

Safety Data Sheet **LACTIC ACID 88% w/w**

SDS no. 9CBEPU8T • Version 1.0 • Date of issue: 2024-01-26

SECTION 1: Identification

GHS Product identifier

Product name LACTIC ACID 88% w/w

Other means of identification

LACTIC ACID 88% w/w LR

LACTIC ACID 88% w/w USP

1-Hydroxyethanecarboxylic acid, 2-Hydroxypropionic acid, Milk acid, alpha-Hydroxypropionic acid, Ethylidenelactic acid

Recommended use of the chemical and restrictions on use

Cultured dairy products, acidulant, chemicals (salts, plasticisers, adhesives, pharmaceuticals), mordant in dyeing wool, general purpose food additive, manufacture of lactates, dehairing, plumping and decalcifying hides, solvent for cellulose formate, flux for soft solder, catalyst in the casting of phenolaldehyde resins and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1

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- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H315

Causes skin irritation

H318

Causes serious eye damage

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of water/soap

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER/doctor/physician

P332+P313

If skin irritation occurs: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 90.08

Components

Component	CAS no.	Concentration
L-Lactic acid, anhydrous (EC no.: 201-196-2; Index no.: 607-743-00-5)	79-33-4	85 - 88 % (weight)
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 1; Skin corrosion/irritation, Cat. 2. HAZARDS: H315 - Causes skin irritation; H318 - Causes serious eye damage.		
Water (EC no.: 231-791-2)	7732-18-5	12 - 15 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.

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In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical

Toxic fumes (carbon oxides) may be emitted in fire.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes. Do not breathe fumes, vapour, gas.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

Prevent from entering into drains, ditches, rivers or the sea.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid prolonged or repeated contact with skin and eyes . Avoid breathing vapour, spray or mists. Wash hands and face thoroughly after working with material.

Conditions for safe storage, including any incompatibilities

Store in cool place and out of direct sunlight. Keep container tightly closed and in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Recommendation: Excellent: Nitrile, PVC. Poor: Neoprene, Natural.

Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Colourless to slightly yellow liquid.
Color	No data available.
Odor	Slight acrid odour, similar to that of sour milk.
Odor threshold	No data available.
Melting point/freezing point	18 °C
Boiling point or initial boiling point and boiling range	122 °C @ 15 mm Hg
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	113 °C (closed cup).
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	~2.8 (10 g/l, H ₂ O, 20 °C)
Kinematic viscosity	Viscosity: 20-40 mPa*s @ 20°C
Solubility	Solubility in Water: Soluble (syropy). Solubility in Organic Solvents: Soluble in alcohol, glycerol and furfural. Insoluble in chloroform, petroleum ether and carbon disulfide.
Partition coefficient n-octanol/water (log value)	log Pow: -0.62
Vapor pressure	0.1 mmHg (25 °C)
Evaporation rate	< 1 (BuAc=1)
Density and/or relative density	Specific Gravity: 1.21
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Refractive Index: 1.428

Taste: Slight acrid

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Reacts with incompatible materials

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Heat, flames, ignition sources and incompatibles.

Incompatible materials

Strong alkalis, oxidising agents, reducing agents, iodides, hydrofluoric acid, nitric acid plus hydrofluoric acid and albumin.

Hazardous decomposition products

Emits toxic fumes under fire conditions.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 3543 mg/kg (pure subst.)

Corrosive. Causes burns in the mouth, throat and stomach. May cause diarrhea, nausea, vomiting, perspiration, shortness of breath, cyanosis and vascular collapse. May cause severe and permanent damage to the digestive tract. Absorption of large quantities may result in kidney damage.

Causes burns. Extremely destructive and corrosive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. May result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Risk of aspiration! Symptoms of exposure may include sore throat, coughing, burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Skin corrosion/irritation

Acute Toxicity - Dermal: LD50 (rabbit): > 2000 mg/kg (pure subst.)

Causes severe skin irritations. May be harmful if absorbed through the skin. Prolonged or over exposure may lead to a corrosive effect on the skin, burns or ulcerations.

Serious eye damage/irritation

Risk of serious damage to eyes! Symptoms include redness, pain, blurred vision and eye damage. May cause chemical conjunctivitis and corneal damage.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

Acute Toxicity - Fish: static test LC50 - Oncorhynchus mykiss (rainbow trout) - 130 mg/l - 96h

Acute Toxicity - Daphnia: static test EC50 - Daphnia magna (Water flea) - 130 mg/l - 48 h
(OECD Test Guideline 202)

Persistence and degradability

This material is expected to readily biodegrade: BOD (5 days): 50%

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)