Material Safety Data Sheet

Ethanol, Denatured, 70%

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Carolina Biological Supply Company
2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Ethanol, 70%
Product Code(s): Various
Size: Various
Chemical Name: N/A
CAS Number: See Section 3
Formula: See Section 3
Synonyms: Alcohol, Ethyl alcohol
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Harmful if inhaled or swallowed.
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation to skin.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Ethyl alcohol, denatured (CAS#64-17-5) 63.3%; Denaturants: Methyl alcohol (CAS # 67-56-1) 3.2%; Denaturants: Isopropyl alcohol (CAS#67-63-0) 3.5%
TLV units: Ethyl alcohol: ACGIH-TLV 1000 ppm (TWA)
Isopropyl alcohol: ACGIH-TLV 200 ppm (TWA); 400 ppm (STEL)
Methanol: ACGIH-TLV 200 ppm (TWA); 250 ppm (Ceiling)
PEL units: Ethyl alcohol: OSHA-PEL 1000 ppm (TWA)
Isopropyl alcohol: OSHA-PEL: 400 ppm (TWA)
Methanol: OSHA-PEL 200 ppm (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:
Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
Ingestion - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): (Ethanol) 13 °C (CC)
NFPA Rating:
Health: 2
Fire: 3
Reactivity: 0
Extinguisher Media: Use dry chemical, CO2 or appropriate foam.
Flammable Limits in Air % by Volume: (Ethanol) LEL: 3.3% UEL: 19%
Autoignition Temperature: 363 °C
Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Vapours may travel back to ignition source. Closed Containers exposed to heat may explode.

Section 6 - Spill or Leak Procedures

Steps to Take 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.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place.
Keep away from oxidizing materials and strong acids.
Bond and ground containers when transferring liquid.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.
Ventilation:
Local Exhaust: Yes
Mechanical(General): Yes
Special: No
Other: No
Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.
Eye Protection: Splash proof chemical safety goggles should be worn.
Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A
Boiling Point: (Ethanol) 78.3 °C
Vapor Density(Air=1): >1
Percent Volatile by Volume: N/A
Solubility in Water: Soluble
Melting Point: N/A
Vapor Pressure: (Ethanol) 44 mmHg at 25 °C
Specific Gravity (H2O=1): 0.79
Evaporation Rate (BuAc=1): N/A
Appearance and Odor: Clear, colorless liquid, Alcohol odor.

Section 10 - Reactivity Data

Stability: Stable
Conditions to Avoid: Heat and sources of ignition.
Incompatibility (Materials to Avoid): Oxidizers,
Hazardous Decomposition Products: COx,
Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: (Ethyl Alcohol) orl-rat LD50 7060 mg/kg
(Methyl Alcohol) orl-rat LD50 5628 mg/kg
(Isopropyl Alcohol) orl-rat LD50 5045 mg/kg
Effects of Overexposure:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA. Mutation data cited. Reproductive data cited. Tumorigenic data cited.
Conditions Aggravated by Overexposure: Respiratory disorders, Skin disorders, Eye disorders, Liver disorders,
Target Organs: Skin, Eyes, Respiratory system,
Primary Route(s) of Entry: Inhalation and ingestion.

Section 12 - Ecological Data

EPA Waste Numbers: Ethanol, Isopropanol: D001; Methanol: U154; Methyl Isobutyl Ketone: U161

Section 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.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1170, Ethanol solutions, 3,II; Required label(s): FLAMMABLE LIQUID

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute Fire

Name List:
Ethyl alcohol - No
Methyl alcohol - Yes
Isopropyl alcohol - No

Chemical Category:
Ethyl alcohol - No
Methyl alcohol - No
Isopropyl alcohol - No

CERCLA Section 103 RQ(lb.): Ethyl alcohol - No
Methyl alcohol - 5000
Methyl isobutyl ketone - 5000
Isopropyl alcohol - No
RCRA Section 261.33: Ethyl alcohol - No
Methyl alcohol - Yes
Isopropyl alcohol - No

Section 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 Services Abstract 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