Note: Key data/information in this sample page is hidden, while in the report it is not.

1 Analysis on key foreign-owned enterprises and joint venture enterprises in China

There are 3 largest bromine enterprises, which totally control about XX% bromine resource in the world. They are:

- ✓ ICL Industry Products (ICL-IP)
- ✓ Albemarle Corporation (Albemarle)
- ✓ Chemtura Corporation (Chemtura)

VI-1 **ICL-IP**

The company accounts for approximately XX% of the world's total bromine production.

In China, there are two enterprises which are held by ICL-IP and Chinese enterprises. They are:

- ✓ Shandong XX Bromides Co., Ltd. (Shandong XX)
- ✓ Jiangsu XX Bromine Compounds Co., Ltd. (XX)

➢ Strength for ICL-IP enterprises in China

- Rich in bromine resource
- Advanced technology and rich experience in manufacturing bromides
- Good marketing capability
- Relatively low labor cost
- Relatively low environmental protection cost

➢ Weakness of ICL-IP enterprises in China

Compared to most Chinese producers, ICL-IP is focusing on the production and distribution of high quality products in China and it has relatively poor competitiveness in low-end market.

➢ Market strategy of ICL-IP in China

2 Influencing factors of China’s bromine and bromides industry

➢ Demand for bromides

For a long time, the development of bromine industry is driven by the demand for its derivatives, mainly for BFRs. During 2005 and 2008, the consumption of bromine in BFRs has maintained at about XX-XX tonnes. In 2009, it declines to XX tonnes but its share in bromine consumption has increased from XX% during 2005 and 2008 to XX% in 2009.

In recent years, bromine demand from organic intermediates has kept growing with the growth rate of XX%-XX% and it has become the second largest consuming sector of bromine in 2009.

During 2005 and 2008, the average consumption of bromine in organic intermediates was around XX tonnes and the bromine consumption in organic intermediates has increased to XX tonnes in 2009.

The third largest demand is from oilfield chemicals, especially from sodium bromide and calcium bromide. Most of China's brominated oilfield chemicals are exported and total demand has always maintained at a relatively stable level in recent years. Despite the low output in 2010 caused by the tight supply of bromine, there are a large number of orders that haven't been fulfilled by the producers yet.

During 2005 and 2008, the consumption of bromine in oilfield chemicals fluctuated around XX tonnes, excluding the bromine consumption indirectly coming from hydrobromic acid. In 2009, it declines to XX tonnes with the reduction in bromine output. In addition, in case of tight supply of bromine, the production of oilfield chemicals always give way to BFRs and organic intermediats and this situation was confirmed in 2010.

- Import of beomine

In recent 5 years, the annual import volume of bromine has maintained at XX-XX tonnes mainly due to the limitation of transportation of bromine. The import volume is basically controlled by three bromine chemical giants, including Albemarle, ICL Industrial Products and Chemtura, and they generally adjust the exported volume to China according to China's bromine output level and price. In addition, the price of imported bromine often becomes the benchmark of domestic prices.

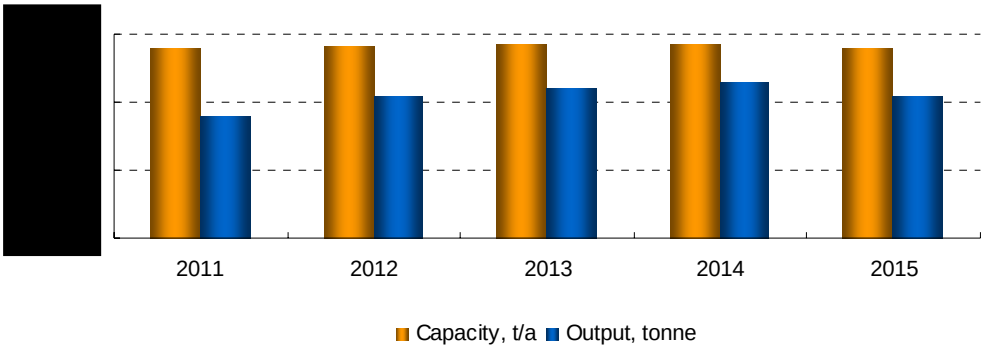
3 Forecast (2011-2015)

3.1 Bromine supply and price trend in China

3.1.1 Bromine supply

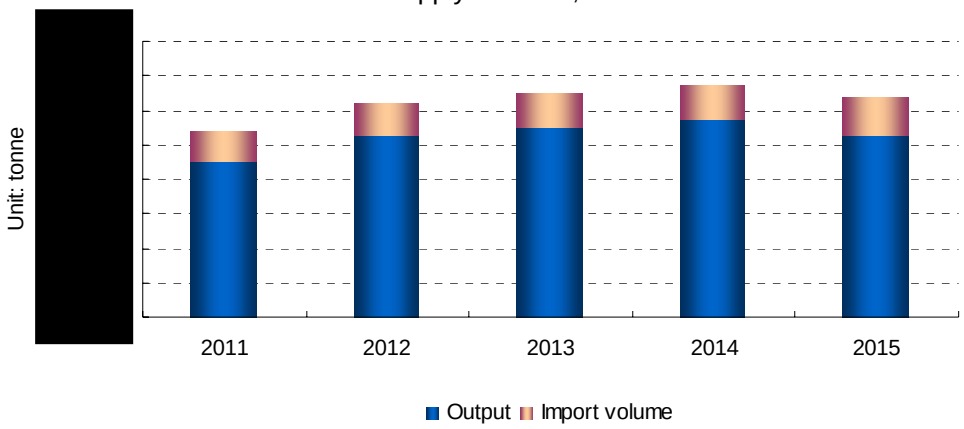
China's bromine is supplied by domestic and overseas producers and they generally contribute to XX% and XX% of the total supply volume respectively.

