

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 02 Dec 2025

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

1.1. Product name:

Molinate

1.1. Catalog No.:

694014

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
An der Laakenwiese 7

04838 Jesewitz
Deutschland

Tel. +49 34241 54 990
Fax. +49 34241 54 9999
contact@hpc-standards.com

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
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Skin sensitisation (Category 1), H317
Carcinogenicity (Category 2), H351
Reproductive toxicity (Category 2), H361
Specific target organ toxicity - repeated exposure (Category 2), H373
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410 R40
R62
Xn Harmful R20/22
R48/22
R43
N Dangerous for the
environment
R50/53

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Signal word Warning

Hazard statement(s)

H302 + H332 Harmful if swallowed or if inhaled

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.

P280 Wear protective gloves.

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

Supplemental Hazard

Statements

none

2.3 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : C₉H₁₇NOS

Molecular weight : 187,30 g/mol

CAS-No. : 2212-67-1

EC-No. : 218-661-0

Index-No. : 613-051-00-4

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

Component Classification Concentration

Molinate

CAS-No.

EC-No.

Index-No.

2212-67-1

218-661-0

613-051-00-4

Acute Tox. 4; Skin Sens. 1;

Carc. 2; Repr. 2; STOT RE 2;

Aquatic Acute 1; Aquatic

Chronic 1; H302 + H332,

H317, H351, H361, H373,

H410

<= 100 %

3.1.1. Formula

C₉H₁₇NOS

3.1.2. Molecular Weight (g/mol)

187.30

3.1.3. CAS-No.

2212-67-1

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

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.

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), Sulphur oxides

Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides

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 breathing vapours, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas.
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
Soak up with inert absorbent material and dispose of as hazardous waste. 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 inhalation of vapour or mist.
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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
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.
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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid
Colour: clear
- b) Odour No data available
- c) Odour Threshold No data available
- d) pH No data available
- e) Melting point/freezing
point
No data available
- f) Initial boiling point and
boiling range
355

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
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 - 369 mg/kg
LD50 Dermal - Rabbit - 3.536 mg/kg
- Skin corrosion/irritation
No data available
- Serious eye damage/eye irritation
No data available
- Respiratory or skin sensitisation
- Germ cell mutagenicity
Human
lymphocyte
Cytogenetic analysis
Mouse
Micronucleus test Carcinogenicity
Limited evidence of carcinogenicity in animal studies
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
Suspected human reproductive toxicant
Reproductive toxicity - Rat - Inhalation
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).
Reproductive toxicity - Rat - Oral
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).
Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile
nonpregnant females). Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive).
Reproductive toxicity - Rat - Oral
Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile

nonpregnant females). Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Developmental Toxicity - Mouse - Intraperitoneal

Specific Developmental Abnormalities: Urogenital system.

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: CM2625000

Diarrhoea, Weakness, Discomfort of the:, Stomach, Conjunctivitis

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 - Cyprinodon variegatus (sheepshead minnow) - 12 - 17 mg/l - 96,0 h

Toxicity to daphnia and

other aquatic

invertebrates

EC50 - Daphnia magna (Water flea) - 3,2 - 32,0 mg/l - 48 h

Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 17,6 - 39,0 mg/l - 96 h

12.2 Persistence and degradability

12.3 Bioaccumulative potential

Bioaccumulation Ictalurus punctatus - 13 d

- 1,33 ug/l

Bioconcentration factor (BCF): 25 - 31

12.4 Mobility in soil

No data available

12.5 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.

12.6 Other adverse effects

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3082 IMDG: 3082 IATA: 3082

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Molinate)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Molinate)

IATA: Environmentally hazardous substance, liquid, n.o.s. (Molinate)

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!