Global Mono Ethylene Glycol (MEG) Market: Information by Technology (Gas-Based, Naphtha-Based, Coal-Based, and Bio-Based), by Function (Chemical Intermediate, Solvent Coupler, Solvent, and Humectant), by Application (Polyester Fiber, PET Products, Anti-Freeze Coolant, and Industrial), and by Region (North America, Europe, Asia-Pacific, Latin America, and the Middle East & Africa)—Forecast till 2025

Market Synopsis

Monoethylene glycol (MEG) is a colorless, odorless, non-volatile liquid that is completely soluble in water and other organic solvents. MEG is produced industrially from ethylene via ethylene oxide, which is hydrated through the thermal or catalytic process. The ethylene used in the production of MEG is obtained from various sources such as naphtha, synthesis gas, coal, and biomass, wherein the gas-based technology is predominantly used in the market. The demand for the biomass-based production process for MEG is gaining popularity owing to its renewability and reducing dependence on the naphtha and coal-based sources.

MEG is one of the widely used raw materials for the manufacturing of polyester fibers and polyethylene terephthalate (PET) resins. PET resins are used in the manufacture of various products, including textiles, tire cords, PET bottles, and water containers, and films. The industrial-grade MEG is used in a broad range of applications such as stabilizers against gel formation, deicing fluids, heat transfer fluids (gas compressors, ventilating, heating, process chillers, and air conditioning), and water-based formulations (adhesives, latex paints, asphalt emulsions). The antifreeze grade MEG is primarily used in the manufacture of automotive antifreeze and coolants.

The global mono ethylene glycol (MEG) market was valued at around USD 26 billion in 2018 and is projected to register a CAGR of over 5% during the review period, 2019–2025. The prominent factor driving the growth of the global market is the increasing demand for MEG in the manufacture of polyester fibers. The polyester fibers are amongst the most widely used fibers globally, accounting for over 50% of the total fiber demand. These fibers find application in the manufacture of several textile products including clothing (specialty and protective apparels), home furnishings (bio-active textiles and interior textiles), industrial fabrics (filters, geotextiles, and roofing membranes), tire cord fabrics, and nonwoven fabrics. The demand for these fibers is increasing owing to the several advantages offered by the fibers over the traditional fibers (cotton), such as resistance to moisture, oil, stains, and water as well as high abrasion and wrinkle resistance. With the expanding textile industry and the surging demand for technical textiles, the need for polyester fibers and hence MEG is likely to increase in the years to follow.

The packaging industry is the other major end-use consumer of the MEG, wherein the MEG-based PET is used for the manufacture of water bottles, carbonated drinks bottles, and food packaging, among others. PET is lightweight and durable and can serve a variety of functions while being safe for consumers. The packaging industry is witnessing robust growth in the developing economies of Asia-Pacific and the Middle East & Africa, and this trend is expected to continue in the coming years, leading to increasing demand for PET. This is estimated to further boost the demand for MEG in the production of PET-based products and provide an impetus to the global market during the assessment period. Furthermore, large-scale consumption of the Bio-PET in the Americas and Europe and increasing adoption in the Asian countries is further expected to provide lucrative opportunities to the manufacturers of bio-based MEG manufacturers during the forecast period.
Some of the noted trends in the global mono ethylene glycol (MEG) market includes product launch and process developments, for instance, Shell Global developed a new catalytic process called OMEGA (only MEG advantage) for producing MEG from ethylene oxide which produces virtually no byproducts and achieves an efficiency of 99% conversion. This process utilizes 20% less steam and 30% less water than the traditional thermal conversion process, which reduces the carbon dioxide emission per ton of MEG produced.

The fluctuations in crude oil prices are anticipated to be a critical challenge for the manufacturers operating in the global market growth during the review period. Nevertheless, the growing popularity of bio-based mono ethylene glycol (MEG) is likely to propel the growth of the global market in the years to follow.

Global Mono Ethylene Glycol (MEG) Market Share, by End-Use Industry, 2018 (%)
Source: MRFR analysis

Regional Analysis

The global mono ethylene glycol (MEG) market has been studied across five key regions, namely Asia-Pacific, North America, Europe, the Middle East & Africa, and Latin America. Asia-Pacific accounted for the largest share of the global market in 2018, wherein China is accounting for over 35% of the total market globally. The regional market is projected to register the highest CAGR during the forecast period owing to the expanding textile and packaging industries in the regional market. The packaging industry in the region is the largest globally and is further expected to multiply on account of the increase in per capita disposable expenditure and rising demand for hygienic packaging in the pharmaceutical and food industries. Moreover, expanding the automotive industry in the region is further expected to propel the growth of the regional market. The automotive industry in the economies of India, China, Japan, South Korea, and Thailand are expected to be the major consumers of the MEG in the regional market in the years to follow.

