

Semiconductor Chemical Market Type(High Performance Polymers, Acid & Base Chemicals, Adhesives, Solvents), Application(Photoresist, Etching, Deposition, Cleaning), End-Use (Integrated Circuits, Discrete Semiconductor), & Region - Global Forecast to 2028

https://marketpublishers.com/r/SB0C3A2C903FEN.html

Date: November 2023

Pages: 248

Price: US\$ 4,950.00 (Single User License)

ID: SB0C3A2C903FEN

Abstracts

The Semiconductor chemical market size is projected to grow from USD 12.2 billion in 2023 to USD 21.9 billion by 2028, registering a CAGR of 12.3% during the forecast period. including the increasing demand for semiconductors in a wide range of industries, technological advancements in the semiconductor industry, and the growing demand for electronic devices, driving the need for semiconductor chemical market.

"Solvents accounted for the largest share in type segment of semiconductor chemical market in terms of value & volume."

Solvents dominate the market for semiconductor chemicals, mainly because of their important function in several crucial processes involved in semiconductor fabrication. By removing impurities and particles that can jeopardize the integrity of the finished product, these chemicals are vital for assuring the cleanliness and purity of semiconductor components. For this task, solvents, particularly high purity solvents, are essential because even minute impurities can cause flaws. In addition, they are crucial to photolithography procedures, where they aid in the dissolution and removal of photoresists that define the complex circuit designs on semiconductor wafers. Precision in the manufacture of semiconductors depends on their capacity to remove certain materials in a selective manner. Solvents are also important in chemical mechanical polishing (CMP) procedures, which are necessary for planarizing the semiconductor



surface and ensuring that various layers adhere properly, thereby reducing defects and enhancing overall chip performance.

"Photoresist accounted for the largest share in application segment of semiconductor chemical market in terms of value & volume."

Photoresists have the biggest market share in the semiconductor chemicals industry due to their critical function in photolithography operations that create and pattern complicated circuits on semiconductor wafers. These materials are critical for transferring detailed designs onto semiconductor surfaces, a critical step in chip production. The capacity to precisely and reliably describe circuit features is critical as semiconductor components continue to reduce in size. Photoresists give the essential level of control and precision to meet the industry's ever-increasing needs for smaller, quicker, and more powerful microchips. Their dominance is further cemented by continual advances in photoresist technology, which allows semiconductor manufacturers to push the frontiers of miniaturization and innovation in the area, making photoresists a cornerstone of the semiconductor chemicals business.

"Integrated circuits end-use accounted for the largest share in application segment of Semiconductor chemical market in terms of value & volume."

Integrated circuits (ICs) have the biggest market share in the semiconductor chemicals industry since they are the essential components of almost all electronic devices, from smartphones and laptops to automobiles and industrial machinery. ICs are the brains of modern technology, processing, storing, and transmitting electronic data. Their vast application in a variety of industries, combined with the continual desire for smaller, more efficient, and more powerful chips, ensures a constant demand for innovative semiconductor production techniques. This demand drives the semiconductor chemicals market, as cutting-edge chemicals and materials are required to build complicated, high-performance ICs, allowing the sector to continue its supremacy.

"Asia -Pacific is the largest market for Semiconductor chemical."

Asia Pacific has the biggest market share in the semiconductor chemicals market. The region has a large number of semiconductor foundries and fabrication facilities, mainly in Taiwan, South Korea, and China. These facilities manufacture a significant share of the world's semiconductor components, positioning Asia Pacific as a prominent player in the sector. The region's expansion is being driven by factors such as skilled labor, access to advanced technology, and cost-effective production, which is attracting big



semiconductor businesses and generating a robust ecosystem of suppliers for chemicals, materials, and equipment. This ecosystem, together with the region's concentration on innovation and research, cements Asia Pacific's leadership in the semiconductor chemicals market.

In-depth interviews were conducted with Chief Executive Officers (CEOs), marketing directors, other innovation and technology directors, and executives from various key organizations operating in the semiconductor chemical market, and information was gathered from secondary research to determine and verify the market size of several segments.

By Company Type: Tier 1 – 40%, Tier 2 – 30%, and Tier 3 – 30%

By Designation: C Level Executives – 20%, Directors – 10%, and Others – 70%

By Region: North America – 20%, Europe – 30%, APAC – 30%, Rest of the World- 20%

The Semiconductor chemical market comprises major players such as Tokyo Ohka Kogyo Co., Ltd (Japan), JSR Corp (Japan), BASF SE (Germany), Solvay SA (Belgium), Dow, Inc (US), and others. The study includes in-depth competitive analysis of these key players in the semiconductor chemical market, with their company profiles, recent developments, and key market strategies.

Research Coverage

This report segments the market for semiconductor chemical market on the basis of enduse, type, application, and region, and provides estimations for the overall value of the market across various regions. A detailed analysis of key industry players has been conducted to provide insights into their business overviews, products & services, key strategies, new product launches, expansions, and mergers & acquisition associated with the market for semiconductor chemical market.

