

# 河北捷润科技有限公司

## Hebei JRain Technology Co., Ltd.

Date: Jun.9th, 2025

### MSDS OF BIFENAZATE

#### 1. PRODUCT IDENTIFICATION

Product identifiers

Product name : BIFENAZATE TECHNICAL

CAS-No. : 149877-41-8

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** : Isopropyl 3-(4-methoxybiphenyl-3-yl)carbazate

1-Methylethyl 2-(4-methoxy[1,1'-biphenyl]-3-yl)hydrazinecarboxylate

**Formula** : C<sub>17</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub>

**Molecular weight** : 300,35 g/mol

**CAS-No.** : 149877-41-8

**EC-No.** : 442-820-5

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Bifenazate		
CAS-No. 149877-41-8 EC-No. 442-820-5	Eye Irrit. 2; Skin Sens. 1; Aquatic Acute 1; H317, H319, H400	<= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
Bifenazate		
CAS-No. 149877-41-8 EC-No. 442-820-5	Xi, R36 - R43	<= 100 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

#### 3. HAZARDS IDENTIFICATION

##### 3.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Eye irritation (Category 2), H319

Skin sensitisation (Category 1), H317

Acute aquatic toxicity (Category 1), H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

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Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xi Irritant R36, R43

For the full text of the R-phrases mentioned in this Section, see Section 16.

### 3.2 Label elements

Labeling according Regulation (EC) No 1272/2008



Pictogram

Signal word Warning

Hazard statement(s)

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

Precautionary statement(s)

P273 Avoid release to the environment.

P280 Wear protective gloves.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

### 3.3 Other hazards - none

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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### **5. FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

No data available

### **6. ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure

adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

#### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

#### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed

containers for disposal.

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

For disposal see section 13.

### **7. HANDLING AND STORAGE**

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

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## ***8. EXPOSURE CONTROLS/PERSONAL PROTECTION***

### **8.1 Control parameters**

Components with workplace control parameters

### **8.2 Exposure controls**

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## ***9. PHYSICAL AND CHEMICAL PROPERTIES***

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

- a) Appearance Form: crystalline  
Colour: white
- b) Odour characteristic
- c) Odour Threshold No data available
- d) pH No data available
- e) Melting point/freezing point 123 - 125 °C - lit.
- f) Initial boiling point and boiling range  
No data available
- g) Flash point No data available
- h) Evaporation rate No data available
- i) Flammability (solid, gas) No data available
- j) Upper/lower flammability or explosive limits  
No data available
- k) Vapour pressure No data available
- l) Vapour density No data available
- m) Relative density 1,31 g/cm<sup>3</sup>
- n) Water solubility No data available
- o) Partition coefficient: noctanol/water  
log Pow: 3,4 at 25 °C
- p) Auto-ignition temperature  
No data available
- q) Decomposition  
temperature  
No data available
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

### **9.2 Other safety information**

Solubility in other  
solvents  
Methanol 144,7 g/l at 20 °C  
Toluene 24,7 g/l at 20 °C  
Dissociation constant 12,94 at 23 °C

## ***10. STABILITY AND REACTIVITY***

### **10.1 Reactivity**

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Acids, Strong oxidizing agents

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - > 5.000 mg/kg

LC50 Inhalation - Rat - > 4,4 mg/l

LD50 Dermal - Rat - > 2.000 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation

Eyes - Human

Result: Moderate eye irritation

Respiratory or skin sensitisation

- Guinea pig

May cause sensitisation by skin contact.

(Maximisation Test (GPMT))

Remarks: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity

No data available

Carcinogenicity

Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

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No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been

thoroughly investigated.

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thoroughly investigated.

## ***12. ECOLOGICAL INFORMATION***

### **12.1 Toxicity**

Toxicity to fish LC50 - *Lepomis macrochirus* (Bluegill) - 0,58 mg/l - 96 h

LC50 - *Carassius auratus* (goldfish) - 0,76 mg/l - 96 h

Toxicity to daphnia and

other aquatic

invertebrates

LC50 - *Daphnia* (water flea) - 0,50 mg/l - 48 h

Toxicity to algae EbC50 - *Skeletonema costatum* - 0,30 mg/l - 96 h

ErC50 - SELENASTRUM - 0,90 mg/l - 96 h

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 0,33 d

Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

anaerobic - Exposure time 77,9 d

### **12.3 Bioaccumulative potential**

Accumulation in aquatic organisms is expected.

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and VPVB assessment**

PBT/VPVB assessment not available as chemical safety assessment not required/not conducted

### **12.6 Other adverse effects**

Very toxic to aquatic life.

No data available

## ***13. DISPOSAL CONSIDERATIONS***

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### Waste treatment methods

Product offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

### 14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate

IATA: Environmentally hazardous substance, solid, n.o.s. (Bifenazate PESTANAL®)

### 14.3 Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA:9

### 14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

### 14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

### 14.6 Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination

packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## 16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute Acute aquatic toxicity



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Eye Irrit. Eye irritation

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

Skin Sens. Skin sensitisation

Full text of R-phrases referred to under sections 2 and 3

Xi Irritant

R36 Irritating to eyes.

R43 May cause sensitisation by skin contact.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

### MANUFACTURER INFORMATION:

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The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

HEBEI JRAIN TECHNOLOGY CO.,LTD .