

# Helium-3 Market Size Expected to Reach USD 212,123.19 thousand with Growing CAGR of 2.9% by 2029

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EINPresswire.com/ -- Data Bridge Market Research announces the release of the report [Helium-3 Market Size, Share & Trends Analysis Report](#). Market research report such as [Helium-3](#) Market report proves to be

an ideal solution when it comes to a better understanding and lead the business growth. Market definitions, segmentation, applications, and value chain structure of this industry are all mentioned in the Helium-3 Market report. This Helium-3 Market report provides current as well as upcoming technical and financial details of the industry. According to this report, the market renovation will mainly take place due to the actions of key players or brands like developments, product launches, joint ventures, mergers, and acquisitions. The company profiles of all the key players and brands that are dominating this Helium-3 Market have been taken into consideration here.

Helium-3 market report presents complete overview of the market where it covers various aspects such as product definition, segmentation based on various parameters, and the prevailing vendor landscape. The report focuses on the Helium-3 market size, segment size (mainly covering product type, application, and geography), competitor landscape, recent status, and development trends. Furthermore, the report provides detailed cost analysis, supply chain. Technological innovation and advancement will further optimize the performance of the product, making it more widely used in downstream applications. Moreover, Consumer behaviour analysis and market dynamics (drivers, restraints, opportunities) provides crucial information for knowing the Helium-3 market.

Helium-3 Market Analysis and Insights



The [global helium-3 market](#) is expected to grow significantly in the forecast period of 2022 to 2029. Data Bridge Market Research analyses that the market is growing with a CAGR of 2.9% in the forecast period of 2022 to 2029 and is expected to reach USD 212,123.19 thousand by 2029. The major factor driving the growth of the helium-3 market is the continuous deployment of detecting equipment. Magnetic Resonance Imaging (MRI) and other medical imaging modalities are gaining prominence and wide application scope of helium-3.

Helium-3 is a primordial substance found in Earth's mantle and is a light and stable isotope of helium comprising two protons and one neutron. Helium-3 comprises more protons than neutrons, making it the only stable isotope of any element. Helium-3 is considered to be a naturally nucleogenic and cosmogenic nuclide. Helium-3, an isotope of helium, is a nonradioactive, nontoxic and inert gas. Helium-3 accounts for about 0.0001% of the helium on earth. However, it is present in abundance on the moon. The sun has been emitting helium-3 as a waste product for billions of years. Helium-3 is used in national security, medicine, research and homeland security.

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## Market Definition

The continuous deployment of detecting equipment is an important driver for the global helium-3 market. Magnetic Resonance Imaging (MRI) and other medical imaging modalities are gaining prominence and the wide application scope of helium-3 is expected to propel the growth of the global helium-3 market. The major restraints that may negatively impact the global helium-3 market are the scarcity of helium-3 on the planet and the extraction of helium-3 necessitates a large quantity of energy and heavy mining equipment. The extraction of helium-3 from the lunar surface is becoming more important and is expected to provide an opportunity in the global helium-3 market. However, a rising number of issues regarding the extraction of helium-3 from lunar surfaces is projected to challenge the global helium-3 market growth.

## Recent Development

In October 2018, according to VacuTec MeBtechnik GmbH, the neutron detectors 70 060 - 70 065 were proportional counter tubes filled with Helium-3 for optimal thermal neutron sensitivity. Because of its great neutron sensitivity and relatively low Gamma-radiation sensitivity, it is excellent for portable neutron detectors and neutron measurements in tiny cavities or pipelines.

In September 2021, Laurentis Energy Partners began production of a Helium-3 isotope used in medical imaging. He-3 is a non-toxic inhalant used to assess lung function. After inhaling the hyperpolarized He-3 gas, gas mixes may be scanned using a Magnetic Resonance Imaging (MRI)

scanner to generate detailed anatomical and functional pictures of lung breathing. This innovative approach enables the identification and treatment of a wide range of chronic respiratory disorders.

## Competitive Landscape and Global Helium-3 market Share Analysis

Global helium-3 market competitive landscape provides details of competitors. Details included are company overview, company financials, revenue generated, market potential, investment in research and development, new market initiatives, production sites and facilities, company strengths and weaknesses, product launch, product trials pipelines, product approvals, patents, product width and breadth, application dominance, technology lifeline curve. The above data points provided are only related to the companies focus on the global helium-3 market.

Some of the prominent participants operating in the global helium-3 market are ISOFLEX, Raims Ltd, LND, INC, Chemgas, Laurentis Energy Partners Inc., Air Liquide, Savannah River Site, Space Industries and Federal state unitary enterprise <<Production Association <<MAYAK>>.

## Global Helium-3 Market Dynamics

### Opportunities

The extraction of Helium-3 from lunar surfaces is becoming more important

In recent decades, science fiction and fact have been motivated by the concept of collecting a clean and efficient kind of energy from the Moon. The solar wind has assaulted the Moon with massive amounts of Helium-3, unlike Earth, which is shielded by its magnetic field. Because it is not radioactive and does not create hazardous waste, it is anticipated that this isotope might supply safer nuclear energy in a fusion reactor. Helium-3 concentrations on the Moon's surface are on the order of 0.01 ppm. Several people have advocated exploring the moon, mining lunar regolith and utilizing helium-3 for fusion. Because of the low quantities of helium-3, any mining equipment would have to handle a vast amount of regolith. Some ideas have recommended that helium-3 extraction be tacked onto a bigger mining and development project.

