TECHNICAL DATA SHEET

Ethylene Glycol Inhibited ACS Grade

Revised: 08/10/2026

PRODUCT IDENTIFICATION

Product Name: Ethylene Glycol Inhibited ACS Grade
CAS Number: 107-21-1
Molecular Formula: $C_2H_6O_2$
Molecular Weight: 62.07 g/mol
Grade: ACS Grade
Purity / Concentration: 100%
Synonyms: Ethylene Glycol with Inhibitors, Ethylene Glycol ACS

PRODUCT OVERVIEW

Ethylene Glycol Inhibited ACS Grade is a high-purity, viscous liquid formulated with specialized inhibitors to provide superior stability and performance. With an assay of 99.93% and exceptionally low impurity levels, such as 2 APHA color and 0.1 ppm chlorides, this chemical is engineered for demanding industrial heat transfer and solvent applications.

Grade Significance: The ACS Grade designation ensures this product meets the rigorous purity standards set by the American Chemical Society, guaranteeing consistency and reliability for critical analytical and industrial processes.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	99.93	99.43	100.4	GC
Color (APHA)	APHA	2	0	5	APHA
Specific Gravity (20°C)	g/mL	1.1158	1.1108	1.1208	Hydrometer @ 20°C
Water Karl Fischer	%	0.04	0	0.05	Karl Fischer
Iron (Fe)	ppm	0.0070	0	0.1	ICP-MS
Chlorides As Cl	ppm	0.1	0	0.5	ICP
Acidity As Acetic	ppm	5	0	30	Titration
Aldehydes As Acetaldehyde	ppm	9	0	30	Spectrophotometry
Ash	ppm	10	0	40	Residue on Ignition
Deg Content	%	0.0234	0	0.05	GC
Uv Transmittance 220Nm	%T	85.3	70	—	UV Spectrophotometry
Uv Transmittance 275Nm	%T	95.2	90	—	UV Spectrophotometry
Uv Transmittance 350Nm	%T	100.0	98	—	UV Spectrophotometry

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**	387.7 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	9 °F (NTP, 1992)	**Flash Point**	232 °F (NTP, 1992)
Specific Gravity	1.113	**Solubility**	Fully miscible with water, polar organic solvents
Molecular Formula	$C_2H_6O_2$	**Molecular Weight**	62.07 g/mol
Vapor Pressure (20°C)	0.06 mmHg	**Viscosity (25°C)**	20.1 cP
Refractive Index (20°C)	1.433	**Density (25°C)**	1.113 g/mL

APPLICATIONS

1. **Automotive** — Functions as a critical component in engine cooling systems, effectively preventing freezing in cold climates and overheating during operation.
2. **Industrial Manufacturing** — Serves as a reliable heat transfer medium in closed-loop systems, maintaining thermal stability across a wide range of operating temperatures.
3. **Chemical Synthesis** — Acts as a high-quality solvent for various organic synthesis processes and chemical reactions requiring precise purity standards.
4. **Hydraulics** — Utilized in hydraulic fluid formulations to leverage its low freezing point and high boiling point, ensuring system reliability in extreme conditions.

STORAGE & HANDLING

Proper storage is essential to maintain the integrity of the inhibited formula and prevent degradation that could lead to system corrosion. Because this product is harmful if swallowed and poses risks with repeated exposure, it must be stored in a cool, well-ventilated area with secondary containment to prevent accidental ingestion or environmental contamination.

- Store in a cool, dry place away from direct sunlight.
- Use materials compatible with ethylene glycol, such as HDPE or stainless steel.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper ventilation when handling to minimize inhalation exposure.
- Wear appropriate personal protective equipment (PPE) including 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

Hazard Statements:

- H302: Harmful if swallowed
- H373: May cause damage to organs through prolonged or repeated exposure

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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