

(Mono) Propylene Glycol (Mono) Methyl Ether

# Glycol Ether PM

CAS No. 107-98-2

Molecular Weight = 90.1



## Description

*Glycol Ether* PM is a colorless, liquid with low toxicity, having a mild, pleasant odor. It is completely water soluble, miscible with a number of organic solvents, and has good solvency for a number of substances.

## Product Identification

Chemical Name 1-Methoxy-2-Propanol  
Chemical Family Propylene Glycol Ether  
Other Names Methoxy Propanol  
Propylene Glycol Methyl Ether  
1- Methoxy-2-Hydroxypropane  
2-Methoxy-1-Methyl Ethanol  
Chemical Formula  $C_4H_{10}O_2$

## Product Specifications

Property	Specifications	Test Method
Acidity, wt. % as Acetic acid, max.	0.01	ASTM E-202; USP XXI
Water, wt. %, max.	0.10	ASTM E-202; E-203
Color, APHA, max.	10	ASTM E-202; D-1209
GC Purity, wt. %, min.	99.5	ACC 8314
Appearance	Clear	
PM-2 Isomer, wt. % max.	0.49 0.29 in EU	

For the most current product specification, please call 1-888-777-0232 or your local sales contact.

## Typical Properties

- Autoignition temperature (°F) 532
- Density (pounds per gallon at 25°C) 7.6
- Distillation @ 760mm Hg, IBP, min 117°C
- Distillation @ 760mm Hg, DP, max. 125°C
- Evaporation Rate (BuAc = 100) 66
- Flammable Limits (Lower/Upper Vol. %) 3/12
- Flash Point (Tag Closed Cup) °C (°F) 32(89)
- Percent Primary Alcohol <2%
- Solubility by weight in water at 20°C Complete
- Solubility Parameter (Total Hansen) 11.1
- Specific Gravity @ 25/25°C 0.918-0.921
- Surface Tension (Dynes/cm) @ 25°C(77°F) 26.5
- Refractive Index @ 25°C(77°F) 1.404
- Viscosity (centistokes) @ 25°C(77°F) 1.8
- Vapor Pressure @ 25°C(mm Hg) 12.6

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## Applications

**Coatings:** *Glycol Ether* PM provides good solvency for a wide variety of resins including acrylic, epoxies, alkyds, polyesters, nitrocellulose and polyurethanes. Key properties for coating reformulation also include complete water miscibility and good coupling ability.

*Glycol Ether* PM is a good substitute for E-series solvents; particularly, EM (ethylene glycol methyl ether) and EE (ethylene glycol ethyl ether).

**Cleaners:** Low toxicity, surface tension reduction, and fast evaporation are some of the benefits of using *Glycol Ether* PM in cleaning formulations. It also provides good solvency for polar and nonpolar materials.

**Chemical Intermediate:** *Glycol Ether* PM can be used in combination with other glycol ethers or solvents to custom tailor properties to meet the full requirements of the formulation. *Glycol Ether* PM has a very low content of primary alcohol, generally below 0.49%. The primary alcohol isomer is more reactive than the secondary alcohol isomer. Low primary alcohol content minimizes side product formation.

**Electronics:** *Glycol Ether* PM is used in conjunction with other solvents in the manufacture of laminates which are used to make circuit boards. Additionally, *Glycol Ether* PM may be used in the cleaning and removal of solder flux and masks.

The properties listed in the previous section also support the use of *Glycol Ether* PM in agricultural, cosmetic, ink, textile and adhesives products.

## Storage

General industry practice is to store *Glycol Ether* PM in carbon steel vessels. Avoid contact with air when storing for long periods of time.

Store only in tightly closed, properly vented containers away from heat, sparks, open flame or strong oxidizing agents. Use only non-sparking tools. Ground containers before beginning transfer. Electrical equipment should conform to national electric code.

Handle empty containers carefully. Flammable, combustible residue remains after emptying. Store in properly lined steel or stainless steel to avoid slight discoloration from mild steel. Glycol ethers should never be stored or handled in copper or copper alloys. This product may absorb water if exposed to air.

## Safety and Handling

*Glycol Ether* PM has a flash point of 89°F. It is a flammable liquid as defined under SARA Title III, section 311/312 hazard category, but is not subject to the reporting requirements of SARA Title 111, section 313.

Undue exposure or spillage should be strictly avoided as a matter of good practice. Refer to the Safety Data Sheet for *Glycol Ether* PM for more specific information.

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Hazard ratings are summarized as follows:

	<u>NPCAHMIS</u>	<u>NEPA</u>
Health	1	0
Flammability	3	3
Reactivity	0	0
Personal Protection	B*	

\*Personal protection recommendation should be made with consideration of specific work place conditions.

## Material Compatibility Guidelines

Stainless steel is recommended for valves, pumps and filters. *Teflon* is suitable for gaskets. Buna N, butylene polymers and Neoprene are known to swell in contact with *Glycol Ether PM*.

Information from material suppliers and specific conditions of contact should be considered in the selection of suitable materials.

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Users should review the applicable Safety Data Sheet before handling the product.

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