



# MATERIAL SAFETY DATA SHEET

D-LACTIC ACID

## SECTION 1- MATERIAL/COMPANY IDENTIFICATION

Company Name Musashino Chemical (China) Co., Ltd.  
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Nanchang, Jiangxi, 330200 China  
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Charge Department Safety Management Department  
Responsibility for MSDS Safety Manager Fan Gui-Zeng  
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MSDS Revision Date June 12, 2010

## SECTION 2- COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name D(R)-2-Hydroxy propanoic acid  
Component Lactic Acid ( 90% aqueous solution)  
Formula  $\text{CH}_3\text{CH}(\text{OH})\text{COOH}$   
Mol.W. 90.08  
CAS NO. 10326-41-7

## SECTION 3- HAZARDS IDENTIFICATION

Skin contact Irritant  
Human health effects Skin contact may cause severe skin irritation with discomfort or rash. Prolonged exposure may cause skin burns or ulceration.

## SECTION 4- FIRST AID MEASURES

General advice Show this safety data sheet to the doctor in attendance.  
Skin contact Immediately remove all contaminated clothing, including footwear. flush skin and hair with plenty of water or tepid water.  
Eye contact Immediately hold eyelids apart and flush eyes with plenty of water at least 15 minutes. If irritation persists, call a physician.  
Inhalation Immediately remove to fresh air.  
If breathing is difficult, give oxygen, call a physician.  
Ingestion If swallowed, drink plenty of water or salt water.  
If in doubt, Call a physician immediately.

## SECTION 5- FIRE FIGHTING MEASURES

Fire extinguish Product is considered non-flammable.  
Remove a source of fire. Use a fire extinguisher.  
Extinguishing media Dry Chemicals, Water, carbon dioxide (CO<sub>2</sub>), foam.  
Specific hazards Thermal decomposition can lead to release of irritating gases and vapours.



## SECTION 6- ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear chemical splash goggles, rubber boots and rubber gloves. Avoid contact with skin and eyes.
Environmental precautions	Prevent further leakage or spillage.
Methods for cleaning up	Neutralized the materials with sodium carbonate or sodium hydrogen carbonate. neutralized solution with sand or diatom earth. Pack a absorbent material into a properly labelled container after absorbing. Clean up the leaked place with plenty of water

## SECTION 7- HANDLING AND STORAGE

Handling	Wear personal protective equipment to prevent skin contacting acid liquid. Keep the container well when handling
Storage	Keep container tightly closed. Keep in properly labeled containers. Store in areas shielded the light, and below room temperature. Keep away from strong bases storage areas.
Packaging material	Polyethylene plastic containers etc.

## SECTION 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection equipment	Wear protective clothing. Safety glasses, face shield and rubber gloves. Breathing apparatus needed only when aerosol or mist is formed.
Hygiene measures	Set up safety shower, hands washer and eyes washer nearby handling the materials. Indicate the positions distinctly. When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

## SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless or yellowish syrupy liquid having an acid taste. Odorless or a slight characteristic odor.
Density(20℃)	1.20~1.22g/ml (90% lactic acid solution)
PH	< 2 (25℃)
Boiling point	125℃(90% solution)
Flash point	>112℃
Decomposition temperature	>200℃
Solubility	Soluble in water, alcohol.
Corrosion test	On metal non corrosive (SUS-41 1.14 mm/year)
Viscosity	60 mPa.s @25℃ (90% solution)

## SECTION 10- STABILITY AND REACTIVITY

Stability	Stable at normal conditions. Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures above 200℃
Materials to avoid	Avoid oxidizing agents, alkaline substances. Exothermic reaction

with alkaline substances.

## SECTION 11- TOXICOLOGICAL INFORMATION

Acute toxicity	LD50 4875 mg/kg bw. (mouse, oral) (as 100% lactic acid)
	LD50 3730 mg/kg bw. (rat, oral) (as 100% lactic acid)
Irritativity	500 mg/24 hr sev. (rabbit skin)
	750 µg sev. (rabbit eye)
Carcinogenicity	Bacterial mutagenicity test: Negative
Skin Contact	Irritant

## SECTION 12- ECOLOGICAL INFORMATION

Mobility	Completely soluble, readily biodegradable does not occur hazardous polymerization.
Chemical Oxygen Demand (COD)	0.9 g O <sub>2</sub> /g
Biochemical Oxygen Demand (BOD) <sub>20</sub>	0.67 g O <sub>2</sub> /g

## SECTION 13- DISPOSAL CONSIDERATIONS

Waste from residues/unused products	Burn up absorbent sand gradually in the opened incinerator after absorbing the materials, or burn up the materials directly in the incinerator through atomizer.
Contaminated packaging	Decontaminate empty containers with water, dilute with water and flush to waste system. Recycle containers if possible.
Further information	Treatment, storage, transportation, and disposal must be in accordance with local regulations.

## SECTION 14- TRANSPORTATION INFORMATION

Transportation information	Not classed as dangerous in the meaning of transport regulations Sticking properly on label, indicating material name, lot No., net weight etc. The materials transportation by vehicles, the sender serves deliverers with instructions for safe handling. In transportation confirm leakless of the container, and load the materials not to upset, fall and damage. Secure preventing the load from falling.
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## SECTION 15- REGULATORY INFORMATION

SAFETY USING CHEMICAL REGULATORY IN WORKING SITE (CHINA)	
CHINA	Food Additive (Food Safety Law)
CHINA	Medicament (CP)