

Triethylene Glycol (TEG)



PRODUCT DESCRIPTION

Triethylene Glycol is a colorless, essentially odorless, viscous liquid with the molecular formula $C_6H_{14}O_4$ (CAS 112-27-6). Its exceptional hygroscopic character, high boiling point, and very low vapor pressure make it the preferred liquid desiccant for removing water from natural gas streams.

Ether linkages paired with terminal hydroxyl groups give TEG broad solvency and chemical versatility. Because it can be regenerated continuously through heating and condensation with minimal loss, TEG remains highly cost-effective in cyclic dehydration service. Beyond gas processing it functions as a plasticizer, solvent, humectant, and chemical intermediate.



BENEFITS



Superior Hygroscopic Properties

Exceptional water absorption capacity for natural gas dehydration and humidity control duty.



High Thermal Stability

A 288°C boiling point and <0.01 mmHg vapor pressure at 20°C keep losses low through high-temperature regeneration cycles.



Excellent Regenerability

Continuously recycled through heating and condensation for economical long-term operation.



Broad Chemical Compatibility

Miscible with water and most polar solvents; compatible with carbon steel, stainless steel, and aluminum when kept anhydrous.



Low Toxicity Profile

Low toxicity and low volatility, with documented antimicrobial activity when aerosolized.



APPLICATIONS

Gas Processing

Natural gas dehydration • CO_2 dehydration • H_2S dehydration • pipeline moisture control

HVAC & Air Treatment

Humidity control • air conditioning dehumidification • air sanitization products

Polymers & Resins

Plasticizer for vinyl polymers • unsaturated polyester resin production • polyester resins

Functional Fluids

Heat transfer fluids • hydraulic fluid additive • brake fluid formulations • antifreeze blends • lubricant formulations

Solvents & Specialty

Solvent applications • equipment cleaning • printing inks • smoke and fog machine fluids • emulsifier production • humectant • chemical intermediate



AVAILABILITY

55

GALLON DRUMS

275

GALLON TOTES

Bulk

DELIVERIES

Samples available on request. Contact us for current lead times and volume pricing.

(800) 489-2306
www.chemgroupus.com

 PRODUCT DATA

PROPERTY	TEST METHOD	VALUE
Appearance	Visual	Clear, colorless liquid
Odor	–	Mild / essentially odorless
Chemical Name	–	2,2'-[1,2-Ethanediylbis(oxy)]bis-ethanol
CAS Number	–	112-27-6
Molecular Formula	–	C ₆ H ₁₄ O ₄
Molecular Weight	–	150.17 g/mol
Purity	–	99% minimum (typical)
Specific Gravity @ 20/20°C	SDS CG-025	1.124
Boiling Point/Boiling Range	–	125-127 °C / 257-261 °F
Melting Point/Freezing Point	SDS CG-025	–7°C (19°F)
Flash Point	SDS CG-025	166°C (331°F)
Autoignition Temperature	SDS CG-025	347 °C / 657 °F
Vapor Pressure @ 20°C	–	< 0.01 mmHg
Vapor Density (Air = 1)	–	5.18
Water Solubility	–	Miscible (complete)
Lower Flammability Limit	SDS CG-025	0.9%
Upper Flammability Limit	SDS CG-025	9.2%
HMIS Rating	SDS CG-025	Health 0 • Flammability 1 • Physical Hazard 0
NFPA Rating	SDS CG-025	Health 0 • Flammability 1 • Instability 0
HS Code	–	2909.49.00
IMDG Classification	–	Non-dangerous goods

 HANDLING & STORAGE

TEG is hygroscopic and will absorb atmospheric moisture. Store in tightly sealed containers under an inert atmosphere, with a nitrogen blanket recommended, to maintain product quality and prevent corrosion of carbon steel or aluminum storage equipment.

For longer-term color stability, minimize exposure to elevated temperatures and protect from direct sunlight.

 SAFETY

TEG is combustible when preheated. Keep away from heat sources, sparks, and open flames. TEG is an eye irritant; use appropriate eye protection and wash thoroughly if contact occurs.

TEG is not classified as a dangerous good for transport under IMDG regulations.

Consult the current Safety Data Sheet for complete hazard information, exposure limits, first aid measures, and handling precautions prior to use.

The information contained herein is offered in good faith and is believed to be accurate. No warranty, express or implied, is made regarding results to be obtained from its use. The user is responsible for determining suitability for their application and for compliance with all applicable regulations.

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