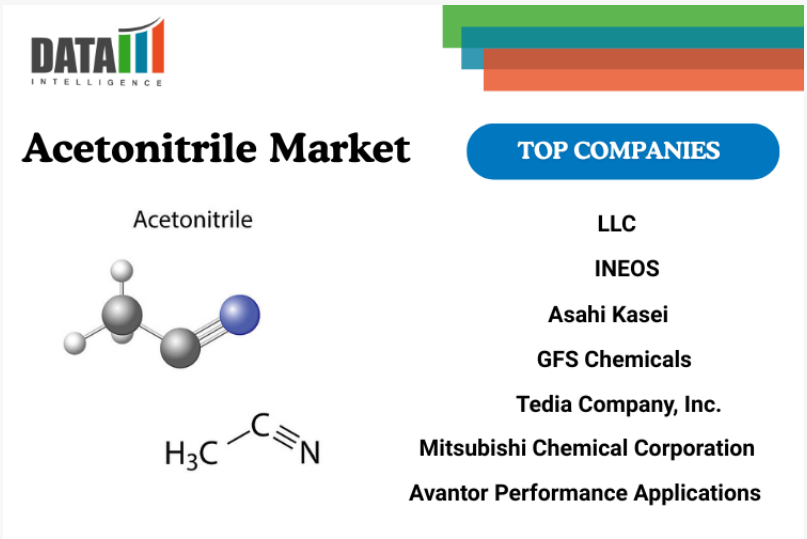
Acetonitrile Market Grows with Pharmaceutical Analysis,EV Batteries & Sustainable Solvent Innovations | DataM Intelligence

The acetonitrile market is projected to grow at 4.7% CAGR, fueled by pharma analysis, battery production, and sustainable bio‑based and recovery innovations.



Acetonitrile Market

NEW YORK, NY, UNITED STATES, July 14, 2025 /EINPresswire.com/ -- Market Overview :
Acetonitrile, a colorless, volatile organic solvent, has become indispensable across multiple industries due to its high polarity, low viscosity, and miscibility with water and organic solvents. The Acetonitrile Market was valued at USD 220 million in 2022 and is expected to grow to approximately USD 430 million by 2030, registering a compound annual growth rate (CAGR) of 4.7% over the forecast period from 2024 to 2031.
Its primary applications include high‑performance liquid chromatography (HPLC) in pharmaceuticals, lithium‑ion battery production in energy storage, and reaction media in fine chemicals and agrochemicals. Steady pharmaceutical R&D, the proliferation of electric vehicles, and expanding specialty chemical manufacturing underpin acetonitrile's robust growth trajectory.

> Acetonitrile's versatility from pharmaceutical HPLC to EV battery electrolytes drives market growth, while recovery and bio‑based processes secure a sustainable supply."
>
> *DataM Intelligence*

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Market Drivers are :

Pharmaceutical R&D and HPLC Demand
Acetonitrile remains the preferred mobile‑phase solvent in HPLC systems critical for drug discovery, quality control, and bioanalytical testing. As global pharmaceutical pipelines expand, demand for analytical-grade acetonitrile grows in tandem.

Electric Vehicle (EV) Battery Production
In lithium‑ion battery manufacturing, acetonitrile is used for electrolyte formulations and electrode processing. The accelerating shift to EVs across North America, Europe, and Asia-Pacific is driving solvent consumption in gigafactories.

Fine Chemicals & Agrochemicals
As a reaction medium and extraction solvent, acetonitrile supports the synthesis of vitamins, fragrances, and agrochemical intermediates. Growth in specialty chemicals, especially in emerging markets, bolsters solvent requirements.

Electronics & Semiconductors
High‑purity acetonitrile is used in semiconductor wafer cleaning and photoresist formulations. Continued miniaturization and 5G rollout sustain steady consumption in Asia's electronics hubs.

Supply Constraints & Price Volatility
More than half of global acetonitrile is co‑produced during acrylonitrile manufacture. Fluctuations in propylene demand and refinery operations can lead to tight supplies and price spikes, incentivizing investment in dedicated production capacity.