Europe is expected to be the second-largest regional market, which is primarily attributed to the high demand for bio-based MEG for the manufacture of bio-PET. Increasing use of bio-PET in the packaging industry in the regional market owing to the stringent environmental regulations and the increased emphasis on shift from crude oil-derived products to bio-based products. A similar trend is expected to be observed in the North American market during the forecast period.

Market Segmentation

The global mono ethylene glycol (MEG) market has been segmented on the basis of technology, function, application, and region.

Based on technology, the global mono ethylene glycol (MEG) market has been classified as gas-based, naphtha-based, coal-based, bio-based, and others.

By function, the global mono ethylene glycol (MEG) market has been divided into chemical intermediate, solvent coupler, solvent, and humectant.

Based on application, the global mono ethylene glycol (MEG) market has been segmented into polyester fiber, PET products, anti-freeze coolant, industrial, and others.

The global mono ethylene glycol (MEG) market has been studied with respect to five key regions—Asia-Pacific, North America, Europe, Latin America, and the Middle East & Africa.

Key Players

Royal Dutch Shell PLC (Netherlands), Dow (US), SABIC (Saudi Arabia), Mitsubishi Chemical Corporation (Japan), Exxon Mobil Corporation (US), China Petroleum & Chemical Corporation (China), MEGlobal (UAE), Petro Rabigh (Saudi Arabia), NAN YA PLASTICS CORPORATION (Taiwan), LyondellBasell Industries Holdings BV (Netherlands), LOTTE Chemical CORPORATION (South Korea), Reliance Industries Limited (India), and India Glycols Limited (India) are some of the key players operating in the global mono ethylene glycol (MEG) market.

Intended Audience

- Mono ethylene glycol (MEG) manufacturers
- Traders and distributors of mono ethylene glycol (MEG)
- Research and development institutes
- Potential investors
- End users
- Nationalized laboratories
6.6.2 Market Estimates & Forecast, by Region, 2017–2025

7. Global Mono Ethylene Glycol (MEG) Market, by Function

7.1 Introduction

7.2 Chemical Intermediate

7.2.1 Market Estimates & Forecast, 2017–2025

7.2.2 Market Estimates & Forecast, by Region, 2017–2025

7.3 Solvent Coupler

7.3.1 Market Estimates & Forecast, 2017–2025

7.3.2 Market Estimates & Forecast, by Region, 2017–2025

7.4 Solvent

7.4.1 Market Estimates & Forecast, 2017–2025

7.4.2 Market Estimates & Forecast, by Region, 2017–2025

7.5 Others

7.5.1 Market Estimates & Forecast, 2017–2025

7.5.2 Market Estimates & Forecast, by Region, 2017–2025

8. Global Mono Ethylene Glycol (MEG) Market, by Application

8.1 Introduction

8.2 Polyester Fiber

8.2.1 Market Estimates & Forecast, 2017–2025

8.2.2 Market Estimates & Forecast, by Region, 2017–2025

8.3 PET Products

8.3.1 Market Estimates & Forecast, 2017–2025

8.3.2 Market Estimates & Forecast, by Region, 2017–2025

8.4 Anti-Freeze Coolant

8.4.1 Market Estimates & Forecast, 2017–2025

8.4.2 Market Estimates & Forecast, by Region, 2017–2025

8.5 Industrial

8.5.1 Market Estimates & Forecast, 2017–2025

8.5.2 Market Estimates & Forecast, by Region, 2017–2025

8.6 Others

8.6.1 Market Estimates & Forecast, 2017–2025

8.6.2 Market Estimates & Forecast, by Region, 2017–2025

9. Global Mono Ethylene Glycol (MEG) Market, by Region

9.1 Introduction

9.2 North America


9.2.2 Market Estimates & Forecast, by Technology, 2017–2025


9.2.4 Market Estimates & Forecast, by Application, 2017–2025

9.2.5 US

9.2.5.1 Market Estimates & Forecast, 2017–2025

9.2.5.2 Market Estimates & Forecast, by Technology, 2017–2025

9.2.5.3 Market Estimates & Forecast, by Function, 2017–2025

9.2.5.4 Market Estimates & Forecast, by Application, 2017–2025

9.2.6 Canada


9.2.6.4 Market Estimates & Forecast, by Application, 2017–2025

9.3 Europe

9.3.1 Market Estimates & Forecast, 2017–2025
9.3.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.3 Market Estimates & Forecast, by Function, 2017–2025
9.3.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.5 Germany

