

**Glycol Ether DE****SECTION 1. IDENTIFICATION**

<b>Product Identifier</b>	Glycol Ether DE
<b>Other Means of Identification</b>	2-(2-Ethoxyethoxy) ethanol, Diglycol monoethyl ether, Diethyleneglycol monoethyl ether
<b>Product Code(s)</b>	GL5145
<b>Product Family</b>	Organic Solvent
<b>Recommended Use</b>	Industrial.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	1501

**SECTION 2. HAZARD IDENTIFICATION**

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

**Classification**

Flammable liquid - Category 4

**Label Elements**

Signal Word:  
Warning

Hazard Statement(s):  
Combustible liquid.

**Precautionary Statement(s):**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

Store in a well-ventilated place.

**Disposal:**

Dispose of contents and container in accordance with local, regional, national and international regulations.

**Other Hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

---

Product Identifier:	Glycol Ether DE - Ver. 1
Date of Preparation:	March 29, 2018
Date of Last Revision:	March 29, 2018

Substance:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Diethylene glycol monoethyl ether	111-90-0	> 99	2-(2-Ethoxyethoxy) ethanol, Diglycol monoethyl ether	

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Remove source of exposure or move to fresh air. Seek immediate medical attention.

#### Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes. Immediately call a Poison Centre or doctor.

#### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

#### Ingestion

Rinse mouth with water. Immediately call a Poison Centre or doctor.

#### First-aid Comments

Provide general supportive measures (comfort, warmth, rest).

Consult a doctor and/or the nearest Poison Control Centre for all exposures.

All first aid procedures should be periodically reviewed by a doctor familiar with the material and its conditions of use in the workplace.

### Most Important Symptoms and Effects, Acute and Delayed

None known.

### Immediate Medical Attention and Special Treatment

#### Special Instructions

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

#### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

Combustible liquid. Can ignite if heated. Releases vapour that can form explosive mixture with air at or above the flash point. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide.

### Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Move containers from fire area if it can be done without risk. Otherwise, use water in flooding quantities as a spray or fog to keep fire-exposed containers cool and absorb heat. Knock down vapours or gases with water fog or fine water spray. Use water spray to dilute spills to non-flammable mixtures. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal.

Product Identifier: Glycol Ether DE - Ver. 1

Date of Preparation: March 29, 2018

Date of Last Revision: March 29, 2018

Page 02 of 06

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources if safe to do so. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Flush spill area.

Large spills or leaks: contain spill with earth, sand, or absorbent material which does not react with spilled material. Remove or recover liquid using pumps or vacuum equipment. Flush spill area.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Keep smallest practical amount in work area. Avoid generating vapours or mists. Never return unused or contaminated product to its original container. Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Store in an area that is: cool, dry, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity), clear of combustible and flammable materials (e.g. old rags, cardboard). Store in a closed container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Diethylene glycol monoethyl ether	Not established		Not established		25 ppm	

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, natural rubber, nitrile rubber, Viton®, Barrier® (PE/PA/PE), Silver Shield®.

#### Respiratory Protection

For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Product Identifier: Glycol Ether DE - Ver. 1

Date of Preparation: March 29, 2018

Date of Last Revision: March 29, 2018

<b>Appearance</b>	Colourless liquid. Absorbs moisture from the air.
<b>Odour</b>	Sweet
<b>Odour Threshold</b>	< 0.21 ppm (50% recognition)
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	-76 °C (-105 °F) (melting); -76 °C (-105 °F) (freezing)
<b>Initial Boiling Point/Range</b>	202 °C (396 °F)
<b>Flash Point</b>	91 °C (196 °F)
<b>Evaporation Rate</b>	0.02 (n-butyl acetate = 1)
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	23.5% (upper); 1.2% (lower)
<b>Vapour Pressure</b>	0.017 kPa (0.128 mm Hg) at 25 °C
<b>Vapour Density (air = 1)</b>	4.63 (calculated)
<b>Relative Density (water = 1)</b>	0.99 at 20 °C
<b>Solubility</b>	Soluble in all proportions in water; Soluble in all proportions in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	-0.54 - -1.14 (calculated)
<b>Auto-ignition Temperature</b>	204 °C (399 °F)
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	3.91 mm <sup>2</sup> /s at 25 °C (calculated) (kinematic); 3.85 centipoises (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid
<b>Molecular Weight</b>	134.18

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

No reactivity test data was located.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None reported.

### Conditions to Avoid

High temperatures. Temperatures above 91.0 °C (195.8 °F)

### Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid).

### Hazardous Decomposition Products

Very toxic, flammable aldehydes; organic acids; ketones.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)

Product Identifier: Glycol Ether DE - Ver. 1

Date of Preparation: March 29, 2018

Date of Last Revision: March 29, 2018

Diethylene glycol monoethyl ether	> 5240 mg/kg (rat) (4-hour exposure)	5485 - 10502 mg/kg (rat)	3670 - 8415 mg/kg (rabbit)
-----------------------------------	--------------------------------------	--------------------------	----------------------------

**Skin Corrosion/Irritation**

Human experience and animal tests show no or very mild irritation.

**Serious Eye Damage/Irritation**

Animal tests show serious eye irritation.

**STOT (Specific Target Organ Toxicity) - Single Exposure**

**Inhalation**

At high concentrations may cause nose and throat irritation.

**Ingestion**

If small amounts are swallowed may cause depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. Ingestion is not a typical route of occupational exposure.

**Aspiration Hazard**

No information was located.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

No information was located.

**Respiratory and/or Skin Sensitization**

Not a skin sensitizer. No information was located for respiratory sensitization.

**Carcinogenicity**

Chemical Name	IARC	ACGIH®	NTP	OSHA
Diethylene glycol monoethyl ether	Not Listed	Not designated	Not Listed	Not Listed

**Reproductive Toxicity**

**Development of Offspring**

Not known to harm the unborn child.

**Sexual Function and Fertility**

Not known to cause effects on sexual function or fertility.

**Effects on or via Lactation**

No information was located.

**Germ Cell Mutagenicity**

Not known to be a mutagen.

**Interactive Effects**

No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Bury in a licensed landfill or burn in an approved incinerator according to federal, provincial/state, and local regulations.

**SECTION 14. TRANSPORT INFORMATION**

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Product Identifier: Glycol Ether DE - Ver. 1

Date of Preparation: March 29, 2018

Date of Last Revision: March 29, 2018

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**NFPA Rating**                      **Health - 2**      **Flammability - 2**      **Instability - 0**

**SDS Prepared By**              Alphachem Limited

**Phone No.**                        (905)-821-2995

**Date of Preparation**          March 29, 2018

**Date of Last Revision**        March 29, 2018

**References**                      CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS). GESTIS Substance Database (included by CCOHS).

**Disclaimer**                        This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

---

Product Identifier:                  Glycol Ether DE - Ver. 1

Date of Preparation:                March 29, 2018

Date of Last Revision:              March 29, 2018

Page                                  06 of                                  06