Regulatory & Environmental Pressures
Stricter emission norms for volatile organic compounds (VOCs) are spurring development of closed‑loop solvent recovery systems and catalyst‑based acetonitrile production routes, fostering sustainability while ensuring supply security.

Market Key Players are :

The acetonitrile landscape features both large petrochemical refiners and specialty chemical producers:

INEOS

Imperial Chemical Corporation

Connect Chemicals GmbH

Nantong Acetic Acid Chemical Co., Ltd.

GFS Chemicals, Inc.

Asahi Kasei

Formosa Plastics Corporation

Tedia Company, Inc.

Avantor Performance Materials, LLC

Mitsubishi Chemical Corporation

These companies compete on production scale, product purity, and geographic reach, while exploring integrated bio‑based routes to secure long‑term sustainability.

Market Segmentation:

By Purity Grade

Analytical Grade (>99.9%)

Electronic Grade (>99.95%)

Industrial Grade (95–99.5%)

By Production Process

Co‑production with Acrylonitrile

Propylene Ammoxidation

Bio‑based Fermentation

By Application

Pharmaceuticals & Biotechnology (HPLC, sample prep)

Energy Storage (Li‑ion battery electrolytes)

Fine & Specialty Chemicals (synthesis solvent)

Electronics & Semiconductors (cleaning, formulation)

Agrochemicals (extraction & intermediates)

Others (paints, adhesives, coatings)

By Region

North America – Strong pharmaceutical and EV battery sectors.

Europe – Robust fine chemical and specialty manufacturing.

Asia-Pacific – Largest share, driven by China's petrochemical capacity, Japan's electronics industry, and India's pharma growth.

Latin America – Emerging demand in agrochemicals and pharmaceuticals.

Middle East & Africa – Expanding refining capacity and nascent EV market.

Latest News – USA

In early 2025, INEOS announced the restart of its Texas co□production unit after a scheduled catalyst upgrade, boosting regional acetonitrile output by 15%. Meanwhile, GFS Chemicals inaugurated a new solvent recovery facility in Pennsylvania, capable of reclaiming 2,000 tons per year of spent HPLC□grade acetonitrile, meeting rising sustainability targets among pharmaceutical manufacturers.

Latest News – Japan

In mid□2025, Mitsubishi Chemical Corporation unveiled its pilot bio□fermentation plant in Chiba Prefecture, leveraging engineered yeast strains to convert glycerol by□products into acetonitrile with 60% lower CO□ emissions than traditional routes. Concurrently, Asahi Kasei filed for intellectual property rights on a next□generation membrane separation process that enhances acetonitrile purity while reducing energy consumption by 20%.

Most Recent Market Key Developments :

Imperial Chemical Corporation completed debottlenecking at its UK acrylonitrile complex, adding 10 kilotons per annum of acetonitrile capacity to stabilize European market supply.

Formosa Plastics expanded its ammonia oxidation reactor train in Taiwan, co□producing an additional 8,000 tons of high□purity acetonitrile annually for the electronics sector.

Connect Chemicals GmbH formed a strategic partnership with a prominent European battery manufacturer to co-develop ultra-high-purity acetonitrile electrolyte blends, specifically designed for next-generation solid-state batteries.

Tedia Company established a comprehensive distribution network across India, delivering pre-validated HPLC-grade solvents and dedicated technical support to more than 200 analytical laboratories.

Avantor Performance Materials introduced a closed‑loop solvent reclamation service in California, reducing customers' acetonitrile purchase volumes by up to 25% through advanced distillation and purification.

These milestones underscore the dual focus on capacity expansion and sustainability, addressing supply volatility while reducing environmental impact.

Conclusion :-

The Acetonitrile Market is set for sustained growth through 2031, anchored by its irreplaceable role in pharmaceutical analysis, battery production, and specialty chemical synthesis. While co‑production dynamics inherently tie acetonitrile supply to broader petrochemical cycles, targeted investments in recovery, bio‑based routes, and capacity debottlenecking will enhance resilience. Regional trends from U.S. solvent recovery initiatives to Japan's fermentation pilot plants highlight innovation in both production and circularity. As clean energy and green chemistry imperatives accelerate, acetonitrile will remain a critical solvent, balancing performance demands with environmental stewardship.

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Hexamethylenediamine (HMDA) Market

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