

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Glycol Ether

Product Code: Not available.

SDS No: 820215

1.2. Intended Use of the Product

Industrial applications. If this product is used in combination with other products, refer to the Safety Data Sheets for those products.

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Safety-Kleen Systems, Inc.

42 Longwater Drive

Norwell, MA 02061-9149

1-800-669-5740

www.safety-kleen.com

1.4. Emergency Telephone Number

Emergency Number : 1-800-468-1760

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flam. Liq. 4 H227

Repr. 1B H360

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA) :



GHS08

Signal Word (GHS-US/CA) : Danger

Hazard Statements (GHS-US/CA) : H227 - Combustible liquid.
H360 - May damage fertility or the unborn child.

Precautionary Statements (GHS-US/CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 - Wear face protection, Eye protection, protective clothing, protective gloves.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P403 - Store in a well-ventilated place.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Glycol Ether

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

P337+P313 - If eye irritation persists: Get medical advice/attention.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P235 - Keep cool.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Diethylene glycol monoethyl ether	Diethylene glycol ethyl ether / Diglycol monoethyl ether / 3,6-Dioxa-1-octanol / Ethanol, 2-(2-ethoxyethoxy)- / Ethoxy diglycol	(CAS-No.) 111-90-0	45 – 55	Flam. Liq. 4, H227
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	Dipropylene glycol monomethyl ether / (2-Methoxymethylethoxy)propanol / Propanol, (2-methoxymethylethoxy)- / Dipropylene glycol methyl ether / DPGME	(CAS-No.) 34590-94-8	40 – 50	Flam. Liq. 4, H227
2-Ethoxyethanol	Ethanol, 2-ethoxy- / Ethoxyethanol, 2- / Ethylene glycol ethyl ether / Ethylene glycol monoethyl ether / Cellosolve	(CAS-No.) 110-80-5	1 – 3	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Repr. 1B, H360

Full text of H-statements: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May damage fertility. May damage the unborn child.

Inhalation: Prolonged exposure may cause irritation.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May damage fertility or the unborn child.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Glycol Ether

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures. Combustible liquid.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Remove containers from fire area if this can be done without risk. Use water stream to cool containers.

Avoid inhalation of material or combustion by-products. Keep upwind. Fight fire from safe distance and protected location.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Hazardous Combustion Products: Carbon oxides, Nitrogen oxides. Organic acids. Ketones. Aldehydes.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Do not touch or walk on the spilled product. Stop leak, if possible without risk. Ventilate area. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear recommended personal protective equipment.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep cool.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Industrial applications. If this product is used in combination with other products, refer to the Safety Data Sheets for those

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Glycol Ether

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Diethylene glycol monoethyl ether (111-90-0)		
USA AIHA	WEEL TWA [ppm]	25 ppm
Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)		
USA ACGIH	ACGIH OEL TWA [ppm]	100 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	150 ppm
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA OSHA	OSHA PEL (TWA) [1]	600 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	100 ppm
USA OSHA	Limit value category (OSHA)	prevent or reduce skin absorption
USA NIOSH	NIOSH REL (TWA)	600 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	100 ppm
USA NIOSH	NIOSH REL (STEL)	900 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	150 ppm
USA IDLH	IDLH [ppm]	600 ppm
2-Ethoxyethanol (110-80-5)		
USA ACGIH	ACGIH OEL TWA [ppm]	5 ppm
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA ACGIH	BEI (BLV)	100 mg/g Kreatinin Parameter: 2-Ethoxyacetic acid - Medium: urine - Sampling time: end of shift at end of workweek
USA OSHA	OSHA PEL (TWA) [1]	740 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	200 ppm
USA OSHA	Limit value category (OSHA)	prevent or reduce skin absorption
USA NIOSH	NIOSH REL (TWA)	1.8 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	0.5 ppm
USA IDLH	IDLH [ppm]	500 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Safety glasses with side-shields. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Safety glasses with side-shields.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

Glycol Ether

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Appearance	: Clear
Odor	: Glycol
Odor Threshold	: No data available
pH	: 5.49
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: 176 °F (80 °C)
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Specific Gravity	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials. Heat, hot surfaces, sparks, open flames, and other ignition sources.