### Increased emphasis on its potential as a nuclear power plant fuel

Helium-3 ( $\text{He}3$ ) is employed as a nuclear fusion fuel in current fusion research. Scientists have been striving to develop nuclear power using nuclear fusion rather than nuclear fission due to radioactivity and nuclear waste. The same energy source that powers the Sun and other stars are used in nuclear fusion. One possible approach is to employ helium-3 and deuterium as fuel in "aneutronic" (no neutron) fusion reactors. When helium-3 and deuterium fuse to form regular helium and a proton, less energy is wasted and the process is simpler to manage. Nuclear fusion reactors employing helium-3 might thus provide a very efficient kind of nuclear power with almost little waste or radiation, even though the protons produced have a charge. Because the proton can be confined using electric and magnetic fields, direct electric generation is twice as

efficient as thermal power generation.

The Study Is Segmented By Following:

The global helium-3 market is categorized based on type, product type, application and end-use. The growth amongst these segments will help you analyze major growth segments in the industries and provide the users with a valuable market overview and market insights to make strategic decisions to identify core market applications.

Type

Ultra-high purity grade helium

High purity grade helium

Based on type, the global helium-3 market is classified into two segments: ultra high purity grade helium and high purity grade helium.

Product Type

Gas

Liquid

Based on product type, the global helium-3 market is classified into gas and liquid.

Application

Oil and Gas

Defense

Power Plant

Medical

Based on the application, the global helium-3 market is classified into oil and gas, defense, power plant, medical and others.

End-Use

NMR

Border Security

Fusion Research Labs

Access Full Report, Click Here: <https://www.databridgemarketresearch.com/reports/global-helium-3-market>

Research Methodology

Data collection and base year analysis are done using data collection modules with large sample sizes. The market data is analyzed and estimated using market statistical and coherent models. In addition, market share analysis and key trend analysis are the major success factors in the market report. The key research methodology used by the DBMR research team is data triangulation which involves data mining, analysis of the impact of data variables on the market and primary (industry expert) validation. Data models include Vendor Positioning grids, Market Time Line Analysis, Market Overview and Guide, Company Positioning grids, Company Market Share Analysis, Standards of Measurement, Global Vs. Regional and Vendor Share Analysis. Please request an analyst call in case of further inquiry.

#### Key Questions Answered in This Report:

How does our product and services portfolio compare to leading competitors?  
What are the key developments in customer demand given the changing economy?  
What are the new pricing and consumption models in the marketplace and how should we align our portfolio?  
What are the key decision drivers for service buyers?  
How can we accelerate our bidding process?  
What is the impact of COVID-19 on this Market?  
What are the top strategies that companies adopt in this Market?  
What are the challenges faced by SMEs and prominent vendors in this Market?  
Which region has the highest investments in this Market?  
What are the latest research and activities in this Market?  
Who are the prominent players in this Market?  
What is the potential of this Helium-3 Market?

#### TOC of Global Helium-3 Market:

**Market Penetration:** Comprehensive information on the product portfolios of the top players in the Helium-3 Market.

**Product Development/Innovation:** Detailed insights on the upcoming technologies, R&D activities, and product launches in the market.

**Competitive Assessment:** In-depth assessment of the market strategies, geographic and business segments of the leading players in the Helium-3 market.

**Market Development:** Comprehensive information about emerging market. This report analyses the market for various segments across geographies.

**Market Diversification:** Exhaustive information about new products, untapped geographies, recent developments, and investments in the Helium-3 Market.

Market Growth: The growth factors of the market are discussed where the different users of the market are described in detail.

Market Segmentation: Data and information by market player, by region, by type, by application, etc and custom research can be added.

Appendix: The final of the report contains conclusion part where the industrial experts opinions are included.

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### About Data Bridge Market Research:

Data Bridge Market Research Pvt Ltd is a multinational management consulting firm with offices in India and Canada. As an innovative and neoteric market analysis and advisory company with unmatched durability level and advanced approaches. We are committed to uncover the best consumer prospects and to foster useful knowledge for your company to succeed in the market.

Data Bridge Market Research is a result of sheer wisdom and practice that was conceived and built-in Pune in the year 2015. The company came into existence from the healthcare department with far fewer employees intending to cover the whole market while providing the best class analysis. Later, the company widened its departments, as well as expands their reach by opening a new office in Gurugram location in the year 2018, where a team of highly qualified personnel joins hands for the growth of the company. "Even in the tough times of COVID-19 where the Virus slowed down everything around the world, the dedicated Team of Data Bridge Market Research worked round the clock to provide quality and support to our client base, which also tells about the excellence in our sleeve."

Data Bridge Market Research has over 500 analysts working in different industries. We have catered more than 40% of the fortune 500 companies globally and have a network of more than 5000+ clientele around the globe.

Sopan Gedam

Data Bridge Market Research

+ +1 888-387-2818

[email us here](#)

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