

# Specialty Chemicals In China

## What's so Special About It?

**Faster Than Industry Average** – Generally, the chemical industry in any given country starts with basic chemicals and moves on to higher-value chemicals later. Accordingly, in China, more than 50% of chemical sales come from basic chemicals, while in Japan the figure is around 40%. As China's development proceeds, specialty chemicals will therefore grow faster than the chemical industry average. According to the National Bureau of Statistics of China, revenue growth in specialty chemicals was +21% for specialty chemicals but only +7% for the average of the chemical industry. So China's specialty chemicals segment is highly attractive due to its high growth rate. This attractiveness is also reflected in direct investment of foreign specialty chemicals companies.

### High Growth, High Fragmentation

Specialty chemicals companies in China have a somewhat higher profitability than the chemicals average. However, this difference is not huge, most likely as other factors such as the small average company size in specialty chemicals lower the average profitability.

Another characteristic is the intense fragmentation of the specialty chemicals industry. There are almost 10,000 domestic specialty chemicals companies in China, far more than for any other chemical segment. Even the biggest specialty chemical companies such as Zhejiang Chuanhua account for far less than 1% of the total segment sales. And clearly China does not yet have companies that are as prominent as global leaders such as BASF, Clariant, DSM, Evonik, Rhodia or Wacker.

Domestic specialty chemicals companies have a low average technological level. This refers to all relevant aspects such as their R&D level, their portfolio, their level of customer service and their capability to provide complete solutions to customers. Therefore they cannot fulfill the needs of the domestic Chinese market. In many segments, China relies on either locally pro-



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duced chemicals of MNCs or even on imported materials for high-end chemicals.

Probably as a consequence, government policy is promoting a gradual shift of the chemical industry towards specialty chemicals. This is part of a general trend to move away from large-scale and often polluting primary chemicals to high value-added, high-end chemical products.

### Limited Presence of Big Chinese Players ...

Given the attractive market conditions, it is surprising that there are no truly big domestic Chinese specialty companies. Even the biggest domestic players have market



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shares well below 1% of the total specialty chemicals market and sales far below one billion dollars. Given that individual business units of multinational players often achieve far higher revenues, the key question is what keeps Chinese companies from becoming truly relevant players in specialty chemicals. Likely reasons are:

**Lack of strong R&D competence:** China's chemical industry is still at a relatively early development stage. Domestic companies have not yet accumulated the wealth of knowledge that enables Western companies to continuously pursue innovation. Furthermore, the mindset of Chinese companies sometimes seems to be too focused on physical assets rather than on intellectual property. This may be a consequence of the somewhat limited protection of intellectual property in China.

**Lack of long-term thinking:** Chinese chemical companies sometimes lack the necessary longer-term thinking to pursue an area such as specialty chemicals, in which any success will only come after years of efforts to establish the business.

**Lack of global reach:** Most Chinese chemical companies so far simply lack the marketing and sales network to market products globally. This is not a problem for basic chemicals with a strong domestic demand, but a severe limitation for smaller markets that need to be penetrated globally to reach a profitable level of sales.

**Lack of size:** This is necessary not only due to the need for global presence, but also as customers more and more expect specialty chemicals companies to provide complete solutions to an industry. The intense fragmentation of the domestic specialty chemicals industry is a major obstacle to reaching critical size. Major Chinese companies prefer to focus on basic chemicals that offer less fragmented and less complex markets which at the same time are much larger.

### ... And Why This Will Change

Despite these reasons, it is surprising that so far no major Chinese

chemical company has established itself as a major player for specialty chemicals. After all, a domestic player should enjoy the higher growth profitability of the segment and also have a number of advantages compared to multinationals:

Specialty chemicals is relatively labor intensive, allowing a Chinese player to benefit from lower labor cost. This is relevant even if multinational companies start to produce specialty chemicals in China, as their costs are generally higher.

