

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 offers 30% Propylene Glycol Technical Grade, a high-quality solution characterized by its low impurity profile, including a color rating of just 3 APHA and iron content below 0.15 ppm. This clear, colorless liquid serves as a reliable, non-toxic solvent and humectant across a variety of industrial and manufacturing applications.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial applications where high performance is required, offering a balance between cost-effectiveness and strict quality control standards.

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	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)	Specific Gravity	1.024 (20 °C)
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 mixture; 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 a highly effective moisturizing agent that helps skin care products retain essential hydration.
- 2. HVAC and Cooling** — Acts as a safe, non-toxic antifreeze agent in closed-loop cooling systems to prevent freezing and equipment damage.
- 3. Coatings and Paints** — Utilized as a versatile solvent to improve the flow, leveling, and overall application properties of various paint formulations.
- 4. Pharmaceuticals** — Serves as a reliable carrier for active pharmaceutical ingredients, ensuring stability and consistent delivery in liquid formulations.

STORAGE & HANDLING

Proper storage in a cool, dry, and well-ventilated area is essential to maintain the concentration and purity of this 30% solution. By keeping containers tightly sealed and away from extreme heat, you prevent potential contamination and ensure the product remains within its specified technical parameters.

- 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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