

## Material Safety Data Sheet

Version 4.0  
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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Diethylene glycol diethyl ether  
Product Number : E4658  
Brand : Sigma-Aldrich  
Company : Sigma-Aldrich  
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USA  
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## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Combustible Liquid, Target Organ Effect, Irritant

## Target Organs

Female reproductive system., Male reproductive system.

## GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

## Hazard statement(s)

H227 : Combustible liquid  
H303 : May be harmful if swallowed.  
H319 : Causes serious eye irritation.

## Precautionary statement(s)

P210 : Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P264 : Wash skin thoroughly after handling.  
P280 : Wear protective gloves/protective clothing/eye protection/face protection.  
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 : Call a POISON CENTER or doctor/physician if you feel unwell.  
P337 + P313 : If eye irritation persists: Get medical advice/attention.  
P370 + P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P403 + P235 : Store in a well-ventilated place. Keep cool.  
P501 : Dispose of contents/container to an approved waste disposal plant.

## HMIS Classification

Health hazard: 2  
Chronic Health Hazard: \*  
Flammability: 2  
Physical hazards: 0

## NFPA Rating

Health hazard: 2  
Fire: 2

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Reactivity Hazard: 0  
Potential Health Effects

Inhalation : May be harmful if inhaled. Causes respiratory tract irritation.  
Skin : May be harmful if absorbed through skin. Causes skin irritation.  
Eyes : Causes eye irritation.  
Ingestion : May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Diethyldiglycol  
Bis(2-ethoxyethyl) ether  
2-Ethoxyethyl ether  
Formula : C<sub>8</sub>H<sub>18</sub>O<sub>3</sub>  
Molecular Weight : 162.23 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Bis(2-ethoxyethyl) ether			
112-36-7	203-963-7	-	-

## 4. FIRST AID MEASURES

## General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

## In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

## In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

## If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

## Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

## Environmental precautions

Do not let product enter drains.

## Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

## Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Store under inert gas. Air sensitive.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves.

**Eye protection**

Safety glasses with side-shields conforming to EN166

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

Handle in accordance with good Industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	clear, liquid
Colour	colourless

**Safety data**

pH	no data available
Melting point	no data available
Boiling point	180 - 190 °C (356 - 374 °F) - lit.
Flash point	67 °C (153 °F) - closed cup
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	0.7 hPa (0.5 mmHg) at 20 °C (68 °F)
Density	0.909 g/mL at 25 °C (77 °F)
Water solubility	no data available
Relative vapour density	5.6 - (Air = 1.0)

**10. STABILITY AND REACTIVITY****Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

no data available

**Materials to avoid**

Strong oxidizing agents, Strong acids

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - rat - 4,970 mg/kg

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

Reproductive toxicity - mouse - Oral

Effects on Newborn: Stillbirth. Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Developmental Toxicity - mouse - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

**Specific target organ toxicity - single exposure (GHS)**

no data available

**Specific target organ toxicity - repeated exposure (GHS)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.

**Additional Information**

RTECS: KN3160000

**12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish LC50 - *Alburnus alburnus* - > 10,000 mg/l - 96 h

**Persistence and degradability**

no data available

**Bioaccumulative potential**  
no data available

**Mobility in soil**  
no data available

**PBT and vPvB assessment**  
no data available

**Other adverse effects**  
no data available

### 13. DISPOSAL CONSIDERATIONS

**Product**  
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**  
Dispose of as unused product.

### 14. TRANSPORT INFORMATION

**DOT (US)**  
NA-Number: 1993 Class: CBL Packing group: III  
Proper shipping name: Combustible liquid, n.o.s. (Bis(2-ethoxyethyl) ether)  
Marine pollutant: No  
Poison Inhalation Hazard: No

**IMDG**  
Not dangerous goods

**IATA**  
Not dangerous goods

### 15. REGULATORY INFORMATION

**OSHA Hazards**  
Combustible Liquid, Target Organ Effect, irritant

**DSL Status**  
All components of this product are on the Canadian DSL list.

**SARA 302 Components**  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

<b>SARA 313 Components</b>	CAS-No.	Revision Date
Bis(2-ethoxyethyl) ether	112-36-7	

**SARA 311/312 Hazards**  
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**  
No components are subject to the Massachusetts Right to Know Act.

<b>Pennsylvania Right To Know Components</b>	CAS-No.	Revision Date
Bis(2-ethoxyethyl) ether	112-36-7	

<b>New Jersey Right To Know Components</b>	CAS-No.	Revision Date
Bis(2-ethoxyethyl) ether	112-36-7	

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### 16. OTHER INFORMATION

**Further information**  
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