



CCM Data & Business
Intelligence

Production of Sugar Alcohols in China

**The Fourth Edition
December 2022**

Researched & Prepared by:

Kcomber Inc.

Copyright by Kcomber Inc.

Any publication, distribution or copying of the content in this report is prohibited.

Contents

Executive summary	1
Introduction and methodology	2
1 Overview	4
2 Hot spots of sugar alcohol industry in China, 2019–2021	5
3 Sorbitol	8
3.1 Capacity and output of sorbitol in China, 2017–2021	8
3.2 Major producers and distribution of sorbitol in China, 2017–2021	8
3.3 Monthly ex-works price of sorbitol in China, Jan. 2017–Oct. 2022	11
4 Maltitol	14
4.1 Capacity and output of maltitol in China, 2017–2021	14
4.2 Major producers and distribution of maltitol in China, 2017–2021	14
4.3 Monthly ex-works price of maltitol in China, Jan. 2017–Oct. 2022	16
5 Xylitol	19
5.1 Capacity and output of xylitol in China, 2017–2021	19
5.2 Major producers and distribution of xylitol in China, 2017–2021	19
5.3 Monthly ex-works price of xylitol in China, Jan. 2017–Oct. 2022	21
6 Mannitol	23
6.1 Capacity and output of mannitol in China, 2017–2021	23
6.2 Major producers and distribution of mannitol in China, 2017–2021	23
6.3 Monthly ex-works price of mannitol in China, Jan. 2017–Oct. 2022	26
7 Erythritol	27
7.1 Capacity and output of erythritol in China, 2017–2021	27
7.2 Major producers and distribution of erythritol in China, 2017–2021	28
7.3 Monthly ex-works price of erythritol in China, Jan. 2017–Oct. 2022	31

LIST OF TABLES

LIST OF TABLES

Table 3.2-1 Capacity and output of sorbitol producers in China, 2017–2021
Table 4.2-1 Capacity and output of maltitol producers in China, 2017–2021
Table 5.2-1 Capacity and output of xylitol producers in China, 2017–2021
Table 6.2-1 Capacity and output of mannitol producers in China, 2017–2021
Table 7.2-1 Capacity and output of erythritol producers in China, 2017–2021

LIST OF FIGURES

Figure 3.2-1 Capacity distribution of the top ten sorbitol producers in China, 2021
Figure 3.3-1 Monthly ex-works price of 70% syrup sorbitol in China, Jan. 2017–Oct. 2022
Figure 3.3-2 Monthly ex-works price of crystalline sorbitol in China, Jan. 2017–Oct. 2022
Figure 4.2-1 Shares of maltitol capacity in China by region, 2021
Figure 4.3-1 Monthly ex-works price of 75% liquid maltitol in China, Jan. 2017–Oct. 2022
Figure 4.3-2 Monthly ex-works price of crystalline maltitol in China, Jan. 2017–Oct. 2022
Figure 5.3-1 Monthly ex-works price of xylitol in China, Jan. 2017–Oct. 2022
Figure 6.3-1 Monthly ex-works price of food grade mannitol in China, Jan. 2017–Oct. 2022
Figure 7.1-1 Capacity and its growth rate of erythritol in China, 2017–2021
Figure 7.3-1 Monthly ex-works price of erythritol in China, Jan. 2017–Oct. 2022

Executive summary

The sugar alcohol industry is a branch of the corn deep processing industry. With the advantages of high safety, low calories and low GI (glycemic index) value, sugar alcohols have become more and more popular. Generally speaking, the sugar alcohol industry in China experienced fine development in the past five years, with higher recognition and wider applications.

Production

In 2017–2021, different changes were recorded in the capacity of the five products:

- Erythritol enjoyed rapid growth, with a CAGR of 47.6%.
- Xylitol experienced an increase with a CAGR of 14.0%.
- Sorbitol and mannitol witnessed slight fluctuations.
- Maltitol saw a slight decline, falling from 238,000 t/a in 2017 to 232,000 t/a in 2021.

The total output of these major sugar alcohols increased from 1,022,100 tonnes in 2017 to 1,695,600 tonnes in 2021, with a CAGR of 13.5%.

Price

In 2017, prices of most sugar alcohols stopped declining and rebounded due to the rising corn price, decreased supply, along with increasing demand.

In 2018–2019, prices witnessed fluctuations, attributed to the changing supply-demand dynamics.

Affected by shrinking demand under COVID-19, prices declined in H1 2020. Since H2 2020, they rebounded and continued to go up, driven by higher corn prices and increasing downstream demand.

The price of erythritol started increasing in Oct. 2020, reaching a peak in June 2021, and kept decreasing from July 2021 to Oct. 2022, while prices of the other four sugar alcohols fluctuated, decreasing first, then increasing and decreasing later.

Introduction and methodology

Introduction

This report presents the development of sugar alcohols in China from 2017 to 2021, together with the production situation of sorbitol, maltitol, xylitol, mannitol and erythritol. It attaches importance to the following parts.

- Annual review of hot spots in China's sugar alcohols industry in 2019–2021
- Capacity and output in China, 2017–2021
- Major producers and distribution in China, 2017–2021
- Monthly ex-works price, Jan. 2017–Oct. 2022

Methodology and source

The report is based on data sourced by diverse methods, which are listed as follows:

- Desk research

Desk research includes access to published magazines, journals, government statistics, industry statistics, customs statistics, association seminars as well as information on the Internet. Much work has gone into the compilation and analysis of the information obtained. When necessary, information has been checked and discussed internally related to market structure and performance characteristics, such as key producers, key end users, production levels, demand from end users.

- Telephone interview

CCM has conducted extensive telephone interviews with major participants in the industry in order to research the sugar alcohol market in China.

The interviewees include the following groups:

- Key producers
- Key traders
- Associations involved
- Industry experts

- Network search

CCM employs network to contact industry participants by using B2B websites and software.

- Data processing and presentation

The data collected and compiled was variously sourced from:

- CCM's database
- Published articles from periodicals, magazines, journals and third-party databases
- Statistics from governments and international institutes
- Telephone interviews with domestic producers, joint ventures, service suppliers and government agencies
- Third-party data providers
- Customs statistics

The data has been combined and cross-checked to ensure that this report is as accurate and methodologically sound as possible. Throughout the process, a series of discussions were held within CCM to systematically analyse the data and draw appropriate conclusions.