9.3.5.1 Market Estimates & Forecast, 2017–2025
9.3.5.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.5.3 Market Estimates & Forecast, by Function, 2017–2025
9.3.5.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.6 France

9.3.6.1 Market Estimates & Forecast, 2017–2025
9.3.6.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.6.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.7 Italy

9.3.7.1 Market Estimates & Forecast, 2017–2025
9.3.7.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.7.3 Market Estimates & Forecast, by Function, 2017–2025
9.3.7.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.8 Spain

9.3.8.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.8.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.9 UK

9.3.9.1 Market Estimates & Forecast, 2017–2025
9.3.9.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.9.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.10 Russia

9.3.10.1 Market Estimates & Forecast, 2017–2025
9.3.10.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.10.3 Market Estimates & Forecast, by Function, 2017–2025
9.3.10.4 Market Estimates & Forecast, by Application, 2017–2025

9.3.11 Rest of Europe

9.3.11.1 Market Estimates & Forecast, 2017–2025
9.3.11.2 Market Estimates & Forecast, by Technology, 2017–2025
9.3.11.3 Market Estimates & Forecast, by Function, 2017–2025
9.3.11.4 Market Estimates & Forecast, by Application, 2017–2025

9.4 Asia-Pacific

9.4.1 Market Estimates & Forecast, 2017–2025
9.4.2 Market Estimates & Forecast, by Technology, 2017–2025
9.4.4 Market Estimates & Forecast, by Application, 2017–2025

9.4.5 China

9.4.5.1 Market Estimates & Forecast, 2017–2025
9.4.5.2 Market Estimates & Forecast, by Technology, 2017–2025
9.4.5.3 Market Estimates & Forecast by Function, 2017–2025
9.4.5.4 Market Estimates & Forecast, by Application, 2017–2025

9.4.6 India
9.4.6.1 Market Estimates & Forecast, 2017–2025
9.4.6.2 Market Estimates & Forecast, by Technology, 2017–2025
9.4.6.4 Market Estimates & Forecast, by Application, 2017–2025

9.4.7 South Korea
9.4.7.1 Market Estimates & Forecast, 2017–2025
9.4.7.2 Market Estimates & Forecast, by Technology, 2017–2025
9.4.7.3 Market Estimates & Forecast by Function, 2017–2025
9.4.7.4 Market Estimates & Forecast, by Application, 2017–2025

9.4.8 Indonesia
9.4.8.2 Market Estimates & Forecast, by Technology, 2017–2025
9.4.8.4 Market Estimates & Forecast, by Application, 2017–2025

9.4.9 Australia & New Zealand
9.4.9.1 Market Estimates & Forecast, 2017–2025
9.4.9.4 Market Estimates & Forecast, by Application, 2017–2025

9.4.10 Rest of Asia-Pacific
9.4.10.1 Market Estimates & Forecast, 2017–2025
9.4.10.2 Market Estimates & Forecast, by Technology, 2017–2025
9.4.10.3 Market Estimates & Forecast by Function, 2017–2025
9.4.10.4 Market Estimates & Forecast, by Application, 2017–2025

9.5 Middle East & Africa
9.5.1 Market Estimates & Forecast, 2017–2025
9.5.2 Market Estimates & Forecast, by Technology, 2017–2025
9.5.3 Market Estimates & Forecast by Function, 2017–2025
9.5.4 Market Estimates & Forecast, by Application, 2017–2025

9.5.5 Turkey
9.5.5.1 Market Estimates & Forecast, 2017–2025
9.5.5.2 Market Estimates & Forecast, by Technology, 2017–2025
9.5.5.3 Market Estimates & Forecast by Function, 2017–2025
9.5.5.4 Market Estimates & Forecast, by Application, 2017–2025

9.5.6 Israel
9.5.6.1 Market Estimates & Forecast, 2017–2025
9.5.6.2 Market Estimates & Forecast, by Technology, 2017–2025
9.5.6.3 Market Estimates & Forecast, by Function, 2017–2025
9.5.6.4 Market Estimates & Forecast, by Application, 2017–2025

