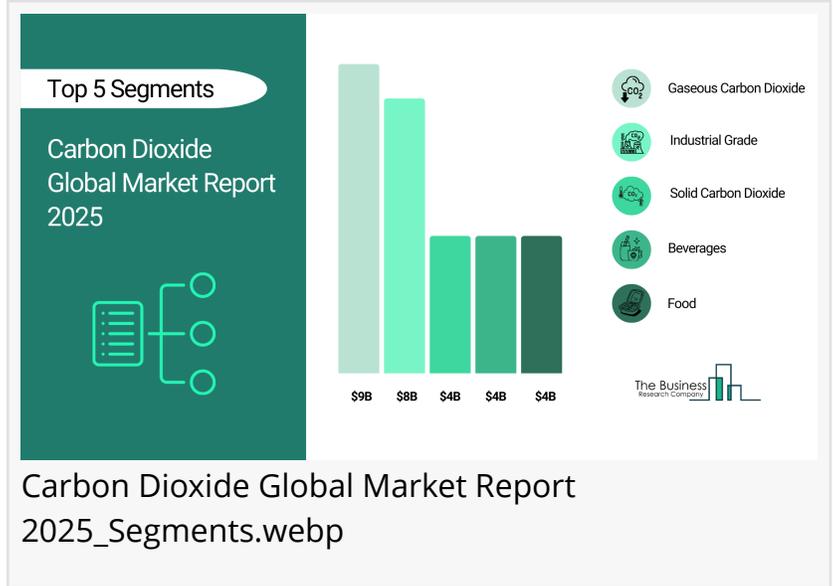


Carbon Dioxide Market In 2029

The Business Research Company's Carbon Dioxide Global Market Report 2025 – Market Size, Trends, And Global Forecast 2025-2034

LONDON, GREATER LONDON, UNITED KINGDOM, December 31, 2025 /EINPresswire.com/ -- "Carbon Dioxide Market to Surpass \$21 billion in 2029. Within the broader Oil And Gas industry, which is expected to be \$10,208 billion by 2029, the Carbon Dioxide market is estimated to account for nearly 0.2% of the total market value.



Which Will Be the Biggest Region in the Carbon Dioxide Market in 2029



The Business Research Company's Latest Report Explores Market Driver, Trends, Regional Insights - Market Sizing & Forecasts Through 2034"

The Business Research Company

Asia-Pacific will be the largest region in the carbon dioxide market in 2029, valued \$10,285 million. The market is expected to grow from \$6,030 million in 2024 at a compound annual growth rate (CAGR) of 11%. The rapid growth can be attributed to the increasing investment and welding and expansion of the healthcare and medical sector.

Which Will Be The Largest Country In The Global Carbon Dioxide Market In 2029?

China will be the largest country in the carbon dioxide

market in 2029, valued at \$5,905 million. The market is expected to grow from \$3,475 million in 2024 at a compound annual growth rate (CAGR) of 11%. The rapid growth can be attributed to the increasing adoption in metal fabrication and welding and favourable government support.

