

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Glycol Ether PM Solvent
CAS-No.	: 107-98-2
Formula	: C4H10O2
Synonyms	: (+/-)-1-methoxy-2-propanol / 1-methoxy-2-hydroxypropane / 1-methoxy-2-propanol / 1-methoxy-2-propanol, (+/-)- / 1-methoxypropan-2-ol / Propylene glycol monomethyl ether, PGME

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Solvent Insulation/heat transfer Chemical raw material
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1.3. Supplier

ECOLINK

2177 Flintstone Drive
Suite A
Tucker, GA 30084
770-621-8240 (t)
www.ecolink.com

1.4. Emergency telephone number

Emergency number : **INFOTRAC 800-535-5053**

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 3	H226	Flammable liquid and vapor
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

: Warning

Hazard statements (GHS-US) :

: H226 - Flammable liquid and vapour
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

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P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P370+P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS-US classification
Glycol Ether PM Solvent (Main constituent)	(CAS-No.) 107-98-2	99.5 - 100	Flam. Liq. 3, H226 STOT SE 3, H336

* 2-Methoxy-1-propanol CAS# 1589-47-5 listed as an impurity <0.3%

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Inhalation of high vapor concentrations can cause CNS-depression and narcosis. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Consult a physician/ doctor if necessary. Show this safety data sheet to the doctor in attendance.

First-aid measures after inhalation : Remove the victim into fresh air. Give oxygen or artificial respiration as needed. Get immediate medical advice/ attention.

First-aid measures after skin contact : Thoroughly wash effected area with mild soap and water. If irritation persist, seek medical attention.

First-aid measures after eye contact : Thoroughly flush ees with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

First-aid measures after ingestion : This material may be a slight health hazard if ingested in large quantities. If large quantity swallowed, give lukewarm water (pint/ ½ liter) if victim completely conscious/ alert. Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Notes to Physician : Inhalation may cause CNS symptoms like headache, dizziness, fatigue, muscular, weakness, drowsiness and lack of coordination.

Hazards : May cause drowsiness or dizziness.
May be harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry chemical, carbon dioxide (CO2), water spray, alcohol-resistant foam.

Unsuitable extinguishing media : Do not use solid water stream.

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5.2. Specific hazards arising from the chemical

- Fire hazard : Water may be ineffective in firefighting due to low flash point. Burning liquid may float on water. Even if material is water soluble, may not be practical to extinguish fire by dilution. Notify authorities immediately if liquid enters sewer/ public waters.
- Flammable vapors may be heavier than air and travel long distances along the ground before igniting and flashing back to vapor source.
- Heat may build enough pressure to rupture closed containers/ spreading fire/ increasing risk of burns/ injuries.
- Move containers from fire area if it can be done without risk.
- Cool containers with flooding quantities of water until well after fire is out.
- Explosion hazard : DIRECT EXPLOSION HAZARD: Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD: may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
- Reactivity : Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Prolonged storage: on exposure to air: peroxidation resulting in increased fire or explosion risk.

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Exposure to fire/heat: consider evacuation.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.
- Protection during firefighting : Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear.
- Structural firefighter's protective clothing will only provide limited protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.
- Emergency procedures : Ensure adequate ventilation. Eliminate all sources of ignition. Evacuate personnel to safe areas.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

- For containment : Flammable liquid and vapor. Release can cause fire or explosion. Liquids/ vapors may ignite. Eliminate all sources of ignition. Evacuate/ limit access. Ensure adequate ventilation. Stop leak if you can do so without risk. All equipment used when handling this product must be grounded. Do not touch or walk through spilled material. Water spray may reduce vapor ; but may not prevent ignition in closed spaces. Blanket with firefighting foam.
- Methods for cleaning up : Contain spill with dike to prevent entry into sewers or waterways.
- For large spills, dike and pump into properly labeled containers for reclamation or disposal.
- For small spills, soak up with absorbent material and place in properly labeled containers for disposal.
- All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle and open the container with care. Cool before opening. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Keep container tightly closed. Before use: check for peroxides and eliminate them.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) acids. (strong) bases. water/moisture.
- Storage area : Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. May be stored under inert gas. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. with pressure relief valve. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.
- Packaging materials : SUITABLE MATERIAL: steel. stainless steel. glass. MATERIAL TO AVOID: aluminum. copper. synthetic material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycol Ether PM Solvent (107-98-2)		
ACGIH	Local name	1-Methoxy-2-propanol
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	ACGIH STEL (ppm)	100 ppm
ACGIH	Remark (ACGIH)	Eye irr; CNS impair; A4
ACGIH	Regulatory reference	ACGIH 2018

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. ethyl vinyl alcohol laminate.

GIVE GOOD RESISTANCE: natural rubber. neoprene. PVC. viton.

GIVE POOR RESISTANCE: nitrile rubber

Hand protection:

Gloves – Chemical resistant gloves. Gloves must be replaced after 8 hours of wear.

Eye protection:

Eye protection not required in normal conditions – Chemical splash goggles and/ or face shield should be worn.

Skin and body protection:

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Protective clothing – Depending upon conditions of use, protective gloves, apron, boots, head and face protection should be worn. Use PPE that is chemical resistant to the product and prevents skin contact.

