

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

1 Current cyanuric acid production situation in China

Cyanuric acid, a white, odorless solid and an industrially useful chemical that is widely used as a chlorine stabilizer in swimming pools, as a precursor to chlorinated cyanurates which are used to disinfect water, as a precursor to cross-linking agents, especially for polyurethane resins, as a raw material to manufacture many other types products like bleaches, water treatment products, herbicides, pharmaceuticals, and also as a non-protein nitrogen additive used in animal feed and drinking water in some countries. Besides, cyanuric acid was first synthesized in the world by Friedrich Wöhler in 1829 by the thermal decomposition of urea and uric acid.

In China, cyanuric acid has been in production for more than thirty years, with urea and sulfuric acid as the raw materials. The production of cyanuric acid in China is mainly concentrated in Shandong Province and Hebei Province, which are not only xxxx but also xxxx, and have ports close to or within their regions to export the product and its end use products to overseas markets.

Compared to its overseas counterparts, China's cyanuric acid production is rather scattered, with more than xx cyanuric acid producers. Both the total capacity and output from the 14 major producers covered in this report accounted for about xx% of the national total in 2014.

Most cyanuric acid producers usually produce ammonia sulfate at the same time. Besides, a majority of them also produce one or two downstream products of cyanuric acid, such as chlorinated isocyanurates like trichloroisocyanuric acid (TCCA), sodium dichloroisocyanurate (SDIC), or melamine cyanurate (MCA).

Table 1-1 Capacity and output of major cyanuric acid producers in China, 2014

No.	Producer	Website	Founded year	Capacity, t/a	Output, tonne
1	Shandong Wolan Biology Group Co., Ltd.	www.wolanchem.com	2004	XX	XX
2	Hebei Xingda Chemical Co., Ltd.	www.hbxingdachem.com	1997	XX	XX
3	Hebei Jiheng Chemical Co., Ltd.	www.jihengchem.com	1992	45,000	XX
4	Shandong Chiping Mingda Chemical Co., Ltd.	www.mingdachemicals.com	2005	XX	XX
5	Hebei Haida Chemical Industry Co., Ltd.	www.haida.com.cn	1996	XX	XX
6	XXXX	XXXX	1995	30,000	XX
7	Shandong Tengzhou Baokang Chemical Co., Ltd.	www.baokangchemical.com	2004	XX	Xx
				

2 Current cyanuric acid consumption situation in China

As an industrially useful chemical, cyanuric acid has many applications. Its major application in China is to produce chlorinated isocyanurates, which has two types of commercially useful chlorinated isocyanurates: trichloroisocyanuric acid (TCCA) and sodium dichloroisocyanurate (anhydrous and dihydrate) (SDIC), which are used as disinfecting, bleaching and sanitizing agents.

Cyanuric acid is also used to produce cross-linking agents especially for polyurethane resins, with the major one being 1,3,5-Triglycidyl Isocyanurate (TGIC). Two other important products that cyanuric acid is used to produce in China are melamine cyanurate (MCA), a derivative of melamine and mainly served as flame retardant in PA6 with many advantages, and triglycidyl isocyanurate (THEIC), which is mainly used to produce polyurethane type heat-resistant insulation paint, etc. Cyanuric acid can also be used to produce herbicides and pharmaceuticals, though the volume hasn't been very big by far.

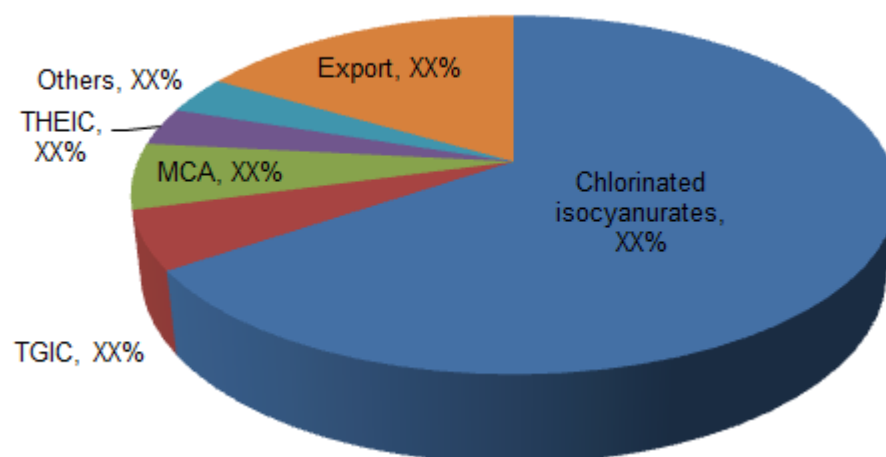
Besides its applications as a raw material to produce other products, cyanuric acid can also be used directly as a chlorine stabilizer in swimming pools, or as a non-protein nitrogen additive used in animal feed and drinking water in some countries. However, in these applications, cyanuric acid's consumption volume has been relatively small compared to that of the other applications in China.

Cyanuric acid consumption in China has kept on growing with robust demand from major end use products, mainly chlorinated isocyanurates, TGIC, THEIC, and MCA, from both domestic and overseas markets.

In 2014, more than XXX tonnes of China's cyanuric acid was consumed in its local market and more than XXX tonnes exported. Among all the end uses, the consumption in the production of

chlorinated isocyanurates takes up the largest consumption volume, accounting for about XXX % of China's total cyanuric acid supply in 2014.

Figure 2-1 Consumption structure of China's cyanuric acid by volume, 2014



Source: CCM