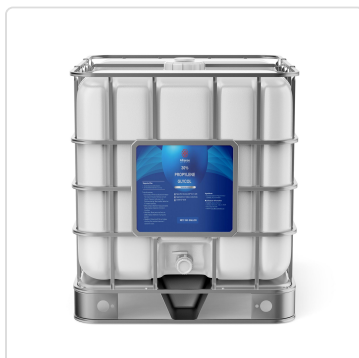


PRODUCT IDENTIFICATION



Product Name: 30% Propylene Glycol Technical Grade

CAS Number: 57-55-6

Molecular Formula: C₃H₈O₂

Molecular Weight: 76.09 g/mol

Grade: Technical Grade

Purity / Concentration: 30%

Synonyms: Propylene Glycol Solution, Propylene Glycol 30%

PRODUCT OVERVIEW

Alliance Chemical's 30% Propylene Glycol Technical Grade is a clear, colorless aqueous solution formulated for consistent performance across industrial applications. With a precise 30.1% assay and low impurity levels, including chlorides at 1 ppm, this product provides a reliable base for moisture retention and thermal regulation.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial use where efficiency and cost-effectiveness are prioritized over USP or food-grade certifications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	30.1	29	31	GC
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.008	—	1.012	USP <841>
Water Content	%	0.1	—	0.2	Karl Fischer
Chloride (Cl ⁻)	ppm	1	—	5	ISE
Sulfate (SO ₄ ²⁻)	ppm	2	—	10	Turbidimetry
Acidity As Acetic Acid	%	0.0010	—	0.0050	Titration

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Slightly sweet odor
Boiling Point	188.0–192.0°C (propylene glycol component; actual mixture boiling range depends on water content)	Melting / Freezing Point	-59°C to -60°C
Flash Point	101°C (214°F)	Solubility	Miscible with water and alcohols
Molecular Formula	C ₃ H ₈ O ₂	Molecular Weight	76.09 g/mol
Vapor Pressure (20°C)	0.01 kPa (approx., as a water-containing mixture)	Viscosity (25°C)	1.5–4.0 cP (propylene glycol-water mixtures are significantly less viscous than neat PG; typical 30% solution ~1.5–2.5 cP)
Refractive Index (20°C)	1.432–1.434	Density (25°C)	1.02–1.04 g/mL

APPLICATIONS

1. **Cosmetics and Personal Care** — Functions as an effective humectant and moisturizing agent that helps skin care products retain essential moisture.
2. **Industrial Cooling** — Utilized as a non-toxic antifreeze and heat transfer fluid to maintain optimal temperature control in closed-loop cooling systems.
3. **Paints and Coatings** — Serves as a high-quality solvent that improves the flow, leveling, and overall application characteristics of paint formulations.
4. **Pharmaceutical Manufacturing** — Acts as a stable carrier or solvent for various active pharmaceutical ingredients in liquid-based formulations.

STORAGE & HANDLING

To maintain the chemical integrity and purity of this 30% solution, it should be stored in a cool, dry, and well-ventilated area in tightly sealed containers. Protecting the product from extreme temperatures and contaminants is essential to ensure the shelf life and performance consistency required for your specific industrial processes.

- Store in a cool, dry place away from direct sunlight.
- Use materials compatible with propylene glycol, such as HDPE or stainless steel.
- 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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