

Material Safety Data Sheet

ETHYL ALCOHOL

Carolina Biological Supply Company

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Revised 9/5/00

Replaces None

Printed 5/03

1. PRODUCT DESCRIPTION

Product Name: Ethanol, absolute (ethyl alcohol)
Product Code(s): 86-1300
Size: 4 L
Chemical Name: Product is a mixture
CAS Number: See Section 2
Formula: See Section 2
Synonyms: None known
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Emergency Information:
800-227-1150 (8 am-5 pm [ET] M-F)
Chemtrec (Transportation Spill Response 24 hours):
800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components:

Ethanol (CAS# 64-17-5)	90.5%
Isopropanol (CAS# 67-63-0)	5.0%
Methanol (CAS# 67-56-1)	4.5%

TLV and PEL units:

Ethanol	ACGIH-TLV: 1000 ppm
	OSHA-PEL: 1000 ppm
Isopropanol	ACGIH-TLV: 400 ppm
	OSHA-PEL: 400 ppm
Methanol	ACGIH-TLV: 200 ppm
	OSHA-PEL: 200 ppm

3. HAZARDOUS IDENTIFICATION

Emergency Overview: Flammable liquid! Avoid heat and ignition sources.

Components may cause respiratory system irritation, headache, dizziness, and/or drowsiness.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): 55°F

NFPA Rating: Health: 0 for ethanol

Fire: 3

Reactivity: 0

Extinguisher Media: Dry chemical, alcohol foam, or CO₂.
Water should be used for container and surface cooling only.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: 725°F

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH-approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: N/A

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Avoid heat and ignition sources. Store in area suitable for flammable liquids.

Other Precautions: None known

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): NIOSH-approved respirator, self-contained breathing apparatus.

Ventilation:

Local Exhaust: Yes

Mechanical (General): Yes

Special: No

Other: No

Protective Gloves: Rubber

Eye Protection: Splash-proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment: Lab coat, eye wash, and safety shower.

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9. PHYSICAL DATA

Molecular Weight: Product is a mixture

Melting Point: N/A

Boiling Point: 148–182°F

Vapor Pressure: 44 mm Hg (ethanol)

Vapor Density (Air=1): >1

Specific Gravity (H₂O=1): 0.79

Percent Volatile by Volume: N/A

Evaporation Rate (H₂O=1): N/A

Solubility in Water: Miscible

Appearance and Odor: Clear liquid with alcohol odor

10. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Sources of heat or ignition

Incompatibility (Materials to Avoid): Oxidizing agents

Hazardous Decomposition Products: CO and CO₂

Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data:

Ethanol: orl-rat LD50: 7060 mg/kg,

ihl-rat LC50: 20000 ppm/10h

Isopropanol: orl-rat LD50: 5045 mg/kg,

skn-rbt LD50: 12800 mg/kg

Methanol: orl-rat LD50: 5628 mg/kg,

skn-rbt LD50: 15800 mg/kg,

ihl-rat LC50: 64000 ppm/4h

Effects of Overexposure:

Acute: See Section 3

Chronic: Nausea, blindness. None of the components of this mixture are listed as causing cancer by IARC, OSHA, or NTP.

Conditions Aggravated by Overexposure: N/A

Target Organs: Eyes, nerves, kidneys

Primary Route(s) of Entry: Inhalation, ingestion

12. ECOLOGICAL DATA

EPA Waste Numbers: Ethanol, Isopropanol: D001

Methanol: U154

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable federal, state, and local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Description: Alcohols, n.o.s. (ethanol, isopropanol, methanol), 3, UN1987, PG II

15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting:
Acute Chronic Fire

SARA Sec. 313

Product or Components	SARA EHS	Chemicals	CERCLA RCRA		
	Sec. 302 TPQ	Name List	Chemical Category	Sec. 103 RQ lbs	Sec. 261.33
Ethanol	No	No	No	No	No
Isopropanol	No	Yes	No	No	No
Methanol	No	Yes	No	5000	Yes

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists

CAS Number Chemical Abstract Services Number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT U.S. Department of Transportation

IARC International Agency of Research on Cancer

N/A Not available

NTP National Toxicology Program

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

ppm Parts per million

RCRA Resource Conservation and Recovery Act

SARA Superfund Amendments and Reauthorization Act

TLV Threshold Limit Value

TSCA Toxic Substances Control Act