Figure 3.1.1-1 Forecast on bromine capacity and output in China, 2011~2015



Source: CCM International

Figure 3.1.1-2 Forecast on bromine supply in China, 2011~2015



Source: CCM International

3.1.2 Price trend

The price trend of bromine in the next 5 years will be mainly depended on its supply and demand. Owing to the brine concentration decline and technology restriction for bromine extraction, its total supply capability will maintain at XX~XX tonnes but the total demand for bromine will still be too great to be met by the supply in China during 2011 to 2013. Therefore, the bromine price is likely to be volatile at the high level in this period.

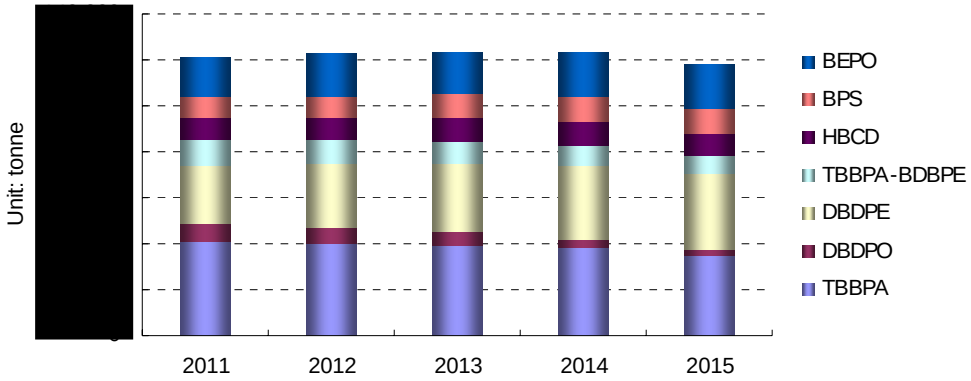
From 2014 to 2015, the supply of bromine is predicted to be slightly surplus with the constinuous growth of bromine output and import, which will result in the price fall of bromine.

