+357 96 030922
info@marketpublishers.com

Electronic Chemicals Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (CMP Slurry, Wet Deposition, Gases, and Ancillary Chemicals), By Application (Semiconductor & IC and PCB), By Region and Competition, 2020-2030F

https://marketpublishers.com/r/EC02CA699E4EEN.html
Date: August 2025
Pages: 180
Price: US$ 4,500.00 (Single User License)
ID: EC02CA699E4EEN

Abstracts

Market Overview

Global Electronic Chemicals Market was valued at USD 23.14 Billion in 2024 and is expected to reach USD 29.72 Billion by 2030 with a CAGR of 4.22% during the forecast period, due to the growing demand for semiconductors from various industries, rising demand for silicon wafers, focus on sustainable energy sources like wind and solar energy, growing adoption of new technologies, such as 5G and artificial intelligence, increasing investment for research and development, favorable government policy for end-user industries.

The global electronic chemicals market refers to the market for chemicals used in the production and manufacturing of electronic components and devices. These chemicals play a crucial role in various stages of electronic manufacturing, including cleaning, etching, deposition, and surface preparation. They are used to enhance the performance, reliability, and functionality of electronic devices. The total production of electronic equipment and devices by the electronics and IT industries is expected to be USD 3,436.8 billion and increase at a significant rate in 2023 to reach USD 3,526.6 billion.

Electronic chemicals are extensively used in semiconductor manufacturing processes.

+357 96 030922
info@marketpublishers.com

They are employed in the production of integrated circuits (ICs), which are the building blocks of electronic devices. These chemicals are used for cleaning wafers, removing impurities, etching patterns, and depositing thin films on silicon wafers. PCBs are essential components of electronic devices that provide mechanical support and electrical connections between various electronic components. Electronic chemicals are used in PCB manufacturing for processes such as cleaning, etching, plating, and solder mask application. These chemicals ensure proper circuitry and connectivity on the board.

During the assembly of electronic components onto PCBs, electronic chemicals are used for processes like soldering, flux application, and surface mount technology. These chemicals help in ensuring reliable connections and proper functioning of the assembled components. Apart from these, electronic chemicals are also used in various other electronic manufacturing processes, including wire bonding, die-attach, encapsulation, and thermal interface materials. These chemicals facilitate the bonding, protection, and heat management of electronic components. Hence, the market is expected to continue expanding as the electronics industry evolves and new technologies emerge.

Key Market Drivers

Growing Demand for Semiconductors from Various Industries is a Propelling Factor for Electronic Chemicals Market Growth

The growing demand for semiconductors from various industries is indeed a significant driver for the electronic chemicals market. Semiconductors are fundamental components used in a wide range of applications, including consumer electronics, automotive, industrial automation, telecommunications, healthcare devices, and many others. As the demand for electronic devices and technological advancements continues to rise, the need for semiconductors increases, thereby driving the demand for electronic chemicals. According to the Japan Electronics and Information Technology Industries Association report, it is stated that the production of semiconductors has estimated to increase from USD 291.6 billion in 2012 to USD 580.1 billion in 2022 worldwide.

The consumer electronics industry is a major consumer of semiconductors. The increasing popularity of smartphones, tablets, wearable devices, gaming consoles, and other consumer electronics drives the demand for semiconductors. These devices require advanced semiconductors, and electronic chemicals are vital in their

+357 96 030922
info@marketpublishers.com

manufacturing processes. The automotive industry is experiencing a significant transformation with the advent of electric vehicles (EVs), autonomous driving technologies, and connected cars. These advanced automotive systems heavily rely on semiconductors for functionalities such as powertrain control, infotainment systems, advanced driver-assistance systems (ADAS), and more. As the automotive industry embraces these technological advancements, the demand for semiconductors and electronic chemicals used in their production increases.

The industrial automation sector, including robotics, factory automation, and smart manufacturing, relies on semiconductors for process control, sensor technologies, and communication systems. As industries increasingly adopt automation to improve productivity and efficiency, the demand for semiconductors and the electronic chemicals required in their fabrication rises. The telecommunications industry is experiencing rapid growth driven by the expansion of 5G networks, increased data consumption, and the Internet of Things (IoT). These advancements rely on semiconductor technologies for network infrastructure, wireless communication, and data processing. The demand for semiconductors in the telecommunications sector leads to a corresponding demand for electronic chemicals.

Furthermore, the healthcare industry relies on semiconductors for medical imaging devices, diagnostic equipment, monitoring systems, and implantable devices. With the increasing demand for advanced healthcare technologies, the demand for semiconductors and electronic chemicals used in their production grows. The exponential growth of data centers and cloud computing services requires a substantial number of semiconductors to handle data processing, storage, and networking. The demand for semiconductors in this sector drives the need for electronic chemicals used in semiconductor manufacturing. Therefore, the growing demand for semiconductors from these industries, coupled with technological advancements and the need for innovative electronic devices, contributes to the expansion of the electronic chemicals market.

