

Ammonia Market Study

About Us

Straits Research Pvt Ltd is a leading market research firm offering comprehensive insights on market demand, trends, growth prospects and regional analysis. With over 35 years of combined experience, we provide premium qualitative insights on consumer preferences, regulatory landscape, and technological advancements along with quantitative insights on industry market size, global economic scenario and revenue opportunities. These reports are backed by high-quality data sourced from primary sources and large secondary databases. With analyst perspectives and insights included in every report, Straits Research delivers comprehensive market intelligence and detailed analysis to help clients make informed decisions.

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CF Industries Holdings Inc

Yara International

Togliattiazot

QAFCO

Koch Industries Inc

SABIC

BASF SE

CSBP Limited

Asahi Kasei Corp

EuroChem

IFFCO

OCI Global

Group DF

Dyno Nobel

Nutrien

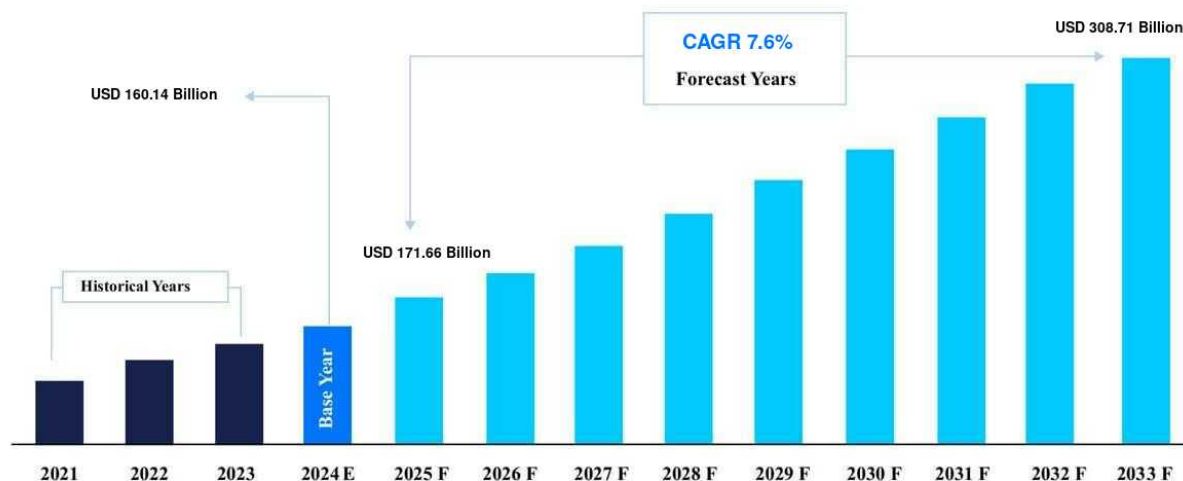
Note: More company profiles available on full reports.

Top 5 Company Market Share



Total
41%

Top 5 company market share



Source: Straits Research

Emerging Countries

United States

Russia

China

Emerging Companies

CF Industries Holdings Inc

Yara International

Togliattiazot

Market Trends

Growth Trends

- Increasing demand for ammonia in the agriculture sector for the production of nitrogen fertilizers.
- Rise in demand for ammonia in the plastics industry.
- Technological advancements lead to safer and more efficient production processes.
- Increasing adoption of green and sustainable production methods.
- Growth of end-use industries such as textiles, pharmaceuticals, and cleaning products.
- Industrial expansion in developing economies leads to an increase in demand.
- Increased investments in research and development for alternative and more effective uses of ammonia.

Factors considered while calculating market size and share

- Production volume and capacity of ammonia at a global and regional level.
- Demand and consumption of ammonia in various industries, including agricultural, textile, plastic, pharmaceuticals, etc.
- Global and regional import and export of ammonia.
- Number of manufacturers and their market reach.
- Market pricing trends of ammonia.
- Government policies and regulations impacting the ammonia market.
- Investment in Research and Development (R&D) in the field.

Key Market Indicators

- Growth in the agriculture sector, as ammonia is used as a key ingredient in fertilizers.
- Fluctuation in raw material prices affecting the cost of production, such as natural gas, a primary raw material for ammonia synthesis.
- Market penetration of key players and their market share.
- Macroeconomic indicators such as GDP, industrial growth, and population growth.
- Industrial demand and usage trends.
- Evolving environmental regulations related to ammonia production and usage.
- Level of technological innovation and its adoption in the sector.

Production is energy-intensive and contributes to greenhouse gas emissions and soil degradation

The production of ammonia is energy-intensive, primarily due to the Haber-Bosch process, the predominant method used for synthesizing ammonia on an industrial scale. This process consumes significant energy and emits greenhouse gases such as carbon dioxide (CO₂).