Request a free sample of the Carbon Dioxide Market report

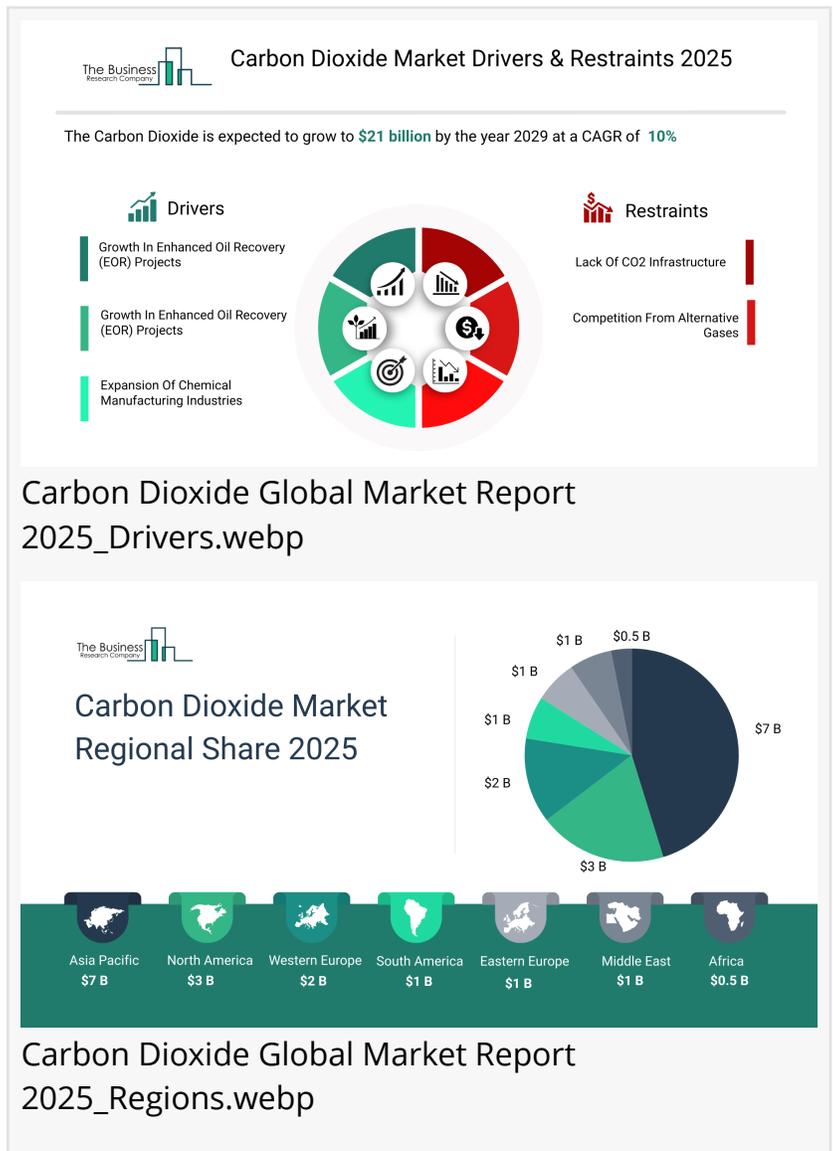
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What will be Largest Segment in the Carbon Dioxide Market in 2029?

The carbon dioxide market is segmented by product type into liquid carbon dioxide, solid carbon dioxide and gaseous carbon dioxide. The gaseous carbon dioxide market will be the largest segment of the carbon dioxide market segmented by product type, accounting for 64% or \$13,465 million of the total in 2029. The gaseous carbon dioxide market will be supported by its essential role as a shielding gas in welding, increasing usage in greenhouses to enhance plant growth, rising demand in the chemical synthesis of urea and methanol, growing use in metal fabrication processes, expanding application in pH regulation in water treatment, increasing deployment in medical respiratory therapies and rising consumption in the carbonation of beverages.

The carbon dioxide market is segmented by grade type into medical grade, food grade, industrial grade and other grades. The industrial grade market will be the largest segment of the carbon dioxide market segmented by grade type, accounting for 55% or \$11,649 million of the total in 2029. The industrial grade market will be supported by growing demand in welding and cutting operations, rising use in enhanced oil recovery (EOR) technologies, expanding application in chemical manufacturing processes, increasing role in wastewater treatment and pH control, growing industrial cleaning needs with dry ice blasting, rising construction activities requiring metal fabrication and expanding automotive and heavy machinery production.

The carbon dioxide market is segmented by application into food, beverages, oil and gas, medical, metal products, chemicals, firefighting and other applications. The beverages market will be the largest segment of the carbon dioxide market segmented by application, accounting for 26% or \$5,558 million of the total in 2029. The beverages market will be supported by growing demand for carbonated drinks and sparkling water, increasing application in food freezing and chilling, rising adoption in modified atmosphere packaging (MAP), expanding beverage production capacity worldwide, growing consumption of ready-to-eat and packaged food products, rising urbanization and changing lifestyles and stringent food preservation



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regulations.

What is the expected CAGR for the Carbon Dioxide Market leading up to 2029?

The expected CAGR for the carbon dioxide market leading up to 2029 is 10%.

What Will Be The Growth Driving Factors In The Global Carbon Dioxide Market In The Forecast Period?

The rapid growth of the global carbon dioxide market leading up to 2029 will be driven by the following key factors that are expected to reshape industrial processes, energy management, and environmental strategies worldwide.