- Unit and abbreviation

RMB: currency unit in China, also called Yuan

USD: currency unit in the US, also called US dollar

tonne: equals to metric ton in this report

t/a: tonne/annual or tonne/year

/t: per tonne

CAGR: compound annual growth rate

Table USD/CNY exchange rate, Jan. 2016–Nov. 2021

Table USD/CNY exchange rate, Jan. 2017–Oct. 2022

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly average
2017	6.8918	6.8713	6.8932	6.8845	6.8827	6.8019	6.7772	6.7148	6.5909	6.6493	6.6300	6.6067	6.7662
2018	6.5079	6.3045	6.3352	6.2764	6.3670	6.4078	6.6157	6.8293	6.8347	6.8957	6.9670	6.9431	6.6070
2019	6.8482	6.7081	6.6957	6.7193	6.7344	6.8896	6.8716	6.8938	7.0883	7.0726	7.0437	7.0262	6.8826
2020	6.9614	6.9249	6.9811	7.0771	7.0690	7.1315	7.0710	6.9980	6.8498	6.7796	6.7050	6.5921	6.9284
2021	6.5408	6.4623	6.4754	6.5584	6.4895	6.3572	6.4709	6.4660	6.4680	6.4604	6.4192	6.3693	6.4615
2022	6.3794	6.3580	6.3014	6.3509	6.5672	6.6651	6.6863	6.7467	6.8821	7.0992	/	/	6.6036

Source: The People's Bank of China

1 Overview

As natural and low-calorie sweeteners, sugar alcohols are highly recognized and widely used in the food, pharmaceutical and chemical industries. In recent years, the sugar alcohol industry has maintained a good momentum, with improved production technology and expanded application fields. However, there were still some problems during its development, such as excess capacity and low capacity utilization.

Higher concentration was witnessed in the sugar alcohol industry from 2017 to 2021. On one hand, due to rising costs, rigorous environmental inspection and sometimes poor operation, some small producers left the industry. On the other hand, in spite of overcapacity, some large-scale producers expanded their capacity and newcomers joined the market seeing a promising future.

In the past five years, the development of sorbitol, xylitol, mannitol and maltitol slowed down, while erythritol, a zero-calorie sweetener, witnessed a rapid development stimulated by the rising demand for sugar-free beverages in recent years.

Opportunities and challenges coexist in the future market of sugar alcohols. For one thing, driven by the global trend of sugar reduction, demand from downstream sectors is expected to increase further. For another, the sugar alcohol industry is still facing the challenge of overcapacity. In addition, other natural sweeteners, such as stevia and mogroside, also enjoyed fast growth benefiting from the increasing popularity of a low-sugar diet. In this context, it is necessary for sugar alcohol producers to improve competitiveness through technical innovation and cost reduction.

2 Hot spots of sugar alcohol industry in China, 2019–2021

Governmental direction

From 1 Jan., 2021, the conventional tariff rates under China's bilateral trade agreements with New Zealand, Peru, Costa Rica, Switzerland, Iceland, Australia, South Korea, Chile, Georgia and Pakistan and the Asia-Pacific Trade Agreement (APTA) will be further reduced. The conventional tariff rate for mannitol (HS 29054300) imported from Pakistan will be reduced by 1%. The conventional tariff rates for sorbitol (HS 29054400) and sorbitol (HS 38246000) other than the specific item 29054400 imported from Korea and Sweden will be lowered by 1.40%.

On 12 May 2020, the Customs Tariff Commission of the State Council issued the Notice Concerning the Second Exclusion from the Second Batch of Additional Tariffs on US Imports. From 19 May 2020 to 18 May 2021, China excluded 79 products from additional tariffs imposed on US imports as countermeasures to US Section 301 measures. Among them, sorbitol (HS code 29054400) was included.

On 9 May, 2019, the US government broke the previous agreement with China, unilaterally declaring to raise tariffs on USD200 billion worth of Chinese products from 10% to 25%. As a countermeasure to this provocation, China imposed higher tariffs on USD60 billion worth of US goods from 1 June, 2019, some sugar alcohols included.

Previously, on 24 Sept., 2018, China imposed 10% or 5% tariffs on about USD60 billion worth of US commodities across 5,207 items also covering some sugar alcohols. In comparison, tariffs on xylitol remained at 5%; tariffs on sorbitol (HS code 29054400) and sorbitol (HS code 38246000) increased from 5% to 10%; tariffs on mannitol mounted from 10% to 25%.

Market dynamics

On 7 Jan., 2019, Zibo Zhongshun Biotechnology Co., Ltd. put its functional sugar contract out to tender. In 2019, it made two announcements on the results of the environmental impact assessment (EIA) of the project, with the first one in Aug. and the second in Nov. The company planned to invest USD30.66 million (RMB211 million) to set up production lines of 12,000 t/a erythritol and 8,000 t/a zero-calorie sugar.

On 16 Jan., 2019, the second announcement of the EI report of Shandong Tianli Pharmaceutical Co., Ltd. (Shandong Tianli) 's polyol reconstructed and expanded project was published. According to the report, Shandong Tianli planned to upgrade the technologies used in its current polyol production lines so that the capacity could increase from 500,000 t/a to 550,000 t/a, including 450,000 t/a of sorbitol, 50,000 t/a of maltitol, 30,000 t/a of mannitol, and 20,000 t/a of glucose.

On 12 March 2019, Qinquangdao Lihua Starch Co., Ltd. published on its official site the environmental information of its project to upgrade the sorbitol production technique. The project started construction on 5 Sept., 2017 and was put into trial operation on 27 March, 2018. From 25 to 26 Sept., 2018, monitoring was made; results showed that the production line was run at 85% capacity (output: 180 t/d). After completion, the sorbitol production technique was upgraded, without changes in capacity (70,000 t/a).

On 18 June 2019, Zhucheng Dongxiao Biotechnology Co., Ltd. (Zhucheng Dongxiao)'s energy-saving report on 20,000 t/a high-end erythritol expansion project was approved. After completion, it could increase the company's erythritol capacity by 10,000 t/a. This project was put into trial production in June 2020.

On 25 June 2019, Zhaoqing High-Tech Network issued a public notice on the acceptance of the EI report for Zhaoqing Huanfa Bio-technology Co., Ltd. (Zhaoqing Huanfa) 's expansion project. After completion, the annual output of liquid sorbitol, crystalline sorbitol and crystal mannitol could be increased by 50,000 tonnes, 20,000 tonnes and 10,000 tonnes respectively.

On 9 Aug., 2019, Anhui BBKA Likang Pharmaceutical Co., Ltd. issued a project filing announcement on the 30,000 t/a of erythritol and 5,000 t/a of glutamine. This new project is located in Anhui Province, with a total investment of USD41.85 million (RMB288.05 million) and a construction period of one year. But the COVID-19 greatly affected the progress.

On 26 Aug., 2019, Dezhou National High-Tech Industrial Development Zone issued the first EI report of the 25,000 t/a functional sugar project of Shandong Bailong Chuangyuan Biotechnology Co., Ltd. (Shandong

Bailong). According to the announcement, the project involves 5,000 t/a xylitol and 10,000 t/a xylose oligosaccharide.

On 10 April, 2020, Hubei HIYEE Biotechnology Co., Ltd. firstly publicized the EIA of the 4,000 t/a erythritol technological transformation project. The project is to transform the 4,000 t/a production capacity of yeast into erythritol.

On 15 April, 2020, the EI report of Dezhou Heyang Biotechnology Co., Ltd.'s high-end starch and deep processing project was publicized, with a total investment of USD0.16 billion (RMB1.12 billion). According to the report, the project involves 20,000 t/a erythritol. The project started construction in March 2021, and was still under construction as of Nov. 2021.

