

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 30% Propylene Glycol in a high-purity USP Grade, characterized by its clear, colorless appearance and precise specific gravity of 1.0302 g/mL. This aqueous solution is meticulously tested to ensure low heavy metal content, including lead levels at 0.2 ppm, making it an ideal solvent and humectant for sensitive applications.

Grade Significance: USP Grade signifies that the product meets the rigorous quality standards set by the United States Pharmacopeia, ensuring it is safe and pure enough for pharmaceutical and food-grade applications.

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	~102 °C
Melting / Freezing Point	-13 °C (freeze / crystallization onset)	Flash Point	Not flammable (aqueous solution)
Specific Gravity	1.031	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. **Pharmaceutical** — Serves as a reliable solvent for active pharmaceutical ingredients, ensuring consistent drug delivery and formulation stability.
2. **Food & Beverage** — Functions as a humectant to effectively retain moisture in food products, which enhances overall texture and extends shelf life.
3. **Analytical Chemistry** — Utilized as a mobile phase component in reversed-phase chromatography, facilitating the accurate separation of complex organic compounds.
4. **Industrial** — Applied in specialized antifreeze formulations due to its ability to lower freezing points and maintain stability at elevated temperatures.

STORAGE & HANDLING

Propylene Glycol should be stored in a cool, dry, and well-ventilated area to prevent contamination and maintain the integrity of the solution. While the 30% aqueous concentration is not classified as flammable, proper sealing is essential to prevent moisture absorption from the atmosphere, which could alter the concentration levels.

- 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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