SAFETY DATA SHEET

Version: v1 Revision Date: 2024-02-01 Print Date: 2024-02-08

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

1.1 Product identifiers

Product name	: DL-Malic acid
Product Number	: M101126
Brand	: aladdin
CAS-No.	: 6915-15-7

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

: Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

: Shanghai Aladdin Biochemical Tech Co.,Ltd
: 36 Xinjinqiao Road, Shanghai
: 400-620-6333
: no data available

1.4 Emergency telephone number

Emergency Phone	: 0532-83889090
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Eye irritation (Category 2), H319

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word	Warning
Hazard statement(s)	
H303	May be harmful if swallowed
H319	Causes serious eye irritation
Precautionary statement(s)	
P264	Wash hands [and] thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER or doctor/ if you feel unwell.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses if present and easy to do - continue rinsing.
P337+P313	IF eye irritation persists: Get medical advice/attention.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: (±)-2-Hydroxysuccinic acid; DL-Hydroxybutanedioic acid; DL-Hydroxy	
succinic acid; (+/-)-butanedioic acid; 1-Hydroxy-1,2-ethanedicarboxylic acid;DL-Apple Acid;		
Formula	: C4H6O5	
Molecular weight	: 134.09	
CAS No.	: 6915-15-7	
EC-NO.	: 230-022-8	

Component	Classification	Concentration
DL-Malic acid		
	Eye Irrit. 2; H319	reagent grade,>99.0%(T)

SECTION 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.Move out of dangerous area. 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

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture Carbon oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

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.

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

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 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 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. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: > 480 min Material tested:Dermatril® (Aldrich Z677272, Size M) Splash protection Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: > 480 min Material tested:Dermatril® (Aldrich Z677272, Size M) Splash protection Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: > 30 min Material tested:Dermatril® (Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, 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 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

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: Powder or Chunks color: White to Off-White
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available

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e) Melting point/freezing point	129-133 °C
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) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	r no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 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

Heat. Strong heating.

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

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11.1 Information on toxicological effects

Acute toxicity

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 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 Additional Information RTECS: 0N7175000

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

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

SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

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12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.Contact a licensed professional waste disposal service to dispose of this material. Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)		
UN number: no data available	Packing group: no data available	Class: no data available
Proper shipping name: Not dangerous goods	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		
IMDG		
UN number: no data available	Packing group: no data available	EMS-No: no data available
Proper shipping name: Not dangerous	goods	
ΙΑΤΑ		
UN number: no data available Proper shipping name: Not dangerous	Packing group: no data available goods	Class: no data available

SECTION 15: Regulatory information

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

SECTION 16: Other information

Further information

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Version: v1

Revision Date: 2024-02-01

Print Date: 2024-02-08