Key benefits of buying this report

This research report is focused on various levels of analysis — industry analysis (industry trends), market ranking analysis of top players, and company profiles, which together provide an overall view on the competitive landscape; emerging and high-



growth segments of the Semiconductor chemical market; high-growth regions; and market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Market Penetration: Comprehensive information on the semiconductor chemical market offered by top players in the global semiconductor chemical market.

Analysis of drivers: (Growth in demand for semiconductor chemicals fueled by industries powered by modern technologies, Technology advancement in electronics industry), restraints (Difficulties associated with managing waste generated by semiconductor chemicals), opportunities (Development of new Semiconductor materials and Increase focus on sustainability), and challenges (Health risks in semiconductor chemicals manufacturing & stringent governmental regulations) influencing the growth of semiconductor chemical market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the semiconductor chemical market.

Market Development: Comprehensive information about lucrative emerging markets — the report analyzes the markets for semiconductor chemical market across regions.

Market Capacity: Production capacities of companies producing semiconductor chemical are provided wherever available with upcoming capacities for the semiconductor chemical market.

Competitive Assessment: In-depth assessment of market shares, strategies, products, and manufacturing capabilities of leading players in the semiconductor chemical market.



Contents

1 INTRODUCTION

- 1.1 STUDY OBJECTIVES
- 1.2 MARKET DEFINITION
- 1.3 INCLUSIONS & EXCLUSIONS
- 1.4 MARKET SCOPE

FIGURE 1 SEMICONDUCTOR CHEMICALS MARKET SEGMENTATION

- 1.4.1 REGIONS COVERED
- 1.4.2 YEARS CONSIDERED
- 1.5 CURRENCY CONSIDERED
- 1.6 LIMITATIONS
- 1.7 UNITS CONSIDERED
- 1.8 STAKEHOLDERS
- 1.9 RECESSION IMPACT

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 SEMICONDUCTOR CHEMICALS MARKET: RESEARCH DESIGN

- 2.1.1 SECONDARY DATA
- 2.1.2 PRIMARY DATA
 - 2.1.2.1 Primary data sources
 - 2.1.2.2 Breakdown of primary interviews
 - 2.1.2.3 Key industry insights
- 2.2 BASE NUMBER CALCULATION
 - 2.2.1 APPROACH 1: SUPPLY-SIDE ANALYSIS
 - 2.2.2 APPROACH 2: DEMAND-SIDE ANALYSIS
- 2.3 FORECAST NUMBER CALCULATION
 - 2.3.1 SUPPLY SIDE
 - 2.3.2 DEMAND SIDE
- 2.4 MARKET SIZE ESTIMATION
 - 2.4.1 BOTTOM-UP APPROACH
 - 2.4.2 TOP-DOWN APPROACH
- 2.5 DATA TRIANGULATION

FIGURE 3 SEMICONDUCTOR CHEMICALS MARKET: DATA TRIANGULATION

2.6 ASSUMPTIONS



3 EXECUTIVE SUMMARY

FIGURE 4 SOLVENTS TYPE TO DOMINATE MARKET BETWEEN 2023 AND 2028 FIGURE 5 PHOTORESIST APPLICATION TO DOMINATE MARKET BETWEEN 2023 AND 2028

FIGURE 6 INTEGRATED CIRCUITS TO LEAD MARKET DURING FORECAST PERIOD

FIGURE 7 ASIA PACIFIC TO DOMINATE MARKET DURING FORECAST PERIOD

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN SEMICONDUCTOR CHEMICALS MARKET

FIGURE 8 GROWING DEMAND FROM ELECTRONIC INDUSTRIES TO DRIVE MARKET

4.2 SEMICONDUCTOR CHEMICALS MARKET, BY TYPE

FIGURE 9 HIGH-PERFORMANCE POLYMERS TO BE FASTEST-GROWING TYPE DURING FORECAST PERIOD

- 4.3 SEMICONDUCTOR CHEMICALS MARKET, BY KEY COUNTRY FIGURE 10 ASIA PACIFIC TO RECORD FASTEST GROWTH DURING FORECAST PERIOD
- 4.4 SEMICONDUCTOR CHEMICALS MARKET, BY END USE FIGURE 11 INTEGRATED CIRCUITS AND OPTOELECTRONICS TO RECORD FASTEST GROWTH DURING FORECAST PERIOD
- 4.5 SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION FIGURE 12 PHOTORESIST TO BE FASTEST-GROWING APPLICATION DURING FORECAST PERIOD

5 MARKET OVERVIEW

- 5.1 INTRODUCTION
- 5.2 MARKET DYNAMICS

FIGURE 13 SEMICONDUCTOR CHEMICALS MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES AND CHALLENGES

- 5.2.1 DRIVERS
- 5.2.1.1 High demand for semiconductor chemicals due to technological advancements
 - 5.2.1.2 Growth of consumer electronics industry
 - 5.2.1.3 Fabrication and enhancement of semiconductor materials



- 5.2.2 RESTRAINTS
 - 5.2.2.1 Obstacles in managing semiconductor chemical waste
- 5.2.3 OPPORTUNITIES
- 5.2.3.1 Rising demand for cutting-edge semiconductor chemicals
- 5.2.4 CHALLENGES
 - 5.2.4.1 Health risks and stringent government regulations
- 5.2.4.2 High manufacturing cost and scarcity of raw materials

