

PRODUCT IDENTIFICATION



Product Name: Propylene Glycol Inhibited ACS Grade

CAS Number: 57-55-6

Molecular Formula: $C_3H_8O_2$

Molecular Weight: 76.09 g/mol

Grade: ACS Grade

Purity / Concentration: 100%

Synonyms: 1,2-Propanediol, Propylene Glycol

PRODUCT OVERVIEW

Propylene Glycol Inhibited ACS Grade is a high-purity, colorless, and viscous solvent meeting the rigorous standards of the American Chemical Society. With an assay of 100.0% and trace impurities like iron at 0.01 ppm, it provides the consistent chemical performance required for sensitive analytical and industrial applications.

Grade Significance: ACS Grade signifies that this chemical meets the strict purity standards set by the American Chemical Society, ensuring it is suitable for high-precision laboratory work and analytical testing where impurity interference must be minimized.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	100.0	99.5	100.5	GC
Color (APHA)	APHA	3	—	10	APHA
Specific Gravity (20°C)	g/mL	1.0361	1.0311	1.0411	Hydrometer @ 20°C
Water Karl Fischer	%	0.1	0	0.2	Karl Fischer
Iron (Fe)	ppm	0.01	0	0.5	ICP-MS
Chlorides As Cl	ppm	0.15	0	0.5	ICP
Sulfate (SO_4^{2-})	ppm	1	0	5	ICP
Acidity As Acetic	ppm	10	0	20	Titration

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless viscous liquid	Odor	Slightly sweet odor
Form	Liquid	Boiling Point	370.8 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-76 °F (NTP, 1992)	Flash Point	210 °F (NTP, 1992)
Specific Gravity	1.036	Solubility	Highly water miscible, broad organic solvent compatibility
Molecular Formula	$C_3H_8O_2$	Molecular Weight	76.09 g/mol
Vapor Pressure (20°C)	0.1 mmHg	Viscosity (25°C)	59 cP
Refractive Index (20°C)	1.431	Density (25°C)	1.036 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Functions as a critical mobile phase component in high-performance liquid chromatography to ensure precise separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Serves as a reliable, high-purity solvent for the stabilization and delivery of active pharmaceutical ingredients in various dosage forms.
3. **Food and Beverage** — Acts as an effective moisture-retaining agent that improves product texture and extends shelf life while maintaining safety standards.
4. **Industrial Cooling** — Utilized as a non-toxic antifreeze and heat transfer fluid in systems where safety and material compatibility are essential.

STORAGE & HANDLING

Proper storage in a cool, dry, and well-ventilated area is essential to prevent moisture absorption and maintain the integrity of the high-purity profile. Because this product has a flash point of 210 °F, keeping it away from open flames and strong oxidizing agents ensures workplace safety and product stability.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent contamination.
- 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 safety 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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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