

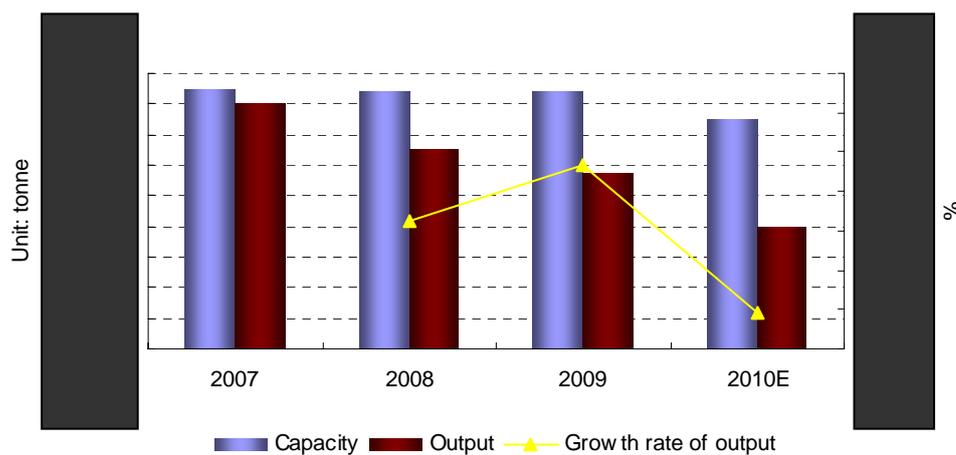
## I Overview of bromine and bromides industry in China

As the world's third largest producing country, China's capacity and output of bromine have reduced continuously in recent years, from [redacted] and [redacted] tonnes in 2007 to [redacted] and [redacted] tonnes in 2009 respectively. In 2010, the output of bromine is predicted to be about [redacted] tonnes owing to the decline in concentration of underground brine and impact from bad climates.

## II Status of bromine element supplier in China (2007-E2010)

About [redacted] of bromine producers are distributed in Shandong. More than [redacted] of them extract bromine from underground brine and the rest [redacted] use concentrated seawater as raw material in bromine production. These [redacted] producers belong to salt-making enterprises that are mainly distributed in Dongying City.

Figure II-1-2.2 Capacity and output of bromine in China, 2007~2010E



Source: CCM International

## IV Downstream industry of bromine and main bromides in China by field

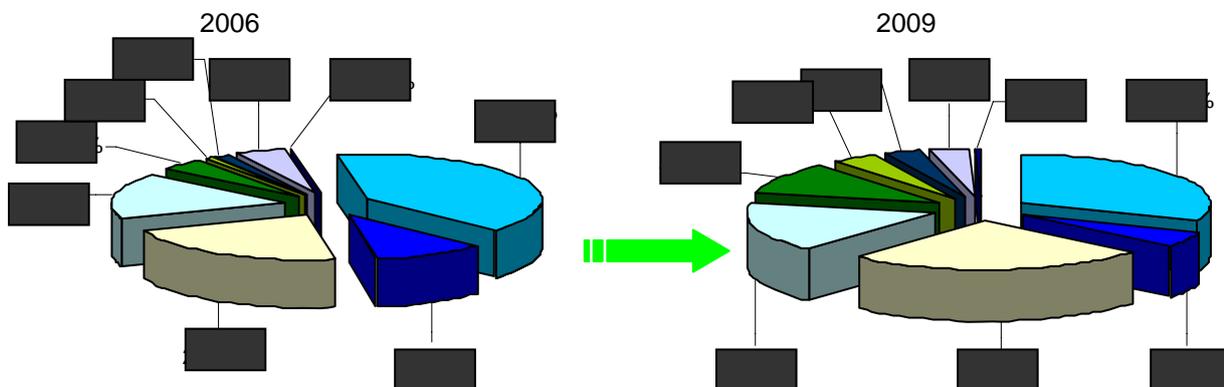
### IV-1 Flame retardant

#### IV-1-1 Development of flame retardant industry

In 2009, there have been more than [redacted] flame retardant manufacturers with total capacity and output of [redacted] tonnes respectively in 2009. Moreover, China's flame retardant industry is seeing strong growth momentum, driven by increasing varieties of new products developed at home, domestic climbing demand and related favorable policies, as

well as widening gap between supply and demand for overseas market.