9.5.7 North Africa
9.5.7.1 Market Estimates & Forecast, 2017–2025
9.5.7.2 Market Estimates & Forecast, by Technology, 2017–2025
9.5.7.3 Market Estimates & Forecast, by Function, 2017–2025
9.5.7.4 Market Estimates & Forecast, by Application, 2017–2025
9.5.8 GCC
9.5.8.1 Market Estimates & Forecast, 2017–2025
9.5.8.2 Market Estimates & Forecast, by Technology, 2017–2025
9.5.8.3 Market Estimates & Forecast, by Function, 2017–2025
9.5.8.4 Market Estimates & Forecast, by Application, 2017–2025
9.5.9 Rest of the Middle East & Africa
9.5.9.1 Market Estimates & Forecast, 2017–2025
9.5.9.2 Market Estimates & Forecast, by Technology, 2017–2025
9.5.9.3 Market Estimates & Forecast, by Function, 2017–2025
9.5.9.4 Market Estimates & Forecast, by Application, 2017–2025
9.6 Latin America
9.6.5 Brazil
9.6.5.1 Market Estimates & Forecast, 2017–2025
9.6.5.2 Market Estimates & Forecast, by Technology, 2017–2025
9.6.5.3 Market Estimates & Forecast, by Function, 2017–2025
9.6.5.4 Market Estimates & Forecast, by Application, 2017–2025
9.6.6 Argentina
9.6.7 Mexico
9.6.7.2 Market Estimates & Forecast, by Technology, 2017–2025
9.6.7.4 Market Estimates & Forecast, by Application, 2017–2025
9.6.8 Rest of Latin America

10. Competitive Landscape
10.1 Introduction
10.2 Market Key Strategies
10.3 Key Development Analysis
(Expansions/Mergers & Acquisitions/Joint Ventures/New Product Developments/Agreements/Investments)

11. Company Profiles
11.1 Royal Dutch Shell PLC
11.1.1 Company Overview
11.1.2 Financial Overview
11.1.3 Products Offered
11.1.4 Key Developments
11.1.5 SWOT Analysis
11.1.6 Key Strategies
11.8.6 Key Strategies

11.9 NAN YA PLASTICS CORPORATION
   11.9.1 Company Overview
   11.9.2 Financial Overview
   11.9.3 Products Offered
   11.9.4 Key Developments
   11.9.5 SWOT Analysis
   11.9.6 Key Strategies

11.10 LyondellBasell Industries Holdings BV
   11.10.1 Company Overview
   11.10.2 Financial Overview
   11.10.3 Products Offered
   11.10.4 Key Developments
   11.10.5 SWOT Analysis
   11.10.6 Key Strategies

11.11 LOTTE Chemical CORPORATION
   11.11.1 Company Overview
   11.11.2 Financial Overview
   11.11.3 Products Offered
   11.11.4 Key Developments
   11.11.5 SWOT Analysis
   11.11.6 Key Strategies

11.12 Reliance Industries Limited
   11.12.1 Company Overview
   11.12.2 Financial Overview
   11.12.3 Products Offered
   11.12.4 Key Developments
   11.12.5 SWOT Analysis
   11.12.6 Key Strategies

11.13 India Glycols Limited
   11.13.1 Company Overview
   11.13.2 Financial Overview
   11.13.3 Products Offered
   11.13.4 Key Developments
   11.13.5 SWOT Analysis
   11.13.6 Key Strategies

