



MATERIAL SAFETY DATA SHEET

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DL-Lactic acid

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: DL-Lactic acid

Catalog Numbers:

L028

Synonyms:

DL-2-Hydroxypropanoic acid

Company Identification (Europe):

LEONID CHEMICALS

62/A-2 2nd Stage, Industrial Suburb

Yeshwanthpur, Bangalore -22, INDIA

Ph- +91-80-23378354

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	: 50-21-5
Chemical Name	: DL-Lactic acid
%	: >85%
EINECS#	: 200-018-0
Hazard Symbols	: C
Risk Phrases	: 34

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Causes burns. Hygroscopic (absorbs moisture from the air).

Potential Health Effects

Eye:

Causes eye burns. Contact may cause ulceration of the conjunctiva and cornea. Causes redness and pain.

Skin:

Causes skin burns. Causes redness and pain.

Ingestion:

Causes gastrointestinal tract burns.

Inhalation:

Causes chemical burns to the respiratory tract.

Chronic:

Not available.

SECTION 4 - FIRST AID MEASURES



Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

General Information:

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

Extinguishing Media:

Use foam, dry chemical, or carbon dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

SECTION 7 - HANDLING and STORAGE

Handling:

Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Use only in a chemical fume hood.

Storage:

Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment**Eyes:**

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear liquid

Color: colorless to yellow

Odor: acrid odor

pH: 2,8 (10 g/l H₂O)

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: 122 deg C @15mmHg

Freezing/Melting Point: 18.8 deg C

Autoignition Temperature: Not available.

Flash Point: > 110 deg C (> 230.00 deg F)

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water: Soluble.

Specific Gravity/Density: 1.200

Molecular Formula: C₃H₆O₃

Molecular Weight: 90.08

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials:

Metals, strong oxidizing agents, oxidizing agents, reducing agents, bases, nitric acid, iodides.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 50-21-5: OD2800000

LD50/LC50:

CAS# 50-21-5: Draize test, rabbit, eye: 750 ug Severe; Draize test, rabbit, skin: 5 mg/24H Severe; Draize test, rabbit, skin: 100 mg/24H Moderate; Oral, mouse: LD50 = 4875 mg/kg; Oral, rat: LD50 = 3543 mg/kg; Skin, rabbit: LD50 = >2 gm/kg.

CAS 50-21-5: lactic acid:

Oral, rat: LD50 = 3.73 g/kg

Oral, mouse:

LD50 = 4875 mg/kg

Skin, rabbit: LD50 > 2 g/kg

Irritation:

Skin,

rabbit: 5 mg/24H severe

Eye, rabbit: 750 µg severe

Carcinogenicity:

DL-Lactic acid -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 - TRANSPORT INFORMATION

IATA

Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*

Hazard Class: 8

UN Number: 3265

Packing Group: III

IMO

Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

Hazard Class: 8

UN Number: 3265

Packing Group: III

RID/ADR

Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

Hazard Class: 8

UN Number: 3265
Packing group: III

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 50-21-5: 0

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 50-21-5 is listed on Canada's DSL List.

CAS# 50-21-5 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 50-21-5 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

MSDS Creation Date: 8/19/1996 Revision #1 Date: 8/01/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.