

# Safety Data Sheet

## Bithor SC

Emergency Phone 1-800-424-9300 (Chemtrec)

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Bithor SC  
**Chemical Name:** Bifenthrin, Imidacloprid  
**Recommended use of the chemical and restrictions on use:** Insecticide

**Company:** Ensystem II, Inc.  
**Address:** 2175 Village Dr., Fayetteville, NC 28304  
**Daytime Phone:** 1-800-398-3772

### 2. HAZARDS IDENTIFICATION

#### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard

29CFR 1910.1200

Acute toxicity - Category 4 - Oral

#### Label Elements

#### Hazard pictograms



**Signal Word:** Warning

#### Hazards

H302 - Harmful if swallowed

H320 - Causes eye irritation

#### Precautionary Statements

##### Prevention

P202 - Do not handle until all safety precautions have been read and understood

P281 - Use personal protective equipment as required

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

#### Response

P321 - Specific treatment (see supplemental first aid instructions on the label)

P308 + P311 - If exposed or concerned: Call a POISON CONTROL CENTER or doctor

P312 - Call a POISON CONTROL CENTER or doctor if you feel unwell

P301 + P312 - IF SWALLOWED: Call a POISON CONTROL CENTER or doctor if you feel unwell

P330 - Rinse mouth

#### Storage

P405 - Store locked up.

#### Disposal

P501 - Dispose of contents/ container to an approved waste disposal facility.

#### Other hazards

No other hazards known.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Bifenthrin	CAS # 82657-04-3	Weight % - 4.0
Imidacloprid	CAS # 138261-41-3	Weight % - 5.0
Glycerine	CAS# 56-81-5	Weight % - 1.7

### 4. FIRST-AID

#### Description of first-aid measures

**General advice:** First-Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. If the person is not breathing and has no pulse, consider cardiopulmonary resuscitation (CPR); use pocket resuscitation mask, bag valve mask etc., to avoid risk of poisoning rescuer. Call a physician or get to a poison control center immediately.

**Eye Contact:** Hold eye open and rinse slowly and gently with water for at least 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor immediately for treatment advice.

**Skin Contact:** Take off contaminated clothing and shoes immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor immediately for treatment advice.

**Ingestion:** 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 the Poison Control Center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

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

**Symptoms:** To date no symptoms are known.

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

Treat symptomatically. Treatment is symptomatic and supportive. There is no specific antidote.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Foam. Carbon dioxide (CO<sup>2</sup>). Dry chemical. Soft stream or water fog only if necessary.

**Advice for firefighters**

#### Explosion Data

**Sensitivity to Mechanical Impact** Not sensitive.

**Sensitivity to Static Discharge** Not sensitive

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Further Information:** Avoid contact with spilled product or contaminated surfaces. Evacuate personnel to safe areas. Keep out of smoke. Do not allow run-off from fire fighting to enter drains or watercourses.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Isolate and post spill area. Wear appropriate safety clothing, respiratory protection devices and eye/face protection (see Section 8). Evacuate unprotected personnel that are nearby.

**Environmental precautions:** Keep people and animals away from and upwind of spill or leak. Prevent from entering into soil, ditches, sewers, waterways and /or groundwater. See Section 12, Ecological Information.

#### Methods and materials for containment and cleanup:

Small spills: knock down and dilute vapors with water fog or spray. Apply vapor suppression foams until spill can be cleaned up. Use non-sparking tools in cleanup operations. Large spills: Contact Ensysstex, II Inc. for cleanup assistance. See Section 13, Disposal considerations, for additional information.

## 7. HANDLING AND STORAGE

**Handling:** Use good personal hygiene. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

**Storage:** Keep out of reach of children. Product should be stored in compliance with local regulations. Store in a well ventilated, cool, dry area. Keep away from heat sources. Store in original container.

**Incompatible products:** None known

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Applicators should refer to the product label for personal protection equipment requirements during application.

Component	Regulation	Type of listing	Value/Notation
Imidacloprid 138261-41-3	Texas Effects Screening Levels	Short Term ESL	50 µg/m <sup>3</sup>
Imidacloprid 138261-41-3	Texas Effects Screening Levels	Long Term ESL	5 µg/m <sup>3</sup>
Bifenthrin 82657-04-3	Texas Effects Screening Levels	Short Term ESL	25 µg/m <sup>3</sup>
Bifenthrin 82657-04-3	Texas Effects Screening Levels	Long Term ESL	2.5 µg/m <sup>3</sup>
Glycerine 56-81-5	ACGIH TWA	Time Weighted Average	10 mg/m <sup>3</sup>

These recommendations are for Manufacturing. Applicators should see the product label for proper personal protective equipment.

**Engineering measures:** Apply technical measures to comply with the occupational exposure limits.

#### Exposure controls

Provide general and/or local exhaust ventilation to control airborne levels below the exposure limits.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required or during emergency conditions, use a NIOSH/MSHA approved respiratory protection.