6 INDUSTRY TRENDS

- 6.1 INTRODUCTION
- 6.2 TRENDS/DISRUPTIONS IMPACTING CUSTOMER'S BUSINESS
- 6.2.1 REVENUE SHIFT AND NEW REVENUE POCKETS FOR SEMICONDUCTOR CHEMICAL MANUFACTURERS
- FIGURE 14 REVENUE SHIFT OF SEMICONDUCTOR CHEMICALS MARKET 6.3 PRICING ANALYSIS
- 6.3.1 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY TOP 3 APPLICATIONS
- TABLE 1 AVERAGE SELLING PRICE OF KEY PLAYERS, BY TOP 3 APPLICATIONS (USD/TON)
- FIGURE 15 AVERAGE SELLING PRICE, BY TOP 3 APPLICATION, 2019-2028 (USD/TON)
- 6.3.2 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY TOP3 TYPES TABLE 2 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY TOP 3 TYPES (USD/TON)
- FIGURE 16 AVERAGE SELLING PRICE, BY TOP 3 TYPE, 2019-2028 (USD/TON)
- TABLE 3 AVERAGE SELLING PRICE TREND OF REGION (USD/TON)
- FIGURE 17 AVERAGE SELLING PRICE, BY REGION, 2019-2028 (USD/TON)
 - 6.3.3 AVERAGE SELLING PRICE TREND, BY TYPE, NORTH AMERICA
- TABLE 4 AVERAGE SELLING PRICE, BY TYPE, NORTH AMERICA, 2019–2028 (USD/TON)
- 6.3.4 AVERAGE SELLING PRICE TREND, BY TYPE, EUROPE
- TABLE 5 AVERAGE SELLING PRICE, BY TYPE, EUROPE, 2019–2028 (USD/TON)
 - 6.3.5 AVERAGE SELLING PRICE TREND, BY TYPE, ASIA PACIFIC
- TABLE 6 AVERAGE SELLING PRICE, BY TYPE, ASIA PACIFIC, 2019–2028 (USD/TON)
- 6.3.6 AVERAGE SELLING PRICE TREND, BY TYPE, ROW
- TABLE 7 AVERAGE SELLING PRICE, BY TYPE, REST OF WORLD, 2019–2028 (USD/TON)



6.4 VALUE CHAIN ANALYSIS

FIGURE 18 VALUE CHAIN ANALYSIS

6.4.1 CHEMICAL MANUFACTURERS

6.4.2 EQUIPMENT SUPPLIERS

6.4.3 RESEARCH & DEVELOPMENT

6.4.4 DISTRIBUTORS

6.4.5 END USERS

6.5 ECOSYSTEM MAP

TABLE 8 SEMICONDUCTOR CHEMICALS MARKET: ECOSYSTEM

6.6 TECHNOLOGY ANALYSIS

TABLE 9 KEY TECHNOLOGIES OFFERED IN SEMICONDUCTOR CHEMICALS MARKET

TABLE 10 COMPLEMENTARY TECHNOLOGIES OFFERED IN SEMICONDUCTOR CHEMICALS MARKET

TABLE 11 ADJACENT TECHNOLOGIES OFFERED FOR SEMICONDUCTOR CHEMICALS MARKET

6.7 PATENT ANALYSIS

6.7.1 INTRODUCTION

6.7.2 METHODOLOGY

6.7.3 DOCUMENT TYPES

TABLE 12 PATENT COUNT IN LAST 10 YEARS

6.7.3.1 Publication Trends Over Last Ten Years

FIGURE 19 NUMBER OF PATENTS GRANTED IN LAST 10 YEARS

6.7.4 INSIGHTS

6.7.5 LEGAL STATUS

6.7.6 JURISDICTION ANALYSIS

FIGURE 20 REGIONAL ANALYSIS OF PATENTS GRANTED FOR

SEMICONDUCTOR CHEMICALS MARKET, 2022

6.7.7 TOP APPLICANTS

FIGURE 21 TOP TEN COMPANIES WITH HIGHEST NUMBER OF PATENTS IN LAST TEN YEARS

TABLE 13 TOP PATENT OWNERS FOR SEMICONDUCTOR CHEMICALS MARKET 6.7.8 MAJOR PATENTS

TABLE 14 MAJOR PATENTS FOR SEMICONDUCTOR CHEMICALS MARKET 6.8 TRADE ANALYSIS

6.8.1 IMPORT SCENARIO

FIGURE 22 IMPORT OF SEMICONDUCTOR CHEMICALS, BY COUNTRY, 2019–2022 6.8.2 EXPORT SCENARIO

FIGURE 23 EXPORT OF SEMICONDUCTOR CHEMICALS, BY COUNTRY,



2019-2022 (USD MILLION)

