

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 810.00

Revision Date: September 27, 2010

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Tetrahydrofuran

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

Tetrahydrofuran

Synonym: THF

CAS#: 109-99-9

### SECTION 3 — HAZARDS IDENTIFICATION

Water-white liquid with ether odor.

Slightly toxic by ingestion and inhalation. Irritating to skin and respiratory system.

Avoid all body tissue contact and inhalation of fumes.

Flammable liquid. Extremely dangerous fire risk.

#### FLINN AT-A-GLANCE

Health-1

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: Give large quantities of water. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Class IB flammable liquid.

Extremely dangerous fire risk.

Flash Point: 1 °F; Upper: 11.8%, Lower: 1.8%; Autoignition Temperature: 610 °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-2

F-3

R-1

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand or other inert 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.

### 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 200 ppm, STEL 250 ppm (OSHA, NIOSH)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Water-white liquid with ether odor.

Solubility: Water and organic solvents.

Formula:  $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{O}-$ 

Formula Weight: 72.12

Boiling Point: 65.5-66.5 °C

Melting Point: -108.5 °C

Specific Gravity: 0.888

Vapor Density: 2.5 (Air=1)

Vapor Pressure: 143 mm @ 20 °C

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**SECTION 10 — STABILITY AND REACTIVITY**

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Forms explosive peroxides in air, do not distill to dryness. Avoid contact with acids, bases, oxidizing agents and oxygen.

Shelf Life: Indefinite.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Irritant, coughing, chest pains, difficulty breathing, nausea, dizziness, and headache

Chronic effects: N.A.

Target organs: Blood, CNS, skin, eyes

ORL-RAT LD50: 2500 mg/kg

IHL-RAT LC50: 21000 ppm/3H

SKN-RBT LD50: N.A.

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

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please consult with state and local regulations.

Flinn Suggested Disposal Method #15 is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping Name: Tetrahydrofuran

Hazard Class: 3, Flammable liquid

UN Number: UN2056

N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (203-726-8), RCRA code U213.

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**SECTION 16 — OTHER INFORMATION**

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

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