

Material Safety Data Sheet

According to ANSI Z400.1-2003

Date Printed: 10-16-2012

Section 1 - Product and Company Information

Product Name: Ethyl Lactate**Product Part Number(s):** 1031-1, 1031-4**COMPANY IDENTIFICATION:**

Urethane Supply Company

1128 Kirk Rd.

Rainsville, AL 35986

EMERGENCY TELEPHONE NUMBER**24 Hour Emergency Contact****Customer Information Number**

Chemtrec - 1-800-424-9300

256-638-4103

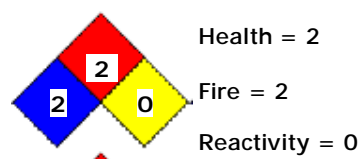
Section 2 - Hazards Identification

Appearance: Colorless clear liquid**Odor:** Sweet, fruity, acidic, etherial with a brown nuance**Hazards of Product:**

WARNING! Combustible liquid and vapor. May be harmful if swallowed. Irritating to skin, eyes, and mucous membranes.

Signal Word: WARNING!**Signal Word** Flammable Liquid**Hazard:****HMIS Rating (Scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	2	Fire = 2
PHYSICAL	0	Physical = 0
PERSONAL PROTECTION	G	Personal Protection = G

NFPA Ratings**Potential Health Effects**

Eye Contact: This product may be severely irritating to the eyes. Prolonged contact may cause corneal damage.

Skin Contact: May cause irritation.

Skin Absorption: Not likely to be absorbed through the skin in harmful amounts.

Inhalation: High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects.

Ingestion: May be harmful if swallowed. May cause throat irritation, nausea, vomiting, central nervous system effects.

Cancer Information: No known carcinogenicity.

Section 3 - Composition/Information on Ingredients

Component	CAS #	Amount
Ethyl lactate	97-64-3	99%

Section 4 - First-Aid Measures

Eye Contact: Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

Skin Contact: For skin contact, flush with large amounts of water while removing contaminated clothing. Wash contaminated clothing before reuse. Seek medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

Ingestion: Do NOT induce vomiting. Immediately get medical attention. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Notes to Physician: Treat symptomatically and supportively. Do not administer Adrenalin (epinephrine) or similar drugs follow product overexposure. Increased sensitivity of the heart to such drugs may be caused by overexposure to product. Treatment may vary with condition of victim and specifics of incident.

Section 5 - Fire Fighting Measures

Extinguishing Media: Carbon dioxide, alcohol-resistant foam, dry chemical, or water spray.

Fire Fighting Procedures: Keep storage containers cool with water spray.

Special Protective Equipment for Firefighters: A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Unusual Fire and Explosion Hazards: Vapor explosion hazard indoors, outdoors, or in sewers. Vapor may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire or explosion hazard. Heated containers may rupture. "Empty" containers may contain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

Hazardous Combustion Products: Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and other unidentified organic compounds.

Section 6 - Accidental Release Measures

Steps to be Taken if Material is Released or Spilled:

Personal Precautions: Wear protective equipment and provide engineering controls as specified in SECTION 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions: Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Ventilate area and avoid breathing vapors or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers.

Section 7 - Handling and Storage

General Handling: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank car, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing and shoes. Do not smoke when using this product.

Other Precautions:

Storage: Keep containers tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous.

Section 8 - Exposure Controls / Personal Protection

Component	Source	Type	Value	Remarks
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Personal Protection

Eye/Face Protection: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

Skin Protection: Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex) or equivalent gloves is NOT recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

Respiratory Protection: A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910-134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hygienic Measures: Use good general hygiene

Engineering Controls: Use general ventilation, process enclosures, local exhaust ventilation, or other engineering controls to control air-borne levels. Where explosive mixtures may be present, equipment safe for such locations should be used.

Section 9 - Physical and Chemical Properties

Appearance:	Liquid
Physical State:	Liquid
Color:	Clear and colorless
Odor:	Faint odor
Flash Point:	115°F (46°C) Closed cup
Upper Flammable Limit:	11.4 Vol% 212°F (100°C)
Lower Flammable Limit:	1.5 Vol% 212°F(100°C)
Autoignition Temperature:	752°F (400°C)
Vapor Pressure:	172 mbar @212°F
Boiling Point:	309°F (154°C)
Vapor Density:	4.07
Specific Gravity:	1.042 (water=1)
Melting Point:	-13°F (-25°C)
Solubility in Water:	Easily soluble in cold water
Molecular Weight:	118.15
Evaporation Rate:	0.29 (Compared to Butyl Acetate =1)
Molecular Formula:	C5 H10 O3
Percent Volatiles:	100%
Volatile Organic Compounds (VOC):	100WT%; 8.6 lbs/gal; 1,030 g/l. As per 40 CFR Part 51.100(s)
Maximum Incremental Reactivity (MIR):	2.71

Section 10 - Stability and Reactivity

Stability/Instability: Stable under normal temperatures and pressures.

Conditions To Avoid: Avoid heat, sparks, or flame.

Incompatible Materials: Avoid acids, alkalies, or oxidizing agents.

Hazardous Polymerization: No

Hazardous Decomposition Products: None under normal temperatures and pressures.

Section 11 - Toxicological Information

Acute Toxicity**Ingestion**

LD50 Rat: >5 g/kg

Skin Absorption

LD50 Rabbit: >5 g/kg

Inhalation

LD50 Rabbit: >5 g/kg

Sensitization

Based on current information, there is no known human sensitization associated with this product.

Chronic Toxicity and Carcinogenicity

There is no known carcinogenicity as categorized by ACGIH A1 or A2 substances.

Reproductive Toxicity

Based on current information, there is no known reproductive toxicity associated with this product.

Genetic Toxicity

Based on current information, there is no known mutagenicity associated with this product.

Target Organs

Prolonged or repeated inhalation may cause central nervous system effects.

Section 12 - Ecological Information

Movement & Partitioning

Ethyl lactate is expected to have very high mobility in soil.

Persistence and Degradability

Product is expected to biodegrade in a matter of days/weeks.

ECOTOXICITY

Not available

Bioaccumulation:

The potential for bioconcentration in aquatic organisms is low.

Other Adverse Effects None Available

Section 13 - Disposal Considerations

Disposal Method:

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste.

Section 14 - Transport Information

DOT

Proper Shipping Name: Ethyl Lactate

Hazard Class: 3

ID Number: UN1192

Packing Group: III

Section 15 - Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	Yes

The following table list hazardous components and the regulatory lists for which they are required to be reported.

Component: Ethyl lactate
CAS Number: 97-64-3
Amount: 99%

Section 16 - Other Information

Legend

ACGIH	American Conference of Governmental Hygienists
CAS	Chemical Abstract Service
CFR	Code of Federal Regulations
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NIOSH	National Institute for Occupational Safety
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
VOC	Volatile Organic Compounds

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.