

Global High Purity Silane Market 2025 by Manufacturers, Regions, Type and Application, Forecast to 2031

<https://marketpublishers.com/r/G48429EB8C41EN.html>

Date: September 2025

Pages: 108

Price: US\$ 3,132.00 (Single User License)

ID: G48429EB8C41EN

Abstracts

According to our (Global Info Research) latest study, the global High Purity Silane market size was valued at US\$ 982 million in 2024 and is forecast to a readjusted size of USD 5336 million by 2031 with a CAGR of 29.3% during review period.

High Purity Silane – most commonly known as monosilane, silicilane, is a colorless, flammable gas that belongs to the group of silanes. It is a highly reactive compound that is used in various industrial applications, including semiconductor manufacturing, solar cells, display panel and battery silicon anode material.

High Purity Silane is produced by the reaction of silicon with hydrogen gas in the presence of a catalyst. The resulting gas is purified by distillation to remove any impurities and stored in high-pressure cylinders for transportation and use.

Key Properties:

Molecular formula: SiH_4

Appearance: Colorless gas

Odor: Pungent smell (similar to hydrogen sulfide)

Boiling point: -112°C (-170°F)

Melting point: -185°C (-301°F)

Density: Lighter than air

Flammability: Highly pyrophoric, meaning it can spontaneously ignite in air

The global top five High Purity Silane manufacturers include REC Silicon, Air Liquide, Linde, Inner Mongolia Xingyang Technology and CNS, with a total market share of about 47%, of which the largest producer is REC Silicon, with a market share of over 12.89%. China is the most important High Purity Silane consumer market in the world, with a market share of more than 74%. In terms of type, the market share of purity above 6N exceeds 90%. In the application field, solar cell and battery silicon anode material account for about 47% and 35% of the market separately. With the rapid development of silicon-based negative electrode materials in the future, it is expected that the use of High Purity Silane in this field will occupy the largest share.

This report is a detailed and comprehensive analysis for global High Purity Silane market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Type and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global High Purity Silane market size and forecasts, in consumption value (\$ Million), sales quantity (Tons), and average selling prices (US\$/Kg), 2020-2031

Global High Purity Silane market size and forecasts by region and country, in consumption value (\$ Million), sales quantity (Tons), and average selling prices (US\$/Kg), 2020-2031

Global High Purity Silane market size and forecasts, by Type and by Application, in consumption value (\$ Million), sales quantity (Tons), and average selling prices (US\$/Kg), 2020-2031

Global High Purity Silane market shares of main players, shipments in revenue (\$ Million), sales quantity (Tons), and ASP (US\$/Kg), 2020-2025

The Primary Objectives in This Report Are:

Global High Purity Silane Market 2025 by Manufacturers, Regions, Type and Application, Forecast to 2031

To determine the size of the total market opportunity of global and key countries
To assess the growth potential for High Purity Silane
To forecast future growth in each product and end-use market
To assess competitive factors affecting the marketplace

This report profiles key players in the global High Purity Silane market based on the following parameters - company overview, sales quantity, revenue, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include REC Silicon, SK Materials, OCI Holding, Linde, Air Liquide, Taiyo Nippon Sanso, Mitsui Chemicals, SIAD, Jing He Science, Henan Silane Technology Development, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market Segmentation

High Purity Silane market is split by Type and by Application. For the period 2020-2031, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Type

Purity ?6N

Purity

Contents

1 MARKET OVERVIEW

1.1 Product Overview and Scope

1.2 Market Estimation Caveats and Base Year

1.3 Market Analysis by Type

1.3.1 Overview: Global High Purity Silane Consumption Value by Type: 2020 Versus 2024 Versus 2031

1.3.2 Purity ?6N

1.3.3 Purity

List Of Tables

LIST OF TABLES

Table 1. Global High Purity Silane Consumption Value by Type, (USD Million), 2020 & 2024 & 2031

Table 2. Global High Purity Silane Consumption Value by Application, (USD Million), 2020 & 2024 & 2031

