



SDS #: 509.5

Revision Date: March 1, 2016

## Methyl-t-Butyl Ether Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Methyl-t-Butyl Ether

**Signal Word**  
**DANGER**

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261  
Chemtrec Emergency Phone Number: (800) 424-9995

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, tert-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.

**NFPA Code**

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

H: 2

Temperature: 435 °C

F: 3

When heated to decomposition, may emit toxic fumes.

R: 0

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

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**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

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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.

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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. 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).

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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 (P264).

Exposure guidelines: TLV 50 ppm (ACGIH)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Colorless liquid. Sweet odor. Volatile.

Boiling point: 55-56 °C

Soluble: Alcohol, chloroform, and ethyl ether.

Melting point: -109 °C

Slightly in water.

Specific gravity: 0.745

Vapor pressure: 1,018.7 hPa (764.1 mmHg) at 55 °C

Upper flammability limit: 15.1% (V)

Lower flammability limit: 1.6% (V)

Water solubility: 42 g/l at 20 °C

Partition coefficient: log Pow: 1.06

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**SECTION 10 — STABILITY AND REACTIVITY**

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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.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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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>: greater than 10,000 mg/kg

IARC: Group 3, not classifiable as to its carcinogenicity to humans

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**SECTION 12 — ECOLOGICAL INFORMATION**

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

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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 Methods #15 is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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UN2398; METHYL tert-BUTYL ETHER; CLASS 3; PG II Reportable quantity: 1,000 lbs

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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

N/A = Not applicable

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

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