

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 02 May 2022

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

1.1. Product name:

Malonic acid-d4

1.1. Catalog No.:

1117

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Permoserstrasse 15

04318 Leipzig
Germany

Tel. +49 341 5295 183
Fax. +49 341 5295 182
E-mail: info@armar-europa.de

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Eye irritation
(Category 2), H319

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements Labelling according Regulation (EC) No 1272/2008

Signal word Warning

Hazard statement(s) H319 Causes serious eye irritation.

Precautionary statement(s) 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 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

Component: malonic acid-d4
Classification: Acute Tox. 4; Eye Irrit. 2; H302, H319
Concentration: <= 100 %

3.1.1. Formula

C3D4O4

3.1.2. Molecular Weight (g/mol)

108.09

3.1.3. CAS-No.

813-56-9

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

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 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 vapors, mist or gas. Ensure adequate ventilation. 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.

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 Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Store under inert gas. hygroscopic 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 Ingredients 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 Safety glasses with side-shields conforming to EN166 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 gloves 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 Impervious clothing, 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 Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties a) Appearance Form: solid b) Odor No data available c) Odor Threshold No data available d) pH No data available e) Melting point/freezing point Melting point/range: 132 - 135 °C - lit. Melting point/range: 132 - 135 °C - dec. 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) Vapor pressure No data available l) Vapor density No data available m) Relative density No data available n) Water solubility No data available o) Partition coefficient: n-octanol/water No data available p) Autoignition 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 No data available

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 Hazardous decomposition products formed under fire conditions. - Carbon oxides In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity LD50 Oral - Rat - 1.310 mg/kg Remarks: (RTECS) The value is given in analogy to the following substances: absorption Skin corrosion/irritation slight irritation Serious eye damage/eye irritation Eyes - Rabbit Result: Eye irritation Remarks: (RTECS) The value is given in analogy to the following substances: Respiratory or skin sensitization No data available Germ cell mutagenicity No data available Ames test Salmonella typhimurium Result: negative (National Toxicology Program) Carcinogenicity IARC: No ingredient 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 Acute oral toxicity - Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Specific target organ toxicity - repeated exposure No data available Aspiration hazard No data available Additional Information RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting
Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish LC50 - Lepomis macrochirus (Bluegill sunfish) - 150 mg/l - 24 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 275 mg/l - 48 h Remarks: (ECOTOX Database) 12.2 Persistence and degradability No data available 12.3 Bioaccumulative potential No data available 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 Discharge into the environment must be avoided.

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. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Contaminated packaging Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number ADR/RID: - IMDG: - IATA: - 14.2 UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods 14.3 Transport hazard class(es) ADR/RID: - IMDG: - IATA: - 14.4 Packaging group ADR/RID: - IMDG: - IATA: - 14.5 Environmental hazards ADR/RID: no IMDG Marine pollutant: no IATA: no 14.6 Special precautions for user

Further information Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

a trademark of
HPC Standards GmbH
Permoserstrasse 15
04318 Leipzig / Germany

Phone: +49 (0)341 5295 183
Fax: +49 (0)341 5295 182
E-Mail: info@armar-europa.de
www.armar-europa.de



Seite 4/4

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!