10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Organic acids. Ketones. Aldehydes. Carbon oxides, Nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Not classified

pH: 5.49

Eye Damage/Irritation: Not classified

pH: 5.49

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Glycol Ether

Safety Data Sheet

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Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May damage fertility or the unborn child.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Diethylene glycol monoethyl ether (111-90-0)	
LD50 Oral Rat	10502 mg/kg
LD50 Dermal Rabbit	9143 mg/kg
LC50 Inhalation Rat	> 5240 mg/m ³ (Exposure time: 4 h)
Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)	
LD50 Oral Rat	5.35 g/kg
LD50 Dermal Rabbit	9500 mg/kg
2-Ethoxyethanol (110-80-5)	
LD50 Oral Rat	2800 mg/kg
LD50 Dermal Rabbit	3300 mg/kg
LC50 Inhalation Rat	15.2 mg/l/4h
LC50 Inhalation Rat	4267 ppm/4h

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

Diethylene glycol monoethyl ether (111-90-0)	
LC50 Fish 1	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	3940 – 4670 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	19100 – 23900 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)	
LC50 Fish 1	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)
2-Ethoxyethanol (110-80-5)	
LC50 Fish 1	> 10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	> 10000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and Degradability

Glycol Ether	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Glycol Ether	
Bioaccumulative Potential	Not established.
Diethylene glycol monoethyl ether (111-90-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.8
Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.064 (at 20 °C)
2-Ethoxyethanol (110-80-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.1

12.4. Mobility in Soil

No additional information available

Glycol Ether

Safety Data Sheet

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12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not dispose of waste into sewer. Do not empty into drains.

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : COMBUSTIBLE LIQUID, N.O.S. (CONTAINS : Ethylene Glycol Ethyl Ether , Dipropylene glycol monomethyl ether)

Identification Number : NA1993

Packing Group : III

14.2. In Accordance with IMDG

Not regulated for transport

14.3. In Accordance with IATA

Not regulated for transport

14.4. In Accordance with TDG

Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Glycol Ether	
SARA Section 311/312 Hazard Classes	Health hazard - Reproductive toxicity
Diethylene glycol monoethyl ether (111-90-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
2-Ethoxyethanol (110-80-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
EPA TSCA Regulatory Flag	S - S - indicates a substance that is identified in a final Significant New Use Rule.
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

CAS-No.	Name	Percent by Weight
110-80-5	2-Ethoxyethanol	1 – 3%

15.2. US State Regulations

California Proposition 65



WARNING: This product can expose you to 2-Ethoxyethanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
2-Ethoxyethanol (110-80-5)		X		X

Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)

Glycol Ether

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List

2-Ethoxyethanol (110-80-5)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

15.3. Canadian Regulations

Diethylene glycol monoethyl ether (111-90-0)

Listed on the Canadian DSL (Domestic Substances List)

Propanol, 1(or 2)-(2-methoxymethylethoxy)- (34590-94-8)

Listed on the Canadian DSL (Domestic Substances List)

2-Ethoxyethanol (110-80-5)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 06/03/2022

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

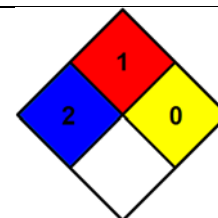
GHS Full Text Phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Repr. 1B	Reproductive toxicity Category 1B
H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H332	Harmful if inhaled
H360	May damage fertility or the unborn child

NFPA Health Hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA Fire Hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA Reactivity Hazard : 0 - Material that in themselves are normally stable, even under fire conditions.



The information contained herein is correct to the best of our knowledge, information, and belief and is designed only as guidance for the handling, use, processing, storage, transportation, disposal, and release of the product. User assumes all risks incident to use of this product and shall determine the quality and suitability of the product for its use. Supplier offers no warranty, express or implied, whatsoever, including warranties of merchantability or fitness for a particular purpose or otherwise, and specifically disclaims any and all liability for incidental, consequential, or other damages arising out the use or misuse of the product. The information provided relates only to the specific material provided and may not be valid if used in combination with any other materials or process, unless specified herein.

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