On 15 July, 2020, Shandong Longlive Bio-technology Co., Ltd. (Shandong Longlive) was delisted from Shenzhen Stock Exchange. In recent years, Shandong Longlive was in a financial quagmire and reported negative audited net assets for three consecutive fiscal years in 2017–2019.

In Sept., 2020, Baolingbao Biology Co., Ltd. (Baolingbao Biology) started the construction of an expansion project with 13,000 t/a erythritol. After 10 months of construction & commissioning, the project was completed and put into production at the end of July 2021.

On 28 Sept., 2020, Zhejiang Huakang Pharmaceutical Co., Ltd. was approved by the China Securities Regulatory Commission (CSRC) for its Initial Public Offering (IPO) application and was listed on the Shanghai Stock Exchange on 9 Feb., 2021.

On 21 Dec., 2020, Shandong Sanyuan Biotechnology Co., Ltd. (Shandong Sanyuan) announced in its prospectus that it plans to raise USD129.90 million (RMB900 million) for the 50,000 t/a erythritol and technology center project. The project is planned to be constructed in three phases:

- Phase □: to build 20,000 t/a erythritol production lines and a technology center, 24 months from raising funds to going into production
- Phase □: to build 20,000 t/a erythritol production lines, 12 months from the operation of phase □ to the completion of phase □
- Phase □: to build 10,000 t/a erythritol production lines, 12 months from the operation of phase □ to the completion of phase □

On 21 Dec., 2020, the EI report of Rizhao Puli Biotechnology Co., Ltd.'s 100,000 t/a erythritol project was publicized, with a total investment of USD0.22 billion (RMB1.50 billion). This project is one of the key projects in Shandong Province in 2021, and is expected to be completed and put into operation in Dec. 2023.

On 8 April, 2021, Shandong Bailong officially released its IPO prospectus, and it was successfully listed on the Shanghai Stock Exchange on 9 April. The company will raise USD61.94 million (RMB406.22 million) for a 30,000 t/a soluble dietary fibre project, a 10,000 t/a isomaltitol oligosaccharides project, a 6,000 t/a crystalline maltitol project, and repayment of bank loans and supplement of working capital.

On 14 July, 2021, Baolingbao Biology released its non-public offering plan placing no more than 90 million private shares of up to USD110.02 million (RMB711.90 million), and all funds raised goes to 30,000 t/a crystalline erythritol project, 30,000 t/a allulose (dry state) project, application solution research center project and supplementary working capital project.

On 21 June, 2021, Shandong Jianyihong Biological Pharmaceutical Co., Ltd. announced that its 5,000 t/a crystalline lactitol project and 20,000 t/a crystalline xylitol project have completed construction.

On 6 Aug., 2021, the acceptance inspection report of Shandong Sanyuan's 20,000 t/a erythritol technological upgrading project was publicized. This product was built in May 2021.

On 2 Sept., 2021, the local government announced the acceptance of the EI report of Zhaoqing Huanfa's expansion project and publicised it on its website. The project will expand the company's liquid sorbitol capacity by 60,000 t/a.

On 20 Oct., 2021, and 27 Oct., 2021, the draft EI reports of Zhucheng Dongxiao's 30,000 t/a premium erythritol intelligence reconstruction project and 30,000 t/a premium erythritol production project were made public.

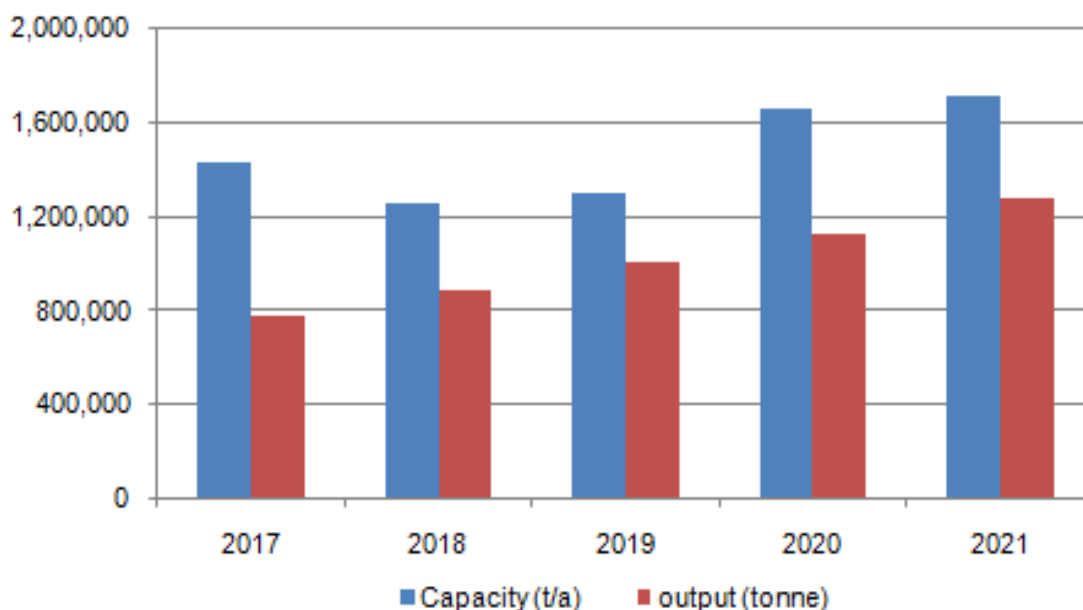
On 25 Nov., 2021, the second round of information announcement on the EI report of Shandong Starlight So True Biological Technology Co., Ltd.'s project of 50,000 t/a functional sugars (alcohol) was made. On 9 Aug., the EI report was first publicised. Products include 10,000 t/a galacto oligosaccharide (GOS), 10,000 t/a isomalto-oligosaccharide (IMO) and 30,000 t/a erythritol.

On 29 Nov., 2021, the EI report of Hebei Yuxing Bio-Engineering Co., Ltd.'s 160,000 t/a erythritol project was publicised. The project is divided into three phases (40,000 t/a, 40,000 t/a and 80,000 t/a respectively).

3 Sorbitol

3.1 Capacity and output of sorbitol in China, 2017–2021

Figure 3.1-1 Capacity and output of sorbitol in China, 2017–2021



Source: CCM

The capacity of sorbitol in China was 1,673,000 t/a in 2016 but decreased year by year to 1,257,000 t/a in 2018. In 2019–2021, owing to expansion projects of Zhaoqing Huanfa Bio-technology Co., Ltd., Zhejiang Huakang Pharmaceutical Co., Ltd. and Shandong Tianli Pharmaceutical Co., Ltd., and a newly-established project of Heilongjiang NHU Biotechnology Co., Ltd., China's sorbitol capacity increased to 1,712,000 t/a in 2021.

