

bifenthrin 82657-04-3 MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifiers

Product name : Bifenthrin

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 82657-04-3

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 3), H331

Skin sensitisation (Category 1), H317

Carcinogenicity (Category 2), H351

Specific target organ toxicity - repeated exposure (Category 1), Nervous system, H372

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

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

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

R40

T Toxic R23/25

Xn Harmful R48/22

R43

N Dangerous for the R50/53

environment

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

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Danger

Hazard statement(s)

H300 Fatal if swallowed.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H351 Suspected of causing cancer.

H372 Causes damage to organs (Nervous system) through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P261 Avoid breathing dust.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P311 Call a POISON CENTER or doctor/ physician.
Supplemental Hazard none
Statements

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Substances

Synonyms :
3-[(1Z)-2-Chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylic acid (2-methylbiphenyl-3-yl)methyl ester
Formula : C₂₃H₂₂ClF₃O₂
Molecular weight : 422,87 g/mol
CAS-No. : 82657-04-3
Index-No. : 613-022-00-6

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

Component	Classification	Concentration
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Bifenthrin

CAS-No.	82657-04-3	Acute Tox. 2; Acute Tox. 3; <= 100 %
Index-No.	613-022-00-6	Skin Sens. 1; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H317, H300, H331, H351, H372, H410

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
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Bifenthrin

CAS-No.	82657-04-3	T, N, Carc.Cat.3, R23/25 - <= 100 %
Index-No.	613-022-00-6	R40 - R43 - R48/22 - R50/53

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

SECTION 4: First aid measures

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. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

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

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing media**

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

Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas, Hydrogen fluoride

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. 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.

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.

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.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

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.

Conditions for safe storage, including any incompatibilities

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

Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling

the product.

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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374,

contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

- a) Appearance Form: powder
Colour: white
- b) Odour No data available
- c) Odour Threshold No data available
- d) pH No data available
- e) Melting point/freezing 51 - 66 °C
point
- f) Initial boiling point and No data available
boiling range
- g) Flash point 165 °C - closed cup
- h) Evaporation rate No data available
- i) Flammability (solid, gas) No data available
- j) Upper/lower No data available
flammability or
explosive limits
- k) Vapour pressure < 1 hPa at 25 °C
- l) Vapour density No data available
- m) Relative density 1,212 g/cm³ at 25 °C
- n) Water solubility No data available
- o) Partition coefficient: n- log Pow: > 6
octanol/water
- p) Auto-ignition No data available
temperature
- q) Decomposition No data available

temperature

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

Other safety information

Bulk density 1,212 g/l at 20 °C

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available

LD50 Dermal - Rabbit - > 2.000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected human carcinogens

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: GZ1227800

SECTION 12: Ecological information**Toxicity**

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0,15 µg/l - 96,0 h

Toxicity to daphnia and LC50 - Daphnia magna (Water flea) - 0,32 µg/l - 48 h

other aquatic

invertebrates

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and

toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**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.

SECTION 14: Transport information**UN number**

ADR/RID: 2811 IMDG: 2811 IATA: 2811

UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Bifenthrin)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Bifenthrin)

IATA: Toxic solid, organic, n.o.s. (Bifenthrin)

Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

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

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

No data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

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

Acute Tox. Acute toxicity
Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity
Carc. Carcinogenicity
H300 Fatal if swallowed.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
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.

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

N Dangerous for the environment
T Toxic
R23/25 Toxic by inhalation and if swallowed.
R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitisation by skin contact.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if
swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the
aquatic
environment.

Further information

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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. Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.