Naphtha Market Size and Share Outlook - Forecast Trends and Growth Analysis Report (2025-2034)

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Report description:

The global naphtha market was valued at USD 175.24 Billion in 2024 . The industry is expected to grow at a CAGR of 4.20% during the forecast period of 2025-2034 to reach a value of USD 264.43 Billion by 2034 .

Growth in the naphtha market is driven by innovative use-cases in low-emission fuels, petrochemicals, and bio-naphtha blends. As countries transition towards energy diversification, naphtha is surfacing as a flexible feedstock that aligns with industrial decarbonisation plans. According to industry reports, in financial year 2023, the consumption volume of naphtha was the highest in March 2023 amounting to nearly 1.2 million metric tons. India has also launched a strategic naphtha-blending initiative within its National Bio-Energy Programme to curb refinery emissions by a significant extent.

Saudi Aramco has also initiated pilot projects to convert surplus natural gas into naphtha-based fuels via advanced hydrocracking techniques. These projects, supported under the Kingdom's Vision 2030 reforms, aim to balance feedstock flexibility, boosting the naphtha market export value. Meanwhile, South Korea is repurposing naphtha into synthetic aviation fuels through catalytic pyrolysis, a process co-funded by the Ministry of Industry and Mineral Resources.

The naphtha market is increasingly becoming B2B-focused, with downstream manufacturers demanding cleaner variants, digital traceability, and carbon scoring of shipments. Companies are exploring naphtha as a hydrogen carrier in decentralised fuel-cell grids. This shift is opening new opportunities for private-public collaboration, especially in Asia Pacific and the Middle East regions. While conventional uses in ethylene production remain constant, stakeholders are transitioning toward circular value chains where naphtha is no longer a fuel but used as a transitional chemical.

Key Trends and Recent Developments

May 2024

ExxonMobil acquired multiple cargoes of naphtha for its recently opened petrochemical complex in southern China. In the short term, the new facility is expected to boost Asian naphtha refining margins, which are already bolstered by slower Russian supply, and increase demand for the petrochemical feedstock.

February 2024

In order to increase the efficiency of light olefin production and reduce CO2 emissions per metric tonne of olefin produced, Honeywell revealed a revolutionary new naphtha to ethane and propane (NEP) process.

October 2023

Russia surpassed UAE to become India's top naphtha supplier, accounting for 37% of India's naphtha imports in January-September 2023.

March 2023

S-Oil Shaheen project aims to build petrochemical facilities for S-Oil Corp, the Korean unit of Saudi Arabian Oil Co, involving the construction of the world's biggest naphtha-fed steam cracker.

Bio-Naphtha Integration Initiatives

Governments are pushing bio-naphtha as a viable drop-in fuel, transforming the naphtha value chain. For example, Neste Oil, produces and sells renewable naphtha commercially to corporate clients. NExBTL renewable naphtha can be utilised as a biocomponent for petrol and as a feedstock for the production of bioplastics. EU-funded "BIO-TIC" programmes are enabling smaller refineries to retrofit existing naphtha crackers to handle renewable feedstock. This shift supports cross-sectoral partnerships, especially in the automotive and packaging industries. As mandates on plastic origin tighten, bio-naphtha is expected to become a regulatory lever as well as a competitive differentiator, especially in markets like France, Germany, and Japan, where scope-3 compliance is becoming mandatory.

Petrochemical Demand from Asia

Asia remains a key driver in global naphtha demand, led by Japan and South Korea's aggressive expansion in olefins and aromatics production. These are designed to handle flexible feedstocks while enabling faster grade switching in output polymers. Nearly four million kilolitres of naphtha were imported by Japan from other Asian nations in 2022. South Korea was the country that imported the most naphtha, at over 2.1 million kilolitres. Meanwhile, the Indian government has also included advanced naphtha distillation units under its Production-Linked Incentive (PLI) scheme. These initiatives aim to localise high-value downstream manufacturing.

Low-Carbon Certification and Digital Tracking

To address carbon transparency, firms are digitising naphtha supply chains using blockchain-led platforms, boosting the overall naphtha market dynamics. For example, Port of Rotterdam has launched a blockchain-led fuel tracing system, with verified carbon lifecycle scores being used in downstream procurement of naphtha-derived chemicals. The initiative feeds into Rotterdam's Digital Twin program. Similarly, Japan is now mandating real-time digital MRV (Monitoring, Reporting, Verification) systems on all petrochemical imports. This focus on carbon-certified naphtha opens new possibilities for carbon trading, enabling producers to monetise sustainability performance beyond traditional product margins. Firms are also exploring integration of lifecycle emission

scores directly into procurement APIs, allowing buyers to auto-select sustainable feedstock at the contract stage.