The output of sorbitol declined a lot from 936,000 tonnes in 2016 to 780,500 tonnes in 2017. The decline was mainly triggered by stringent environmental inspections. The output then rebounded in 2018 and reached 1,012,500 tonnes in 2019, thanks to the increasing consumption in vitamin C production and overseas demand. Growing demand drove the output further up, to 1,132,600 tonnes in 2020 and 1,286,000 tonnes in 2021.

3.2 Major producers and distribution of sorbitol in China, 2017–2021

There were 15 active producers of sorbitol in China in 2021, most of which maintained an operating rate above 60%. Shandong Tianli Pharmaceutical Co., Ltd. (Shandong Tianli), Roquette (China) Co., Ltd., Zhaoqing Huanfa Bio-technology Co., Ltd. and Chiping Detong Biology Co., Ltd. were the top four in terms of output in 2021, their output accounting for 76.2% of the total.

Khalista (Liuzhou) Chemical Industries Ltd. once had a capacity of 120,000 t/a, ranking fourth during 2016–2017, but it stopped production in 2018 because foreign investors withdrew capital.

Sorbitol production is highly concentrated in the eastern parts of China. Among all regions in China, Shandong Province took the lead, capturing over 56% of the total capacity in 2021, mainly thanks to Shandong Tianli, the largest sorbitol producer in China. Jiangsu Province ranked second, followed by Guangdong Province and Zhejiang Province, both of them having one active producer.

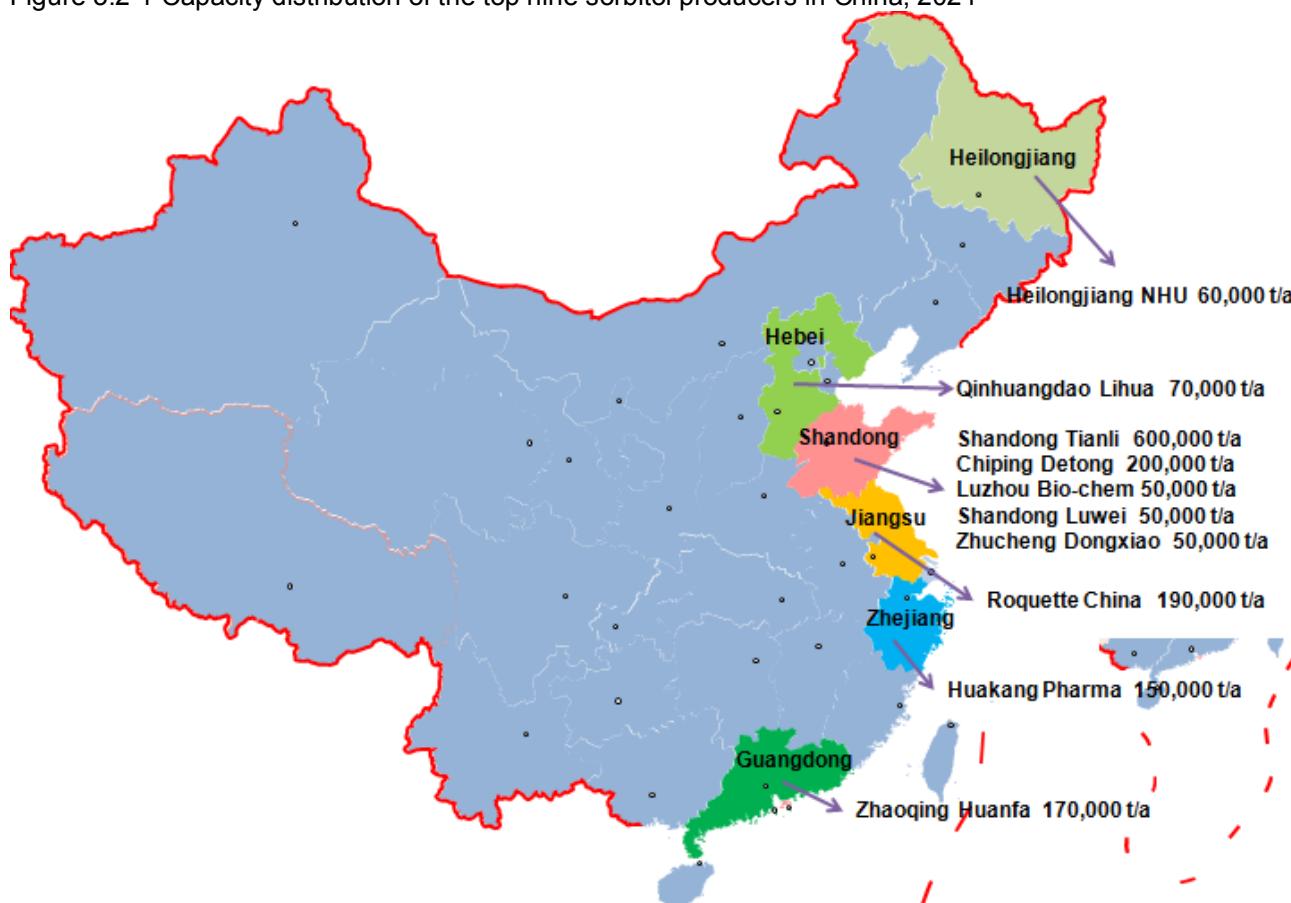
Table 3.2-1 Capacity and output of sorbitol producers in China, 2017–2021

No.	Company name	Abbreviation	Location	Status 2021	Capacity, t/a					Output, tonne				
					2,021	2,020	2,019	2,018	2017	2021	2020	2019	2018	2017
1	Shandong Tianli Pharmaceutical Co., Ltd.	Shandong Tianli	Shandong	Active	600,000	600,000	400,000	400,000	400,000	510,000	400,000	375,000	380,000	350,000
2	Chiping Detong Biology Co., Ltd.	Chiping Detong	Shandong	Active	200,000	200,000	200,000	200,000	200,000	120,000	172,000	87,000	65,000	15,000
3	Roquette (China) Co., Ltd.	Roquette China	Jiangsu	Active	190,000	190,000	190,000	190,000	190,000	185,000	180,000	170,000	160,000	150,000
4	Zhaoqing Huanfa Bio-technology Co., Ltd.	Zhaoqing Huanfa	Guangdong	Active	170,000	150,000	150,000	100,000	100,000	165,000	143,000	142,000	90,000	85,000
5	Zhejiang Huakang Pharmaceutical Co., Ltd.	Huakang Pharma	Zhejiang	Active	150,000	120,000	20,000	20,000	20,000	49,000	26,000	25,000	20,500	9,000
6	Qinhuangdao Lihua Starch Co., Ltd.	Qinhuangdao Lihua	Hebei	Active	70,000	70,000	70,000	70,000	70,000	62,000	59,000	60,000	50,000	40,000
7	Heilongjiang NHU Biotechnology Co., Ltd.	Heilongjiang NHU	Heilongjiang	Active	60,000	60,000	0	0		40,000	1,000	0	0	0
8	Luzhou Bio-chem Technology (Shandong) Co., Ltd.	Luzhou Bio-chem	Shandong	Active	50,000	50,000	50,000	50,000	50,000	47,000	46,000	45,000	45,000	30,000
9	Shandong Luwei Pharmaceutical Co., Ltd.	Shandong Luwei	Shandong	Active	50,000	50,000	50,000	50,000	50,000	44,000	41,000	42,000	30,000	30,000
10	Zhucheng Dongxiao Biotechnology Co., Ltd.	Zhucheng Dongxiao	Shandong	Active	50,000	50,000	50,000	50,000	50,000	45,000	43,000	42,000	30,000	30,000
11	Qingdao Brightmoon Seaweed Group Co., Ltd.	Shandong Brightmoon	Shandong	Active	10,000	10,000	10,000	10,000	10,000	6,000	6,800	7,000	6,000	6,000