Table 3. REC Silicon Basic Information, Manufacturing Base and Competitors

Table 4. REC Silicon Major Business

Table 5. REC Silicon High Purity Silane Product and Services

Table 6. REC Silicon High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 7. REC Silicon Recent Developments/Updates

Table 8. SK Materials Basic Information, Manufacturing Base and Competitors

Table 9. SK Materials Major Business

Table 10. SK Materials High Purity Silane Product and Services

Table 11. SK Materials High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 12. SK Materials Recent Developments/Updates

Table 13. OCI Holding Basic Information, Manufacturing Base and Competitors

Table 14. OCI Holding Major Business

Table 15. OCI Holding High Purity Silane Product and Services

Table 16. OCI Holding High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 17. OCI Holding Recent Developments/Updates

Table 18. Linde Basic Information, Manufacturing Base and Competitors

Table 19. Linde Major Business

Table 20. Linde High Purity Silane Product and Services

Table 21. Linde High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 22. Linde Recent Developments/Updates

Table 23. Air Liquide Basic Information, Manufacturing Base and Competitors

Table 24. Air Liquide Major Business

Table 25. Air Liquide High Purity Silane Product and Services

Table 26. Air Liquide High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 27. Air Liquide Recent Developments/Updates

Table 28. Taiyo Nippon Sanso Basic Information, Manufacturing Base and Competitors

Table 29. Taiyo Nippon Sanso Major Business
Table 30. Taiyo Nippon Sanso High Purity Silane Product and Services
Table 31. Taiyo Nippon Sanso High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 32. Taiyo Nippon Sanso Recent Developments/Updates
Table 33. Mitsui Chemicals Basic Information, Manufacturing Base and Competitors
Table 34. Mitsui Chemicals Major Business
Table 35. Mitsui Chemicals High Purity Silane Product and Services
Table 36. Mitsui Chemicals High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 37. Mitsui Chemicals Recent Developments/Updates
Table 38. SIAD Basic Information, Manufacturing Base and Competitors
Table 39. SIAD Major Business
Table 40. SIAD High Purity Silane Product and Services
Table 41. SIAD High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 42. SIAD Recent Developments/Updates
Table 43. Jing He Science Basic Information, Manufacturing Base and Competitors
Table 44. Jing He Science Major Business
Table 45. Jing He Science High Purity Silane Product and Services
Table 46. Jing He Science High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 47. Jing He Science Recent Developments/Updates
Table 48. Henan Silane Technology Development Basic Information, Manufacturing Base and Competitors
Table 49. Henan Silane Technology Development Major Business
Table 50. Henan Silane Technology Development High Purity Silane Product and Services
Table 51. Henan Silane Technology Development High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 52. Henan Silane Technology Development Recent Developments/Updates
Table 53. Inner Mongolia Xingyang Technology Basic Information, Manufacturing Base and Competitors
Table 54. Inner Mongolia Xingyang Technology Major Business
Table 55. Inner Mongolia Xingyang Technology High Purity Silane Product and Services
Table 56. Inner Mongolia Xingyang Technology High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 57. Inner Mongolia Xingyang Technology Recent Developments/Updates
Table 58. CNS Basic Information, Manufacturing Base and Competitors
Table 59. CNS Major Business
Table 60. CNS High Purity Silane Product and Services
Table 61. CNS High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 62. CNS Recent Developments/Updates
Table 63. Suzhou Jinhong Gas Basic Information, Manufacturing Base and Competitors
Table 64. Suzhou Jinhong Gas Major Business
Table 65. Suzhou Jinhong Gas High Purity Silane Product and Services
Table 66. Suzhou Jinhong Gas High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 67. Suzhou Jinhong Gas Recent Developments/Updates
Table 68. Chengdu Taiyu Industrial Gases Basic Information, Manufacturing Base and Competitors
Table 69. Chengdu Taiyu Industrial Gases Major Business
Table 70. Chengdu Taiyu Industrial Gases High Purity Silane Product and Services
Table 71. Chengdu Taiyu Industrial Gases High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 72. Chengdu Taiyu Industrial Gases Recent Developments/Updates
Table 73. Ace Gases Sdn Bhd (AGSB) Basic Information, Manufacturing Base and Competitors
Table 74. Ace Gases Sdn Bhd (AGSB) Major Business
Table 75. Ace Gases Sdn Bhd (AGSB) High Purity Silane Product and Services
Table 76. Ace Gases Sdn Bhd (AGSB) High Purity Silane Sales Quantity (Tons), Average Price (US\$/Kg), Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 77. Ace Gases Sdn Bhd (AGSB) Recent Developments/Updates
Table 78. Global High Purity Silane Sales Quantity by Manufacturer (2020-2025) & (Tons)
Table 79. Global High Purity Silane Revenue by Manufacturer (2020-2025) & (USD Million)
Table 80. Global High Purity Silane Average Price by Manufacturer (2020-2025) & (US\$/Kg)
Table 81. Market Position of Manufacturers in High Purity Silane, (Tier 1, Tier 2, and Tier 3), Based on Revenue in 2024
Table 82. Head Office and High Purity Silane Production Site of Key Manufacturer
Table 83. High Purity Silane Market: Company Product Type Footprint