6.9 KEY CONFERENCES & EVENTS IN 2023-2024

TABLE 15 SEMICONDUCTOR CHEMICALS MARKET: KEY CONFERENCES & EVENTS, 2023–2024

- 6.10 TARIFF & REGULATORY LANDSCAPE
 - 6.10.1 REGULATORY LANDSCAPE
- 6.10.2 IMPACT OF REGULATIONS ACROSS DIFFERENT REGIONS AND COUNTRIES (US, EUROPE, CHINA)
 - 6.10.3 CHIPS AND SCIENCE ACT
 - 6.10.4 TARIFFS AND TRADE AGREEMENTS
- 6.10.5 SUSTAINABILITY AND ENVIRONMENTAL REGULATIONS (CLEAN AIR ACT)
- 6.10.6 GLOBAL SUPPLY CHAIN DISRUPTION
- 6.10.7 INTELLECTUAL PROPERTY RIGHTS REGULATIONS
- 6.10.8 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 16 NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 17 EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 18 ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 19 MIDDLE EAST & AFRICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 20 SOUTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

6.11 PORTER'S FIVE FORCES ANALYSIS

TABLE 21 PORTER'S FIVE FORCES IMPACT ON SEMICONDUCTOR CHEMICALS MARKET

FIGURE 24 PORTER'S FIVE FORCES ANALYSIS: SEMICONDUCTOR CHEMICALS MARKET

- 6.11.1 THREAT OF NEW ENTRANTS
- 6.11.2 THREAT OF SUBSTITUTES
- 6.11.3 BARGAINING POWER OF SUPPLIERS
- 6.11.4 BARGAINING POWER OF BUYERS
- 6.11.5 INTENSITY OF COMPETITIVE RIVALRY
- 6.12 MACROECONOMIC INDICATOR
 - 6.12.1 GDP TRENDS AND FORECAST OF MAJOR ECONOMIES
- 6.13 KEY STAKEHOLDERS AND BUYING CRITERIA
 - 6.13.1 KEY STAKEHOLDERS IN BUYING PROCESS



FIGURE 25 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP 5 APPLICATIONS

TABLE 23 INFLUENCE OF INSTITUTIONAL BUYERS ON BUYING PROCESS FOR TOP 5 APPLICATIONS

6.13.2 BUYING CRITERIA

FIGURE 26 KEY BUYING CRITERIA FOR APPLICATION

TABLE 24 KEY BUYING CRITERIA FOR APPLICATION

6.14 CASE STUDY ANALYSIS

6.14.1 CHEMICAL USE AND ASSOCIATED HEALTH CONCERNS IN SEMICONDUCTOR MANUFACTURING INDUSTRY

6.14.2 GREEN NANOFABRICATION OPPORTUNITIES IN SEMICONDUCTOR INDUSTRY

6.14.3 INTEGRATED MEMBRANE-ABSORPTION SYSTEM AS SUSTAINABLE DEVELOPMENT APPROACH FOR SEMICONDUCTOR-INDUSTRY WASTEWATER TREATMENT

6.15 VOLUME DATA

TABLE 25 GLOBAL SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019-2028 (KILOTON)

TABLE 26 NORTH AMERICA SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019-2028 (KILOTON)

TABLE 27 EUROPE SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019-2028 (KILOTON)

TABLE 28 ASIA PACIFIC SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019-2028 (KILOTON)

TABLE 29 ROW SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019-2028 (KILOTON)

7 SEMICONDUCTOR CHEMICALS MARKET, BY TYPE

7.1 INTRODUCTION

FIGURE 27 SOLVENTS TO DOMINATE MARKET DURING FORECAST PERIOD TABLE 30 SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (USD MILLION)

TABLE 31 SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (KILOTON)