Key Market Challenges

Shifting Consumer Behavior & Digital Substitution

The global electronic chemicals market faces significant challenges due to supply chain disruptions and raw material volatility, stemming largely from its dependence on a concentrated network of suppliers—particularly in regions like East Asia—for critical inputs such as high-purity gases, solvents, and rare earth elements. Geopolitical tensions,

+357 96 030922
info@marketpublishers.com

export restrictions, and trade policies have led to frequent supply interruptions, while external shocks like the COVID-19 pandemic exposed the fragility of global logistics, causing extended lead times and inflated costs. Moreover, fluctuations in the prices of key raw materials—driven by scarcity, mining constraints, and energy price surges—further strain profitability and planning for chemical manufacturers. To mitigate these risks, companies are increasingly pursuing dual sourcing strategies, regionalizing production, and building buffer inventories, but these measures also add to operational costs and complexity.

Key Market Trends

Innovation & Strategic M&A

Innovation and strategic mergers & acquisitions (M&A) are playing a critical role in shaping the competitive landscape of the global electronic chemicals market. As the semiconductor industry rapidly evolves—with increasing demand for miniaturized chips, higher computing power, and improved energy efficiency—chemical suppliers are under pressure to deliver next-generation materials that meet stringent purity, performance, and environmental standards. To remain competitive, leading players are investing heavily in research and development (R&D), process optimization, and new product innovation tailored for advanced applications such as 5G, AI, electric vehicles, and quantum computing.

One prominent area of innovation involves the development of ultra-high purity chemicals, particularly in photolithography, etching, and cleaning processes used in semiconductor fabrication. Companies are pushing the boundaries of chemical formulation to cater to emerging lithography nodes below 5 nm and extreme ultraviolet (EUV) processes. New chemistries are also being introduced for CMP (chemical mechanical planarization) slurries, dielectric materials, and conductive adhesives, which are crucial for modern chip stacking and packaging technologies. Furthermore, sustainability is becoming a core driver of innovation, with chemical firms designing eco-friendly formulations that eliminate hazardous substances such as PFAS and heavy metals, aligning with growing regulatory mandates worldwide.

In parallel, strategic M&A activities are accelerating across the industry. Major players are acquiring niche firms and startups to broaden their product portfolios, enhance technological capabilities, and secure supply chains. For example, Entegris' acquisition of CMC Materials expanded its CMP slurry and advanced chemical delivery solutions. Similarly, DuPont has acquired companies specializing in high-performance films,

+357 96 030922
info@marketpublishers.com

advanced dielectrics, and circuit protection materials to deepen its footprint in electronics. These acquisitions not only bring complementary technologies under one roof but also allow companies to offer integrated material solutions across multiple stages of semiconductor manufacturing.

M&A is enabling geographic expansion, particularly into high-growth markets such as China, Taiwan, and South Korea—regions that dominate global semiconductor production. By acquiring local firms or forming strategic partnerships, multinational chemical suppliers can localize production, shorten lead times, and better align with customer needs in key fabrication hubs. This is especially critical amid growing geopolitical tensions and supply chain vulnerabilities, prompting many end users to seek more resilient and diversified sourcing options.

Innovation and strategic M&A are fundamental to value creation in the electronic chemicals market. Companies that effectively leverage these strategies are better positioned to capture emerging opportunities, reduce risks, and respond to the evolving needs of semiconductor and electronics manufacturers in an increasingly complex global ecosystem.

Key Market Players

Cabot Microelectronics Corporation

Air Products and Chemicals Inc

JSR Corporation

BASF SE

Huntsman International LLC

DIC Corporation

Dongjin Semichem Co. Ltd.

Solvay S. A.

Albemarle Corporation

+357 96 030922
info@marketpublishers.com

Wacker Chemie AG

Honeywell International, Inc.

DuPont de Nemours Inc

Sumitomo Chemical Co. Ltd.

Report Scope

In this report, global electronic chemicals market has been segmented into the following categories, in addition to the industry trends, which have also been detailed below:

Electronic Chemicals Market, By Type:

CMP Slurry

Wet Deposition

Gases

Ancillary Chemicals

Electronic Chemicals Market, By Application:

Semiconductor & IC

PCB

Electronic Chemicals Market, By Region:

North America

United States

Mexico

Canada

+357 96 030922
info@marketpublishers.com

- Europe
  - Germany
  - Spain
  - United Kingdom
  - France
  - Italy
- Asia-Pacific
  - China
  - Japan
  - India
  - South Korea
  - Australia
- South America
  - Brazil
  - Colombia
  - Argentina
- Middle East & Africa
  - South Africa
  - Saudi Arabia

+357 96 030922
info@marketpublishers.com

UAE

Competitive landscape

Company Profiles: Detailed analysis of the major companies present in the global electronic chemicals market.

Available Customizations:

With the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

5. NORTH AMERICA ELECTRONIC CHEMICALS MARKET OUTLOOK

6. EUROPE ELECTRONIC CHEMICALS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

7. ASIA-PACIFIC ELECTRONIC CHEMICALS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

8. SOUTH AMERICA ELECTRONIC CHEMICALS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

9. MIDDLE EAST AND AFRICA ELECTRONIC CHEMICALS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Electronic Chemicals Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (CMP Slurry, Wet Deposition, Gases, and Ancillary Chemicals), By Application (Semiconductor & IC and PCB), By Region and Competition, 2020-2030F

Product link: https://marketpublishers.com/r/EC02CA699E4EEN.html

Price: US$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/EC02CA699E4EEN.html