

# Material Safety Data Sheet

## Tetraethylene Glycol Dimethyl Ether, 99%

ACC# 34316

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Tetraethylene Glycol Dimethyl Ether, 99%

**Catalog Numbers:** AC174110000, AC174110010, AC174112500, AC9550854, AC9572179, AC9645379, NC9162110, NC9991880, XXAC17411-20, XXAC17411-200K, XXAC17411-30, XXAC17411-60, XXAC1741170K

**Synonyms:** Bis[2-(2-methoxyethoxy)ethyl] ether; 2,5,8,11,14-Pentaoxapentadecane; Tetraglyme

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

| CAS#     | Chemical Name                       | Percent | EINECS/ELINCS |
|----------|-------------------------------------|---------|---------------|
| 143-24-8 | Tetraethylene glycol dimethyl ether | 99      | 205-594-7     |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless liquid.

**Caution!** Causes eye irritation. May cause respiratory and digestive tract irritation. May cause skin irritation. Air sensitive. Hygroscopic (absorbs moisture from the air).

**Target Organs:** None known.

#### Potential Health Effects

**Eye:** Causes eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** May cause digestive tract disturbances.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**Flash Point:** 116 deg C ( 240.80 deg F)

**Autoignition Temperature:** 200 deg C ( 392.00 deg F)

**Explosion Limits, Lower:** .80 vol %

**Upper:** .00 vol %

**NFPA Rating:** (estimated) Health: 1; Flammability: 1; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use with adequate ventilation.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

| Chemical Name                       | ACGIH       | NIOSH       | OSHA - Final PELs |
|-------------------------------------|-------------|-------------|-------------------|
| Tetraethylene glycol dimethyl ether | none listed | none listed | none listed       |

**OSHA Vacated PELs:** Tetraethylene glycol dimethyl ether: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** colorless

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** 7.7

**Evaporation Rate:** Not available.

**Viscosity:** 20.00 deg C

**Boiling Point:** 275.0 - 276.0 deg C

**Freezing/Melting Point:** -30 deg C

**Decomposition Temperature:** Not available.

**Solubility:** soluble

**Specific Gravity/Density:** 1.0090g/cm<sup>3</sup>

**Molecular Formula:** C<sub>10</sub>H<sub>22</sub>O<sub>5</sub>

**Molecular Weight:** 222.28

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, strong oxidants, moist air.

**Incompatibilities with Other Materials:** Strong acids - oxidizing agents - oxygen.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, acrid smoke and fumes.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 143-24-8: SB0400000

### LD50/LC50:

**CAS#** 143-24-8:

Draize test, rabbit, eye: 500 mg Mild;

Oral, rat: LD50 = 5140 mg/kg;

### Carcinogenicity:

**CAS#** 143-24-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

|                       | US DOT                                | Canada TDG                |
|-----------------------|---------------------------------------|---------------------------|
| <b>Shipping Name:</b> | Not regulated as a hazardous material | No information available. |
| <b>Hazard Class:</b>  |                                       |                           |
| <b>UN Number:</b>     |                                       |                           |
| <b>Packing Group:</b> |                                       |                           |

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 143-24-8 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 143-24-8: reactive.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 143-24-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

XI

#### Risk Phrases:

R 36 Irritating to eyes.

#### Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

#### WGK (Water Danger/Protection)

CAS# 143-24-8: 1

#### Canada - DSL/NDL

CAS# 143-24-8 is listed on Canada's DSL List.

#### Canada - WHMIS

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

#### Canadian Ingredient Disclosure List

## Section 16 - Additional Information

**MSDS Creation Date:** 9/22/1998

**Revision #4 Date:** 10/03/2005

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