

**AERCHEM INC.**  
**400 W. 7th Street, Suite 112**  
**Bloomington, IN 47404**

**Telephone: 812.334.9996**

**Fax: 812.334.1960**

**Emergency: 800.424.9300**

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**Effective Date:** 12/28/94

**Product Name:** Lactic Acid Aqueous solution

**Chemical Formula:** CH<sub>3</sub>CHOCHOH

**Molecular Weight:** 90.08

**CAS No.:** 79-33-4

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**Hazardous Ingredients:** None. Health injuries are not known or expected under normal use.

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**Physical Data:**

PINECES/TOSCA:	201-196-2(L+) Lactic Acid)
Boiling point:	230°F (40% solution)
Specific Gravity (Water=1):	1.12-1.23 g/ml 20°C
SARA 313 listed:	No
Solubility in water:	Soluble
Odor:	Characteristic
Physical Form:	Colorless/yellow/light brown aqueous solution
Vapor pressure:	Not available
Density:	1190-1250 Kg/m <sup>3</sup>

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**Fire and Explosion Information:**

Flash point:	Not applicable
(Auto) Ignition temperature:	None
Explosion Limits:	Lower- not applicable Upper- not applicable
Extinguishing media to be recommended:	Dry chemical, carbon dioxide water spray or regular foam
Special fire and explosions precautions:	No Special precautions required

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**Stability:**

Stable at normal conditions

**Conditions to avoid:**

Avoid temperatures above 200°C/392°F

**Materials to Avoid**

Oxidizing Agents

**Hazardous Decomposition**

Thermal decomposition can lead to release of irritating gases and vapors

**Hazardous Polymerization:**

Has not been reported to occur under normal conditions.

**Handling and Storage Information:**

Keep container tightly closed, store in cool, dry ventilated area and avoid temperatures above 200°C/392°F.

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**Handling Information:** Avoid eye and skin contact. If contact, wash with water and soap

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**A. Personal Protection:**

**Ventilation:** Under normal conditions, good ventilation should be sufficient.

**Skin Contact:** Light weight protective clothing is recommended, but not necessary. The use of rubber gloves is also recommended, but not necessary.

**Eye Contact:** Wear face-shield or safety glasses.

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**Health Hazard:**

Route of Entry: Inhalation and skin  
Skin: May cause irritation with redness.  
Eye : May cause irritation with redness, pain and tearing  
Ingestion: Large amounts may cause gastrointestinal irritation with burning of the mouth.

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**Chronic Exposures:**

Inhalation: May cause gastro intestinal disturbances, bronchial irritation with chronic cough.  
Skin: Repeated and prolonged contact may cause dermatitis.  
Eye Contact: Repeated and prolonged contact may cause conjunctivitis.  
Ingestion: The food and drug administration lists Lactic Acid as a direct food substance affirmed as generally recognized as safe.

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**B. First Aid:**

**Inhalation:** Move to fresh air  
**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids for at least 15 minutes. If eye irritation persists, consult a specialist.  
**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.  
**Ingestion:** Drink plenty of water. Do not induce vomiting, call a physician.  
**Major effects of exposure:** May cause irritation of respiratory tract. May cause eye/skin irritation.

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**C. Toxicity Data**

LD50/oral/rat=3730 mg/Kg  
LD50/oral/mouse=4875 mg/Kg  
LD50/dermal/rabbit 2000MG/Kg  
Carcinogenity: None  
Mutagenity: None

Ecology:  
Mobility: Completely Soluble  
Persistence/degradability: Readily biodegradable according to appropriate OECD test.  
Biochemical oxygen demand(BOD)<sub>5</sub>=0.45 mg O<sub>2</sub>/mg  
Biochemical oxygen demand (BOD)<sub>20</sub>=0.60 mg O<sub>2</sub>/mg  
Chemical oxygen demand(COD)=0.90 mg O<sub>2</sub>/mg  
Bioaccumulation: None  
Ecotoxicity: EC50/48h/Daphnia=240 mg/l  
LC50/48h/Fish=320mg/l  
EC50/Algae=3500mg/l(neutral)

Further information:

Natural Product

NFPA Rating:

Health=2 Fire=0 Reactivity=0

HMIS Ratings:

Health=2 Fire=0 Reactivity=0 Protection=3

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