

### Technical Data Sheet

Texol™ Ethylene Glycol  
Monoethylene Glycol / MEG

#### Product Description

Monoethylene glycol is a colorless, odorless, and slightly viscous liquid and miscible with water in all proportions. This grade is used where high purity is required.

Ethylene glycol is produced from ethylene, via the intermediate ethylene oxide. Ethylene oxide reacts with water to produce ethylene glycol according to the chemical equation

**Ethylene Glycol :**  
HOCH<sub>2</sub>CH<sub>2</sub>OH

**CAS Registry Number :**  
107 – 21 – 1

This reaction can be catalyzed by either acids or bases, or can occur at neutral pH under elevated temperatures. The highest yields of ethylene glycol occur at acidic or neutral pH with a large excess of water. Under these conditions, ethylene glycol yields of 90% can be achieved. The major by products are the ethylene glycol oligomers diethylene glycol, triethylene glycol, and tetraethylene glycol.

#### Applications and Uses

Monoethylene Glycol ( MEG ) can be used for applications that require chemical intermediates for resins, solvent couplers, freezing point depression, solvents, humectants and chemical intermediates. These applications are vital to the manufacture of a wide range of products, including resins; deicing fluids; heat transfer fluids; automotive antifreeze and coolants; water-based adhesives, latex paints and asphalt emulsions; electrolytic capacitors; textile fibers; paper and leather.

- Polyester resins ( fibers, containers and films )
- Resin esters as plasticizers ( adhesives, lacquers and enamels )
- Alkyd-type resins ( synthetic rubbers, adhesives, surface coatings )
- Stabilizer against gel formation
- Freezing point depression
- Deicing fluids ( aircraft, runway )
- Heat transfer fluids ( gas compressors, heating, ventilating, air conditioning, process chillers )
- All-weather automotive antifreeze and coolants
- Water-based formulations ( adhesives, latex paints, asphalt emulsions )
- Medium for suspending conductive salt in electrolytic capacitors
- Textile fibers
- Paper
- Leather
- Adhesives
- Glue

# TEXOL

## Chemical

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#### Typical Properties

Property (Unit)	Typical Value
Appearance	Essentially free of suspended matter
Monoethylene glycol, wt. % min.	99.0
Diethylene glycol, wt. % max.	0.5
Color ( APHA ) max.	10
Acidity [ as acetic acid ], wt. % max.	0.005
Chlorides ( as Cl ), ppm max.	0.1
Iron, ppm max.	0.10
Water, wt. % max.	0.10
Water solubility at 25°C	Miscible in all proportions
Molecular weight	62.07
Boiling point at 760 mm Hg, °C	197.6
Freezing point, °C	-13
Flash point ( PMCC ), °C	126.7
Specific gravity at 20/20 °C	1.1154
Specific heat at 20 °C, cal/g/ °C	0.56
Absolute viscosity at 20 °C, cP	20.9
Refractive index at 20 °C	1.4316
Autoignition Temperature °C	427
Critical Pressure Kpa	8.200
Dielectric Constant at 25°C	37.7

#### Technical Expertise

Texol experts on MEG are regionally located to respond to your needs. Whether you have a question about products, applications or regulations, Texol offers comprehensive customer and technical service.

#### Product Stewardship

Texol encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Texol products are not used in ways for which they are not intended or tested, Texol personnel will assist customers in dealing with environmental and product safety considerations. Texol literature, including Material Safety Data Sheets (MSDS), should be consulted prior to the use. MSDS are updated regularly, therefore, please request and review the most current MSDS before handling or using any product. MSDS are available from the nearest Texol sales office.