

# Methanol Market Report by Application (Formaldehyde, Dimethyl ether, Gasoline, Chloromethane, MTBE/TAME, Acetic acid, and Others), and Region 2024-2032

https://marketpublishers.com/r/M80680BA9FE5EN.html

Date: April 2024 Pages: 137 Price: US\$ 3,899.00 (Single User License) ID: M80680BA9FE5EN

# **Abstracts**

The global methanol market size reached US\$ 36.3 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 55.2 Billion by 2032, exhibiting a growth rate (CAGR) of 4.6% during 2024-2032. The rapidly expanding chemical industry, widespread product employment in manufacturing antibiotics and antifungals, significant growth in the automotive industry, and the implementation of various government initiatives are some of the major factors propelling the market.

Methanol (CH3OH), also known as wood alcohol, is a colorless, flammable liquid that is used as a solvent, fuel, and antifreeze. It is the simplest alcohol and consists of a methyl group (CH3) linked to a hydroxyl group (OH). It can be produced through several processes, including from biomass, such as wood, through a process known as destructive distillation or catalytic conversion of synthesis gas derived from natural gas or coal. Methanol is miscible in water, alcohol, ether, ketones, and other organic solvents. As a result, it is also widely used in the production of formaldehyde, acetic acid, dimethyl terephthalate (DMT), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), dimethyl ether (DME), and biodiesel.

The significant growth in the automotive industry is one of the key factors creating a positive outlook for the market. Methanol is widely used as a fuel in internal combustion engines and an antifreeze agent for automobile radiators. Moreover, the widespread product utilization in the energy sector to manufacture dimethyl ether (DME), a clean fuel that is commonly used as a substitute for propane, is favoring the market growth. Apart from this, the development and commercialization of renewable methanol, which



can be produced from carbon dioxide (CO2) captured from industrial emissions or direct air capture, are providing an impetus to the market growth. Additionally, the increasing product demand as a safer fuel alternative due to its low rate of evaporation and low radiant heat energy owing to the rising environmental concerns among consumers is acting as another growth-inducing factor. Furthermore, the widespread product utilization for the production of various chemicals, such as formaldehyde, acetic acid, methyl tert-butyl ether (MTBE), and dimethyl ether (DME), is contributing to the market growth. Other factors, including the implementation of various favorable government regulations, extensive research and development (R&D) activities, and the increasing product employment in the manufacturing of adhesives, paints are presenting remunerative growth opportunities for the market.

Methanol Market Trends/Drivers: The widespread product adoption in the chemical industry

Methanol is widely used in the chemical industry as a versatile raw material to produce various chemicals and chemical intermediates. It is widely used due to its versatility as a chemical feedstock, and its properties, such as its reactivity, solvency, and ease of handling, make it an essential component in various chemical processes. Moreover, methanol serves as a vital feedstock for producing acetic acid, a chemical used to manufacture vinyl acetate monomer (VAM), acetic anhydride, and various esters. In line with this, acetic acid and its derivatives are used to produce fibers, films, paints, solvents, and other industrial products.

Significant growth in the automotive industry

Methanol is widely used as an alternative fuel for internal combustion engines in passenger vehicles as it can be blended with gasoline in certain proportions. It also reduces emissions and improves fuel efficiency, which in turn is acting as a growth-inducing factor. Additionally, methanol is used as a fuel in professional motorsports such as drag racing and oval track racing as it offers high octane ratings and excellent knock resistance, allowing for increased engine performance. Apart from this, the widespread product utilization as an alternative power source for electric vehicles (EVs), where methanol is converted into electricity through electrochemical reactions, is supporting the market growth.

Extensive research and development (R&D) activities

The methanol market is continuously evolving due to the extensive R&D activities

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leading to various innovations. Moreover, the introduction of renewable methanol produced from non-fossil fuel feedstocks, such as biomass, industrial waste gases, or captured carbon dioxide (CO2), is propelling the market growth. Additionally, researchers are continuously working on developing advanced catalysts with improved selectivity, activity, and stability for methanol synthesis, which is positively influencing the market growth. Besides this, ongoing research and development efforts are exploring advanced technologies such as carbon dioxide utilization and biomass conversion to further expand the range of methanol production options and promote sustainability, which is providing a considerable boost to the market growth.

