Notes: Key data/information is included in the complete report while hidden in the sample page.

## 1 Organic acids

### 1.1 Citric acid

$\triangleleft$ Production

China is the most important production base of citric acid around the world, taking up more than half of the world's total output of citric acid. Around \% of China's citric acid is exported to other countries in 2011. Output of citric acid has jumped to $\square$ tonnes in 2011, from tonnes in 2008, with a CAGR of $\square$ \% in 2008-2011.

In the past few years, the downstream demand has increased in China driven by improvement of international economy, continuously growing economy in China and improvement of people's living condition. In addition, some competitive manufacturers have been continually expanding their capacity and output.

Some of the citric acid manufacturers have been washed out because they failed to meet the standards of national environmental protection and pollutant discharge.

Figure 1.1-1 Capacity and output of citric acid in China, 2008-2011


Source: CCM

Table 1.1-2 Capacity and output of major citric acid manufacturers in China, 2008-June 2012

| No. | Abbreviation | Status June2012 | Capacity, t/a |  |  |  |  | Output, tonne |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | June2012 | 2011 | 2010 | 2009 | 2008 | 2011 | 2010 | 2009 | 2008 |
| 1 | ShandongTTCA | Active | 300,000 |  |  |  |  |  |  |  |  |
| 2 |  | Active |  |  |  |  |  |  |  |  |  |
| 3 |  | Active |  |  |  |  |  |  |  |  |  |
| 4 |  | Active |  |  |  |  |  |  |  |  |  |
| 5 |  | Active |  |  |  |  |  |  |  |  |  |
| 6 |  | Active |  |  |  |  |  |  |  |  |  |
| 7 |  | Active |  |  |  |  |  |  |  |  |  |
| 8 |  | Active |  |  |  |  |  |  |  |  |  |
| 9 |  | Active |  |  |  |  |  |  |  |  |  |
| 10 |  | Active |  |  |  |  |  |  |  |  |  |
| 11 |  | Active |  |  |  |  |  |  |  |  |  |
| 12 |  | Active |  |  |  |  |  |  |  |  |  |
| 13 |  | Active |  |  |  |  |  |  |  |  |  |
| 14 |  | Active |  |  |  |  |  |  |  |  |  |
| 15 |  | Stop |  |  |  |  |  |  |  |  |  |
| 16 |  | Stop | - |  |  |  |  |  |  |  |  |
| 17 |  | Stop | 1 |  |  |  |  |  |  |  |  |
| 18 |  | Stop | 1 |  |  |  |  |  |  |  |  |
| Others |  | 1 |  |  |  |  |  |  |  |  |  |
| Total |  | / |  |  |  |  |  |  |  |  | 800,000 |

Source: CCM

## $\triangleleft$ Consumption

In China, main application fields of citric acid are food industry, chemical industry, pharmaceutical industry and cosmetic industry. Thereinto, the largest field is food industry (especially beverage industry), with consumption volume of $\square$ tonnes in 2011 and a CAGR of $\square \%$ in 2008-2011. The second largest application field is chemical industry (especially detergent industry), with consumption volume of $\square$ tonnes in 2011 and a CAGR of $\square$ in 2008-2011.

With the increasing consumption volume of beverage industry and detergent industry, the citric acid industry will see a bright future.

Figure 1.1-3 Apparent consumption of citric acid in China, 2008-2011


Source: CCM
$\diamond$ Forecast

The domestic apparent consumption for citric acid is expected to reach over $\square$ tonnes in 2016, with a CAGR of $\quad$ \% in 2012-2016, attributed to the rising downstream demand in China.

The rising domestic apparent consumption will make the citric acid output hit about $\square$ tonnes in 2016, with a CAGR of $\square$ \% in 2012-2016.

Table 1.1-3 Forecast on output and apparent consumption of citric acid in China, 2012-2016, tonne


Source: CCM

