

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 324.00

Revision Date: June 10, 1998

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Ethyl Ether

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

CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Ethyl Ether

Synonym: diethyl ether

CAS#: 60-29-7

SECTION 3 — HAZARDS IDENTIFICATION

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

SECTION 4 — FIRST AID MEASURES

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.

SECTION 5 — FIRE FIGHTING MEASURES

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

SECTION 6 — ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 — HANDLING AND STORAGE

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.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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)

FLINN SCIENTIFIC, INC.**Material Safety Data Sheet** Ethyl Ether**MSDS #:** 324.00**Revision Date:** June 10, 1998

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Colorless liquid; sweet, pungent odor; volatile.

Solubility: Soluble in alcohol, chloroform and benzene; slightly soluble in water.

Formula: C₂H₅OC₂H₅

Formula Weight: 74.14

Specific Gravity: 0.707-0.716

Melting Point: 74.14

Boiling Point: 34.5 C

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

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. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

**Consult your copy of the Flinn Chemical Catalog/Reference Manual
for additional information about laboratory chemicals**