

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

## Material Safety Data Sheet (MSDS)

MSDS #: 324.00

Revision Date: March 14, 2001

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### Section 1 — Chemical Product and Company Identification

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#### Ethyl Ether

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

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### Section 2 — Composition, Information on Ingredients

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Ethyl Ether

Synonym: diethyl ether

CAS#: 60-29-7

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### Section 3 — Hazards Identification

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Colorless liquid; sweet, pungent odor; volatile.

Serious depressant by inhalation and skin absorption.

Slightly toxic by ingestion and inhalation; irritant; avoid all body tissue contact. May form explosive peroxides on concentration and aging.

#### FLINN AT-A-GLANCE

Health-2

Flammability-3

Reactivity-1

Exposure-1

Storage-3

0 is low hazard, 3 is high hazard

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### Section 4 — First Aid Measures

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Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Rinse mouth out with water. Give mixture of 2 Tbs. of activated charcoal mixed with one cup of water.

Call a physician or poison control at once.

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### Section 5 — Fire Fighting Measures

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Class 1A Flammable liquid.

Severely flammable liquid; old ether may develop explosive peroxides.

Flash Point: -49 F Upper: 48% Lower: 1.8% Autoignition Temperature: 320 F

**Fire Fighting Instructions:** Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-1

F-4

R-1

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### Section 6 — Accidental Release Measures

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Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material; deposit in sealed bag or container. See Sections 8 and 13 for further information.

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### Section 7 — Handling and Storage

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Flinn Suggested Chemical Storage Pattern: Organic #4. Store with ethers, ketones, halogenated hydrocarbons and ethylene oxide.

Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor Can.

Use and dispense in a hood, keep refrigerated.

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### Section 8 — Exposure Controls, Personal Protection

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Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron.

Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 400 ppm, STEL 500 ppm (OSHA, ACGIH)

### Section 9 — Physical and Chemical Properties

Colorless liquid; sweet, pungent odor; volatile.  
Solubility: Soluble in alcohol, chloroform and benzene;  
slightly soluble in water.  
Formula: C<sub>2</sub>H<sub>5</sub>OC<sub>2</sub>H<sub>5</sub>  
Formula Weight: 74.14

Specific Gravity: 0.707-0.716  
Melting Point: - 116 C  
Boiling Point: 34.5 C  
Vapor Density: 2.55

### Section 10 — Stability and Reactivity

Avoid contact with oxidizers and heat.  
Shelf life: Poor, forms explosive peroxides upon aging.

### Section 11 — Toxicological Information

Acute effects: Toxic, irritant, coughing, chest pains, difficulty in  
breathing, nausea, headache, vomiting  
Chronic effects: Possible mutagen  
Target organs: Central nervous system

ORL-RAT LD50: 1215 mg/Kg  
IHL-RAT LC50: 73000 ppm/2H  
SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

### Section 12 — Ecological Information

Data not yet available.

### Section 13 — Disposal Considerations

Please consult with state and local regulations.  
Flinn Suggested Disposal Method #15 is one option.

### Section 14 — Transport Information

Shipping Name: Diethyl ether  
Hazard Class: 3, Flammable Liquid  
UN Number: UN1155

N/A = Not applicable

### Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (200-467-2), RCRA code U117.

### Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

**FLINN SCIENTIFIC INC.**

"Your Safer Source for Science Supplies"

*Improve Safety--Use Flinn Chemicals*

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