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SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.20

Section 1 - Product and Company Information

Product Name: 1-tert-Butoxy-2-ethoxyethane, 98%
 Product Number: 280232
 Brand: Aldrich Chemical

Company: Sigma-Aldrich
 Street Address: 3050 Spruce Street
 City, State, Zip, Country: SAINT LOUIS, MO 63103 US
 Technical Phone: 314 771 5765
 Fax: 800 325 5052

Emergency Phone: 414 273 3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
1-TERT-BUTOXY-2-ETHOXYETHANE, 98%	51422-54-9	No	257-196-8	
Formula	C8H18O2			
Synonyms				

Section 3 - Hazards Identification

Emergency Overview
 Flammable. Irritant.
 Irritating to eyes, respiratory system and skin.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
 If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure
 If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure
 In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure
 In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

Explosion Hazards
 Vapor may travel considerable distance to source of ignition and flash back.

Flash Point: 93 °F 34 °C

Autoignition Temp: N/A

Extinguishing Media
Suitable
 Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting Protective Equipment
 Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)
 Flammable liquid, Emits toxic fumes under fire conditions.

Exposure Hazard(s)
Material
 Irritant.

Section 6 - Accidental Release Measures

Procedure to be Followed In Case of Leak or Spill
 Evacuate area. Shut off all sources of ignition.

Procedure(s) of Personal Precaution(s)
 Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
 Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
User Exposure
 Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage
Suitable
 Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

Engineering Controls
 Safety shower and eye bath. Use only in a chemical fume hood.

Personal Protective Equipment
Other
 Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

General Hygiene Measures
 Wash thoroughly after handling. Wash contaminated clothing before reuse.

Molecular Weight: 146.23 AMU

Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	148 °C	760 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	

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Vapor Pressure N/A
Vapor Density N/A
Saturated Vapor Conc. N/A
SG/Density 0.834 g/cm3
Bulk Density N/A
Odor Threshold N/A
Volatile% N/A
VOC Content N/A
Water Content N/A
Solvent Content N/A
Evaporation Rate N/A
Viscosity N/A
Partition Coefficient N/A
Decomposition Temp. N/A
Flash Point °F 93 °F
Flash Point °C 34 °C
Explosion Limits N/A

Flammability N/A
Autoignition Temp N/A
Refractive Index 1.4015
Solubility N/A

Method: closed cup
Method: closed cup

N/A = not available

Section 10 - Stability and Reactivity

Stability

Materials to Avoid

Strong oxidizing agents, Strong acids.

Hazardous Decomposition Products

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

Causes skin irritation.

Multiple Routes

May be harmful by inhalation, ingestion, or skin absorption. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

Target Organ(s) or System(s)

Female reproductive system, Male reproductive system.

Signs and Symptoms of Exposure

In laboratory studies with this material, birth defects, fetotoxicity, embryoletality, anemia, bone marrow damage, hemolysis, immunosuppression, and damage to the male reproductive tissues have been observed. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

IATA

Proper Shipping Name: Ethers, n.o.s.

IATA UN Number: 3271

Hazard Class: 3

Packing Group: III

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xi

Indication of Danger

Irritant.

Risk Statements R: 10 36/37/38

Flammable. Irritating to eyes, respiratory system and skin.

Safety Statements S: 16 26 36/37/39

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection.

US Classification and Label Text

Indication of Danger

Flammable. Irritant.

Risk Statements

Irritating to eyes, respiratory system and skin.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep away from sources of ignition - no smoking. Wear suitable protective clothing, gloves, and eye/face protection.

United States Regulatory Information

SARA Listed: No

Notes: This product is subject to SARA section 313 reporting requirements. This product is subject to SARA section 313 reporting requirements.

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: Yes

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.