## Methanol Industry Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global methanol market report, along with forecasts at the global and regional levels from 2024-2032. Our report has categorized the market based on the application.

Breakup by Application:

Formaldehyde Dimethyl ether Gasoline Chloromethane MTBE/TAME Acetic acid Others

Formaldehyde dominates the methanol market

The report has provided a detailed breakup and analysis of the methanol market based on the application. This includes formaldehyde, dimethyl ether, gasoline, chloromethane, MTBE/TAME, acetic acid, and others. According to the report, formaldehyde represented the largest market segment.

Methanol is a key raw material in the production of formaldehyde, which is a colorless gas with a pungent odor. It is widely used in manufacturing resins, plastics, textiles, and various household products. Formaldehyde is also used to make various resins, including urea-formaldehyde (UF), phenol-formaldehyde (PF), and melamine-formaldehyde (MF) resins. These resins are widely employed in the manufacture of plywood, particleboard, laminates, adhesives, coatings, and composite materials. Besides this, ethanol is used commercially as a stabilizer in formaldehyde solutions and



generates hemiacetal or acetal compounds that prevent the formaldehyde's precipitation.

Breakup by Region:

China Asia Pacific (excluding China) Europe North America Latin America Middle East and Africa

China exhibits a clear dominance in the market, accounting for the largest methanol market share

The report has also provided a comprehensive analysis of all the major regional markets, which include China, Asia Pacific (excluding China), Europe, North America, Latin America, and Middle East and Africa. According to the report, China represented the largest market for methanol.

China is one of the largest consumers and producers of methanol, which is used in diverse applications ranging from fuel and energy sources to chemicals and industrial processes. Methanol serves as a vital feedstock to produce various chemicals and chemical intermediates in China. It is used in the production of formaldehyde, acetic acid, methylamines, methyl methacrylate (MMA), dimethylformamide (DMF), and other chemicals that find applications in industries such as plastics, textiles, adhesives, and coatings. Moreover, China is a significant producer and consumer of dimethyl ether (DME), which is synthesized from methanol and is used as a clean-burning alternative to diesel fuel in transportation.

## Competitive Landscape:

Several key market players are significantly investing in research and development (R&D) projects to explore innovative methods to improve methanol production processes. Additionally, the development of advanced catalysts, novel reactor designs, and optimization of process conditions to enhance methanol yield and energy efficiency and reduce environmental impacts is supporting the market growth. Furthermore, growing strategic partnerships between top companies, industry players, academic institutions, and research organizations to advance methanol-related technologies are further driving the market growth. Besides this, the leading market players and various



manufacturers are investing in R&D activities to develop advanced production methods, such as the BASF and ICI processes. Several companies are also expanding their production capacities by establishing new plants to serve the growing markets and gain a competitive advantage.

#### **Recent Developments:**

In 2023, BASF SE signed an agreement with Linde Engineering to develop a new process for producing methanol from carbon dioxide. The process uses renewable energy sources, such as wind and solar power, to convert carbon dioxide into methanol, which can then be used as a fuel or chemical feedstock.

Mitsubishi Gas Chemical became the first company in Japan to successfully synthesize natural gas into methanol. The company also developed methanol-to-olefins (MTO) technology that converts methanol to olefins, which are used as feedstocks for producing various chemicals and plastics.

In 2021, Celanese Corporation expanded its methanol production from recycled CO2 to support environmental targets. In recent years, Celanese Corporation has continued to be involved in the methanol industry, with a focus on sustainability and reducing the environmental impact of methanol production.

Key Questions Answered in This Report

1. What was the global methanol market size in 2023?

2. What will be the global methanol market outlook during the forecast period (2024-2032)?

- 3. What are the global methanol market drivers?
- 4. What are the major trends in the global methanol market?
- 5. What is the impact of COVID-19 on the global methanol market?
- 6. What is the global methanol market breakup by application?
- 7. What are the major regions in the global methanol market?



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