Naphtha in Decentralised Hydrogen Carriers

Naphtha is emerging as an interim hydrogen carrier, owing to its high hydrogen-to-carbon ratio. Unlike pure hydrogen, which requires high-pressure or cryogenic storage, naphtha can be transported using conventional fuel supply chains, reducing upfront infrastructure costs. Researchers in Europe and Asia are developing modular reforming units that can extract hydrogen from light naphtha with minimal emissions. This approach is gaining traction in decentralised power grids and backup energy systems, boosting the naphtha market, especially in regions lacking advanced hydrogen infrastructure. Moreover, blending hydrogen-rich naphtha into existing gas turbines offers a transitional pathway toward cleaner combustion in industrial settings.

Niche Use-Cases in Specialty Chemicals

High-purity naphtha is being rerouted into specialty chemical applications like pharmaceutical intermediates and electronic-grade solvents, boosting the naphtha market development. With rising demand from the semiconductor sector, particularly in Taiwan and South Korea, these niche use-cases offer better margins and lower exposure to fuel-price volatility. Government support in the form of tax credits for clean-room grade materials in South Korea is also encouraging manufacturers to pursue purity-driven naphtha streams. This segmentation strategy offers a buffer against cyclical downturns in traditional petrochemicals.

Global Naphtha Industry Segmentation

The EMR's report titled "Global Naphtha Market Report and Forecast 2025-2034" offers a detailed analysis of the market based on the following segments:

Market Breakup by Type

- Light
- Heavy

Key Insight: The global naphtha market is broadly segmented into light and heavy naphtha, each serving distinct and evolving industrial functions. Light naphtha is primarily favoured for its role in petrochemical integration, particularly in steam crackers producing ethylene and propylene. Its higher hydrogen content also makes it suitable for decentralised hydrogen production, aligning with emerging clean energy goals. In contrast, heavy naphtha is gaining momentum through innovations in jet fuel precursors and aromatics production. Advancements in hydrocracking and catalytic reforming technologies are enabling refiners to unlock greater value from heavy naphtha streams, especially in high-performance fuels and chemical derivatives used in aviation and automotive sectors.

Market Breakup by End Use

- Petrochemicals
- Agriculture
- Paints and Coatings
- Aerospace
- Others

Key Insight: Petrochemicals remain dominant in the naphtha market, backed by massive cracker expansions. Agriculture is accelerating due to the bio-naphtha incorporation in fertilisers. Paints and coatings are leveraging naphtha-based solvents for

performance upgrades, while aerospace is exploring high-purity naphtha in fuel innovation. The "others" category is also evolving, incorporating battery materials and electronic-grade applications.

Market Breakup by Region

- North America
- Europe
- Asia Pacific
- Latin America
- Middle East and Africa

Key Insight: Asia Pacific dominates the naphtha market revenue share due to entrenched downstream industries and rapid capacity expansions. Middle East and Africa are catching up fast with investments in integrated complexes and export linkages. North America maintains steady output, driven by shale-based naphtha exports, while Europe is pivoting towards bio-naphtha integration under its Green Deal. Latin America is revisiting mothballed refineries, aiming to reduce dependency on imports. Each region has its niche be it scale, specialisation, or sustainability alignment.

Global Naphtha Market Share

By Type, Light Naphtha Continues to Dominate the Industry

Light naphtha continues to dominate the naphtha market due to its widespread use in petrochemical steam crackers, where it serves as a primary feedstock for ethylene and propylene. Its higher hydrogen content makes it suitable for reforming into high-octane gasoline components as well. Major refiners across China and India are upgrading their catalytic reformers to handle larger volumes of light naphtha, particularly as vehicle emission standards tighten. Moreover, light naphtha is witnessing growing application in decentralised hydrogen production, particularly across research hubs in Europe.

Heavy naphtha is growing rapidly in the global naphtha industry largely due to rising demand from the automotive and aerospace sectors for high-performance fuels and solvents. Recent investments by Mitsubishi and Saudi Aramco into hydrocracking facilities are tailored to maximise yields from heavy naphtha streams. It is also being prioritised in integrated refinery-petrochemical complexes, where its carbon-rich profile supports aromatics production. Additionally, technological advancements in fluid catalytic cracking (FCC) are improving the conversion rates of heavy naphtha into high-value products.

By End Use, Petrochemicals Secure the Dominant Share of the Global Market Revenue

The petrochemical industry has largely contributed to the growing naphtha demand, particularly in Asia Pacific, where new cracker installations are absorbing unprecedented volumes of the feedstock. Ethylene and propylene output from naphtha has enabled downstream industries like plastics, fibres, and elastomers to flourish. In China and South Korea, integration of naphtha crackers within industrial parks is creating value loops that recycle waste heat and reduce logistics costs. Additionally, governments are incentivising co-processing of bio-naphtha within petrochemical units through tax benefits and R&D subsidies.