No.	Company name	Abbreviation	Location	Status 2021	Capacity, t/a					Output, tonne				
					2,021	2,020	2,019	2,018	2017	2021	2020	2019	2018	2017
12	Shandong Jintian Bio-technology Co., Ltd.	Shandong Jintian	Shandong	Active	6,000	6,000	6,000	6,000	6,000	3,000	4,300	4,500	4,000	3,000
13	Shouguang Golden Sun Sugar Alcohol Co., Ltd.	Shouguang Golden Sun	Shandong	Active	6,000	6,000	6,000	6,000	6,000	2,000	4,200	4,500	3,500	3,000
14	Shijiazhuang Huaxu Pharmaceutical Co., Ltd.	Huaxu Pharma	Hebei	Active	6,000	6,000	6,000	6,000	6,000	4,000	3,900	4,000	3,000	2,000
15	Guangxi Nanning Chemical Pharmaceutical Co., Ltd.	Nanning Chemical	Guangxi	Active	4,000	4,000	4,000	4,000	4,000	4,000	2,400	2,500	1,500	1,500
16	Shandong Lvjian Biological Technology Co., Ltd.	Yucheng Lvjian	Shandong	stopped	0	0	5,000	5,000	5,000	0	0	2,000	3,000	3,000
17	Khalista (Liuzhou) Chemical Industries Ltd.	Khalista Chemical	Guangxi	stopped	0	0	0	0	120,000	0	0	0	0	20,000
18	Shanghai Dasheng Food Co., Ltd.	Shanghai Dasheng	Shanghai	stopped	0	0	0	0	5,000	0	0	0	0	3,000
Others					90,000	90,000	90,000	90,000	126,000	0	0	0	0	0
Total					1,712,000	1,662,000	1,307,000	1,257,000	1,418,000	1,286,000	1,132,600	1,012,500	891,500	780,500

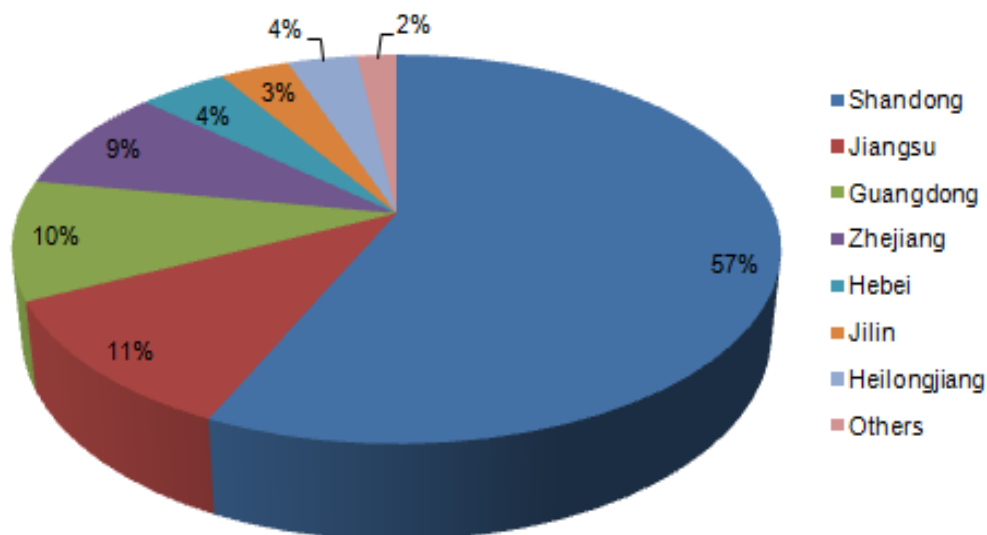
Source: CCM

Figure 3.2-1 Capacity distribution of the top nine sorbitol producers in China, 2021



Source: CCM

Figure 3.2-2 Shares of sorbitol capacity in China by region, 2021



Note: Due to rounding, the total may not equal 100%.
Source: CCM

3.3 Monthly ex-works price of sorbitol in China, Jan. 2017–Oct. 2022

From Jan. 2017 to Oct. 2017, the price of 70% syrup sorbitol was in the range of USD348–379/t, with the lowest price being USD348/t in May, also the lowest in 5 years.

The price rebounded and jumped from USD376/t in Oct. 2017 to USD566/t in April 2018, up by 50.4%. The surge was mainly because of shrinking supply as the production is restricted by the government in peak season. However, oversupply drove the price down from May 2018 to Nov. 2018; it then rebounded and

experienced a small peak from Dec. 2018 to Feb. 2019 thanks to increasing downstream demand. Since March 2019, the price went down and then fluctuated between USD382/t and USD424/t during H2 2019 and H1 2020.

Since July 2020, the price had gone up, driven by the higher corn price and stronger downstream demand. But the price started to drop in March 2021 due to the price cut of corn, the June 2021 price registered at USD476/t.

In the second half of 2021, driven by global inflation and rising raw material and energy prices, syrup sorbitol prices rose to USD654/t in Nov. 2021, a five-year high. In the Spring Festival of 2021, the COVID-19 pandemic again broke out. As a result, demand for liquid sorbitol weakened in early 2022, and the price dropped to USD475/t in Feb. 2022. In March, April and May, prices recovered as the outbreak was contained and production resumed, but then weak consumption and demand pulled prices down again.

As for the ex-works price of crystalline sorbitol, from Jan. 2017 to May 2018, it fluctuated between USD1,244/t and USD1,135/t. Then up to H1 2019, the price of crystalline sorbitol witnessed a similar change as syrup sorbitol. In H2 2019, the price climbed up in growing demand.

Affected by the sluggish demand under COVID-19, the price saw a general downtrend in H1 2020. Then, as the economy recovered, the price rebounded; the price reached a new peak in Feb. 2021, and then it dropped slightly and hovered around USD1,250/t. In the second half of 2021, the price of crystal sorbitol rose to a 5-year high of USD1,355/t in Nov. 2021 due to the impact of inflation. After that, USD1,203/t was recorded in Feb. 2022 due to the Spring Festival and the epidemic. In March, April and May, the price rose to USD1,279/t in May 2022 as the outbreak was brought under control and production resumed. After that, as demand weakened, prices fell all the way down to USD1,127/t in Oct.

