

II-1.2 Summary of production

Currently, the production of ethanolamines is mainly located in Liaoning province, Jiangsu province, Guangdong Province and Shanghai City, which are not far away from production base of Epoxy ethane (EO).

Promoted by the increasing demand of ethanolamines in China, the domestic output of ethanolamines has increased rapidly. For example, the output of ethanolamines in 2007 was nearly three times as much as that in 2003, amounting to ██████ tonnes.

By April 2008, domestic supply of ethanolamines has failed to meet the market demand, which resulted from the following reasons.

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Table II-1.2-1 Capacity and output of ethanolamines in China in the past few years (Unit: tonne)

Year	Capacity	Operating rate	Output			Total	Growth rate
			MEA	DEA	TEA		
2000	████	████	████	████	████	████	-26.1%
2001	████	████	████	████	████	████	71.6%
2002	████	████	████	████	████	████	-28.0%
2003	████	████	████	████	████	████	73.0%
2004	████	████	████	████	████	████	9.5%
2005	████	████	████	████	████	████	30.4%
2006	████	████	████	████	████	████	20.0%
2007	████	████	████	████	████	████	60.3%

Table II-1.2-2 Potential projects of ethanolamines

Company	Location	Property	Launch time	Capacity, t/a
████████████████████	██████████	New	██████	██████
████████████████████	██████████	New	██████	██████
████████████████████	██████████	New	██████	██████
████████████████████	██████████	New	██████	██████
████████████████████	██████████	Enlarge	██████	██████
████████████████████	██████████	Enlarge	██████	██████
████████████████████	██████████	Enlarge	██████	██████
Total				██████

II-2 Raw materials supply status

Epoxy ethane (EO) is the major raw material for the production of ethanolamines in China. The supply and price of epoxy ethane has great impact on ethanolamines industry.

II-2.1 Production

2006	██████	██████	██████	██████	██████	██████	██████	██████
2007	██████	██████	██████	██████	██████	██████	██████	██████

The import price of MEA and DEA changed a little from 2000 to 2003, and the price difference of DEA in 2000 and 2003 was the maximal, about USD160/t. After 2003 the price of ethanolamines rose drastically because China started antidumping investigations of imported ethanolamines in May 2003, and in November 2004 China started collecting countervailing duty of 9-74% to the imported ethanolamines from Japan, USA, Iran, Mexico and Taiwan and so on in the coming 5 years.

II-5 Consumption patterns of ethanolamines

- Summary

Ethanolamines, a viscous compound that smells like ammonia, are commonly found in biological tissues, and it also has numerous industrial applications. It is widely applied to surfactant, emulsifier, and plasticizer, accelerant, curing ingredient and vesicant, and it could remove H₂S and CO₂ from refinery and natural gas streams. Ethanolamine is also important in the manufacture of herbicides, detergents, cosmetics, metal cleaners, and textiles.

Ethanolamines consumption in China has been increasing very rapidly in the past few years with CAGR of 16.2% in 2000-2007. In 2007, China consumed ██████ tonnes of ethanolamines while the consumption volume in 2000 was only ██████ tonnes. The quick development of its downstream industry such as agrochemical and polyurethane contributed a lot to Chinese ethanolamines consumption.

Figure II-5-1 Consumption of ethanolamines in China in the past few years

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