Naphtha's role in agriculture is expanding through its use in fertiliser intermediates, especially amid rising concerns about synthetic urea emissions. This has prompted companies in the naphtha market like Yara International to co-invest in naphtha-fed ammonia plants with low-emission credentials. In India, the Rashtriya Chemicals and Fertilizers Limited (RCF) is blending naphtha with biogenic inputs to create hybrid nutrient solutions.

Global Naphtha Market Regional Analysis

By Region, Asia Pacific Secures the Leading Position of the Market

Asia Pacific dominates the naphtha market due to sheer consumption volumes in petrochemical and refining sectors. Countries like China, India, and South Korea are constantly expanding capacity to support plastics and chemical manufacturing hubs. Regional trade flows are being restructured as Singapore emerges as a key redistribution point for high-purity naphtha grades. Policy support, such as zero-duty imports on feedstock for export-linked production, is accelerating integration.

The Middle East and Africa are witnessing the fastest growth in terms of naphtha production and export potential. Under Saudi Arabia's Vision 2030, Aramco is investing in advanced reforming and hydrocracking facilities that prioritise naphtha derivatives. UAE's ADNOC is also realigning its refining units for higher naphtha output linked to petrochemical off-take agreements. In Africa, Egypt and Nigeria, companies are exploring joint ventures for integrated refining-petrochemical zones. The combination of abundant feedstock, favourable tax structures, and infrastructure funding is propelling the region's growth. Its export-oriented production is gaining traction, especially among European buyers seeking alternative suppliers amidst geopolitical volatility.

Competitive Landscape

The naphtha market players are exploring circular petrochemical loops and blockchain tagging to attract sustainability-conscious buyers. There is a marked push towards co-processing bio-naphtha and repurposing reformers for hydrogen blending. Strategic alliances between refiners and chemical majors are increasing, especially in Asia Pacific and the Middle East, where new projects are co-funded by sovereign wealth funds.

On the other hand, mid-size naphtha companies are leveraging niche opportunities in electronics-grade or fertiliser-linked applications. Companies are increasingly startegising diversification within boundaries, maintaining core output while aligning with next-gen applications. Stakeholders are also navigating tightening environmental norms and seeking ways to embed ESG metrics into their operations without affecting profit cycles.

Shell Corporation

Shell Corporation, established in 1907 and headquartered in London, United Kingdom, is advancing its naphtha portfolio via bio-feedstock integration and real-time shipment traceability tools. It collaborates with polymers firms to develop circular chemical platforms.

Chevron Phillips Chemical Company LLC

Chevron Phillips Chemical Company LLC, founded in 2000 and based in Texas, United States, is pioneering digital emission scoring for naphtha cargo. Their blockchain pilot has enabled certified low-carbon batches to reach APAC buyers faster.

Exxon Mobil Corporation

Exxon Mobil Corporation, headquartered in Irving, Texas and established in 1882, focuses on modular hydrocracking technologies to optimise naphtha output. The company is co-developing carbon-scored petrochemical supply chains with stakeholders across Europe and Asia.

Mitsubishi Chemical Corporation

Mitsubishi Chemical Corporation, founded in 2005 and based in Tokyo, Japan, is investing in ultra-pure naphtha derivatives for

electronics and pharma. The company recently upgraded its Mizushima facility to support OLED-grade solvent production.

Other key players in the market are Reliance industries ltd., Saudi Basic Industries Corporation, Formosa Petrochemical Corporation, Petroleos Mexicanos, Sasol Limited, BP PLC, China National Petroleum Corporation (CNPC), and Vitol Group, among others.

Key Features of the Report

- In-depth analysis of Global Naphtha Market Size and forecast.
- Comprehensive segmentation by type, end use, and region.
- Market trends, drivers, and regulatory developments.
- Competitive landscape and strategic company profiling.
- Recent investments and infrastructure expansion impact.
- Technological innovations and future market outlook.

Why Choose Expert Market Research?

- Trusted insights backed by extensive primary research.
- Actionable data for strategic decision-making.
- Clarity on price trends, supply-demand dynamics, and key market drivers.

Call to Action

Explore the latest trends shaping the Naphtha Market 2025-2034 with our in-depth report. Gain strategic insights, future forecasts, and key market developments that can help you stay competitive. Download a free sample report or contact our team for customized consultation on Naphtha Market trends 2025 .

More Insights On:

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