

MILES® PROPYLENE GLYCOL USP

USP-EP Grade



Product Data Sheet

PRODUCT DESCRIPTION

Miles® Propylene Glycol USP is a high-purity grade of monopropylene glycol manufactured and tested for compliance with the current United States Pharmacopoeia (USP), European Pharmacopoeia (EP), and Japanese Pharmacopoeia (JP) specifications, plus the Food Chemical Codex (FCC). It is a clear, colorless, practically odorless, slightly viscous, water-soluble and hygroscopic liquid with low vapor pressure.

Propylene Glycol USP is commonly utilized in pharmaceutical, food, cosmetic, personal care, flavor and fragrance, and animal feed applications.

Chemical Name: 1,2-Propanediol / Propylene Glycol

CAS Number: 57-55-6

Chemical Formula: C₃H₈O₂

Molecular Weight: 76.10 g/mol

TYPICAL APPLICATIONS

Miles® Propylene Glycol USP is suitable for use in applications including:

- Pharmaceutical excipient / solvent carrier for active ingredients (oral and topical)
- Cosmetics & personal care (solvent, coupling agent, humectant, viscosity modifier)
- Flavors & fragrances (solvent and extraction solvent)
- Direct and indirect food additive applications
- Pet food and animal feed (humectant, emulsifier, preservative carrier)
- Low-temperature heat-transfer fluid in food-grade applications (brewing, dairy, ice cream)



TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Appearance	Clear, colorless liquid
Assay (Propylene Glycol)	> 99.8% by weight
Water	< 0.2% by weight
Molecular Weight	76.10 g/mol
Boiling Point @ 1 atm	187°C (369°F)
Distillation Range @ 1 atm	186–189°C (367–372°F)
Freezing Point	Super cools; does not crystallize
Pour Point	< -57°C (< -71°F)
Specific Gravity @ 20/20°C	1.038
Specific Gravity @ 25/4°C	1.033
Specific Gravity @ 60/4°C	1.007
Viscosity @ 25°C	48.6 mPa·s (cP)
Viscosity @ 60°C	8.4 mPa·s (cP)
Vapor Pressure @ 20°C	0.011 kPa (0.08 mm Hg)
Vapor Pressure @ 25°C	0.017 kPa (0.13 mm Hg)
Refractive Index @ 20°C	1.4310–1.4330
Flash Point, PMCC	104°C (220°F)
Autoignition Temperature	371°C (700°F)
Solubility in Water	Completely miscible

The values shown are typical physical properties and are not intended to constitute product specifications.



PRODUCT FEATURES

- USP / EP / JP / FCC compliant
- Kosher and Halal certified (subject to supplier certification)
- High purity, low color and low odor
- Excellent water miscibility
- Very low volatility
- Excellent solvent and humectant properties
- Wide useful temperature range

STORAGE & HANDLING

Store in tightly closed containers in a cool, dry, well-ventilated area, away from sunlight and other sources of UV light. Propylene glycol USP is stable for at least two years when stored at ambient temperature in closed containers. Where product heating is used for bulk storage or transport, product temperature should be controlled to no more than 40°C to prevent oxidative degradation.

Consult the applicable Miles® Safety Data Sheet (SDS) before handling, storing, or using this product.

AVAILABLE PACKAGING

- 480-Pound Drums
- Totes / IBCs
- Bulk

Packaging availability may vary. Contact Miles Lubricants LLC for current packaging and minimum-order requirements.

IMPORTANT

Miles® Propylene Glycol USP is manufactured to meet USP/EP/JP/FCC pharmacopeia specifications; however, suitability for any specific pharmaceutical, food, or cosmetic application must be independently confirmed against the current Certificate of Analysis (CoA) for the lot supplied. Not supported for use in pharmaceutical injectable applications.



PRODUCT INFORMATION

Miles Lubricants LLC

Industrial Lubricants, Chemicals & Specialty Fluids

Product: Miles® Propylene Glycol – USP Grade (480 lb Drum)

CAS No.: 57-55-6

For product availability, technical information, and Safety Data Sheets, contact Miles Lubricants LLC.

DISCLAIMER

The information and typical properties contained in this Product Data Sheet are provided for general informational purposes and are believed to be accurate at the time of publication. Typical values are not specifications or guaranteed properties. Product users are responsible for determining the suitability, compatibility, safety, and regulatory compliance of the product for their particular application. Please consult the applicable Safety Data Sheet and lot-specific Certificate of Analysis before use.