3.2 Bromides market in China

3.2.1 Organic bromides

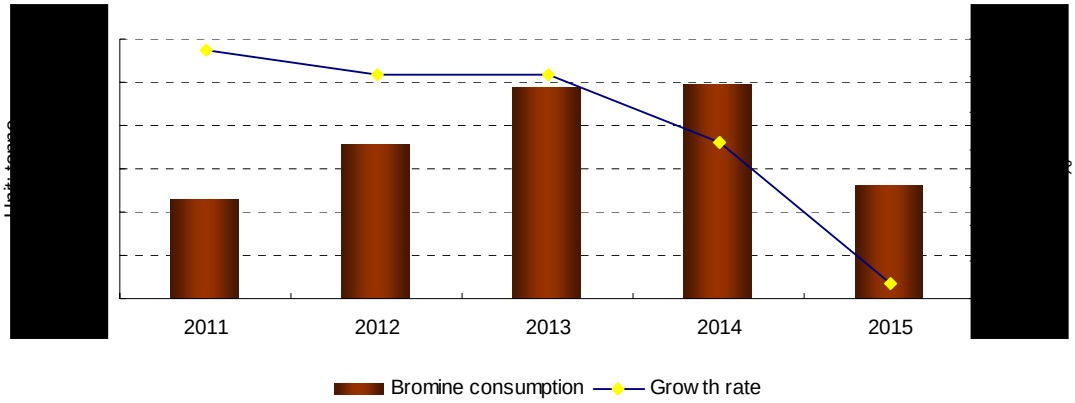
3.2.1.1 BFRs

Figure 3.2.1.1-1 Forecast on output of BFRs in China, 2011~2015



Source: CCM International

Figure 3.2.1.1-2 Forecast on bromine consumption in BFRs in China, 2011~2015



Source: CCM International

3.2.1.2 Organic intermediates

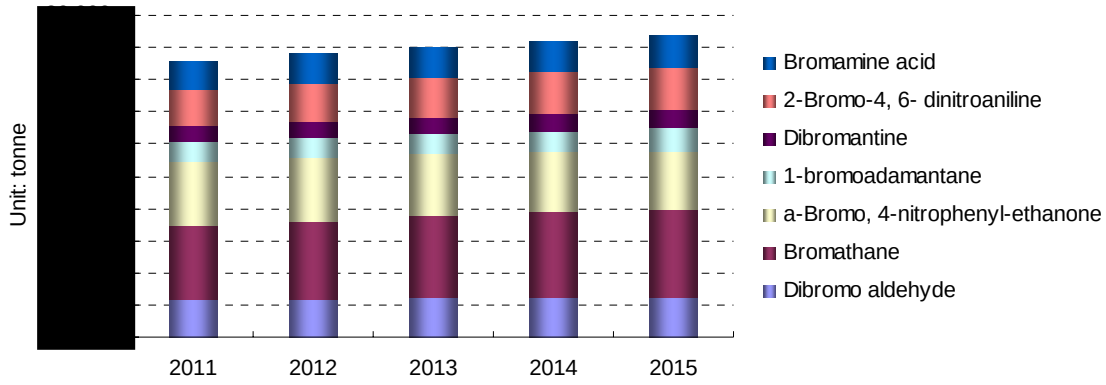
Table 3.2.1.2-1 Forecast on demand for organic intermediates in China, 2011~2015

Intermediates	Application product	Introduction	Annual growth rate
Dibromo aldehyde	TMP	Despite the impact from India's TMP market, the domestic producers have been able to hang on, the capacity and output of TMP is predicted to be relatively stable in the future 5 years.	0~XX%
Bromathane	Over 40 kinds	As one of medicine intermediates with wide utility, the market prospects of bromathane is optimistic and its output will increase but capacity because the production lines of alkyl bromides are general and the total capacity has been greatly large.	XX%
a-Bromo, 4-nitrophenyl-ethanon	Chloramphenicol	Owing to the restrict use in many countries and serious pollution for production, it is predicted that the market of chloramphenicol will further wither in the coming years.	-XX%
1-bromoadamantane	Amantadine hydrochloride	As one of effective anti-influenza drugs, amantadine hydrochloride has a good market prospects and its export will increase year by year.	XX%
Dibromantine	N/A	Despite a brominating agent with wide utility, the consumption of dibromantine on medicine synthesis is limited at present but it has good prospects as water treatment agent.	XX~XX%
2-Bromo-4, 6-dintroanline	Disperse blue No. 79	As the intermediate of disperse blue No. 79, 2-Bromo-4, 6-dintroanline will experience a large development with the development and transformation of China's dyestuff industry in the next 5 years.	XX%
Bromamine acid	3 kinds dyestuffs	As one of intermediates of dyestuff, the utility of bromamina acid is wide but its pollution in production process is also large. With the improvement of water treatment technology and development of dyestuff industry, it still has a growth expectation in the 5 next years.	XX%

Note: the growth rate in above table refers to demand for intermediates

Source: CCM International

Figure 3.2.1.2-1 Forecast on bromine consumption in intermediates in China, 2011~2015



Source: CCM International

3.2.1.3 Agrochemicals

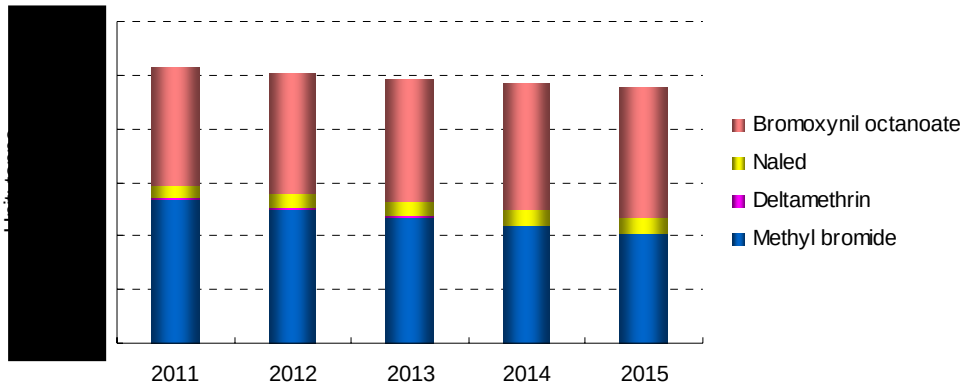
Table 3.2.1.3-1 Forecast on demand for agrochemicals in China, 2011~2015

Agrochemical	Introduction	Annual growth rate
Methyl bromide	In the future 5 years, the production quota of methyl bromide as soil fumigant will gradually decrease (current quota: 1,000t/a), and there is no fixed production quota of methyl bromide as customs fumigant but its use will gradually decrease with the enhancement of environmental requirements.	-XX%
Deltamethrin	Despite deltamethrin is high value-added pesticide, there is only two producers in China now owing to the influence from the low-cost deltamethrin in India and the domestic production cost is relatively high. However, this product still has certain market potential in the next 5 years.	XX%
Naled	Despite the complicated production process, naled is an environmentally-friendly pesticide with the low retention rate. It will attract more attention from market players in the future years	XX%
Bromoxynil octanoate	Despite a good environmentally-friendly product, the technology to bromoxynil octanoate production is complicated and only four producers grasp it in China.	XX%

Note: the growth rate in above table refers to demand for intermediates

Source: CCM International

Figure 3.2.1.3-1 Forecast on bromine consumption in agrochemicals in China, 2011~2015



Source: CCM International