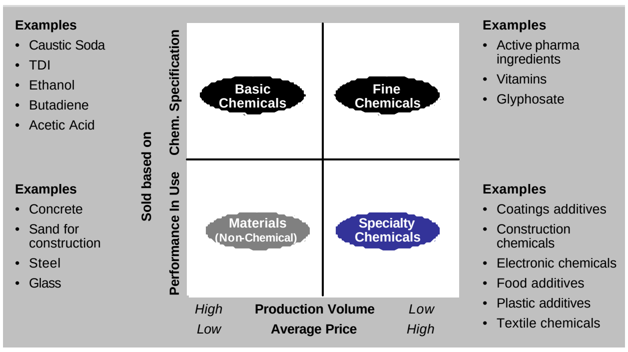
China Should Have a Domestic Specialty Chemicals Champion

Dr. Bernhard Hartmann, Managing Director, A.T. Kearney China,
Dr. Kai Pflug, CEO, Management Consulting - Chemicals (Ltd.)

What is special about specialty chemicals?

Throughout this article, the term "Specialty Chemicals" is used in its European definition. That is, specialty chemicals are low-volume chemicals that are sold based on their performance in a specific application. This is in contrast to the definition is often used in China. For example, in CCR 1/2010, Han Qiyuan describes a number of areas including food, feed and plastics additives as "new-field fine chemicals" - all these will be regarded as specialty chemicals in this paper. Fig. 1 shows the distinction.

Fig. 1: Definition of Specialty Chemicals versus Other Chemical Segments



MC Chemicals

Specialty chemicals are sold for a certain effect they have when applied or added to other materials. In principle, what the user of a specialty chemical buys is the effect of this chemical, not the chemical itself.

From this distinction, several consequences can be derived. First of all, specialty chemicals companies need to have a good knowledge of their customers' products in order to develop the right specialty chemicals (again, this is different from fine chemicals where essentially a full specification of the required chemical is sufficient for the fine chemicals producer). In addition, specialty chemicals therefore frequently have a service component in that the chemicals need to be adapted to the customers' products, and technical advice needs to be given.

Other specifics of specialty chemicals are

* Innovation orientation: Specialty chemicals tend to commoditize with time, i.e., once the customer has a full understanding of what the specialty chemical is and how it can be used in his products, it is not really a full specialty chemical anymore but becomes much more exchangeable. Therefore constant innovation is necessary for a specialty chemicals producer to keep his market position

* Large number of small niche target markets: Depending on the way of categorization, there are about 35 main specialty chemicals segments as well as about 300 sub segments. Each of them requires its own specific specialty chemicals and its own development and application knowledge

* Global market: The combination of innovation orientation plus niche markets leads to specialty markets generally being global as only global players can recoup the R&D costs required to penetrate a specific niche market

* Low volumes but relatively high prices: As specialty chemicals are usually only needed in small amounts and only account for a small proportion of customers overall costs, they are less price sensitive than basic chemicals and thus tend to have good profit margins

* Low capital intensity: Producing specialty chemicals is more based on having relevant R&D knowledge than on ownership of expensive assets (which are often required to produce basic chemicals).

* Close customer relationship and high switching costs: Typically specialty chemicals are not easily exchangeable by the customer, leading to long-term stable customer relationships.

Specialty chemicals are defined from the point of view of a chemicals customer. This is different from fine chemicals which are typically defined by chemical nature (e.g., Fluorochemicals). This definition by application also means that specialty chemicals companies often do not sell pure individual chemicals but fine-tuned mixtures that in their overall combination give the desired effect.

Major Western chemical companies include AkzoNobel, Altana, Clariant, DSM, Evonik, Grace, Johnson Matthey, Merck, Rhodia, Suedchemie and Wacker. Other major players producing specialty chemicals as well as other chemical products include BASF (strengthened by the acquisition of Ciba and Cognis), Dow (particularly after the acquisition of Rohm & Haas), DuPont, Eastman, Huntsman and Lanxess.

What about specialty chemicals in China?

Historically, the chemical industry in any given country tends to start with basic chemicals and only moves on to higher-value chemicals later. Accordingly, while according to estimates still more than 50% of China's chemical sales are obtained from basic chemicals, in Japan this figure now is only about 40%. Consequently, as China's development proceeds, specialty chemicals will grow faster than the chemical industry average. For example, 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 the investments (both in production and in R&D) of foreign specialty chemicals companies.