7.2 HIGH-PERFORMANCE POLYMERS

7.2.1 POLYIMIDES

7.2.1.1 Exceptional dielectric properties and low thermal coefficient to drive market 7.2.2 FLUOROPOLYMERS



7.2.2.1 Efficient electric insulation to fuel market

7.2.3 POLYETHER ETHER KETONES

7.2.3.1 High mechanical strength and stiffness to drive market

7.2.4 LIQUID CRYSTAL POLYMERS

7.2.4.1 Resistance to temperature and chemicals to drive market

7.2.5 POLYPHENYLENE SULFIDE

7.2.5.1 Good chemical resistance and thermal stability to drive market

7.2.6 OTHER TYPES

7.2.6.1 Polyetherimide

7.2.6.2 Polyethylene naphthalate

7.3 ACID & BASE CHEMICALS

7.3.1 HYDROGEN FLUORIDE

7.3.1.1 Wide use in etching and cleaning applications to fuel market

7.3.2 POTASSIUM HYDROXIDE

7.3.2.1 Use in fabrication of precise patterns and wafer cleaning to drive market

7.3.3 SODIUM HYDROXIDE

7.3.3.1 Wide use in wafer cleaning to boost market

7.3.4 TETRAMETHYLAMMONIUM HYDROXIDE

7.3.4.1 Use as developer for positive photoresists to drive market

7.4 ADHESIVES

7.4.1 EPOXY ADHESIVES

7.4.1.1 Mechanical resilience and adhesive properties to drive market

7.4.2 SILICONE ADHESIVES

7.4.2.1 Wide use in sealing and bonding applications to fuel market

7.4.3 UV ADHESIVES

7.4.3.1 Fast-curing properties to boost market

7.4.4 POLYIMIDE ADHESIVES

7.4.4.1 High-temperature resistance to boost market

7.5 SOLVENTS

7.5.1 PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE (PGMEA)

7.5.1.1 Wide use in manufacture of cleaning agents to drive market

7.5.2 CYCLOHEXANONE

7.5.2.1 Fast evaporation rate and aromatic odor to fuel market

7.5.3 PROPYLENE GLYCOL MONOMETHYL ETHER

7.5.3.1 Application in formulation of photoresists to drive market

7.5.4 TRICHLOROETHYLENE

7.5.4.1 Light sensitivity and effective dissolving properties to drive market

7.5.5 ISOPROPYL ALCOHOL

7.5.5.1 Effective disinfectant properties to boost market



7.5.6 SULFURIC ACID

7.5.6.1 Wide application in lead-acid batteries to drive market

7.5.7 HYDROGEN PEROXIDE

7.5.7.1 High oxidative properties to drive market

7.5.8 AMMONIUM HYDROXIDE

7.5.8.1 Wide use in laboratories and chemical industries to drive market

7.5.9 HYDROCHLORIC ACIDS

7.5.9.1 Application in photolithography to drive market

7.5.10 HYDROFLUORIC ACID

7.5.10.1 High corrosiveness and etching properties to drive market

7.5.11 NITRIC ACID

7.5.11.1 Passivation of silicon wafers and chemical polishing to fuel market

7.5.12 PHOSPHORIC ACID

7.5.12.1 Deoxidizing and etching properties to fuel market

7.5.12.2 Acetone

7.5.12.3 Methanol

7.6 OTHERS

7.6.1 GASES

7.6.1.1 Nitrogen

7.6.1.2 Oxygen

7.6.1.3 Argon

7.6.1.4 Hydrogen

8 SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION

8.1 INTRODUCTION

FIGURE 28 PHOTORESIST TO DOMINATE MARKET DURING FORECAST PERIOD TABLE 32 SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

- 8.2 PHOTORESIST
- 8.2.1 DEMAND FOR INTRICATE DESIGNS AND PATTERNS TO DRIVE MARKET 8.3 ETCHING
- 8.3.1 SELECTIVE MATERIAL REMOVAL FROM SEMICONDUCTOR WAFERS TO FUEL MARKET
- 8.4 DEPOSITION
 - 8.4.1 EFFICIENT SEMICONDUCTOR FABRICATION TO DRIVE MARKET
- 8.5 CLEANING
- 8.5.1 DEVICE INTEGRITY AND PERFORMANCE IN SEMICONDUCTOR FABRICATION TO FUEL MARKET



- 8.6 DOPING
- 8.6.1 EFFECTIVE FABRICATION OF TRANSISTORS AND INTEGRATED CIRCUITS TO DRIVE MARKET
- 8.7 OTHER APPLICATIONS
 - 8.7.1 CHEMICAL MECHANICAL PLANARIZATION
 - 8.7.2 PACKAGING

9 SEMICONDUCTOR CHEMICALS MARKET, BY END USE

9.1 INTRODUCTION

FIGURE 29 INTEGRATED CIRCUITS TO DOMINATE MARKET DURING FORECAST PERIOD

TABLE 33 SEMICONDUCTOR CHEMICALS MARKET, BY END USE, 2019–2028 (USD MILLION)

- 9.2 INTEGRATED CIRCUITS
- 9.2.1 COMPACT INTEGRATED CIRCUITS AND ADVANCED TECHNOLOGY TO DRIVE MARKET
 - **9.2.2 ANALOG**
 - 9.2.3 MICRO
 - 9.2.4 LOGIC
 - **9.2.5 MEMORY**
- 9.3 DISCRETE SEMICONDUCTORS
- 9.3.1 PRESENCE OF SPECIALIZED ELECTRONIC COMPONENTS TO DRIVE MARKET
- 9.4 SENSORS
- 9.4.1 WIDE USE IN AUTOMOBILES AND MEDICAL DEVICES TO DRIVE MARKET 9.5 OPTOELECTRONICS
- 9.5.1 HIGH DEMAND FOR OPTOELECTRONIC DEVICES TO DRIVE MARKET

10 SEMICONDUCTOR CHEMICALS MARKET, BY REGION

10.1 INTRODUCTION

TABLE 34 SEMICONDUCTOR CHEMICALS MARKET, BY REGION, 2019–2028 (USD MILLION)

TABLE 35 SEMICONDUCTOR CHEMICALS MARKET, BY REGION, 2019–2028 (KILOTON)

10.2 ASIA PACIFIC

FIGURE 30 ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET SNAPSHOT 10.2.1 RECESSION IMPACT



TABLE 36 ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (USD MILLION)

TABLE 37 ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028, (KILOTON)

TABLE 38 ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (USD MILLION)

TABLE 39 ASIA-PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (KILOTON)

TABLE 40 ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

TABLE 41 ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY END USE, 2019–2028 (USD MILLION)

10.2.2 CHINA

10.2.2.1 Development of IoT technologies to drive market

TABLE 42 CHINA: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.2.3 JAPAN

10.2.3.1 Government support and strategic initiatives to fuel market

TABLE 43 JAPAN: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.2.4 TAIWAN

10.2.4.1 Demand for high-performance chips to drive market

TABLE 44 TAIWAN: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.2.5 SOUTH KOREA

