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**Safety Data Sheet**

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 17 Oct 2022

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product name:

Bifenazate

### 1.1. Catalog No.:

675513

### 1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
R&D

### 1.3. Uses advised against:

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### 1.4. Emergency telephone number

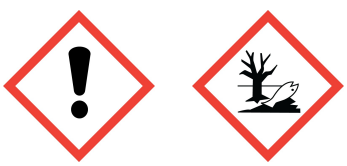
HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

## 2. HAZARDS IDENTIFICATION

2.1 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 Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xi Irritant R36, R43

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

Signal word Warning
Hazard statement(s)
H317 May cause an allergic skin reaction.

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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
2.3 Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Synonyms : Isopropyl 3-(4-methoxybiphenyl-3-yl)carbazate
1-Methylethyl 2-(4-methoxy[1,1′-biphenyl]-3-yl)hydrazinecarboxylate
Formula : C17H20N2O3
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 PESTANAL®
Eye Irrit. 2; Skin Sens. 1;
Aquatic Acute 1; H317, H319,
H400
-
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
Bifenazate PESTANAL®
Xi, R36 - R43 -

### 3.1.1. Formula

C17H20N2O3

### 3.1.2. Molecular Weight (g/mol)

300.35

### 3.1.3. CAS-No.

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149877-41-8

## 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

## 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 (NOx)
5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting 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.

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## 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)
A part 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. 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) Evapouration 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/cm3
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 Methanol 144,7 g/l at 20 °C solvents 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)
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
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.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been 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 - 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

13.1 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

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## 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 PESTANAL®) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate PESTANAL®)
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

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. For lab use only!