

[CAGR of 4.2%] Helium Market Aims to Expand at Double-Digit Growth Rate by 2032

The global helium market is projected to reach \$4.9 billion by 2032, growing at a CAGR of 4.2% from 2023 to 2032.

WILMINGTON, DE, UNITED STATES, July 17, 2025 /EINPresswire.com/ -- Allied Market Research published a report, titled, "<u>Helium Market</u> By Phase Type (Liquid, Gaseous), By Application (Cryogenics, Pressurizing And Purging, Welding, Controlled Atmosphere, Leak Detection, Breathing Mixture, Others), By End-Use Industry (Aerospace And



Defense, Medical And Healthcare, Electricals And Electronics, Others): Global Opportunity Analysis And Industry Forecast, 2023-2032: Global Opportunity Analysis And Industry Forecast, 2023-2032".

Helium Market Growth Statistics:

According to the report, the global helium market was valued at \$3.3 billion in 2022, and is projected to reach \$4.9 billion by 2032, growing at a CAGR of 4.2% from 2023 to 2032.

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Leading Market Players:

AIR PRODUCTS AND CHEMICALS INC.

LINDE PLC

PRAXAIR, INC.

AIR LIQUIDE S.A.

GAZPROM PJSC

EXXONMOBIL CORPORATION

GULF CRYO S.A.L.

IACX ENERGY

MATHESON TRI-GAS, INC.

TAIYO NIPPON SANSO CORPORATION

The report provides a detailed analysis of these key players in the global helium market. These players have adopted different strategies such as new product launches, collaborations, expansion, joint ventures, agreements, and others to increase their market share and maintain dominant shares in different regions. The report is valuable in highlighting business performance, operating segments, product portfolio, and strategic moves of market players to showcase the competitive scenario.

Prime determinants of growth

The global helium market is experiencing growth due to several factors such as advancements in technology with respect to helium and the rise in demand for helium in the healthcare sector. However, limited helium reserves hinder market growth to some extent. Moreover, helium recycling and conservation offer remunerative opportunities for the expansion of the helium market.

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The liquid segment is expected to grow faster throughout the forecast period

Based on phase type, the gaseous segment held the highest market share in 2022, accounting for more than two-thirds of the global helium market revenue and is estimated to maintain its leadership status throughout the forecast period. This is due to helium is mixed with oxygen to create specialized breathing mixtures for deep-sea diving or in environments with high pressure, such as in deep-sea exploration or certain medical treatments. However, the liquid segment is projected to manifest the highest CAGR of 4.7% from 2023 to 2032, as Liquid helium, renowned for its remarkably low boiling point of -268.93 degrees Celsius (-452 degrees Fahrenheit), it is frequently employed as a cryogenic coolant. Its exceptional properties make it indispensable in the realm of scientific investigation, particularly in the domains of superconductivity, low-

temperature physics, and materials science.

The breathing mixture segment is expected to grow faster throughout the forecast period

Based on the application, the cryogenics segment held the highest market share in 2022, accounting for almost one third of the global helium market revenue and is likely to retain its dominance throughout the forecast period. This can be attributed to the fact that helium plays a crucial role in achieving and sustaining cryogenic temperatures essential for the extended preservation of biological samples, including eggs, embryos, and tissue samples. This method of cryogenic storage serves various purposes, such as facilitating medical research, supporting assisted reproduction techniques, and safeguarding genetic diversity. However, the controlled atmosphere segment is projected to manifest the highest CAGR of 5.3% from 2023 to 2032.

Want to Access the Statistical Data and Graphs, Key Players' Strategies: <u>https://www.alliedmarketresearch.com/helium-market/purchase-options</u>

The others segment including automotive, metal fabrication, and others are expected to grow faster throughout the forecast period

Based on the end-use industry, the electricals and electronics segment held the highest market share in 2022, accounting for more than two-fifths of the global helium market revenue and is likely to retain its dominance throughout the forecast period. This can be attributed to the fact that helium finds application in the manufacturing of fiber optic cables. Specifically, during the drawing process, where glass fibers are formed, helium acts as a protective atmosphere. However, the others including automotive, metal fabrication, and other segments is projected to manifest the highest CAGR of 4.9% from 2023 to 2032. The growth is attributed to helium-filled tires have been explored as a potential solution to enhance various aspects of tire performance. By utilizing helium gas instead of regular air, these tires offer potential advantages such as decreased weight, improved fuel efficiency, and enhanced heat dissipation.