Figure 3.3-1 Monthly ex-works price of 70% syrup sorbitol in China, Jan. 2017–Oct. 2022



Source: CCM

Figure 3.3-2 Monthly ex-works price of crystalline sorbitol in China, Jan. 2017–Oct. 2022

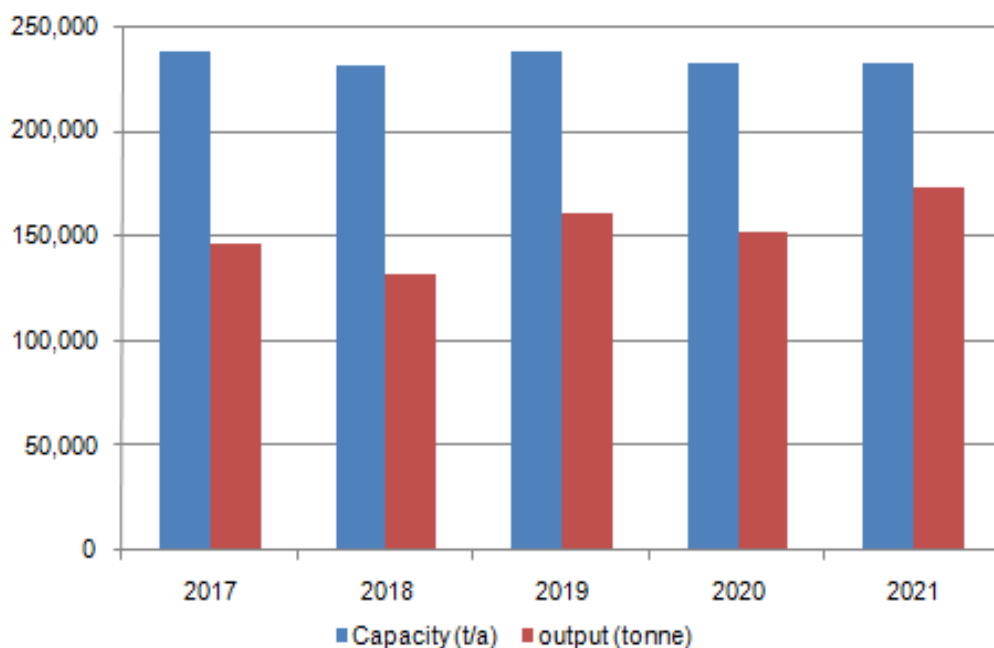


Source: CCM

4 Maltitol

4.1 Capacity and output of maltitol in China, 2017–2021

Figure 4.1-1 Capacity and output of maltitol in China, 2017–2021



Source: CCM

The capacity of maltitol in China was 238,000 t/a in 2016 and 2017. Notably, in 2018, due to overcapacity and low profit, Khalista (Liuzhou) Chemical Industries Ltd. stopped production and Zhejiang Huakang Pharmaceutical Co., Ltd. (Huakang Pharma) changed part of its maltitol production lines to produce xylitol. Therefore, the capacity of maltitol dropped to 231,000 t/a in 2018. However, Huakang Pharma restored its maltitol production lines in 2019. As a result, the capacity of maltitol went back up to 238,000 t/a. In 2020, due to poor management, Shandong Lvjian Biological Technology Co., Ltd. stopped maltitol production, so maltitol capacity in China dropped to 232,000 t/a.

In terms of output, it increased to 146,500 tonnes in 2017, driven by increasing demand, but declined by 9.8% year on year to 132,100 tonnes in 2018, triggered by the fierce competition in the sugar alcohol market. With the low-sugar diet getting popular, demand from downstream sectors increased, which led to the rapid growth of maltitol production. The output came to 160,900 tonnes in 2019, with an operating rate of 67.6%. In 2020, due to the aftermath of COVID-19, the demand for maltitol decreased, and the output of maltitol dropped to 151,700 tonnes, down 5.7% year on year. In 2021, the output increased to 173,000 tonnes, up 14.0% year on year, along with economic recovery.

4.2 Major producers and distribution of maltitol in China, 2017–2021

In 2021, there were 9 active maltitol producers in China. Among them, in terms of output in 2021, Shandong Tianli Pharmaceutical Co., Ltd. was the largest producer, followed by Zhucheng Dongxiao Biotechnology Co., Ltd., the two together accounting for about 53.8% of the national total.

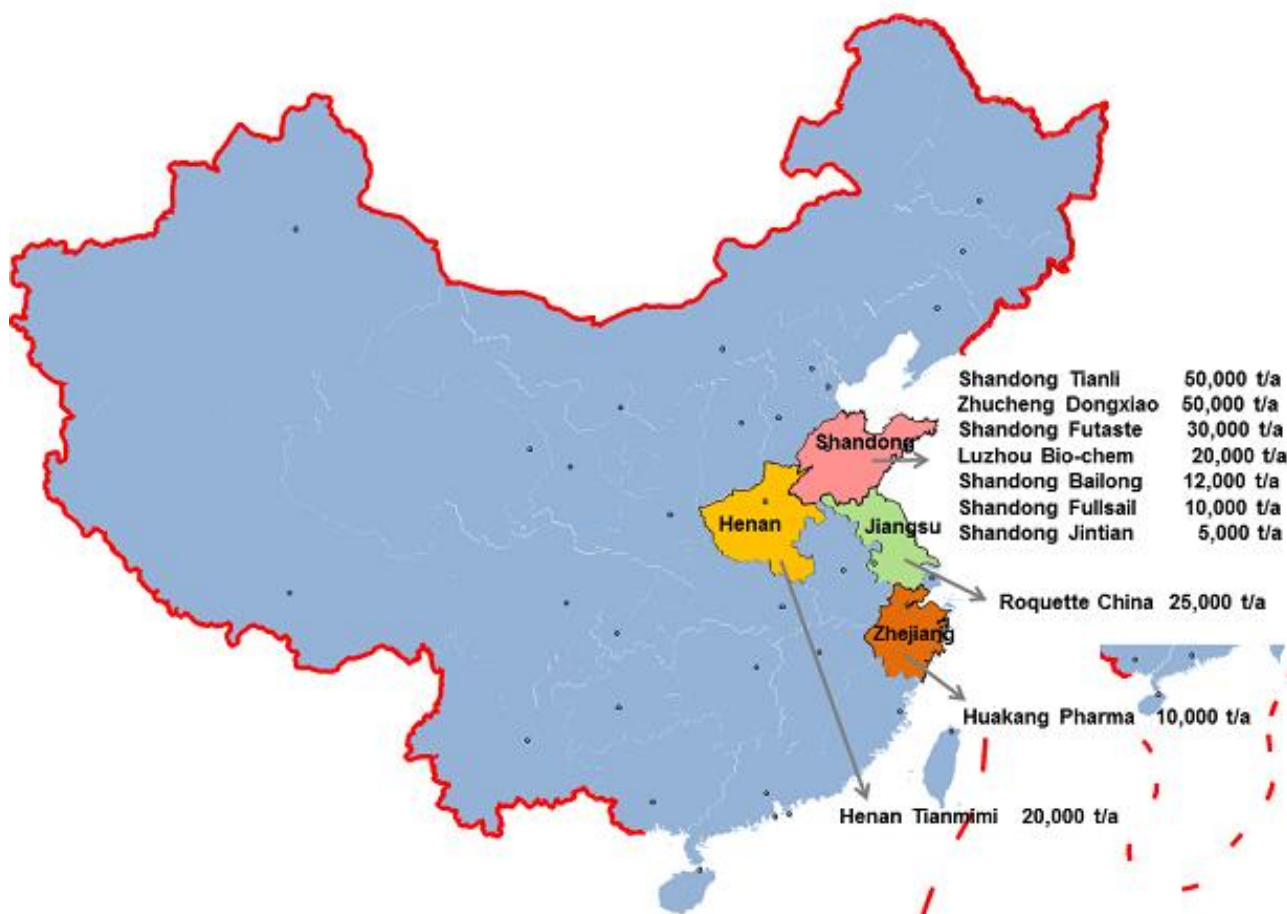
Domestic maltitol manufacturers are highly concentrated in the eastern part of China. In 2021, the capacity in Shandong Province accounted for 76.3% of the national total, since 7 active producers are located there; Jiangsu, Henan and Zhejiang provinces all had one producer.

