

SAFETY DATA SHEET according
to GB/T 16483 and GB/T 17519Version 8.0
Revision Date 24.08.2022
Print Date 24.02.2023
Date of first issue 24.08.2022SDS No. Vetec - V900624
Product Number Vetec - V900624**(S)-(+)-Mandelic acid****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : (S)-(+)-Mandelic acid

Product Number : V900624
Brand : Vetec
CAS-No. : 17199-29-0**1.2 Details of the supplier of the safety data sheet**Company : Sigma-Aldrich (Shanghai) Trading Co.Ltd.
509 Renqing Road
Zhangjiang High Tech East Park, Pudong
SHANGHAI
201201 SHANGHAI
CHINA西格玛奥德里奇（上海）贸易有限公司
上海市浦东新区仁庆路 509 号 10 幢
邮政编码：201201Merck KGaA
64271 Darmstadt
Germany
Phone: +49 6151 72-0Telephone : +86 21 6141-5566
Fax : +86 21 6141-5567**1.3 Emergency telephone**

Emergency Phone # : +86 532 83889090

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

Identified uses : For R&D use only. Not for pharmaceutical, household or other uses.

SECTION 2: Hazards identification**Summary of emergency**

Causes serious eye damage. Consult a physician., Show this material safety data sheet to the doctor in attendance. If breathed in, move person into fresh air., If not breathing, give artificial respiration., Consult a physician. Wash off with soap and plenty of water., Consult a physician. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Never give anything by mouth to an unconscious person., Rinse mouth with water., Consult a physician. Combustible.

2.1 GHS Classification

Serious eye damage/eye irritation (Category 1), H318

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

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statement(s)

H318

Causes serious eye damage.

Precautionary statement(s)

Prevention

P280

Wear eye protection/ face protection.

Response

P305 + P351 + P338 +
P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard statement(s)

H318

Causes serious eye damage.

Precautionary
statement(s)

none

2.3 Physical and chemical hazards

Referring to current information, no physical or chemical hazard.

2.4 Health hazards

H318

Causes serious eye damage.

2.5 Environmental hazards

Referring to current information, no environmental hazard.

2.6 Other hazards - none

SECTION 3: Composition/information on ingredients

Substance / Mixture : Substance

3.1 Substances

Formula : C₈H₈O₃
Molecular weight : 152.15 g/mol
CAS-No. : 17199-29-0
EC-No. : 241-240-8

Hazardous ingredients

Component	Classification	Concentration
(S)-(+)-mandelic acid	Serious eye damage/eye irritation Category 1; H318	<= 100 %

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

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Consult a physician. Show this material 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

4.4 Notes to physician

No data available

SECTION 5: Firefighting 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
Combustible.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Avoid formation of dust and aerosols.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

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

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

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

Light sensitive.

Storage class

Storage class (TRGS 510): 11: Combustible Solids

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

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 Regulation (EU) 2016/425 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

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

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|---|--|
| a) Physical state | solid |
| b) Color | No data available |
| c) Odor | No data available |
| d) Melting point/freezing point | No data available |
| e) Initial boiling point and boiling range | No data available |
| f) Flammability (solid, gas) | No data available |
| g) Upper/lower flammability or explosive limits | No data available |
| h) Flash point | > 190 °C |
| i) Autoignition temperature | No data available |
| j) Decomposition temperature | No data available |
| k) pH | No data available |
| l) Viscosity | Viscosity, kinematic: No data available
Viscosity, dynamic: No data available |
| m) Water solubility | No data available |
| n) Partition coefficient: n-octanol/water | No data available |

- | | |
|-----------------------------|-------------------|
| o) Vapor pressure | No data available |
| p) Density | No data available |
| Relative density | No data available |
| q) Relative vapor density | No data available |
| r) Particle characteristics | No data available |
| | |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Chemical stability

Stable under recommended storage conditions.

10.2 Possibility of hazardous reactions

No data available

10.3 Conditions to avoid

No data available

10.4 Incompatible materials

No data available

10.5 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

Symptoms: Possible damages:, mucosal irritations

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (External MSDS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

Remarks: (External MSDS)

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

Remarks: The value is given in analogy to the following substances: (R)-(-)-mandelic acid

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

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

11.2 Additional Information

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

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h
Remarks: (External MSDS)

12.2 Persistence and degradability

Biodegradability Result: 90 - 100 % - Readily biodegradable.
Remarks: (External MSDS)

12.3 Bioaccumulative potential

No data available

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 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

H318 Causes serious eye damage.

Further information

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