- The downside to this technology is the high greenhouse gas emissions, surpassing 2.16 kgCO₂-eq/kg NH₃, and high amounts of energy usage of over 30 GJ/ton NH₃, mainly due to the strict operational conditions at high temperature and pressure.

Market Trends

Production of decarbonized ammonia

The U.S. government is promoting the production of decarbonized ammonia by funding the manufacturers, which will further lead to advancement in ammonia production projects:

- For instance, as per stated by the Ammonia Energy Association in January 2025, GTI Energy, Blue Sky Infrastructure, and Aker Carbon Capture will start a USD 1.5 million pre-FEED study to apply CCS to steam methane reforming (SMR) -based ammonia production at the Mosaic Faustina facility in Louisiana
- This Mosaic plant is one of North America's largest ammonia production facilities, with a capacity of 500,000 tons per year. This ammonia is immediately used onsite to produce DAP and MAP fertilisers

Every ton of ammonia produced using grey hydrogen emits around 2-3 tons of direct CO₂e. For context, this is almost twice as carbon-intensive as crude steel and roughly four times that of cement. Moreover, ammonia plants that use coal gasification for hydrogen production have an even higher emission intensity of nearly 4 tons of CO₂e per ton of ammonia produced. Overall, ammonia synthesis is the largest CO₂ emitter of all chemical industry processes.

Shift towards sustainable and renewable energy sources (green ammonia)

Green ammonia, also known as renewable or carbon-neutral ammonia, is produced using renewable energy sources, such as wind, solar, or hydroelectric power, to generate hydrogen through water electrolysis. Moreover, green ammonia aligns with global efforts to combat climate change and reduce greenhouse gas emissions.

- For instance, in November 2024, China's Huading New Energy Co. Ltd (HDsolar) signed a memorandum of understanding with Jordan's Ministry of Energy to study a green hydrogen project aimed at producing 400,000 tonnes of green ammonia annually

In the sustainable development scenario, the sector adopts the technologies and policies required to put it on a pathway aligned with the goals of the Paris Agreement. The Net Zero Emissions by 2050 Scenario describes a trajectory for the ammonia industry that is compatible with the energy system, reaching net-zero emissions globally by 2050.

Market Segments

By Type

Liquid ammonia is the dominant sub-segment, accounting for approximately 65-70% of the market share. It is extensively utilized in agriculture for fertilizer production and in a range of industrial applications.



63%

Liquid ammonia

By End Use

Agriculture is the leading end-user segment, representing around XX% of the global ammonia market. Ammonia is primarily used in fertilizers to boost crop productivity.



XX%

Agriculture

By Sales Channel

Direct sales is the largest sub-segment, making up roughly XX% of ammonia sales, particularly in industrial applications where bulk buying is typical.



XX%

Direct sales

Regional Overview

North America

The U.S. holds a market share of approximately 20-25% of the global ammonia market, driven by its role as a leading producer and consumer. Ammonia is primarily utilized in agriculture (fertilizers), industrial applications, and chemicals, with several large production plants located in the Gulf Coast region.



66%

United States Market Share

Europe

Germany holds approximately 15–20% of the global ammonia market, and the demand for low-emission ammonia in Germany is expected to increase significantly in the coming years.



25%

Germany Market Share

APAC

China holds about XX% of the global ammonia market, being one of the largest consumers and producers. The country's vast agricultural sector drives ammonia demand for fertilizer production, while its growing industrial sector further boosts consumption.



XX%

China Market Share

Regional Overview

Middle East and Africa

Ammonia demand in South Africa is primarily driven by its agricultural sector, where it plays a crucial role in fertilizer production. Additionally, the country's industrial applications, along with the growth of other sectors such as mining and chemicals, contribute to increasing ammonia consumption.



XX%

South Africa Market Share

LATAM

Brazil is a leading consumer of ammonia, driven by its vast agricultural land and heavy reliance on fertilizers to support crop production. The country's extensive farming sector significantly fuels the demand for ammonia, making it a key component in Brazil's agricultural practices.



XX%

Brazil Market Share

Company Profiles

Companies	Websites	Headquarters	Establisheds	Key Executives	Revenues
CF Industries Holdings Inc	https://www.cfindustries.com/	Deerfield, Illinois, USA	1946	Tony Will (CEO)	\$8.7 billion
Yara International	https://www.yara.com/	Oslo, Norway	1905	Svein Tore Holsether (President & CEO)	\$19.8 billion
Togliattiazot	http://www.toaz.ru/	Togliatti, Russia	1976	Vadim Zhukov (CEO)	\$4.5 billion
QAFCO	https://www.qafco.com/	Doha, Qatar	1969	Eng. Khalid Al-Sulaiti (CEO)	\$3.2 billion
Koch Industries Inc	https://www.kochind.com/	Wichita, Kansas, USA	1940	Charles G. Koch (Chairman & CEO)	\$115 billion

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