

Date Prepared: 01/02/2003
MSDS No: 999.0016819-003.003I
LACTIC ACID 88% FOOD GRADE

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity Product Name: LACTIC ACID 88% FOOD GRADE
General or Generic ID: ORGANIC ACID
Company Emergency Telephone Number: CHEMTREC (800) 424-9300
Regulatory Information Number: 914-834-1881

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s) CAS Number % (by weight)
LACTIC ACID 50-21-5 (86.0-90.0%) WATER 7732-18-5 (10.0-14.0%)

HAZARDS IDENTIFICATION

Potential Health Effects

Eye: Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin: Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage.

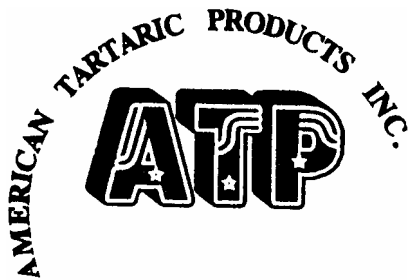
Swallowing: Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation: Breathing of vapor or mist is possible. Symptoms of Exposure Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways).

Target Organ Effects: No data

Developmental Information: No data

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Cancer Information: No data

Other Health Effects: No data

Primary Route(s) of Entry Inhalation, Skin contact, Eye contact.

FIRST AID MEASURES

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin: Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing: No data

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions).

FIRE FIGHTING MEASURES

Flash Point: Not applicable

Explosive Limit: Not applicable

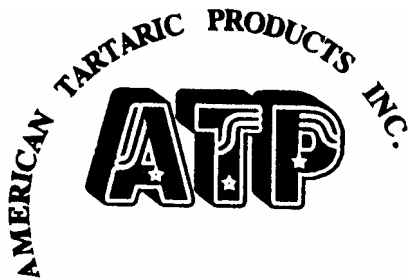
Autoignition Temperature: No data

Hazardous Products of Combustion May form: carbon dioxide and carbon monoxide. Fire and Explosion Hazards

No special fire hazards are known to be associated with this product.

Extinguishing Media water fog.

Fire Fighting Instructions: Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out



gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating: Not determined

ACCIDENTAL RELEASE MEASURES

Small Spill: Cover with soda ash. Mix and spray with water. Scoop into bucket of water. Let stand 2 hours. Persons not wearing protective equipment should be excluded from area of spill. Material should be carefully swept onto paper. Area of spill should then be thoroughly washed to remove any residual contamination, capturing wash, and disposing of wash properly.

Large Spill: Persons not wearing protective equipment should be excluded from area of spill until clean-up is completed. Stop spill at source. Dike to prevent spreading. Pump to salvage tank.

HANDLING AND STORAGE

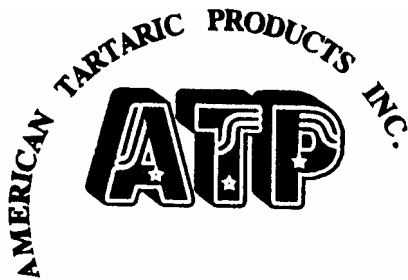
Handling Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections: If overexposure has been determined or documented, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA



respirators under specified conditions. (See your safety equipment supplier.)
Engineering or administrative controls should be implemented to reduce exposure.
Engineering Controls Provide sufficient mechanical (general and/or local exhaust)
ventilation to maintain exposure below level of overexposure (from known,
suspected or apparent adverse effects).

Exposure Guidelines Component –

LACTIC ACID (50-21-5) No exposure limits established

WATER (7732-18-5) No exposure limits established

PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (for product) 250.0 F (121.1 C) @ 600 mmHg

Vapor Pressure (for product) 19.000 mmHg @ 100.00 F

Specific Vapor Density .600 @ AIR=1

Specific Gravity 1.210 @ 77.00 F

Liquid Density 10.800 lbs/gal @ 77.00 F 1.210 kg/l @ 25.00 C

Percent Volatiles > 10.0 %

Evaporation Rate SLOWER THAN ETHYL ETHER

Appearance No data

State LIQUID

Physical Form HOMOGENEOUS SOLUTION

Color CLEAR, COLORLESS TO LT YELLOW

Odor No data

pH No data

STABILITY AND REACTIVITY

Hazardous Polymerization: Product will not undergo hazardous polymerization.

Avoid contact with strong mineral acids and strong organic acids.

Hazardous Decomposition May form: carbon dioxide and carbon monoxide.

Chemical Stability: Stable.

Incompatibility: No data



TOXICOLOGICAL INFORMATION

No data

ECOLOGICAL INFORMATION

No data

DISPOSAL CONSIDERATION

Waste Management Information: Dispose of in accordance with all applicable local, state and federal regulations.

TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

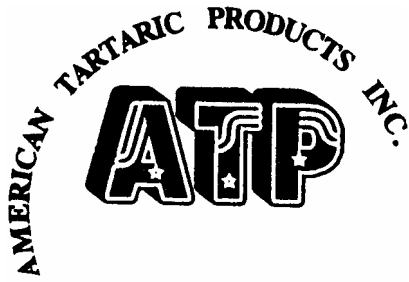
DOT Description: CORROSIVE LIQUID, ACIDIC, ORGANIC,
N.O.S.,8,UN3265,II

Container/Mode: 55 GAL DRUM/TRUCK PACKAGE NOS

Component: LACTIC ACID RQ (Reportable Quantity) - 49 CFR 172.101 Not applicable

REGULATORY INFORMATION US

Federal Regulations TSCA (Toxic Substances Control Act) Status TSCA (UNITED STATES) The intentional ingredients of this product are listed.
CERCLA RQ - 40 CFR 302.4(a) None listed SARA 302 Components - 40 CFR 355 Appendix A None Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed() Fire() Reactive() Sudden Release of Pressure() SARA 313 Components - 40 CFR 372.65 None International Regulations Inventory Status Not determined State and Local Regulations California Proposition 65 None



OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.