Table 4.2-1 Capacity and output of maltitol producers in China, 2017–2021

No.	Producer	Abbreviation	Location	Status 2021	Capacity, t/a					Output, tonne				
					2021	2020	2019	2018	2017	2021	2020	2019	2018	2017
1	Shandong Tianli Pharmaceutical Co., Ltd.	Shandong Tianli	Shandong	Active	50,000	50,000	50,000	50,000	50,000	48,000	41,000	39,000	36,000	38,000
2	Zhucheng Dongxiao Biotechnology Co., Ltd.	Zhucheng Dongxiao	Shandong	Active	50,000	50,000	50,000	50,000	50,000	45,000	31,000	32,000	28,000	30,000
3	Roquette (China) Co., Ltd.	Roquette China	Jiangsu	Active	25,000	25,000	25,000	25,000	25,000	23,000	21,500	22,000	19,000	21,000
4	Shandong Futaste Pharmaceutical Co., Ltd.	Shandong Futaste	Shandong	Active	30,000	30,000	30,000	30,000	20,000	18,000	17,500	18,000	9,000	7,500
5	Luzhou Bio-chem Technology Co., Ltd.	Luzhou Bio-chem	Shandong	Active	20,000	20,000	20,000	20,000	20,000	17,000	12,000	13,000	8,000	11,000
6	Shandong Bailong Chuangyuan Bio-tech Co., Ltd.	Shandong Bailong	Shandong	Active	12,000	12,000	6,000	6,000	6,000	3,000	3,600	3,800	3,000	3,500
7	Zhejiang Huakang Pharmaceutical Co., Ltd.	Huakang Pharma	Zhejiang	Active	10,000	10,000	10,000	3,000	10,000	9,500	7,200	8,200	3,100	6,200
8	Shandong Fullsail Biotechnology Co., Ltd.	Shandong Fullsail	Shandong	Active	10,000	10,000	10,000	10,000	10,000	8,500	6,300	6,500	5,000	7,000
9	Shandong Jintian Bio-technology Co., Ltd.	Shandong Jintian	Shandong	Active	5,000	5,000	5,000	5,000	5,000	1,000	3,100	3,200	3,000	2,800
10	Henan Tianmimi Sugar Industry Co., Ltd.	Henan Tianmimi	Henan	Idle	20,000	20,000	20,000	20,000	20,000	0	8,500	10,200	9,000	9,500
11	Shandong Lvjian Biological Technology Co., Ltd.	Shandong Lvjian	Shandong	Stopped	0	0	12,000	12,000	12,000	0	0	5,000	9,000	8,500
12	Khalista (Liuzhou) Chemical Industries Ltd.	Khalista Chemical	Guangxi	Stopped		0	0	0	10,000	0	0	0	0	1,500
					232,000	232,000	238,000	231,000	238,000	173,000	151,700	160,900	132,100	146,500