**Hand/Skin Protection:** Wear long-sleeved shirt, long pants, socks, protective gloves and shoes

**Eye/Face Protection:** Chemical proof goggles / face shield

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor: White to Beige liquid, mild odor

pH: 5.72

Flash Point/Range: 93.3°C

Water solubility: Dispersible in water

Vapor pressure: No data available

Specific Gravity: 1.01 @ 20°C

Bulk Density: 8.42 lb/gal

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  
Density: 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

## 10. STABILITY AND REACTIVITY

**Reactivity:** None under normal use conditions  
**Chemical Stability:** Stable under normal storage conditions.  
**Conditions to Avoid:** Heat, flames, sparks and direct sunlight.  
**Hazardous Decomposition Products:** No decomposition products expected under normal conditions of use  
**Additional Information:** Hazardous polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** Inhalation LC<sub>50</sub>/Rat/ >2.03 mg/L 4 hr; Oral LD<sub>50</sub>/Rat/1,030 mg/kg; Dermal LD<sub>50</sub>/Rat/>5,000mg/kg

**Irritation:** Slight skin irritation

**Chronic Toxicity:** Inhalation, after repeated exposure, various species,

### Skin corrosion/irritation

Slight irritation to skin

### Serious eye damage/eye irritation

Slight irritation to eye

### Sensitization

Non-sensitizing

### Information on toxicological effects

#### Repeated dose toxicity

Imidacloprid did not cause specific target organ toxicity in experimental animal studies. The toxic effects of bifenthrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

**Carcinogenicity:** Bifenthrin: weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesions) in male mice. Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

#### No teratogenic effect

**Reproductive toxicity effects:** Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with imidacloprid is related to parental toxicity. Bifenthrin reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with imidacloprid is related to parental toxicity.

#### No mutagenic effects

**Target organ effects:** Bifenthrin: Central Nervous System

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

**Acute toxicity studies have been performed on the formulated product. The non-acute studies have only been performed using the pure technical ingredient.**

## 12. ECOTOXICOLOGICAL INFORMATION

### Toxicity

#### Acute toxicity to fish

Rainbow trout LC<sub>50</sub>, 96 Hour, 211 mg/l Imidacloprid

Rainbow trout LC<sub>50</sub>, 96Hour, 0.1 µg/l Bifenthrin

#### Acute toxicity to aquatic invertebrates

Water flea EC<sub>50</sub>, 48 Hour, 85 mg/l

Crustacea EC<sub>50</sub>, 48 Hour, 0.11 mg/l

#### Acute toxicity to algae/aquatic plants

EC<sub>50</sub> 72 Hour >10 mg/l Imidacloprid

EC<sub>50</sub> 72 Hour 0.822 mg/l Bifenthrin

#### Persistence and degradability

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

Imidacloprid: Not readily biodegradable.

#### Bioaccumulative potential

Bifenthrin: Has a potential for bioaccumulation\

Imidacloprid: Does not bioaccumulate.

#### Mobility in soil

Bifenthrin: Immobile. Not expected to reach groundwater.

Imidacloprid: Moderately mobile in soils.

#### Environmental precautions

Do not apply directly to water, to saturated soil, or to intertidal areas below the mean high water mark.

Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.

Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area

## 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 the label instructions, contact appropriate authorities for guidance.

**Contaminated Packaging:** Containers must be disposed of in accordance with local, state and federal regulations. Refer to 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 49 CFR Parts 100 - 185.

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

UN #: UN2191

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

Hazard Class: 9

Packing Group: III

Marine Pollutant: Bifenthrin

Description: UN3802, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9 PG

### Classification for SEA transport (IMO-IMDG):

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

UN #: UN3082

Hazard Class: 9

Packing group: III

EmS No.: F-A, S-F

Marine pollutant: Bifenthrin

Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Imidacloprid, Biifenthrin solution), 9 PG III

### Classification for AIR transport (IATA/ICAO):

UN#: UN3082

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

Hazard Class: 9

Packing group: III

Limited quantity: 30 kg G

## 15. REGULATORY INFORMATION

The information herein is given in good faith, but no warranty, expressed or implied, is made. Consult Ensysyx II for further information.

### US 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-#	Weight %	SARA 313 Threshold Values %
Bifenthrin	82657-04-3	7.9	1.0

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

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 of 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

Harmful if swallowed, inhaled or absorbed through skin.

This pesticide is extremely toxic to fish and aquatic invertebrates.

### US State Regulations

#### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Bifenthrin 82657-04-3	X		
Propylene glycol 57-55-6	X		X

## 16. Other Information

### Hazard rating System

#### NFPA

Health	Fire	Reactivity
2	0	0

Disclaimer: The information of this SDS is based on the present state of our knowledge. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

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