Basekim
Chemical Production Co.Ltd

Technical Data Sheet (TDS)

Mono Propylene Glycol (MPG)

Supplier: Basekim

Product Name: Mono Propylene Glycol

Synonyms: Propylene Glycol, MPG, 1,2-Propanediol

CAS Number: 57-55-6

EC Number: 200-338-0

Chemical Formula: C3H8O2

Molecular Weight: 76.09 g/mol

Available Grades: Industrial, Food, USP/EP (subject to confirmation)

1. Product Description

Mono Propylene Glycol (MPG) is a clear, colorless, nearly odorless, hygroscopic liquid with excellent water solubility.

Manufacturers use this versatile compound as a solvent, humectant, chemical intermediate, and heat-transfer fluid. Moreover, its low volatility and formulation compatibility support applications across chemical, cosmetic, pharmaceutical, and industrial manufacturing.

2. Technical Specifications

The following values provide indicative industrial-grade benchmarks. They do not constitute guaranteed specifications for a particular batch.

Parameter	Reference Value
Appearance	Clear, colorless liquid
Purity	99.5% min. (example grade)

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Parameter	Reference Value
Water Content	0.20% max.
Color (APHA)	10 max.
Acidity (as Acetic Acid)	0.002% max.
Specific Gravity (20/20°C)	Approximately 1.038
Odor	Nearly odorless

Note: Final acceptance limits must follow the confirmed manufacturer's sales specification and batch COA.

3. Physical and Chemical Properties

Property	Typical Value
Physical State	Liquid
Color	Colorless
Boiling Point	187–188°C
Pour Point	Below -57°C
Density at 20°C	Approximately 1.036 g/cm³
Flash Point	Approximately 104°C
Viscosity at 25°C	48.6 mPa·s
Refractive Index at 20°C	1.4310–1.4330
Vapor Pressure at 20°C	0.011 kPa
Water Solubility	Completely miscible
Hygroscopic	Yes

Values represent typical physical properties and are not guaranteed batch specifications.

4. Main Applications

- Unsaturated polyester resin manufacturing
- Industrial antifreeze and coolants
- Heat-transfer fluids
- Paints and coatings
- Liquid detergents and cleaning products
- Chemical intermediate production
- Cosmetics and personal care products using suitable grades
- Food processing using approved food-grade material

- Pharmaceutical formulations using appropriately qualified grades

5. Packaging

Typical commercial packaging options include:

- Steel drums
- Plastic drums
- Intermediate Bulk Containers (IBCs)
- Bulk tanker shipments

Packaging availability, fill weights, and container suitability must be confirmed at quotation.

6. Storage and Handling

Store the product in tightly sealed containers in a cool, dry, well-ventilated location.

Protect containers from direct sunlight, excessive heat, and contamination.

Furthermore, prevent moisture absorption by keeping containers closed when not in use.

Avoid contact with strong oxidizing agents.

7. Shelf Life

Shelf life depends on the manufacturer, grade, packaging, and storage conditions.

Confirm the applicable shelf life using the manufacturer's documentation.

8. Quality Control

Buyers should request the following documents when applicable:

- Certificate of Analysis (COA)
- Safety Data Sheet (SDS)
- Manufacturer's technical specifications
- Grade-specific compliance documentation

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For food and pharmaceutical applications, verify compliance with the relevant FCC, USP, or EP requirements, including applicable ethylene glycol and diethylene glycol impurity limits.

9. Technical Disclaimer

This Technical Data Sheet provides reference information for Mono Propylene Glycol.

Specifications may vary depending on the manufacturer and product grade. All contractual specifications, certifications, and quality requirements must be verified against official manufacturer documentation before product approval or purchase.