

# FLINN SCIENTIFIC, INC.

## Safety Data Sheet (SDS)

SDS #: 509.50

Revision Date: March 1, 2016

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Methyl-t-Butyl Ether

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: Skin corrosion or irritation (Category 2). Causes skin irritation (H315).

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Methyl-t-butyl ether	1634-04-4	CH <sub>3</sub> OC(CH <sub>3</sub> ) <sub>3</sub>	88.15	
Synonyms: MTBE, Methyl tertiary butyl ether, <i>tert</i> -Butyl methyl ether				

### SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

**If on skin:** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). **If skin irritation occurs:** Get medical advice or attention (P332+P313).

**If swallowed:** Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

### SECTION 5 — FIRE FIGHTING MEASURES

Class 1A flammable liquid.

Flash point: -80 °C Flammable limits: Lower: 1.6% Upper: 15.1% Autoignition Temperature: 435 °C

When heated to decomposition, may emit toxic fumes.

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

**NFPA CODE**

H: 2

F: 3

R: 0

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and ventilate area. Contain the spill with sand or absorbent material and deposit in a 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. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in a Flinn Saf-Stor™ can. Keep container tightly closed (P233). Keep cool (P235). Ground or bond container and receiving equipment (P240). 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 (P264). Exposure guidelines: TLV 50 ppm (ACGIH)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Colorless liquid. Sweet odor. Volatile.	Boiling point: 55-56 °C
Soluble: Alcohol, chloroform, and ethyl ether. Slightly in water.	Melting point: -109 °C
Vapor pressure: 1,018.7 hPa (764.1 mmHg) at 55 °C	Specific gravity: 0.745
Water solubility: 42 g/l at 20 °C	Upper flammability limit: 15.1% (V)
Partition coefficient: log Pow: 1.06	Lower flammability limit: 1.6% (V)

**SECTION 10 — STABILITY AND REACTIVITY**

Reactivity: No data available.	Chemical stability: Stable under normal storage conditions.
Conditions to avoid: Heat, flames, sparks.	Incompatible materials: Oxidizing agents, strong acids
Possibility of hazardous reactions: Vapors may form explosive mixture with air.	Shelf life: Indefinite, if stored properly.

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Acute effects: N.A.	ORL-RAT LD <sub>50</sub> : 4000 mg/kg
Chronic effects: N.A.	IHL-RAT LC <sub>50</sub> : 23,576 ppm (4 hours)
Target organs: Skin, eyes.	SKN-RBT LD <sub>50</sub> : >10,000 mg/kg
IARC: Group 3, not classifiable as to its carcinogenicity to humans	

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

**SECTION 12 — ECOLOGICAL INFORMATION**

Toxicity: LC<sub>50</sub> Pimephales promelas (fathead minnow) 672.00 mg/l - 96 hours

**SECTION 13 — DISPOSAL CONSIDERATIONS**

Please review all federal, state and local regulations that may apply before proceeding.  
Flinn Suggested Disposal Methods #15 is one option.

**SECTION 14 — TRANSPORT INFORMATION**

UN2398; METHYL tert-BUTYL ETHER; CLASS 3; PG II  
Reportable quantity: 1,000 lbs  
N/A = Not applicable

**SECTION 15 — REGULATORY INFORMATION**

TSCA-listed, EINECS-listed (211-309-7), RCRA code D001.

**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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