10.2.5.1 Increasing global demand for electronic devices and advanced technologies to boost market

TABLE 45 SOUTH KOREA: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.2.6 MALAYSIA

10.2.6.1 Proximity to major Asian markets and global supply chains to drive market TABLE 46 MALAYSIA: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.2.7 VIETNAM

10.2.7.1 Strategic geographical location and increasing demand for semiconductor chemicals to fuel market

TABLE 47 VIETNAM: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.2.8 REST OF ASIA PACIFIC



TABLE 48 REST OF ASIA PACIFIC: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.3 EUROPE

FIGURE 31 EUROPE: SEMICONDUCTOR CHEMICALS MARKET SNAPSHOT 10.3.1 RECESSION IMPACT

TABLE 49 EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (USD MILLION)

TABLE 50 EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (KILOTON)

TABLE 51 EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (USD MILLION)

TABLE 52 EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (KILOTON)

TABLE 53 EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

TABLE 54 EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY END USE, 2019–2028 (USD MILLION)

10.3.2 GERMANY

10.3.2.1 Rising demand for green chemistries to drive market

TABLE 55 GERMANY: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.3.3 NETHERLANDS

10.3.3.1 Increase in semiconductor exports to drive market

TABLE 56 NETHERLANDS: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.3.4 IRELAND

10.3.4.1 Growth of manufacturing companies to drive market

TABLE 57 IRELAND: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.3.5 UK

10.3.5.1 Focus on research and development and government initiatives to drive market

TABLE 58 UK: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.3.6 ISRAEL

10.3.6.1 Proactive government policies and skilled workforce to fuel market TABLE 59 ISRAEL: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.3.7 REST OF EUROPE



TABLE 60 REST OF EUROPE: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.4 NORTH AMERICA

FIGURE 32 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET SNAPSHOT

10.4.1 RECESSION IMPACT

TABLE 61 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (USD MILLION)

TABLE 62 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (KILOTON)

TABLE 63 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (USD MILLION)

TABLE 64 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (KILOTON)

TABLE 65 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

TABLE 66 NORTH AMERICA: SEMICONDUCTOR CHEMICALS MARKET, BY END-USE, 2019–2028 (USD MILLION)

10.4.2 US

10.4.2.1 Rising demand for green chemicals to drive market

TABLE 67 US: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.4.3 CANADA

10.4.3.1 Government support and increasing investments to drive market TABLE 68 CANADA: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.4.4 MEXICO

10.4.4.1 Rising demand for semiconductor chemicals from data center industries to drive market

TABLE 69 MEXICO: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.5 ROW

10.5.1 RECESSION IMPACT

TABLE 70 ROW: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (USD MILLION)

TABLE 71 ROW: SEMICONDUCTOR CHEMICALS MARKET, BY COUNTRY, 2019–2028 (KILOTON)

TABLE 72 ROW: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (USD MILLION)



TABLE 73 ROW: SEMICONDUCTOR CHEMICALS MARKET, BY TYPE, 2019–2028 (KILOTON)

TABLE 74 ROW: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION,

2019–2028 (USD MILLION)

TABLE 75 ROW: SEMICONDUCTOR CHEMICALS MARKET, BY END USE,

2019–2028 (USD MILLION)

10.5.2 BRAZIL

10.5.2.1 High demand for semiconductors from automotive industries to drive market TABLE 76 BRAZIL: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.5.3 SOUTH AFRICA

10.5.3.1 Mineral-rich economy to drive market

TABLE 77 SOUTH AFRICA: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

10.5.4 REST OF ROW

TABLE 78 REST OF ROW: SEMICONDUCTOR CHEMICALS MARKET, BY APPLICATION, 2019–2028 (USD MILLION)

