

FLINN SCIENTIFIC, INC.

Safety Data Sheet (SDS)

SDS #: 810.00

Revision Date: September 22, 2014

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

Signal Word **DANGER**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 2). Highly flammable liquid and vapor (H225). Keep away from heat, sparks, open flames, and hot surfaces (P210).

Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P270).

Hazard class: Serious eye damage or irritation (Category 2A). Causes serious eye irritation (H319).

Hazard class: Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3). May cause respiratory irritation (H335). Avoid breathing vapors, mist or spray (P261).

Hazard class: Carcinogenicity (Category 2). Suspected of causing cancer (H351). Obtain special instructions before use (P201). Do not handle until all safety precautions have been read and understood (P202). Use personal protective equipment as required (P281).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Tetrahydrofuran	109-99-9	C ₄ H ₈ O	72.11	
Synonyms: THF; Diethylene oxide; Tetramethylene oxide				

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell (P312).

If inhaled: Remove victim to fresh air in a position comfortable for breathing (P304+P340).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).

If on skin: Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353).

If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell (P301+P330+P312).

SECTION 5 — FIRE FIGHTING MEASURES

Class IB flammable liquid. Extremely dangerous fire risk.

Flash point: -14 °C Flammable limits: Lower: 2% Upper: 11.8% Autoignition Temperature: 321 °C

In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE

H-2

F-3

R-1

SECTION 6 — ACCIDENTAL RELEASE MEASURES

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, and halogenated hydrocarbons. Do not distill to dryness. May possibly develop explosive peroxides. Avoid prolonged storage. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor™ can. Keep container tightly closed (P233). Keep cool (P235). Take precautionary measures against static discharge (P243).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling. Exposure guidelines: PEL 200 ppm (OSHA); TLV 50 ppm, STEL 100 ppm (ACGIH). Readily absorbed through the skin.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Water-white liquid. Ether odor.
Soluble: Water and organic solvents

Boiling point: 65.5-66.5 °C
Melting point: -108.5 °C
Specific gravity: 0.888
Vapor density: 2.5
Vapor pressure: 143 mmHg

SECTION 10 — STABILITY AND REACTIVITY

Forms explosive peroxides in air, do not distill to dryness. Avoid contact with acids, bases, oxidizing agents and oxygen. Shelf life: Poor, avoid storing for prolonged periods. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

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: 1650 mg/kg
IHL-RAT LC₅₀: 21000 ppm/3H
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 review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #15 is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Tetrahydrofuran. Hazard class: 3, Flammable liquid. UN number: UN2056

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) 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 Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: September 22, 2014