

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, characterized by its exceptional purity and low impurity profile, including heavy metals like lead detected at only 0.2 ppm. This clear, colorless liquid serves as a reliable, versatile solvent and humectant essential for sensitive pharmaceutical and food-grade applications.

Grade Significance: USP Grade signifies that the product meets the stringent standards set by the United States Pharmacopeia, ensuring it is safe and pure enough for human consumption and pharmaceutical use.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Density	%	30	29.5	30.5	GC or density
Color (APHA)	APHA	3	—	10	APHA
Specific Gravity (20°C)	g/mL	1.0302	1.0252	1.0352	Hydrometer @ 20°C
Arsenic As	ppm	0.5	0	1.5	ICP-MS
Heavy Metals (as Pb)	ppm	≤ 1.5 ppm	—	—	ICP
Iron (Fe)	ppm	≤ 0.2 ppm	—	—	ICP-OES
Lead Pb	ppm	0.2	0	0.5	ICP-MS
Sulfates	ppm	2	0	5	Ion chromatography

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	Not characterized for the 30% solution
Melting / Freezing Point	Not characterized for the 30% solution	Flash Point	210 °F (NTP, 1992)
Specific Gravity	1.025	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** — Used as a stable solvent for active pharmaceutical ingredients, ensuring consistent delivery and efficacy in liquid formulations.
2. **Food & Beverage** — Acts as an effective humectant to help retain moisture in food products, which significantly improves texture and extends shelf life.
3. **Analytical Chemistry** — Functions as a critical mobile phase component in reversed-phase chromatography, aiding in the precise separation of complex organic compounds.
4. **Industrial Manufacturing** — Utilized in specialized antifreeze formulations due to its reliable low freezing point and high boiling point characteristics.

STORAGE & HANDLING

Proper storage is essential to maintain the product's high purity and prevent contamination from environmental factors. While the solution is not classified as hazardous, keeping it in a cool, dry, and well-ventilated area ensures the integrity of the USP grade specifications for all downstream applications.

- 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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