TECHNICAL DATA SHEET

40% Propylene Glycol Inhibited

Revised: 07/22/2026

PRODUCT IDENTIFICATION

Product Name: 40% Propylene Glycol Inhibited
CAS Number: 57-55-6
Molecular Formula: $C_3H_8O_2$
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 Gc	%	40	39.5	40.5	GC
Color (APHA)	APHA	3	—	10	APHA
Specific Gravity (20°C)	g/mL	1.014	1.011	1.017	Hydrometer @ 25°C
Water Karl Fischer	%	0.02	0	—	Karl Fischer
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)	**Solubility**	Miscible with water and ethanol
Molecular Formula	$C_3H_8O_2$	**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** — 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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