Semiconductor Wet Chemicals and High-Purity Reagents

Purity grades, fab qualification cycles and import substitution

Base year	History	Forecast
2025	**2020–2025**	**2026–2032**
Regions	Segments	Formats
5	**5**	**PDF / Excel / PPT**

Abstract

This report covers wet chemicals used in semiconductor manufacturing — ultra-pure acids, bases, solvents, cleaners, etchants and strippers — across G1 to G5 purity grades. The central issue is qualification: the gate to a fab supply chain is not capacity but passing a multi-stage qualification that typically runs beyond a year.

It also quantifies how AI and advanced nodes lift chemical consumption per wafer: sub-3nm multi-patterning and HBM stacking add cleaning and etch steps, letting material demand grow faster than wafer shipments.

Key findings (excerpt)

- Global semiconductor wet chemicals were USD 4.58–7.20 billion in 2025: Straits Research sizes USD 4.58 billion, DataNext Research USD 5.80 billion and MarketIntelo USD 7.20 billion, the gap driven by whether precursors, CMP slurries and some specialty gases are counted.
- Growth calls cluster at 6.8%–9.10%: Straits sees USD 10.05 billion by 2034 (9.10%), DataNext USD 12.90 billion by 2036 (7.5%) and MarketIntelo USD 12.80 billion by 2034 (6.8%).
- Asia Pacific is the largest demand region at 39.80% of 2025 revenue (Straits Research), with mainland China the largest single consumption and production base.
- AI and advanced nodes raise chemical consumption per wafer: HBM stacking and multi-patterning add cleaning, deposition and etch steps, so material demand can outgrow wafer shipments.
- Fab qualification typically exceeds a year and requires multi-stage line validation, a harder gate than capacity; conversion from industrial to electronic grade is low, raising cost and capping effective output.

Global semiconductor wet chemicals: definitions compared

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Source	2025 size	Forecast year	Forecast size	CAGR
Straits Research	45.8 亿美元	2034	100.5 亿美元	9.10%
DataNext Research	58.0 亿美元	2036	129.0 亿美元	7.5%
MarketIntelo	72.0 亿美元	2034	128.0 亿美元	6.8%

The gap comes from whether precursors, CMP slurries and some specialty gases are counted; no average is taken.

Source: 各机构公开发布摘要，2025–2026

3 in total, all listed in the full edition

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Contents

1. 1. Scope and purity grade definitions (G1–G5)
2. 2. Global wet chemicals market size and forecast
3. 3. By product: acids, bases, solvents, cleaners, etchants, strippers
4. 4. By application: cleaning, etch, lithography ancillaries, post-CMP clean
5. 5. Quantifying AI and advanced-node consumption effects
6. 6. Fab qualification flow and entry barriers
7. 7. Purity control processes and conversion economics
8. 8. Import substitution progress and remaining gaps
9. 9. Company profiles and competitive landscape
10. 10. Regional structure: mainland China, Taiwan China, Korea, Japan, Europe, US

Method and definitions

This brief is built from public sources: Chinese and English industry and consultancy reports, annual reports and prospectuses, customs and statistical series, and public capacity or expansion announcements by main participants. Where two sources disagree on the same metric, both figures are shown with the reason for the gap instead of being averaged. Amounts are in USD at nominal value unless stated; capacity is in 10k t/yr. Forecast window 2026–2032, base year 2025.

Data updated：{'zh': '半年度更新', 'en': 'Semi-annual'}

Coverage

- Mainland China
- Taiwan, China
- South Korea
- Japan
- Europe & North America

Excerpts below let you judge structure and methodology; the paid edition lists everything.

Main participants (excerpt)

- BASF
- Linde
- Air Products
- 安集科技 / Anji Microelectronics
- 雅克科技 / Yoke
- 晶瑞电材

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Sources (excerpt)

1. A Straits Research《Semiconductor Wet Chemicals Market》：2025 年 45.8 亿美元、2026 年 50.0 亿美元、2034 年 100.5 亿美元、CAGR 9.10%；2025 年亚太占 39.80%。https://straitsresearch.com/report/semiconductor-wet-chemicals-market（2026-11 访问）
2. B DataNext Research《Semiconductor Wet Chemicals Market》：2025 年 58.0 亿美元、2026 年 62.5 亿美元、2036 年 129.0 亿美元、CAGR 7.5%。https://datanextresearch.com/report/semiconductor-wet-chemicals-market（2026-11 访问）
3. C MarketIntelo《Semiconductor Wet Chemicals Market》：2025 年 72.0 亿美元、2034 年 128.0 亿美元、CAGR 6.8%。https://marketintelo.com/report/semiconductor-wet-chemicals-market（2026-11 访问）

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