



上海海关工业品与原材料检测技术中心

Technical Center for Industrial Products and Raw Materials Inspection and Testing of Shanghai Customs District

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安全数据单（化学品安全技术说明书）委托审核 检测/鉴定报告

报检号: 9250543938

日期: 2025/12/10

委托单位: 上海尖精化工有限公司

供应商 / 生产单位: SHANGHAI TOPFINE CHEMICAL CO.,LTD.

申报品名: (L+) LACTIC ACID

申请单位 MSDS 或 SDS 编号: (英文 MSDS)

依据: GB/T 16483-2008 化学品安全技术说明书 内容和项目顺序;

联合国《全球化学品统一分类和标签制度》(第十修订版)

委托审核结果:

项目	结果	项目	结果
1.化学品及企业标识	符合	9.理化特性	符合
2.危险性概述	符合	10.稳定性和反应性	符合
3.成分/ 组成信息	符合	11.毒理学信息	符合
4.急救措施	符合	12.生态学信息	符合
5.消防措施	符合	13.废弃处置	符合
6.泄漏应急处理	符合	14.运输信息	符合
7.操作处置与储存	符合	15.法规信息	符合
8.接触控制/ 个体防护	符合	16.其他信息	符合

意见:

该产品的安全数据单（化学品安全技术说明书或 MSDS 或 SDS）经整改后符合 GB/T16483-2008 的要求。本报告的有效期至 2026 年 12 月 9 日。若生产单位发现该产品有新的危险特性，应立即公告并及时修订安全数据单。

委托单位对所提供的安全数据单（包含样品名称、成分、纯度及其他基本理化性质、健康和环境危险性质）的真实性负责。委托单位承担因安全数据单信息错误造成的一切可能后果。

主任检验员:

张新贵

国家化学品分类鉴别与评估重点实验室

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识别码: 5eyj7h





(L+)Lactic acid

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Issue date: 5/6/2011 Revision date: 3/3/2025 Supersedes version of: 4/18/2022 Version:8.0

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

1.1. Product identifier

Name : (L+) lactic acid
Trade name : (L+) lactic acid
EC Index-No. : 607-743-00-5
EC-No. : 201-196-2
CAS-No. : 79-33-4
REACH registration No. : 01-2119474164-39-0001

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Agriculture, forestry, fishery
Mining, (including offshore industries)
Offshore industries
Manufacture of food products
Manufacture of bulk, large scale chemicals (including petroleum products)
Manufacture of fine chemicals
General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
Building and construction work
Electricity, steam, gas water supply and sewage treatment
Manufacture of textiles, leather, fur
Manufacture of wood and wood products
Manufacture of pulp, paper and paper products
Printing and reproduction of recorded media
Manufacture of rubber products
Manufacture of plastics products, including compounding and conversion
Manufacture of other non-metallic mineral products, e.g. plasters, cement
Manufacture of furniture
Health services

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SHANGHAI TOPFINE CHEMICAL CO., LTD.

ADD: 3/F, NO1 BUILDING,
SOUTH TOWER, NO.456 FUTE
NORTH ROAD, PUDONG NEW
DISTRICT SHANGHAI- 200131,
CHINA.

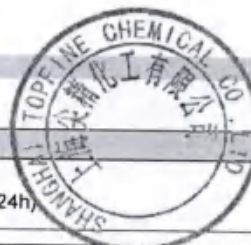
T -021-58589995

F -021-58589995

gavin@topfine-chem.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
China	SHANGHAI TOPFINE CHEMICAL CO., LTD.	PUDONG NEW DISTRICT SHANGHAI	-021-58586316(public, 24h)	



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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1C H314
Eye Dam. 1 H318

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects
Causes severe skin burns and eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP)

: P260 - Do not breathe mist, vapours, spray.

P264 - Wash hand thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER, a doctor.

P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.. Immediately call a POISON CENTER, a doctor.

P363 Wash contaminated clothing before reuse.

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, a doctor.

: P405 Store locked up

EUH-statements

P501 Dispose of contents/container to local/-regional/national/international regulation
EUH071 - Corrosive to the respiratory tract.