Growth In Enhanced Oil Recovery (EOR) Projects- The growth in enhanced oil recovery (EOR) projects will become a key driver of growth in the carbon dioxide market by 2029. Carbon dioxide is injected into mature oil fields to enhance oil recovery by reducing viscosity and improving flow rates, a process known as CO₂ flooding. As the demand for oil persists, especially from aging fields, the need for CO₂ to support enhanced oil recovery (EOR) efforts is rising, driving a consistent demand for a reliable CO₂ supply. EOR operations rely on long-term CO₂ supply contracts, often spanning decades and creating stable, ongoing demand in regions with active projects. This has led companies in the EOR sector to establish long-term agreements with CO₂ producers. As a result, the growth in enhanced oil recovery (EOR) projects is anticipated to contribute to a 2.5% annual growth in the market.

Increasing Adoption In Metal Fabrication And Welding- The increasing adoption in metal fabrication and welding will emerge as a major factor driving the expansion of the carbon dioxide market by 2029. In gas metal arc welding (GMAW), particularly MIG (Metal Inert Gas) welding, CO₂ serves as a shielding gas to protect the weld pool from atmospheric contaminants that can compromise weld quality. It is commonly used alone or blended with argon for welding carbon steel and various metals. CO₂ offers a cost-effective alternative to noble gases like argon or helium, making it ideal for high-volume applications. Additionally, the adoption of automated and robotic welding systems has further increased the use of CO₂-based shielding gases, particularly argon-CO₂ blends, due to their efficiency, cost benefits and arc stability in industrial production environments. Consequently, the accelerating increasing adoption in metal fabrication and welding capabilities is projected to contribute to a 2.5% annual growth in the market.

Expansion Of Chemical Manufacturing Industries- The expansion of chemical manufacturing industries processes will serve as a key growth catalyst for the carbon dioxide market by 2029. Carbon dioxide serves as a critical feedstock in the production of industrial chemicals such as urea, methanol and salicylic acid. Chemical manufacturers are increasingly incorporating captured CO₂ into sustainable production processes, using it to develop polycarbonates, biodegradable plastics and specialty chemicals. This shift aligns with broader industry trends toward decarbonization and circular economy practices. Additionally, it plays a vital role in creating inert atmospheres within reactors and storage tanks to enhance safety and prevent

hazardous reactions—an application that grows in importance as chemical infrastructure scales. Therefore, this expansion of chemical manufacturing industries operations is projected to supporting to a 2.0% annual growth in the market.

Growing Demand For Firefighting- The growing demand for firefighting will become a significant driver contributing to the growth of the carbon dioxide market by 2029. Carbon dioxide is a highly efficient fire suppressant widely used in both portable extinguishers and fixed suppression systems. Its ability to displace oxygen and interrupt combustion without leaving residue makes it ideal for protecting sensitive environments such as data centres, laboratories and industrial equipment. Stricter global fire safety regulations are driving increased adoption of CO₂-based systems in commercial and industrial settings, including manufacturing plants, chemical storage sites, marine vessels and power facilities. These systems are particularly effective in enclosed or high-risk environments where traditional suppression methods may be unsuitable—such as engine rooms, transformer stations and server facilities. Consequently, the growing demand for firefighting strategies is projected to contributing to a 1.5% annual growth in the market.

Access the detailed Carbon Dioxide Market report here:

<https://www.thebusinessresearchcompany.com/report/carbon-dioxide-global-market-report>

What Are The [Key Growth Opportunities In The Carbon Dioxide Market in 2029?](#)

The most significant growth opportunities are anticipated in the gaseous carbon dioxide market, the industrial-grade carbon dioxide market, and the carbon dioxide for beverage market. Collectively, these segments are projected to contribute over \$12 billion in market value by 2029, driven by rising demand across food & beverage processing, enhanced utilization in industrial manufacturing, and expanding applications in healthcare, water treatment, and environmental management. This surge reflects the increasing reliance on high-purity CO₂ for carbonation, preservation, welding, and process optimization, fueling robust, sustained growth within the broader carbon dioxide industry.

The gaseous carbon dioxide market is projected to grow by \$5,034 million, the industrial-grade carbon dioxide market by \$4,313 million, and the carbon dioxide for beverage market by \$2,158 million over the next five years from 2024 to 2029.

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