

PRODUCT IDENTIFICATION



Product Name: 40% Propylene Glycol Inhibited

CAS Number: 57-55-6

Molecular Formula: C₃H₈O₂

Molecular Weight: 76.09 g/mol

Grade: Technical Grade

Purity / Concentration: 40%

Synonyms: Propylene Glycol Inhibited Solution, Inhibited Propylene Glycol

PRODUCT OVERVIEW

Alliance Chemical's 40% Propylene Glycol Inhibited is a high-quality technical grade solution engineered for superior thermal stability and corrosion resistance. With a precise 40% concentration and low impurity profile—including iron levels below 0.2 ppm—it serves as an ideal heat transfer fluid for demanding industrial and automotive cooling systems.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial performance where reliability and cost-efficiency are prioritized over pharmaceutical or food-grade strictness.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	40	39.5	40.5	GC
Color (APHA)	APHA	3	—	10	APHA
Specific Gravity (20°C)	g/mL	1.0381	1.0331	1.0431	Hydrometer @ 20°C
Heavy Metals As Pb	ppm	≤ 2 ppm	—	—	ICP-MS
Iron (Fe)	ppm	≤ 0.2 ppm	—	—	ICP-MS
Chlorides As Cl	ppm	≤ 0.2 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°C (371°F)	Melting / Freezing Point	-59°C (-74°F)
Flash Point	104°C (219°F)	Specific Gravity	1.033 (20 °C)
Solubility	Miscible with water and ethanol	Molecular Formula	C ₃ H ₈ O ₂
Molecular Weight	76.09 g/mol	Vapor Pressure (20°C)	0.1 mmHg
Viscosity (25°C)	50 cP	Refractive Index (20°C)	1.431
Density (25°C)	1.036 g/mL	Decomposition Temp.	> 150°C

APPLICATIONS

1. **HVAC and Refrigeration** — Functions as a reliable heat transfer fluid in closed-loop systems to ensure efficient thermal regulation while preventing internal pipe corrosion.
2. **Automotive** — Utilized as a non-toxic antifreeze and coolant additive that protects engine components from freezing and overheating.
3. **Paints and Coatings** — Acts as a versatile solvent that helps control drying times and improves the application consistency of various industrial coatings.
4. **Food Processing** — Serves as a humectant and stabilizer to maintain moisture levels and product texture in specific food-grade formulations.
5. **Industrial Manufacturing** — Used as a chemical intermediate and solvent in processes requiring a stable, low-toxicity medium for heat exchange or moisture control.

STORAGE & HANDLING

Proper storage in a cool, dry, and well-ventilated area is essential to maintain the chemical purity and prevent the degradation of the inhibitors. While the product is generally stable, keeping containers tightly sealed prevents contamination and ensures the fluid remains within its specified physical 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.
- Wear 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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