

SAFETY DATA SHEET

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

1.1 Product identifiers

| | |
|--------------|---|
| Product name | Malonic Acid |
| CAS number | 141-82-2 |
| Synonyms | Propanedioic acid, Carboxyacetic acid, Dicarboxymethane, Methanedicarboxylic acid, Dicarboxylate, Dicarboxylic acid |

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

Identified uses No information available

1.3 Details of the supplier of the safety data sheet

| | |
|-----------|--|
| Company | Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A. |
| Telephone | 512-668-9918 |
| Fax | 512-886-4008 |

1.4 Emergency telephone

| | | |
|-------------------|------------------------------|----------|
| Emergency Phone # | US & Canada: 1-800-535-5053 | INFOTRAC |
| | International 1-352-323-3500 | INFOTRAC |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Serious eye damage/eye irritation (Category 1)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word Danger

Hazard statements

- Harmful if swallowed
- Causes skin irritation
- Causes serious eye damage
- Causes serious eye irritation
- May cause respiratory irritation

Precautionary statements

- Prevention** Avoid breathing dust/fume/gas/mist/vapors/spray
Wash hands thoroughly after handling. Do not touch eyes.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection when handling.
- Response** IF SWALLOWED: Get medical help
IF ON SKIN: wash with plenty of water
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Get emergency medical help
Get medical help if you feel unwell
Specific treatment (See section 4 on this label)
Rinse mouth.
If skin irritation occurs: Get medical help
If eye irritation persists: Get emergency medical help.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No information available

SECTION 3: Composition/information on ingredients

3.1 Components

| Chemical name | Common name and synonyms | CAS number | Concentration |
|---------------|---|------------|---------------|
| Malonic acid | Propanedioic acid, Carboxyacetic acid, Dicarboxymethane, Methanedicarboxylic acid, Dicarboxylate, Dicarboxylic acid | 141-82-2 | >95% |

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

| | |
|--------------------------------|---|
| If inhaled | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. |
| In case of skin contact | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| In case of eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| If swallowed | Glean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. |

4.2 Most important symptoms and effects, both acute and delayed

Causes severe eye damage

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam. |
| Unsuitable extinguishing media | No information available |

5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

| | |
|---------------------------------|--------|
| Flash Point | 172 °C |
| Autoignition Temperature | 580 °C |

Explosion limits

| | |
|---|-------------------|
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No data available |
| Sensitivity to Static Discharge | No data available |

NFPA

| | | | |
|--------|--------------|-------------|------------------|
| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|

| | | | |
|---|---|---|-----|
| 2 | 1 | 1 | N/A |
|---|---|---|-----|

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

Hygiene measures

Handle in accordance with good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store under an inert atmosphere. Keep container tightly closed in a dry and well-ventilated place. Protect from moisture.

Incompatibilities

Strong oxidizing agents. Reducing agent.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

Should not be released into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|-----------------------------|
| Physical State | Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | 130 - 135 °C / 266 - 275 °F |
| Boiling Point/Range | No information available |
| Evaporation Rate | 172 °C |
| Flammability (solid) | No information available |
| Flammability or explosive limit | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Density | 1.63 |
| Solubility | No information available |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temp | 580 °C |
| Decomposition Temp | 135 °C |
| Viscosity | Not applicable |
| Molecular Formula | C3 H4 O4 |
| Molecular Weight | 104.06 |

VOC Content(%)
Oxidizing properties

No information available
No information available

9.2 Other safety information

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available

10.2 Chemical stability

Hygroscopic

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Incompatible products. Exposure to moist air or water. Avoid dust formation.

10.5 Incompatible materials

Strong oxidizing agents, Reducing agent.

10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂), Organic acids.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------|------------|-------------|-----------------------------|
| Malonic acid | 2750 mg/kg | - | 8900 mg/m ³ - 1h |

Serious eye damage/eye irritation

Risk of serious damage to eyes

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

| Component | CAS | IARC | NTP | ACGIH | OSHA | Mexico |
|--------------|----------|------------|------------|------------|------------|------------|
| Malonic acid | 141-82-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

Specific target organ toxicity - single exposure

None known

Specific target organ toxicity - repeated exposure

None known

Reproductive toxicity

No information available

Chronic effects

No information available

11.2 Additional Information

No information available

SECTION 12: Ecological information**12.1 Toxicity**

Do not empty into drains.

12.2 Persistence and degradability

Soluble in water. Persistence is unlikely based on information available

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

The toxicological properties have not been fully investigated.

SECTION 13: Disposal considerations**13.1 Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US) Not listed

IMDG Not listed

IATA Not listed

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

See section 2 for a full list of hazards

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

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SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.