasting effects.

**C. Methods and material for containment and cleaning up****Methods for Containment**

Wear the full Personal Protection Equipment, avoiding inhalation or contact with skin or eyes. Dike to contain spill with inert material which is absorbent and non-combustible (clay, sand or soil). Then soak up with absorbent material inward from the edges.

**Methods for cleaning up**

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be swept up or preferably vacuumed up using equipment with high efficiency final filter. Transfer to suitable containers. Clean area with strong industrial detergent and much water. Absorb wash liquid onto a suitable absorbent such as hydrated lime, universal binder, attapulgate, bentonite or other absorbent clays and transfer contaminated absorbent to suitable containers. The used containers should be properly closed and labelled.

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

**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. Handle product only

in closed system or provide appropriate exhaust ventilation at machinery. Remove and wash contaminated clothing before re-use. Refer to Section 8.

**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.

**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.

**Incompatible products**

No information available.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines****Hazardous Components**

Chemical name	Brazil	Chile	Argentina	Venezuela	Mexico	ACGIH TLV
Paraffins oils 8012-95-1	TWA: 5 mg/m <sup>3</sup>	TWA: 263 ppm TWA: 1199 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	Mexico: TWA 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

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

Apply technical measures to comply with the occupational exposure limits (if listed above). When working in confined spaces (tanks, containers, etc.), make sure there is an adequate source of air for breathing and wear the recommended equipment. Ventilate all transport vehicles prior to discharge.

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

For exposure to mists or sprays, wear safety goggles or face shield for chemical agents.

**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**

In case of insufficient ventilation wear suitable respiratory equipment. Local nuisance dust standards apply.

**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**

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

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odor	Solvent
Color	Yellow, Amber
Odor threshold	No information available
pH	6.05 (1% solution) @ 24.5°C
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	110 °C / 230 °F
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
Specific gravity	No information available
Water solubility	No data available
Solubility in other solvents	No information available
Surface tension	No data available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	10.99 centistokes @ 25°C
Explosive properties	No information available
Corrosivity	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No data available
VOC content (%)	No information available
Relative density	0.8421
Bulk density	No information available

## Section 10: STABILITY AND REACTIVITY

### Reactivity

Stable under recommended storage conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Heat, flames and sparks.

### Incompatible materials

No information available.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides (COx), Hydrogen cyanide, Chlorine, Hydrogen chloride.

## Section 11: TOXICOLOGICAL INFORMATION

### Product Information

**LD50 Oral** 5780.3 mg/kg (Calculated Estimated Acute Toxicity - EAT)

**LD50 Dermal** 9097.5 mg/kg (Calculated Estimated Acute Toxicity - EAT)

**LC50 Inhalation (dust)** 1.5 mg/L 4 hr (Calculated Estimated Acute Toxicity - EAT)

#### Information on likely routes of exposure

**Inhalation:** There are no data available for this product

**Eye Contact:** There are no data available for this product

**Skin Contact:** There are no data available for this product

**Ingestion:** There are no data available for this product

#### Information on toxicological effects

**Symptoms:** Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge. Experience to date indicates that contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours.

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

**Skin corrosion/irritation:** No information available

**Serious eye damage/eye irritation:** No information available

**Sensitization:** No information available

**Mutagenicity:** Bifenthrin: Not genotoxic in animal studies

**Carcinogenicity:** Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice.

**Reproductive toxicity:** Bifenthrin No toxicity to reproduction in animal studies

**STOT - single exposure:** Causes damage to organs. See listed target organs below.

**STOT - repeated exposure:** Causes damage to organs through prolonged or repeated exposure. See listed target organs below.

**Developmental toxicity:** Bifenthrin: Not teratogenic in animal studies

**Chronic toxicity:** Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure.

**Target organ effects:** Central Nervous System (CNS)

**Neurological effects:** Bifenthrin Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure

**Aspiration hazard:** May be fatal if swallowed and enters airways

## Section 12: ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects. The environmental impact of this product has not been fully investigated.

#### Hazardous Components

Chemical name	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to algae
Bifenthrin	96 h LC50: 0.1 µg/l 21 d NOEC: 0.012 µg/l	48 h EC50: 0.11 µg/l 21 d NOEC 0.0013 µg/l	72 h EC50: 0.822 mg/L

**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,

**Other Adverse Effects:** See product label for additional application instructions relating to environmental precautions

### Section 13: DISPOSAL CONSIDERATIONS

**Waste disposal methods**

Pesticide wastes are toxic. 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 containers and packages**

Containers must be disposed of in accordance with local regulations. Refer to the product label for container disposal instructions. Do not reuse this container for any other purpose.

### Section 14: TRANSPORT INFORMATION

**DOT** Not applicable

**MEX:**

<b>UN/ID no</b>	UN3352
<b>Proper Shipping Name</b>	Pyrethroid pesticide, liquid, toxic
<b>Hazard class</b>	6.1
<b>Packing Group</b>	III
<b>Marine Pollutant</b>	Bifenthrin

### Section 15: REGULATORY INFORMATION

This safety data sheet has been prepared according to Costa Rican legislation RTCR 481:2015 and RTCR 478:2015.

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELI NCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Bifenthrin 82657-04-3				X	X	X		
Petroleum distillates, hydrotreated light 64742-47-8	X	X	X		X	X	X	X

### Section 16: OTHER INFORMATION



**Prepared By:** FMC Corporation

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**Revision date:** 27-04-2021

**Revision note** Product Code, Chemtrec number

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