

### PRODUCT IDENTIFICATION



**Product Name:** 40% Propylene Glycol Inhibited

**CAS Number:** 57-55-6

**Molecular Formula:** C<sub>3</sub>H<sub>8</sub>O<sub>2</sub>

**Molecular Weight:** 76.09 g/mol

**Grade:** Technical Grade

**Purity / Concentration:** 40%

**Synonyms:** Propylene Glycol Inhibited Solution, Inhibited Propylene Glycol

### PRODUCT OVERVIEW

Our 40% Inhibited Propylene Glycol is a high-quality technical grade solution engineered for superior thermal stability and corrosion protection. With a precise 40.3% assay and low impurity levels, including iron at 0.05 ppm, this clear, colorless liquid is an ideal choice for demanding heating and cooling applications.

**Grade Significance:** Technical Grade signifies that this product is manufactured to meet rigorous industrial standards, providing a balance of high purity and cost-effectiveness for non-pharmaceutical applications.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	40.3	39	41	Titration
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.032	—	—	ASTM D4052
Water Content	%	0.1	—	0.2	ASTM E203
Iron (Fe)	ppm	0.05	—	1	ICP-OES
Chloride (Cl <sup>-</sup> )	ppm	0.1	—	5	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	ppm	0.2	—	5	Ion Chromatography
Acidity As Acetic Acid	%	0.0010	—	0.0050	Titration
Inhibitor Wt Pct	%	2.5	2	3	GC

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

### PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, colorless liquid	<b>Odor</b>	Slightly sweet odor
<b>Boiling Point</b>	188°C (371°F)	<b>Melting / Freezing Point</b>	-59°C (-74°F)
<b>Flash Point</b>	104°C (219°F)	<b>Solubility</b>	Miscible with water and ethanol
<b>Molecular Formula</b>	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	<b>Molecular Weight</b>	76.09 g/mol
<b>Vapor Pressure (20°C)</b>	0.1 mmHg	<b>Viscosity (25°C)</b>	50 cP
<b>Refractive Index (20°C)</b>	1.431	<b>Density (25°C)</b>	1.036 g/mL
<b>Decomposition Temp.</b>	> 150°C		

## APPLICATIONS

1. **HVAC** — Used as a heat transfer fluid in closed-loop heating and cooling systems to ensure efficient thermal management. The inhibited formula prevents internal corrosion, extending the lifespan of pipes and heat exchangers.
2. **Automotive** — Functions as a non-toxic antifreeze and coolant additive that protects engine components from freezing and overheating. It provides reliable performance across a wide range of operating temperatures.
3. **Paints and Coatings** — Acts as an effective solvent and coalescing agent in industrial coatings. It helps regulate drying times and improves the overall finish and durability of the applied product.
4. **Food Processing** — Utilized as a high-performance humectant to maintain moisture levels in various food products. Its technical grade purity ensures consistent results in large-scale manufacturing processes.

## STORAGE & HANDLING

Proper storage in a cool, dry, and well-ventilated area is essential to maintain the integrity of the inhibitor package and prevent oxidation. While the product is not classified as a hazardous material, keeping containers tightly sealed prevents moisture absorption and contamination that could degrade its thermal performance.

- 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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