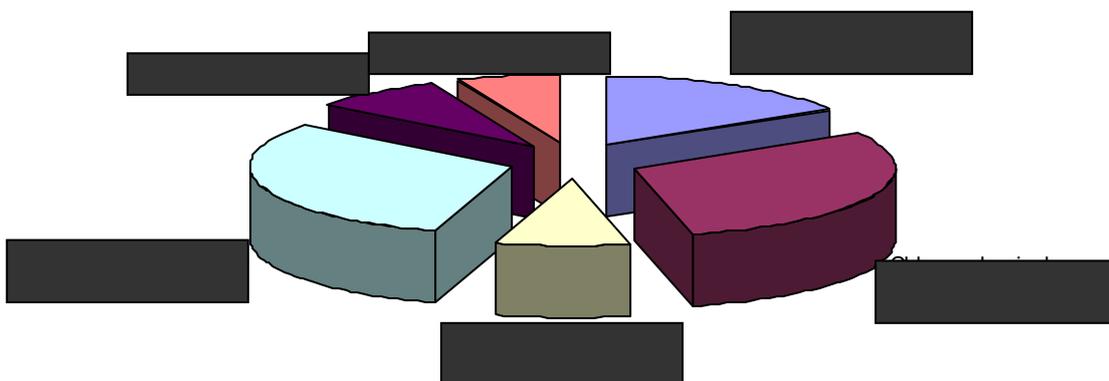
Figure IV-1-1.3 Output structure of flame retardants in China, 2006 and 2009



Source: CCM International

#### IV-2 Pharmaceutical

Figure IV-2-2.1 Share of bromine consumption in pharmaceutical field by product in China



Source: CCM International

#### IV-3-3 Main applications in pesticide industry

- Methyl bromide



#### IV-6 Others

Table IV-6.1 Status of N-propyl bromide production in China, 2007-2010

Year	Capacity, t/a	Output, tonne	Bromine consumption, tonne
2007	████	████	████
2008	████	████	████
2009	████	████	████
2010E	████	████	████

Source: CCM International

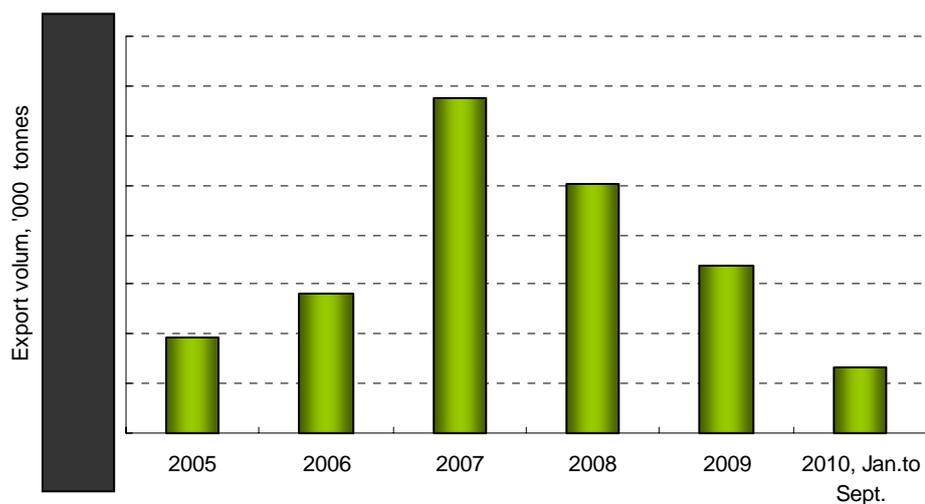
#### V Import & export analysis (2009)

Table V-1 Import situation of bromine in China, 2005-2010

Year	Volume, tonne	Value, USD	Average price, USD/kg
2005	████	████	████
2006	████	████	████
2007	████	████	████
2008	████	████	████
2009	████	████	████
2010, Jan. to Sept.	████	████	████

Source: CCM International

Figure V-5 Export volume of other bromides and oxybromides in the China, 2005-2010



Source: CCM International