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colorless
Odor	: Ether-like odor
Odor threshold	: 10 ppm Odor is not an adequate warning of potentially hazardous ambient air concentrations.
pH	: 7 Aqueous phase
Melting point / Freezing point	: -96 °C (1013 hPa)
Boiling point	: >= 120 °C at 1,013 hPa
Flash point	: 31 °C at 1,013 hPa (760 mmHg) Method: (SETA)
Relative evaporation rate (butyl acetate=1)	: 0.7
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 11 hPa (20 °C, Converted value)
Relative vapor density at 20 °C	: 3.1
Relative density	: 0.92 (25 °C)
Relative density of saturated gas/air mixture	: 1
Specific gravity / density	: 0.92 g/cm ³ at 25 °C
Molecular mass	: 90.12 g/mol
Solubility	: Miscible in water.
Log Pow	: < 1 (Experimental value, Equivalent or similar to OECD 117, 20 °C)
Auto-ignition temperature	: 287 °C at 1,013 hPa
Decomposition temperature	: No data available
Viscosity, kinematic	: 1.84 mm ² /s at 25 °C
Viscosity, dynamic	: 1.7 mPa.s at 25 °C
Explosion limits	: 1.5 - 14 vol % LEL: 1.5 vol % UEL: 14 vol %
Explosive properties	: Not explosive
Oxidizing properties	: No data available

9.2. Other information

Saturation concentration	: 44 g/m ³
VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

Will not occur.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Not expected to occur.

10.4. Conditions to avoid

Extended contact with air or oxygen. Reacts with air to form peroxides. Heat, sparks, open flame, other ignition sources, and oxidizing conditions. Ignition may occur at temperatures below those published in literature as autoignition or ignition temperatures.

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10.5. Incompatible materials

Strong oxidizing agents.
Air or Oxygen.
Moisture and humidity.

10.6. Hazardous decomposition products

Not expected to decompose under normal conditions.
Thermal decomposition: Incomplete combustion may produce carbon monoxide and other toxic gases

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Glycol Ether PM Solvent (107-98-2)	
LD50 oral rat	4016 mg/kg body weight (EU Method B.1 tris: Acute oral toxic – Acute toxic class method, Rat, Male/female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (Other, 24 h, Rat, Male/female, Experimental value, Dermal)
ATE US (oral)	4016 mg/kg body weight

Skin corrosion/irritation : Not classified
May cause mild skin irritation.

Serious eye damage/irritation : Not classified
May cause slight transient eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause drowsiness or dizziness.
Exposure routes: Inhalation, Ingestion
Target Organs: Central Nervous system

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified
May be harmful if swallowed and enters airways.

Viscosity, kinematic : 1.84 mm²/s at 25 °C

SECTION 12: Ecological information

12.1. Toxicity

Glycol Ether PM Solvent (107-98-2)	
LC50 fish 1	>= 1000 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
ErC50 (algae)	> 1000 mg/l (Other, 168 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

Glycol Ether PM Solvent (107-98-2)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	1.95 g O ₂ /g substance

12.3. Bioaccumulative potential

Glycol Ether PM Solvent (107-98-2)	
BCF fish 1	1 (Pimephales promelas)
Log Pow	< 1 (Experimental value, Equivalent or similar to OECD 117, 20 °C)
Bioaccumulative potential	Not bioaccumulative.

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12.4. Mobility in soil

Glycol Ether PM Solvent (107-98-2)	
Surface tension	0.0707 N/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Low potential for absorption in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3092 1-Methoxy-2-propanol, 3, III
UN-No.(DOT) : UN3092
Proper Shipping Name (DOT) : 1-Methoxy-2-propanol
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 3 - Flammable liquid



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Transport document description (IMDG) : UN 3092 1-Methoxy-2-propanol, 3, III
UN-No. (IMDG) : 3092
Proper Shipping Name (IMDG) : 1-Methoxy-2-propanol

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Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: III - substances presenting low danger
EmS-No. (1)	: F-E
EmS-No. (2)	: S-D

Air transport

Transport document description (IATA)	: UN 3092 1-Methoxy-2-propanol, 3, III
UN-No. (IATA)	: 3092
Proper Shipping Name (IATA)	: 1-Methoxy-2-propanol
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Glycol Ether PM Solvent (107-98-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Specific target organ toxicity (single or repeated exposure)
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

Global Inventory Status

The ingredients in this product are compliant with the following chemical inventory requirements or exemptions.

CANADA

DSL – Compliant

EU-Regulations

No data available

Country/ Region Inventory regulations

Australia AICS – Compliant

China IECSC – Compliant

Japan ENCS – Compliant

Korea KECI – Compliant

New Zealand NZIoC – Compliant

Philippines PICCS – Compliant

United States of America TSCA – Compliant

Taiwan TCSCA – Compliant

15.3. US State regulations

Glycol Ether PM Solvent (107-98-2)

State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List
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California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Full text of H-phrases:

H226	Flammable liquid and vapor
H336	May cause drowsiness or dizziness

Abbreviations and acronyms:

SDS	Safety Data Sheet
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IARC	International Agency for Research on Cancer

NFPA health hazard

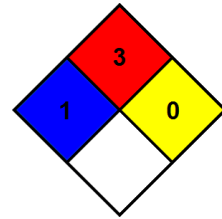
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity

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



Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US (GHS HazCom 2012)

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