

PRODUCT IDENTIFICATION



Product Name: 30% Propylene Glycol USP Grade

CAS Number: 57-55-6

Molecular Formula: C₃H₈O₂

Molecular Weight: 76.09 g/mol

Grade: USP Grade

Purity / Concentration: 30%

Synonyms: Propylene Glycol Solution, Propylene Glycol 30%

PRODUCT OVERVIEW

Alliance Chemical offers high-quality 30% Propylene Glycol in a USP Grade solution, ensuring reliable performance for sensitive applications. This clear, colorless liquid is characterized by a specific gravity of 1.007 g/mL and exceptional purity levels, with impurities like heavy metals and chlorides falling below detection limits.

Grade Significance: The USP Grade designation ensures that this product meets the rigorous quality and safety standards set by the United States Pharmacopeia, making it suitable for pharmaceutical and food-grade applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	30.1	27	33	USP <921>
Specific Gravity (20°C)	g/mL	1.007	—	—	USP <841>
Residue After Ignition	%	ND	—	0.0070	USP <281>
Water Content	%	0.1	—	0.2	USP <921>
Heavy Metals (as Pb)	ppm	ND	—	10	USP <231>
Chloride (Cl ⁻)	ppm	ND	—	7	USP <281>
Sulfate (SO ₄ ²⁻)	ppm	ND	—	20	USP <221>
Acidity	—	Passes Test	—	—	USP
Identification	—	Passes Test	—	—	USP

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Slightly sweet odor
Form	Clear liquid	Boiling Point	Approx. 100
Melting / Freezing Point	Approximately -10	Flash Point	Non-flammable
Specific Gravity	1.011	Solubility	Completely miscible with water
Molecular Formula	C ₃ H ₈ O ₂	Molecular Weight	76.09 g/mol
Vapor Pressure (20°C)	0.1 mmHg	Viscosity (25°C)	60 cP
Refractive Index (20°C)	1.432	Density (25°C)	1.036 g/mL

APPLICATIONS

1. **Pharmaceuticals** — Serves as a high-purity solvent for active pharmaceutical ingredients, ensuring stability and bioavailability in various medicinal formulations.
2. **Food and Beverage** — Functions as a food-grade humectant that helps retain moisture, effectively enhancing the texture and extending the shelf life of packaged food products.
3. **Laboratory Research** — Widely utilized as a consistent mobile phase component in reversed-phase chromatography to facilitate the precise separation of organic compounds.
4. **Industrial Cooling** — Applied in specialized antifreeze formulations where its low freezing point and high boiling point provide reliable thermal protection.

STORAGE & HANDLING

To maintain the integrity of this USP Grade solution, it should be stored in a cool, dry, and well-ventilated area away from direct sunlight and incompatible materials. Proper sealing is essential to prevent moisture absorption and potential contamination, ensuring the product remains within its specified concentration and purity standards.

- Store in a cool, dry place away from direct sunlight.
- Use materials compatible with propylene glycol, such as HDPE or glass.
- Avoid contact with strong oxidizing agents.
- Ensure proper ventilation when handling to minimize inhalation exposure.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Warning

No GHS pictograms assigned.

Hazard Statements:

- Not Classified
- Reported as not meeting GHS hazard criteria by 6762 of 6899 companies (only 2% companies provided GHS information). For more detailed information, please visit ECHA C&L website.

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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