2.3. Other hazards

Other hazards not contributing to the classification : None, to our knowledge.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Content	Product identifier	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(L+) lactic acid	≥80%	CAS-No.: 79-33-4 EC-No.: 201-196-2 EC Index-No.: 607-743-00-5 REACH -No.: 01-2119474164-39-0001	Skin Corr. 1C, H314 Eye Dam. 1, H318
Water	≤20%	CAS-No.: 7732-18-5	/

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

(L+)Lactic acid

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SECTION 4: First aid measures

4.1. Description of first aid measures

- | | |
|---------------------------------------|--|
| First-aid measures after inhalation | : Move the affected person away from the contaminated area and into the fresh air. If irritation persists, consult a doctor. |
| First-aid measures after skin contact | : Remove all contaminated clothing and footwear. Rinse immediately with plenty of water. If skin burns appear, call a doctor immediately. |
| First-aid measures after eye contact | : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately, even if there are no immediate symptoms. |
| First-aid measures after ingestion | : Rinse mouth out with water. Never attempt to induce vomiting. Call a physician immediately. |

4.2. Most important symptoms and effects, both acute and delayed

- | | |
|-------------------------------------|--|
| Symptoms/effects after inhalation | : Corrosive to respiratory system. Causes burns. |
| Symptoms/effects after skin contact | : Causes severe skin burns. |
| Symptoms/effects after eye contact | : Serious damage to eyes. |
| Symptoms/effects after ingestion | : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. |

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. Dry powder. Carbon dioxide (CO ₂). Foam. |
|------------------------------|---|

5.2. Special hazards arising from the substance or mixture

- | | |
|--|--|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. Carbon oxides (CO, CO ₂). |
|--|--|

5.3. Advice for firefighters

- | | |
|--------------------------------|--|
| Firefighting instructions | : Cool down the containers exposed to heat with a water spray. Contain the extinguishing fluids by bunding. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- | | |
|----------------------|---|
| Emergency procedures | : Avoid contact with skin and eyes. Do not breathe vapours. In case of important spillage : Only qualified personnel equipped with suitable protective equipment may intervene. |
|----------------------|---|

6.1.2. For emergency responders

- | | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

6.2. Environmental precautions

Contain the spilled material by bunding. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

- | | |
|-------------------------|---|
| For containment | : Liquid spill: take up in sand, earth, vermiculite. |
| Methods for cleaning up | : Wash non-recoverable remainder with large amounts of water. |
| Other information | : Dispose of contaminated materials in accordance with current regulations. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- | | |
|-------------------------------|---|
| Precautions for safe handling | : Ensure adequate ventilation. Segregation of the emitting process. Effective contaminant extraction. Minimisation of manual phases. Avoid contact with skin and eyes. Do not breathe vapours. Avoid contact with contaminated tools and objects. |
| Hygiene measures | : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product. Regular cleaning of equipment and work area. Wash contaminated clothing before reuse. |

7.2. Conditions for safe storage, including any incompatibilities

- | | |
|--------------------|---|
| Technical measures | : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. |
|--------------------|---|



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Storage conditions	: Keep container tightly closed and dry. Protect from heat and direct sunlight. Keep away from ignition sources.
Incompatible products	: Strong oxidizing agents. base.

7.3. Specific end use(s)

Not applicable.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1 Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2 Personal protective equipment:

8.2.2.1 Skin and body protection:

Protective clothing. If there is a risk of liquid being splashed : Chemical resistant apron

8.2.2.2 Hand protection:

Protective gloves made of rubber. Butyl rubber. Chloroprene rubber. Polyvinylchloride (PVC). Nitrile rubber. Fluoroelastomer (FKM).
Breakthrough time (min) : > 480

8.2.2.3 Eye and face protection:

Safety goggles. Face-shield(EN166)

8.2.2.4 Respiratory protection:

If the ventilation is suitable, it is not essential to wear respiratory equipment. If mist is formed : Full face mask (ABEK/P2)

8.2.3 Thermal hazards

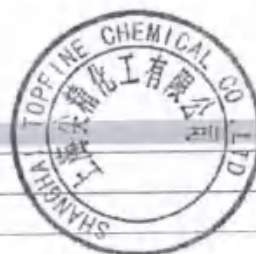
No additional information available

8.2.4 Environmental exposure controls:

Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

Other information:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Not available
Appearance	: Viscous.
Odour	: odourless.
Odour threshold	: Not established
Melting point	: 53 °C (crystal lactic acid)
Freezing point	: Not applicable
Boiling point	: 216.6 °C
Flammability (solid, gas)	: Not available
Explosive properties	: Not available
Oxidising properties	: Not applicable.
Explosive limits	: No data available