Table 84. High Purity Silane Market: Company Product Application Footprint
Table 85. High Purity Silane New Market Entrants and Barriers to Market Entry
Table 86. High Purity Silane Mergers, Acquisition, Agreements, and Collaborations
Table 87. Global High Purity Silane Consumption Value by Region (2020-2024-2031) & (USD Million) & CAGR
Table 88. Global High Purity Silane Sales Quantity by Region (2020-2025) & (Tons)
Table 89. Global High Purity Silane Sales Quantity by Region (2026-2031) & (Tons)
Table 90. Global High Purity Silane Consumption Value by Region (2020-2025) & (USD Million)
Table 91. Global High Purity Silane Consumption Value by Region (2026-2031) & (USD Million)
Table 92. Global High Purity Silane Average Price by Region (2020-2025) & (US\$/Kg)
Table 93. Global High Purity Silane Average Price by Region (2026-2031) & (US\$/Kg)
Table 94. Global High Purity Silane Sales Quantity by Type (2020-2025) & (Tons)
Table 95. Global High Purity Silane Sales Quantity by Type (2026-2031) & (Tons)
Table 96. Global High Purity Silane Consumption Value by Type (2020-2025) & (USD Million)
Table 97. Global High Purity Silane Consumption Value by Type (2026-2031) & (USD Million)
Table 98. Global High Purity Silane Average Price by Type (2020-2025) & (US\$/Kg)
Table 99. Global High Purity Silane Average Price by Type (2026-2031) & (US\$/Kg)
Table 100. Global High Purity Silane Sales Quantity by Application (2020-2025) & (Tons)
Table 101. Global High Purity Silane Sales Quantity by Application (2026-2031) & (Tons)
Table 102. Global High Purity Silane Consumption Value by Application (2020-2025) & (USD Million)
Table 103. Global High Purity Silane Consumption Value by Application (2026-2031) & (USD Million)
Table 104. Global High Purity Silane Average Price by Application (2020-2025) & (US\$/Kg)
Table 105. Global High Purity Silane Average Price by Application (2026-2031) & (US\$/Kg)
Table 106. North America High Purity Silane Sales Quantity by Type (2020-2025) & (Tons)
Table 107. North America High Purity Silane Sales Quantity by Type (2026-2031) & (Tons)
Table 108. North America High Purity Silane Sales Quantity by Application (2020-2025) & (Tons)

Table 109. North America High Purity Silane Sales Quantity by Application (2026-2031) & (Tons)

Table 110. North America High Purity Silane Sales Quantity by Country (2020-2025) & (Tons)

Table 111. North America High Purity Silane Sales Quantity by Country (2026-2031) & (Tons)

Table 112. North America High Purity Silane Consumption Value by Country (2020-2025) & (USD Million)

Table 113. North America High Purity Silane Consumption Value by Country (2026-2031) & (USD Million)

Table 114. Europe High Purity Silane Sales Quantity by Type (2020-2025) & (Tons)