To a certain extent related to this, specialty chemicals companies in China also 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.

A third 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. And even the biggest specialty chemical companies such as Zhejiang Chuanhua account for far less than 1% of the total segment sales. And clearly China currently does not have any prominent specialty chemicals company that is as prominent as global leaders such as Clariant, DSM, Evonik, Rhodia or Wacker.

Despite the large number of domestic specialty chemicals companies, they 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 many of the needs of the domestic Chinese market. In many segments, China relies on either locally produced chemicals of MNCs or even on imported materials. While most countries depend on imports of specialty chemicals in specific areas, in China the situation is somewhat more severe as the majority of high-end specialty chemicals still need to be imported.

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. It was reflected in the CPCIA announcement at the end of 2009 to, e.g., increase the local supply of high-end products, reduce the proportion of energy-intensive products, and actively promote innovation.

Though not all these factors are unique to China (in Western companies, specialty companies also tend to have higher profitability), the combination of all of them makes China a highly attractive country for specialty chemicals compared to other regions.

Why then are not there any large Chinese specialty companies?

Given the conditions outlined above, it is surprising that there are no truly big domestic Chinese specialty companies. Even the biggest domestic players have market shares well below one percent of the total specialty chemicals market and sales far below one billion US$. Given that individual business units of global players such as Evonik achieve far higher revenues, the key question is what keeps Chinese companies from becoming truly relevant players in specialty chemicals. Likely reasons are

1. Need for specialty chemicals companies to have strong R&D competence: Given that 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 owning physical assets rather than intellectual property. This may be a consequence of the somewhat limited protection of intellectual property in China

2. Related to this, Chinese chemical companies sometimes may 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

3. Need for specialty companies to be global: 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.

4. Need for specialty chemicals to have a certain 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. And major Chinese companies tend to focus on basic chemicals that offer less fragmented and less complex markets which at the same time are much larger.

Why should major Chinese chemical companies move into specialty chemicals?

Despite these reasons, it is still somewhat puzzling that no major Chinese chemical company seems to make a substantial effort to establish itself as a domestic champion for specialty chemicals. After all, a domestic player should enjoy the attractive market for specialty chemicals as outlined above, such as the high growth rates and the above-average profitability. Furthermore, a domestic player should have a number of advantages compared to multinationals.

Specialty chemicals is relatively labor intensive, allowing a Chinese player to benefit from its overall 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.

Finally, while the market for petrochemicals in China is fairly consolidated and dominated by just three companies, the high level of fragmentation of the specialty chemicals sector should allow a determined company to become the dominant 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.

What are the requirements for a Chinese company to become a big player in specialty chemicals?

That said, obviously not every Chinese chemical company has the qualities to become a domestic champion for specialty chemicals. Indeed, there are several qualifications that should be met:

* The company should have a certain size and capital already in order to reach critical mass in specialties quickly

* The company should have a mindset that encourages innovation and research

* Similarly, the company should not be too focused on physical assets and physical products but also value intellectual property

* The company needs to be willing to strongly invest in providing technical service

* The company 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

* The company should ideally already have some international experience as a successful specialty chemicals company will need to target global markets

How to become a dominant player?

Finally, how could a Chinese company that more or less fulfills the requirements above proceed in its quest to become the domestic champion for specialty chemicals? After establishing a clear specialty-focused strategy, it will be necessary to quickly expand the business. This can be done using three different approaches:

* Internal growth: while easy to control and certainly necessary to truly convert the company into a specialty chemicals focus unit, it is too slow as a stand-alone approach in the current situation. After all, the current gap in the specialty chemicals industry will not be there for more than a few years

* Domestic mergers and acquisitions: Already a bit more complicated but still easily doable, particularly as many companies already have experience in this area. However, given that most domestic acquisition targets themselves lack size and deep specialty chemicals expertise, it will be difficult to become a dominant player using this approach alone

* 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 too big to be filled without the acquisition of global players or subunits of such players.

Conclusion

The current situation of China's chemical industry offers a unique opportunity for a dedicated domestic company to become both the domestic specialty chemicals champion and a leading global specialty chemicals player. And what is certain is that if a company with the right qualifications takes up this opportunity within the next one or two years, it will have a very high chance of success. ■