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Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not available
Auto-ignition temperature	: ≥ 400 °C
Decomposition temperature	: > 200 °C
pH	: < 2 (25 °C)
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: 5 - 60 mPa.s
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Pow)	: -0.72 – -0.54 (20 °C)
Vapour pressure	: Negligible.
Relative vapour density at 20 °C	: Not available
Relative density	: 1.04 - 1.25



9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Can react violently with. Strong oxidizing agents.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

Strong oxidizing agents. Strong base

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

(L+) lactic acid (79-33-4)	
LD50 oral rat	3543 mg/kg (EPA OPP 81-1)
LD50 dermal rabbit	> 2000 mg/kg (EPA OPP 81-2)
LC50 inhalation rat	> 7.94 mg/l/4h (OECD 403)

Skin corrosion/irritation	: Causes severe burns. PH: < 2 (25 °C)
Serious eye damage/irritation	: Causes serious eye damage. PH: < 2 (25 °C)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
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Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

(L+) lactic acid (79-33-4)	
LC50 fish	130 mg/l/96h (Lepomis macrochirus)(EPA-669/3-75-009)
EC50 Daphnia	130 mg/l/48h (Daphnia magna)(OECD 202 method)
ErC50 (algae)	≈3500mg/l/72h (Pseudokirchnerella subcapitata) (OECD 201 method)
NOEC (acute)	1900 mg/l (OECD 201 method)

12.2.Persistence and degradability

(L+) lactic acid (79-33-4)	
Persistence and degradability	Readily biodegradable.

12.3.Bioaccumulative potential

(L+) lactic acid (79-33-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.72 —0.54(20 °C)
Bioaccumulative potential	Not bioaccumulable.

12.4.Mobility in soil

(L+) lactic acid (79-33-4)	
Mobility in soil	Small adsorption

12.5.Results of PBT and vPvB assessment

(L+) lactic acid (79-33-4)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6.Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1.Waste treatment methods

Waste treatment methods : Dispose of in accordance with relevant local regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1.UN number				
UN3265	UN3265	UN3265	UN3265	UN3265
14.2.UN proper shipping name				
CORROSIVE LIQUID, ACIDIC, ORGANIC,N.O.S. (L+)lactic acid	CORROSIVE LIQUID, ACIDIC, ORGANIC,N.O.S. (L+)lactic acid	CORROSIVE LIQUID, ACIDIC, ORGANIC,N.O.S. (L+)lactic acid	CORROSIVE LIQUID, ACIDIC, ORGANIC,N.O.S. (L+)lactic acid	CORROSIVE LIQUID, ACIDIC, ORGANIC,N.O.S. (L+)lactic acid
14.3.Transport hazard class(es)				
8	8	8	8	8
				
14.4.Packing group				
III	III	III	III	III
14.5.Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6.Special precautions for user

Special transport precautions : No additional information available

Overland transport

Classification code (ADR) : C3

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Special provisions (ADR)	: 274
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP1,TP28
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Hazard identification number (Kemler No.)	: 80
Orange plates	: 

Tunnel restriction code (ADR) : E

Transport by sea

Special provisions (IMDG)	: 223,274
Limited quantities (IMDG)	: 5L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP1 ,TP28
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW2
Segregation (IMDG)	: SGG1, SG36, SG49

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y841
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 852
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 856
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3,A803
ERG code (IATA)	: 8L

Inland waterway transport

Classification code (ADN)	: C3
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: C3
Special provisions (RID)	: 274
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19



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Portable tank and bulk container instructions (RID)	: T7
Portable tank and bulk container special provisions (RID)	: TP1, TP28
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

(L+) lactic acid is not on the REACH Candidate List

(L+) lactic acid is not on the REACH Annex XIV List

(L+) lactic acid is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

(L+) lactic acid is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Data sources : CSR (Chemical safety report), IUCLID, HSDB (Hazardous Substances Data Bank).

Full text of H- and EUH-statements:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr.1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
EUH071	Corrosive to the respiratory tract.

Abbreviations and acronyms:

CAS -No.	Chemical Abstracts Service number
EC -No.	European Communities
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
LC50	Median lethal concentration
LD50	Median lethal dose
EPA	Environmental Protection Agency
ErC50	EC50 in terms of reduction of growth rate
EC50	concentration for 50% of maximal effect
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

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PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

