

## Material Safety Data Sheet

Version 4.0  
Revision Date 03/14/2010  
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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Diethylene glycol methyl ether  
Product Number : 579548  
Brand : Sigma-Aldrich  
Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA  
Telephone : +18003255832  
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Emergency Phone # : (314) 776-6555

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Combustible Liquid, Target Organ Effect, Teratogen, Reproductive hazard

## Target Organs

Liver, Kidney, Testes.

## GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H227 : Combustible liquid  
H320 : Causes eye irritation.  
H361 : Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

P281 : Use personal protective equipment as required.  
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## HMIS Classification

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

## NFPA Rating

Health hazard: 0  
Fire: 2  
Reactivity Hazard: 0

## Potential Health Effects

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 2-(2-Methoxyethoxy)ethanol  
Methyldiglycol  
Methyl CARBITOL®  
Formula : C<sub>5</sub>H<sub>12</sub>O<sub>3</sub>  
Molecular Weight : 120.15 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
2-(2-Methoxyethoxy)ethanol			
111-77-3	203-906-6	603-107-00-6	-

## 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 inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

## Conditions for safe storage

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

Store under inert gas, hygroscopic

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## 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	light yellow

### Safety data

pH	no data available
Melting point	-70 °C (-94 °F) - lit.
Boiling point	194 °C (381 °F) - lit.
Flash point	87 °C (189 °F) - closed cup
Ignition temperature	221 °C (430 °F)
Lower explosion limit	1.38 %(V)
Upper explosion limit	22.7 %(V)
Vapour pressure	0.3 hPa (0.2 mmHg) at 20 °C (68 °F)
Density	1.023 g/cm3 at 25 °C (77 °F)
Water solubility	no data available
Relative vapour density	4.15 - (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

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50 Oral - rat - > 7,000 mg/kg

LD50 Dermal - rabbit - > 20,400 mg/kg

### Skin corrosion/irritation

#### Serious eye damage/eye irritation

Eyes - rabbit - Mild eye irritation - 24 h

### 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

Possible risk of congenital malformation in the fetus.

Suspected human reproductive toxicant

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

### 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

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

### Additional Information

RTECS: KL6125000

## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish LC50 - Lepomis macrochirus - 7,500 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. (2-(2-Methoxyethoxy)ethanol)  
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, Teratogen, Reproductive hazard

**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.

**SARA 313 Components**

	CAS-No.	Revision Date
2-(2-Methoxyethoxy)ethanol	111-77-3	1993-04-24

**SARA 311/312 Hazards**

Fire Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
2-(2-Methoxyethoxy)ethanol	111-77-3	1993-04-24

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
2-(2-Methoxyethoxy)ethanol	111-77-3	1993-04-24

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
2-(2-Methoxyethoxy)ethanol	111-77-3	1993-04-24

**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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