Table 115. Europe High Purity Silane Sales Quantity by Type (2026-2031) & (Tons)

Table 116. Europe High Purity Silane Sales Quantity by Application (2020-2025) & (Tons)

Table 117. Europe High Purity Silane Sales Quantity by Application (2026-2031) & (Tons)

Table 118. Europe High Purity Silane Sales Quantity by Country (2020-2025) & (Tons)

Table 119. Europe High Purity Silane Sales Quantity by Country (2026-2031) & (Tons)

Table 120. Europe High Purity Silane Consumption Value by Country (2020-2025) & (USD Million)

Table 121. Europe High Purity Silane Consumption Value by Country (2026-2031) & (USD Million)

Table 122. Asia-Pacific High Purity Silane Sales Quantity by Type (2020-2025) & (Tons)

Table 123. Asia-Pacific High Purity Silane Sales Quantity by Type (2026-2031) & (Tons)

Table 124. Asia-Pacific High Purity Silane Sales Quantity by Application (2020-2025) & (Tons)

Table 125. Asia-Pacific High Purity Silane Sales Quantity by Application (2026-2031) & (Tons)

Table 126. Asia-Pacific High Purity Silane Sales Quantity by Region (2020-2025) & (Tons)

Table 127. Asia-Pacific High Purity Silane Sales Quantity by Region (2026-2031) & (Tons)

Table 128. Asia-Pacific High Purity Silane Consumption Value by Region (2020-2025) & (USD Million)

Table 129. Asia-Pacific High Purity Silane Consumption Value by Region (2026-2031) & (USD Million)

Table 130. South America High Purity Silane Sales Quantity by Type (2020-2025) & (Tons)

Table 131. South America High Purity Silane Sales Quantity by Type (2026-2031) &

(Tons)

Table 132. South America High Purity Silane Sales Quantity by Application (2020-2025) & (Tons)

Table 133. South America High Purity Silane Sales Quantity by Application (2026-2031) & (Tons)

Table 134. South America High Purity Silane Sales Quantity by Country (2020-2025) & (Tons)

Table 135. South America High Purity Silane Sales Quantity by Country (2026-2031) & (Tons)

Table 136. South America High Purity Silane Consumption Value by Country (2020-2025) & (USD Million)

Table 137. South America High Purity Silane Consumption Value by Country (2026-2031) & (USD Million)

Table 138. Middle East & Africa High Purity Silane Sales Quantity by Type (2020-2025) & (Tons)

Table 139. Middle East & Africa High Purity Silane Sales Quantity by Type (2026-2031) & (Tons)

Table 140. Middle East & Africa High Purity Silane Sales Quantity by Application (2020-2025) & (Tons)

Table 141. Middle East & Africa High Purity Silane Sales Quantity by Application (2026-2031) & (Tons)

Table 142. Middle East & Africa High Purity Silane Sales Quantity by Country (2020-2025) & (Tons)

Table 143. Middle East & Africa High Purity Silane Sales Quantity by Country (2026-2031) & (Tons)

Table 144. Middle East & Africa High Purity Silane Consumption Value by Country (2020-2025) & (USD Million)

Table 145. Middle East & Africa High Purity Silane Consumption Value by Country (2026-2031) & (USD Million)

Table 146. High Purity Silane Raw Material

Table 147. Key Manufacturers of High Purity Silane Raw Materials

Table 148. High Purity Silane Typical Distributors

Table 149. High Purity Silane Typical Customers

List Of Figures

LIST OF FIGURES

Figure 1. High Purity Silane Picture

Figure 2. Global High Purity Silane Revenue by Type, (USD Million), 2020 & 2024 & 2031

Figure 3. Global High Purity Silane Revenue Market Share by Type in 2024

Figure 4. Purity 96N Examples

Figure 5. Purity

I would like to order

Product name: Global High Purity Silane Market 2025 by Manufacturers, Regions, Type and Application, Forecast to 2031

Product link: <https://marketpublishers.com/r/G48429EB8C41EN.html>

Price: US\$ 3,132.00 (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/G48429EB8C41EN.html>