11 COMPETITIVE LANDSCAPE

11.1 KEY STRENGTHS

11.2 STRATEGIES ADOPTED BY KEY PLAYERS

11.2.1 OVERVIEW OF STRATEGIES ADOPTED BY KEY SEMICONDUCTOR CHEMICAL MANUFACTURERS

11.3 MARKET SHARE ANALYSIS

11.3.1 RANKING OF KEY MARKET PLAYERS, 2022

FIGURE 33 RANKING OF TOP FIVE PLAYERS, 2022

11.3.2 MARKET SHARE OF KEY PLAYERS

TABLE 79 SEMICONDUCTOR CHEMICALS: DEGREE OF COMPETITION FIGURE 34 SEMICONDUCTOR CHEMICALS MARKET IN 2022

11.3.2.1 SK Inc.

11.3.2.2 FUJIFILM Holdings Corporation

11.3.2.3 Honeywell International Inc.

11.3.2.4 BASF SE

11.3.2.5 Tokyo Ohka Kogyo Co., Ltd.

11.4 REVENUE ANALYSIS

FIGURE 35 REVENUE ANALYSIS OF KEY PLAYERS, 2020-2024

11.5 COMPANY EVALUATION MATRIX

11.5.1 STARS



11.5.2 EMERGING LEADERS

11.5.3 PERVASIVE PLAYERS

11.5.4 PARTICIPANTS

FIGURE 36 SEMICONDUCTOR CHEMICALS MARKET: COMPANY EVALUATION MATRIX, 2022

11.5.5 COMPANY FOOTPRINT ANALYSIS

TABLE 80 SEMICONDUCTOR CHEMICALS MARKET: KEY COMPANY APPLICATION FOOTPRINT

TABLE 81 SEMICONDUCTOR CHEMICALS MARKET: KEY COMPANY TYPE FOOTPRINT

TABLE 82 SEMICONDUCTOR CHEMICALS MARKET: KEY COMPANY END USE FOOTPRINT

TABLE 83 SEMICONDUCTOR CHEMICALS MARKET: KEY COMPANY REGION FOOTPRINT

11.6 STARTUP/SME EVALUATION MATRIX

11.6.1 PROGRESSIVE COMPANIES

11.6.2 RESPONSIVE COMPANIES

11.6.3 DYNAMIC COMPANIES

11.6.4 STARTING BLOCKS

FIGURE 37 SEMICONDUCTOR CHEMICALS MARKET: STARTUP/SME COMPANY EVALUATION MATRIX, 2022

11.6.5 COMPETITIVE BENCHMARKING

TABLE 84 SEMICONDUCTOR CHEMICALS MARKET: KEY STARTUPS/SMES

11.6.5.1 Semiconductor Chemicals Market: Competitive Benchmarking of Key Startups/SMEs

TABLE 85 SME PLAYERS APPLICATION FOOTPRINT

TABLE 86 SME PLAYERS TYPE FOOTPRINT

TABLE 87 SME PLAYERS END USE FOOTPRINT

TABLE 88 SEMICONDUCTOR CHEMICALS MARKET: SME PLAYER REGION FOOTPRINT

11.7 COMPETITIVE SCENARIOS AND TRENDS

11.7.1 PRODUCT LAUNCHES

TABLE 89 SEMICONDUCTOR CHEMICALS MARKET: PRODUCT LAUNCHES (2021–2022)

11.7.2 DEALS

TABLE 90 SEMICONDUCTOR CHEMICALS MARKET: DEALS (2020–2023)

11.7.3 OTHER DEVELOPMENTS

TABLE 91 SEMICONDUCTOR CHEMICALS MARKET: OTHER DEVELOPMENTS (2021–2023)



12 COMPANY PROFILES

(Business overview, Products/Solutions/Services offered, Recent Developments, MNM view)*

12.1 KEY PLAYERS

12.1.1 TOKYO OHKA KOGYO CO., LTD.

TABLE 92 TOKYO OHKA KOGYO CO., LTD.: COMPANY OVERVIEW

FIGURE 38 TOKYO OHKA KOGYO CO., LTD.: COMPANY SNAPSHOT

TABLE 93 TOKYO OHKA KOGYO CO., LTD.: PRODUCTS/SERVICES/SOLUTIONS

OFFERED

TABLE 94 TOKYO OHKA KOGYO CO., LTD.: DEALS

TABLE 95 TOKYO OHKA KOGYO CO., LTD.: OTHERS

12.1.2 JSR CORPORATION

TABLE 96 JSR CORPORATION: COMPANY OVERVIEW

FIGURE 39 JSR CORPORATION: COMPANY SNAPSHOT

TABLE 97 JSR CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 98 JSR CORPORATION: DEALS

TABLE 99 JSR CORPORATION: OTHERS

12.1.3 BASF SE

TABLE 100 BASF SE: COMPANY OVERVIEW

FIGURE 40 BASF SE: COMPANY SNAPSHOT

TABLE 101 BASF SE: PRODUCTS/SERVICES/SOLUTIONS OFFERED

TABLE 102 BASF SE: DEALS

TABLE 103 BASF SE: OTHERS

12.1.4 SOLVAY SA

TABLE 104 SOLVAY SA: COMPANY OVERVIEW

FIGURE 41 SOLVAY SA: COMPANY SNAPSHOT

TABLE 105 SOLVAY SA: PRODUCTS/SERVICES/SOLUTIONS OFFERED

TABLE 106 SOLVAY SA: PRODUCT LAUNCHES

TABLE 107 SOLVAY SA: DEALS

TABLE 108 SOLVAY SA: OTHERS

12.1.5 DOW

TABLE 109 DOW INC.: COMPANY OVERVIEW

FIGURE 42 DOW INC.: COMPANY SNAPSHOT

TABLE 110 DOW INC.: PRODUCTS/SERVICES/SOLUTIONS OFFERED

12.1.6 HONEYWELL INTERNATIONAL INC.

TABLE 111 HONEYWELL INTERNATIONAL INC.: COMPANY OVERVIEW

FIGURE 43 HONEYWELL INTERNATIONAL INC.: COMPANY SNAPSHOT



TABLE 112 HONEYWELL INTERNATIONAL INC.:

PRODUCTS/SERVICES/SOLUTIONS OFFERED

TABLE 113 HONEYWELL INTERNATIONAL INC.: DEALS

12.1.7 FUJIFILM HOLDINGS CORPORATION

TABLE 114 FUJIFILM HOLDINGS CORPORATION: COMPANY OVERVIEW

FIGURE 44 FUJIFILM HOLDINGS CORPORATION: COMPANY SNAPSHOT

TABLE 115 FUJIFILM HOLDINGS CORPORATION:

PRODUCTS/SERVICES/SOLUTIONS OFFERED

TABLE 116 FUJIFILM HOLDINGS CORPORATION: DEALS

TABLE 117 FUJIFILM HOLDINGS CORPORATION: OTHERS

12.1.8 EASTMAN CHEMICAL COMPANY

TABLE 118 EASTMAN CHEMICAL COMPANY: COMPANY OVERVIEW

FIGURE 45 EASTMAN CHEMICAL COMPANY: COMPANY SNAPSHOT

TABLE 119 EASTMAN CHEMICAL COMPANY: PRODUCTS/SERVICES/SOLUTIONS

OFFERED

12.1.9 MERCK KGAA (EMD ELECTRONICS)

TABLE 120 MERCK KGAA: COMPANY OVERVIEW

FIGURE 46 MERCK KGAA: COMPANY SNAPSHOT

TABLE 121 MERCK KGAA: PRODUCTS/SERVICES/SOLUTIONS OFFERED

TABLE 122 MERCK KGAA: PRODUCT LAUNCHES

TABLE 123 MERCK KGAA: DEALS

TABLE 124 MERCK KGAA: OTHERS

12.1.10 SUMITOMO CHEMICAL CO., LTD.

TABLE 125 SUMITOMO CHEMICAL CO., LTD.: COMPANY OVERVIEW

FIGURE 47 SUMITOMO CHEMICAL CO., LTD.: COMPANY SNAPSHOT

TABLE 126 SUMITOMO CHEMICAL CO., LTD.: PRODUCTS/SERVICES/SOLUTIONS

OFFERED

TABLE 127 SUMITOMO CHEMICAL CO., LTD.: DEALS

TABLE 128 SUMITOMO CHEMICAL CO., LTD.: OTHERS

12.1.11 SK INC.

TABLE 129 SK INC.: COMPANY OVERVIEW

FIGURE 48 SK INC.: COMPANY SNAPSHOT

TABLE 130 SK INC.: PRODUCTS/SERVICES/SOLUTIONS OFFERED

TABLE 131 SK INC.: DEALS

TABLE 132 SK INC.: OTHERS

12.1.12 DUPONT DE NEMOURS, INC.

TABLE 133 DUPONT DE NEMOURS, INC.: COMPANY OVERVIEW

FIGURE 49 DUPONT DE NEMOURS INC.: COMPANY SNAPSHOT

TABLE 134 DUPONT DE NEMOURS INC.: PRODUCTS/SERVICES/SOLUTIONS



OFFERED

TABLE 135 DUPONT DE NEMOURS INC.: DEALS

12.2 OTHER PLAYERS

12.2.1 RESONAC HOLDINGS CORPORATION

TABLE 136 RESONAC HOLDINGS CORPORATION: COMPANY OVERVIEW

12.2.2 MITSUBISHI CHEMICAL CORPORATION

TABLE 137 MITSUBISHI CHEMICAL CORPORATION: COMPANY OVERVIEW

12.2.3 PARKER HANNIFIN CORP

TABLE 138 PARKER HANNIFIN CORP: COMPANY OVERVIEW

12.2.4 AVANTOR, INC.

TABLE 139 AVANTOR, INC.: COMPANY OVERVIEW

12.2.5 AIR PRODUCTS AND CHEMICALS, INC.

TABLE 140 AIR PRODUCTS AND CHEMICALS, INC.: COMPANY OVERVIEW

12.2.6 LINDE PLC

TABLE 141 LINDE PLC: COMPANY OVERVIEW

12.2.7 CABOT CORPORATION

TABLE 142 CABOT CORPORATION: COMPANY OVERVIEW

12.2.8 KAO CORPORATION

TABLE 143 KAO CORPORATION: COMPANY OVERVIEW

12.2.9 KANTO KAGAKU.

TABLE 144 KANTO KAGAKU: COMPANY OVERVIEW

12.2.10 NIPPON KAYAKU CO., LTD.

TABLE 145 NIPPON KAYAKU CO., LTD.: COMPANY OVERVIEW

12.2.11 FOOSUNG CO., LTD.

TABLE 146 FOOSUNG CO., LTD.: COMPANY OVERVIEW

12.2.12 OCI COMPANY LTD.

TABLE 147 OCI COMPANY LTD.: COMPANY OVERVIEW

12.2.13 TOKUYAMA CORPORATION

TABLE 148 TOKUYAMA CORPORATION: COMPANY OVERVIEW

*Details on Business overview, Products/Solutions/Services offered, Recent

Developments, MNM view might not be captured in case of unlisted companies.

13 APPENDIX

- 13.1 KEY INDUSTRY INSIGHTS
- 13.2 DISCUSSION GUIDE
- 13.3 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
- 13.4 CUSTOMIZATION OPTIONS
- 13.5 RELATED REPORTS



13.6 AUTHOR DETAILS



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