Asia-Pacific to maintain its dominance by 2032

Based on region, Asia-Pacific collectively held the highest market share, accounting for more than two-fifths of the global helium market revenue and fastest-growing segment in terms of revenue in 2022 with the CAGR of 4.6%, accounting for more than one third of the global helium market revenue, and is expected to rule the roost in terms of revenue throughout the forecast timeframe. The segment is driven by factors such as helium play a crucial role in the aerospace and defense sectors across Asia-Pacific countries. Its unique properties, such as low density and non-reactivity, make it highly desirable as a lifting gas in airships and balloons for a variety of purposes like surveillance, research, and communication. Additionally, helium finds extensive applications in purging and pressurizing fuel tanks, rocket engines, and acts as an effective cooling medium in nuclear reactors.

For More Details: <u>https://www.prnewswire.com/news-releases/helium-market-to-reach-4-9-billion-globally-by-2032-at-4-2-cagr-allied-market-research-301886277.html</u>

KEY FINDINGS OF THE STUDY:

On the basis of phase type, the gaseous segment emerged as the global leader with around more than two third of the global market share in 2022 and is anticipated to be the largest market during the forecast period.

On the basis of application, the cryogenics segment emerged as the global leader by acquiring around almost one third of the global market share in 2022 and is anticipated to be the largest market during the forecast period.

On the basis of end-use industry, the electricals and electronics registered the highest market share of around more than one third of global market share and is projected to maintain the same during the forecast period.

On the basis of region, Asia-Pacific registered the highest market share of nearly one third of the market share and is projected to maintain the same during the forecast period.

Historical Trends of Helium:

In 1868 French astronomer Pierre Janssen and English astronomer Norman Lockyer independently observe a yellow line in the solar spectrum during a solar eclipse. They attribute this line to a new element, which they named helium after the Greek word "helios" meaning the sun.

In 1903 The U.S. becomes the world's leading producer of helium when large reserves are found in natural gas fields in Kansas. Helium extraction begins in earnest, and the U.S. establishes a strategic helium reserve.

1908: Dutch physicist Heike Kamerlingh Onnes successfully liquefies helium for the first time. He achieves this by subjecting helium gas to extremely low temperatures, reaching just a few degrees above absolute zero (-273.15 degrees Celsius or -459.67 degrees Fahrenheit). He successfully liquefies helium by cooling it to extremely low temperatures.

In 1881 Italian physicist Luigi Palmieri detected helium on Earth for the first time through its D3 spectral line, when he analyzed a material that had been sublimated during a recent eruption of Mount Vesuvius.

The Helium Privatization Act of 1996 mandated the U.S. government to sell a large portion of the National Helium Reserve. However, the law faced criticism as the formula-based sale price was much lower than the market price of helium, leading to concerns and labeling it as a "fiasco." In

2013, the bill was amended to introduce auctions as a method for selling helium.

In 2020, the sustainability of helium production, supply, and use was assessed using the WORLD7 integrated model. The use of helium is concluded to be unsustainable with respect to long-term supply security, due to the lack of significant recycling.

Technology Trend Analysis:

Helium recovery and purification technologies focus on efficiently extracting helium from natural gas fields, where it is often found in trace amounts. Advanced systems, such as cryogenic separation and pressure swing adsorption, improve helium recovery rates and purify the gas for use in various industries. These innovations help maximize supply, reduce waste, and ensure a more sustainable and cost-effective helium supply, addressing growing demand across sectors such as healthcare, electronics, and aerospace.

Helium plays a crucial role in cryogenic applications, particularly in cooling superconducting magnets used in MRI machines and particle accelerators. As these systems require extremely low temperatures to function, helium's ability to reach near absolute zero is essential. Ongoing advancements in cryogenic storage and cooling technologies aim to improve efficiency, reduce costs, and enhance the reliability of helium-dependent systems, driving innovation in medical imaging, scientific research, and high-tech industries.

The growing use of helium in quantum computing is driven by its crucial role in cooling quantum processors. Helium, particularly in its liquid form, is used to maintain the extremely low temperatures required for superconducting qubits to function efficiently. As quantum computing continues to advance, the demand for helium increases, driving innovations in its application for cooling systems, while supporting the development of faster and more powerful quantum technologies.

Advancements in helium leak detection technologies have significantly improved safety and efficiency in industries such as semiconductor manufacturing and aerospace. These technologies use highly sensitive instruments, such as mass spectrometers and ultra-sensitive detectors, to identify even the smallest leaks in helium systems. This ensures the proper functioning of critical equipment, minimizes helium wastage, and prevents costly damage or operational disruptions, especially in high-precision applications where helium is essential for cooling and pressurization.

Access Full Summary Report: <u>https://www.alliedmarketresearch.com/helium-market-A13665</u>

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