12. Appendix

LIST OF TABLES

Table 1 Global Mono Ethylene Glycol (MEG) Market, by Region, 2017–2025
Table 2 North America: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025
Table 3 Europe: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025
Table 4 Asia-Pacific: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025
Table 5 Middle East & Africa: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025
Table 6 Latin America: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025
Table 7 Global Mono Ethylene Glycol (MEG) Technology Market, by Region, 2017–2025
Table 8 North America: Mono Ethylene Glycol (MEG) Technology Market, by Country, 2017–2025
| Table 9 | Europe: Mono Ethylene Glycol (MEG) Technology Market, by Country, 2017–2025 |
| Table 10 | Asia-Pacific: Mono Ethylene Glycol (MEG) Technology Market, by Country, 2017–2025 |
| Table 11 | Middle East & Africa: Mono Ethylene Glycol (MEG) Technology Market, by Country, 2017–2025 |
| Table 12 | Latin America: Mono Ethylene Glycol (MEG) Technology Market, by Country, 2017–2025 |
| Table 13 | Global Mono Ethylene Glycol (MEG) Function Market, by Region, 2017–2025 |
| Table 14 | North America: Mono Ethylene Glycol (MEG) Function Market, by Country, 2017–2025 |
| Table 15 | Europe: Mono Ethylene Glycol (MEG) Function Market, by Country, 2017–2025 |
| Table 16 | Asia-Pacific: Mono Ethylene Glycol (MEG) Function Market, by Country, 2017–2025 |
| Table 17 | Middle East & Africa: Mono Ethylene Glycol (MEG) Function Market, by Country, 2017–2025 |
| Table 18 | Latin America: Mono Ethylene Glycol (MEG) Function Market, by Country, 2017–2025 |
| Table 19 | Global Mono Ethylene Glycol (MEG) Function Market, by Region, 2017–2025 |
| Table 20 | North America: Mono Ethylene Glycol (MEG) Application Market, by Country, 2017–2025 |
| Table 21 | Europe: Mono Ethylene Glycol (MEG) Application Market, by Country, 2017–2025 |
| Table 22 | Asia-Pacific: Mono Ethylene Glycol (MEG) Application Market, by Country, 2017–2025 |
| Table 23 | Middle East & Africa: Mono Ethylene Glycol (MEG) Application Market, by Country, 2017–2025 |
| Table 24 | Latin America: Mono Ethylene Glycol (MEG) Application Market, by Country, 2017–2025 |
| Table 25 | Global Technology Market, by Region, 2017–2025 |
| Table 26 | Global Function Market, by Region, 2017–2025 |
| Table 27 | Global Application Market, by Region, 2017–2025 |
| Table 29 | North America: Mono Ethylene Glycol (MEG) Market, by Technology, 2017–2025 |
| Table 30 | North America: Mono Ethylene Glycol (MEG) Market, by Function, 2017–2025 |
| Table 31 | North America: Mono Ethylene Glycol (MEG) Market, by Application, 2017–2025 |
| Table 32 | Europe: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025 |
| Table 33 | Europe: Mono Ethylene Glycol (MEG) Market, by Technology, 2017–2025 |
| Table 34 | Europe: Mono Ethylene Glycol (MEG) Market, by Function, 2017–2025 |
| Table 35 | Europe: Mono Ethylene Glycol (MEG) Market, by Application, 2017–2025 |
| Table 36 | Asia-Pacific: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025 |
| Table 37 | Asia-Pacific: Mono Ethylene Glycol (MEG) Market, by Technology, 2017–2025 |
| Table 38 | Asia-Pacific: Mono Ethylene Glycol (MEG) Market, by Function, 2017–2025 |
| Table 39 | Asia-Pacific: Mono Ethylene Glycol (MEG) Market, by Application, 2017–2025 |
| Table 40 | Middle East & Africa: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025 |
| Table 41 | Middle East & Africa: Mono Ethylene Glycol (MEG) Market, by Technology, 2017–2025 |
| Table 42 | Middle East & Africa: Mono Ethylene Glycol (MEG) Market, by Function, 2017–2025 |
| Table 43 | Middle East & Africa: Mono Ethylene Glycol (MEG) Market, by Application, 2017–2025 |
| Table 44 | Latin America: Mono Ethylene Glycol (MEG) Market, by Country, 2017–2025 |
| Table 45 | Latin America: Mono Ethylene Glycol (MEG) Market, by Technology, 2017–2025 |
| Table 46 | Latin America: Mono Ethylene Glycol (MEG) Market, by Function, 2017–2025 |
| Table 47 | Latin America: Mono Ethylene Glycol (MEG) Market, by Application, 2017–2025 |

LIST OF FIGURES

FIGURE 1 Global Mono Ethylene Glycol (MEG) Market Segmentation
FIGURE 2 Forecast Research Methodology
FIGURE 3 Porter’s Five Forces Analysis of Global Mono Ethylene Glycol (MEG) Market
FIGURE 4 Value Chain/Supply Chain of Global Mono Ethylene Glycol (MEG) Market
FIGURE 5 Share of Global Mono Ethylene Glycol (MEG) Market, by Country, 2018 (%)
FIGURE 7 Global Mono Ethylene Glycol (MEG) Market Size, by Technology, 2018 (%)
FIGURE 8 Share of Global Mono Ethylene Glycol (MEG) Market, by Technology, 2017–2025
FIGURE 9 Global Mono Ethylene Glycol (MEG) Market Size, by Function, 2018 (%)
FIGURE 10 Share of Global Mono Ethylene Glycol (MEG) Market, by Function, 2017–2025
FIGURE 11 Global Mono Ethylene Glycol (MEG) Market Size, by Application, 2018 (%)
FIGURE 12 Share of Global Mono Ethylene Glycol (MEG) Market, by Application, 2017–2025