

# 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 <sub>4</sub> H <sub>8</sub> 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.

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**SECTION 7 — HANDLING AND STORAGE**

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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).

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**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

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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.

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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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

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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: Poor, avoid storing for prolonged periods. See Section 7 for further information.

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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 LD<sub>50</sub>: 1650 mg/kg  
IHL-RAT LC<sub>50</sub>: 21000 ppm/3H  
SKN-RBT LD<sub>50</sub>: N.A.

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 review all federal, state and local regulations that may apply before proceeding.  
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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