Furthermore, success in specialty chemicals depends on understanding specific markets and customers, and providing localized services to them. This should also be easier to be achieved by a truly local company than by a multinational.

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Finally, while the market for petrochemicals in China is fairly consolidated and dominated by just three companies, the fragmentation of the specialty chemicals sector should allow a determined company to become a leading player comparatively easily. After all, currently most Western chemical executives would probably find it difficult to name just one domestic Chinese specialty chemicals company. The field for any contender thus is relatively open.

### Which Companies Will Make It?

That said, obviously not every Chinese chemical company has the qualities to become a leader in specialty chemicals. Indeed, there are



several qualifications that should be met. The company should have a certain size already in order to reach critical mass quickly, and at the same time should be willing to be focused. It will probably not be possible to become the domestic specialty chemicals champion while at the same time still pursuing several other strategic goals.

Furthermore, the company should have a mindset that encourages innovation and research, focusing more on intellectual property than on physical assets and be willing to invest in providing technical service.

Finally, the company should ideally already have some international experience as a successful specialty chemicals company will need to target global markets.

### What Will Happen Next?

It is to be expected that a few Chinese companies will come to realize the opportunities of becoming a leading player in specialty chemicals. This will first require establishing a clear specialty-focused strategy, which may not be easy given the relatively opportunistic approach of Chinese companies to business planning. In addition, it will be necessary to quickly expand the business. Relying on internal growth alone will not be sufficient as the current gap in the specialty chemicals industry will not be there for more than a few years. Domestic mergers and acquisitions also probably will not be sufficient to become a leading player as most domestic acquisition targets themselves lack size and deep specialty chemicals expertise. This leaves

overseas acquisitions. Though by far the most risky and expensive, this is also the approach most likely to work. The current gaps of Chinese chemical companies particularly in the areas of technological knowledge, R&D capability and global reach are best filled by the acquisition of global players or subunits of such players.

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<b>Examples</b> <ul style="list-style-type: none"> <li>• Caustic Soda</li> <li>• TDI</li> <li>• Ethanol</li> <li>• Butadiene</li> <li>• Acetic Acid</li> </ul>	<b>Sold based on</b> Chem. Specification Performance in Use	<b>Basic Chemicals</b>	<b>Fine Chemicals</b>	<b>Examples</b> <ul style="list-style-type: none"> <li>• Active pharma ingredients</li> <li>• Vitamins</li> <li>• Glyphosate</li> </ul>
		<b>Materials (Non-Chemical)</b>	<b>Specialty Chemicals</b>	
<b>Examples</b> <ul style="list-style-type: none"> <li>• Concrete</li> <li>• Sand for construction</li> <li>• Steel</li> <li>• Glass</li> </ul>		High Low	Low High	

### Production Trends

- Increases in production capacity despite low utilization
- Technology upgrade: Shift towards more up-to-date technology
- Utilization of unique technologies (e.g., coal chemicals)
- Environmental protection and government-mandated shutdowns
- Shift of production to Central/Western China

### Market Trends

- Price pressure particularly on commodities
- Shift towards consumer products and/or chemicals related to construction
- Rising quality demands
- Growth of a mid-level-quality market
- Export increasing again after decrease in 2009

### Company Strategy Trends

- Move from commodities towards higher-end materials
- Move towards coal chemicals
- Securing raw materials abroad (particularly oil)
- Cooperations among domestic companies
- Consolidation to achieve economies of scale and improve environmental compliance

### Terminology

Throughout this article, the term "specialty chemicals" is used in its European definition. That is, specialty chemicals are low-volume chemicals sold based on their performance in a specific application. This is in contrast to the definition commonly used in China, where the terms "specialty chemicals" and "fine chemicals" are more or less used interchangeably. In other words, in China only the dimension of production volume is used to distinguish between basic chemicals and fine/specialty chemicals, while in Europe (and in this article) the second dimension of whether a chemical is sold based on performance or on specification is used to distinguish between specialty and fine chemicals.