

PRODUCT IDENTIFICATION



Product Name: 30% Propylene Glycol Technical Grade

CAS Number: 57-55-6

Molecular Formula: $C_3H_8O_2$

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 high-purity, aqueous solution designed for consistent performance in industrial applications. With a controlled specific gravity of 1.0302 and minimal impurities like iron and chlorides, this clear liquid serves as a reliable moisturizing agent, solvent, and heat-transfer fluid.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and manufacturing utility, providing a balance of high-quality consistency and cost-effectiveness for non-food or non-medical applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	30	29.5	30.5	GC
Color (APHA)	APHA	3	—	10	APHA
Specific Gravity (20°C)	g/mL	1.0302	1.0252	1.0352	Hydrometer @ 20°C
Heavy Metals As Pb	ppm	≤ 1.5 ppm	—	—	ICP-MS
Iron (Fe)	ppm	≤ 0.15 ppm	—	—	ICP-MS
Chlorides As Cl	ppm	≤ 0.15 ppm	—	—	ICP
Acidity As Acetic	ppm	3	0	10	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	~102 °C	Melting / Freezing Point	-13 °C (freeze / crystallization onset)
Flash Point	Not flammable (aqueous solution)	Specific Gravity	1.031
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. **Personal Care** — Functions as an effective humectant and moisturizing agent in skin care formulations to help the skin retain essential hydration.
2. **HVAC and Cooling** — Utilized as a non-toxic antifreeze agent in closed-loop cooling systems to prevent freezing while maintaining optimal thermal efficiency.
3. **Coatings and Paints** — Acts as a versatile solvent that improves the flow, leveling, and overall application characteristics of industrial paint formulations.
4. **Pharmaceutical Manufacturing** — Serves as a stable carrier or solvent for active pharmaceutical ingredients in liquid-based formulations.

STORAGE & HANDLING

To maintain the integrity of the 30% concentration, store this product in a cool, dry, well-ventilated area away from incompatible materials. Proper storage prevents contamination and ensures the solution remains effective for its intended industrial use while adhering to general safety protocols.

- 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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