

MILES® DIETHYLENE GLYCOL

Industrial Grade

Product Data Sheet**PRODUCT DESCRIPTION**

Miles® Diethylene Glycol (DEG) Industrial Grade is a colorless, low-volatility, low-viscosity, hygroscopic liquid, completely miscible with water and many organic liquids. Because of its higher molecular weight, DEG is considerably less volatile than ethylene glycol, giving it specialized uses where low volatility and hygroscopicity are required.

Diethylene Glycol Industrial Grade is commonly utilized as a chemical intermediate, plasticizer component, solvent coupler, and freezing-point-depression agent in numerous industrial formulations.

Chemical Name: 2,2'-Oxydiethanol / Diethylene Glycol (DEG)

CAS Number: 111-46-6

Chemical Formula: C₄H₁₀O₃

Molecular Weight: 106.12 g/mol

TYPICAL APPLICATIONS

Miles® Diethylene Glycol Industrial Grade is suitable for use in applications including:

- Natural gas dehydration
- Plasticizer for paper, composition cork, glues, adhesives, bookbinding, and coatings
- Glass- and cement-grinding aids
- Mold release agent
- Solvent coupler / stabilizer for soluble oil dispersions
- Unsaturated polyester resins and polyester polyols for urethane foam
- Thermoplastic polyurethanes and emulsifiers
- Drywall joint compound and belt-wetting agent
- Deicing fluids and heat-transfer fluids

- General industrial processing

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Appearance	Clear, colorless liquid
Diethylene Glycol Purity	≥ 99.5%
Molecular Weight	106.12 g/mol
Boiling Point @ 1 atm	245–245.3°C (473–474°F)
Freezing Point	-9°C to -10°C (14–16°F)
Specific Gravity @ 20/20°C	1.117 – 1.118
Viscosity @ 20°C	35.7 mPa·s (cP)
Viscosity @ 40°C	13.65 cSt
Vapor Pressure @ 20°C	0.002–0.04 mm Hg (source values vary; DEG is very low-volatility)
Refractive Index @ 20°C	1.4472–1.4476
Flash Point, Closed Cup	143–154°C (289–310°F)
Flash Point, Open Cup	163°C (325°F)
Autoignition Temperature	364°C (687°F)
Solubility in Water	Completely miscible

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

PRODUCT FEATURES

- High purity
- Excellent water miscibility
- Very low volatility
- Higher viscosity and boiling point than monoethylene glycol

- Excellent solvent and coupling properties
- Strong hygroscopicity
- Wide useful temperature range
- Suitable for numerous industrial formulations

STORAGE & HANDLING

Store in tightly closed containers in a cool, dry, well-ventilated area, ideally under an inert (nitrogen) atmosphere for longer-term color stability. Diethylene glycol is hygroscopic and can absorb moisture from the atmosphere; containers should therefore remain sealed when not in use.

Keep the material in the anhydrous state to help prevent corrosion to carbon steel or aluminum tanks and related equipment; increased acidity from moisture pickup enhances iron pickup from steel vessels. Avoid contamination with incompatible materials. Consult the applicable Miles® Safety Data Sheet (SDS) before handling, storing, or using this product.

AVAILABLE PACKAGING

- 513-Pound Drums
- Totes / IBCs
- Bulk

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

IMPORTANT

Miles® Diethylene Glycol Industrial Grade is intended for industrial applications. It should not be represented or used as USP, pharmaceutical, food, cosmetic, or personal-care grade unless the specific product supplied is independently certified for those applications. Diethylene glycol can be harmful or fatal if ingested and is not supported by upstream producers for use in food, beverage, pharmaceutical, cosmetic, or personal-care applications.

PRODUCT INFORMATION

Miles Lubricants LLC

Industrial Lubricants, Chemicals & Specialty Fluids

Product: Miles® Diethylene Glycol – Industrial Grade (513 lb Drum)

CAS No.: 111-46-6

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. Where source data differed slightly between references (e.g., flash point, vapor pressure), a range is shown rather than a single unverified figure. 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 before use.