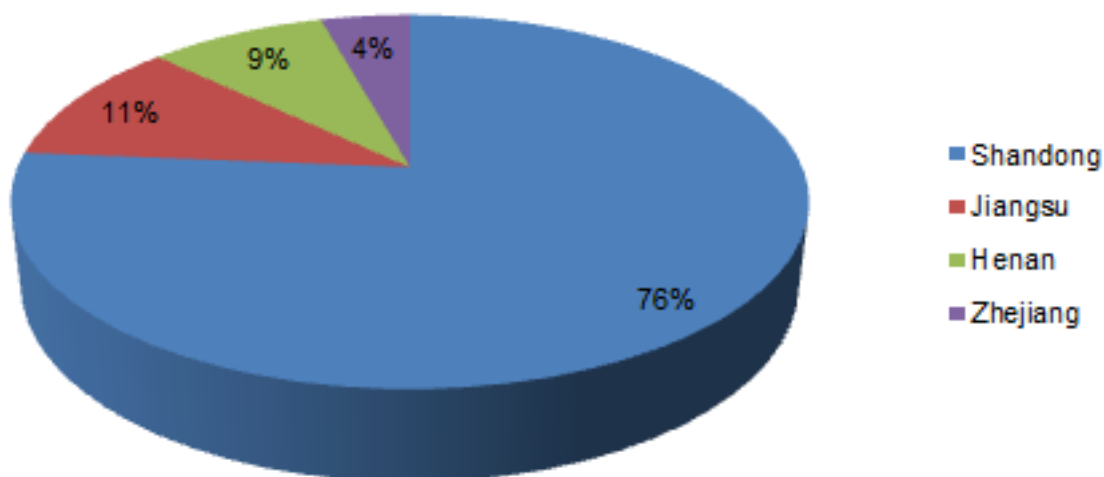
Source: CCM

Figure 4.2-1 Capacity distribution of maltitol producers in China, 2021



Source: CCM

Figure 4.2-2 Shares of maltitol capacity in China by region, 2021



Source: CCM

4.3 Monthly ex-works price of maltitol in China, Jan. 2017–Oct. 2022

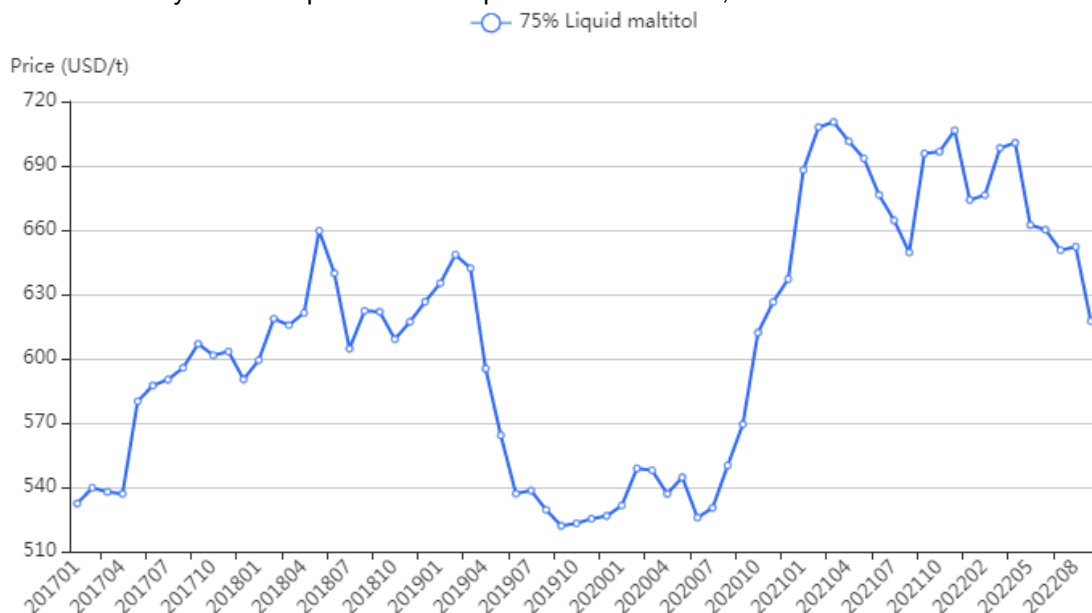
From Jan. to March 2017, the ex-works price of 75% liquid maltitol was at a relatively low level over the last five years, fluctuating between USD532/t and 540/t, due to excess capacity and falling corn prices. Till April 2017, the price kept at a low level due to the low price of corn.

Since May 2017, the price started to climb and went back to USD660/t in May 2018, supported by its reduced output nationwide. Then the price fluctuated between USD605/t and USD648/t during June 2018 and Feb. 2019 but plummeted to USD537/t in June 2019. The decline was attributed to an increasing supply and shrinking demand. Thereafter, due to the sluggish market, the price stayed below USD550/t all the way to July 2020, though the price of corn was quite stable.

Then, with the price of corn and demand increasing, the price shot up. It rose to a historical high in March 2021 at USD710/t. Later, due to the downward adjustment of raw material price, the price slipped to USD650/t in Aug. From Sept. to Dec. 2021, prices rose again to USD707/t in Dec., influenced by global inflation and rising raw material prices. Subsequently, due to the Spring Festival and the epidemic control, the price fell and then rebounded to USD701/t in April 2022. In the following 6 months, due to the weakening demand, the price fell all the way to USD592/t in Oct.

As for the price of crystalline maltitol, it fluctuated between USD1,733/t and USD1,974/t in Jan. 2016–Dec. 2019. However, it headed south further and hit the bottom at USD1,697/t in July 2020; the fall was triggered by shrinking demand under COVID-19. Since Aug. 2020, supported by increasing demand and corn price, it climbed up quickly and reached USD2,281/t in June 2021. In the second half of 2021, due to global inflation and rising raw material prices, prices continued their upward march to Nov.'s USD2,648/t, a 5-year high. From Dec. 2021 to April 2022, prices fluctuated between USD2,508/t to USD2,539/t, and from May to Oct., as demand weakened, prices down all the way to USD1,972/t in Oct., which was already below 2021 levels and close to the price highs of 2018 and 2019.

Figure 4.3-1 Monthly ex-works price of 75% liquid maltitol in China, Jan. 2017–Oct. 2022



Source: CCM

Figure 4.3-2 Monthly ex-works price of crystalline maltitol in China, Jan. 2017–Oct. 2022

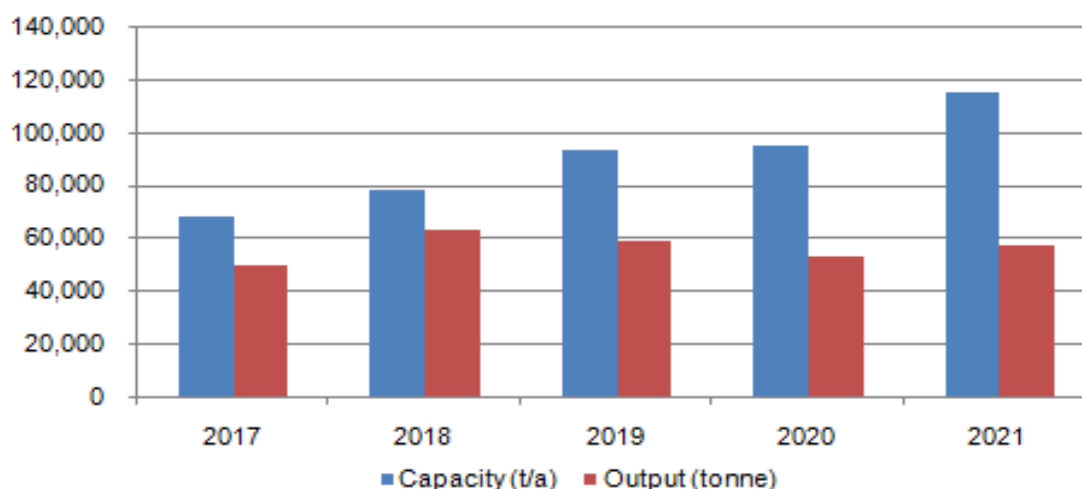


Source: CCM

5 Xylitol

5.1 Capacity and output of xylitol in China, 2017–2021

Figure 5.1-1 Capacity and output of xylitol in China, 2017–2021



Source: CCM

The capacity of xylitol in China increased from 68,000 t/a in 2017 to 78,000 t/a in 2018 and further increased to 115,000 t/a in 2021.

The output of xylitol increased from 49,500 tonnes in 2017 to 62,500 tonnes in 2018 but declined to 57,000 tonnes in 2021.

Since 2019, Shandong Longlive Bio-technology Co., Ltd. has slashed production due to its financial troubles.

5.2 Major producers and distribution of xylitol in China, 2017–2021

In 2017, two xylitol producers stopped production. Moreover, in 2018 and 2019, Zhejiang Huakang Pharmaceutical Co., Ltd. expanded its capacity from 20,000 t/a to 35,000 t/a. There also came a new entrant in 2019—Harbin Yimei Bioengineering Technology Co., Ltd. joined the market with a capacity of 10,000 t/a.

There were six active xylitol producers in China in 2021.

- Zhejiang Huakang Pharmaceutical Co., Ltd., with a capacity of 35,000 t/a, was still the biggest xylitol manufacturer in China in 2021.
- Shandong Jianyihong Biotechnology Co., Ltd. put its 20,000 t/a xylitol production line into production at the end of 2021.
- Yusweet Co., Ltd. (formerly known as Anyang Yuxin Xylitol Technology Co., Ltd.) expanded its capacity to 20,000 t/a in 2020.
- Shandong Lvjian Biological Technology Co., Ltd. stopped xylitol production in 2020 due to poor business operations.

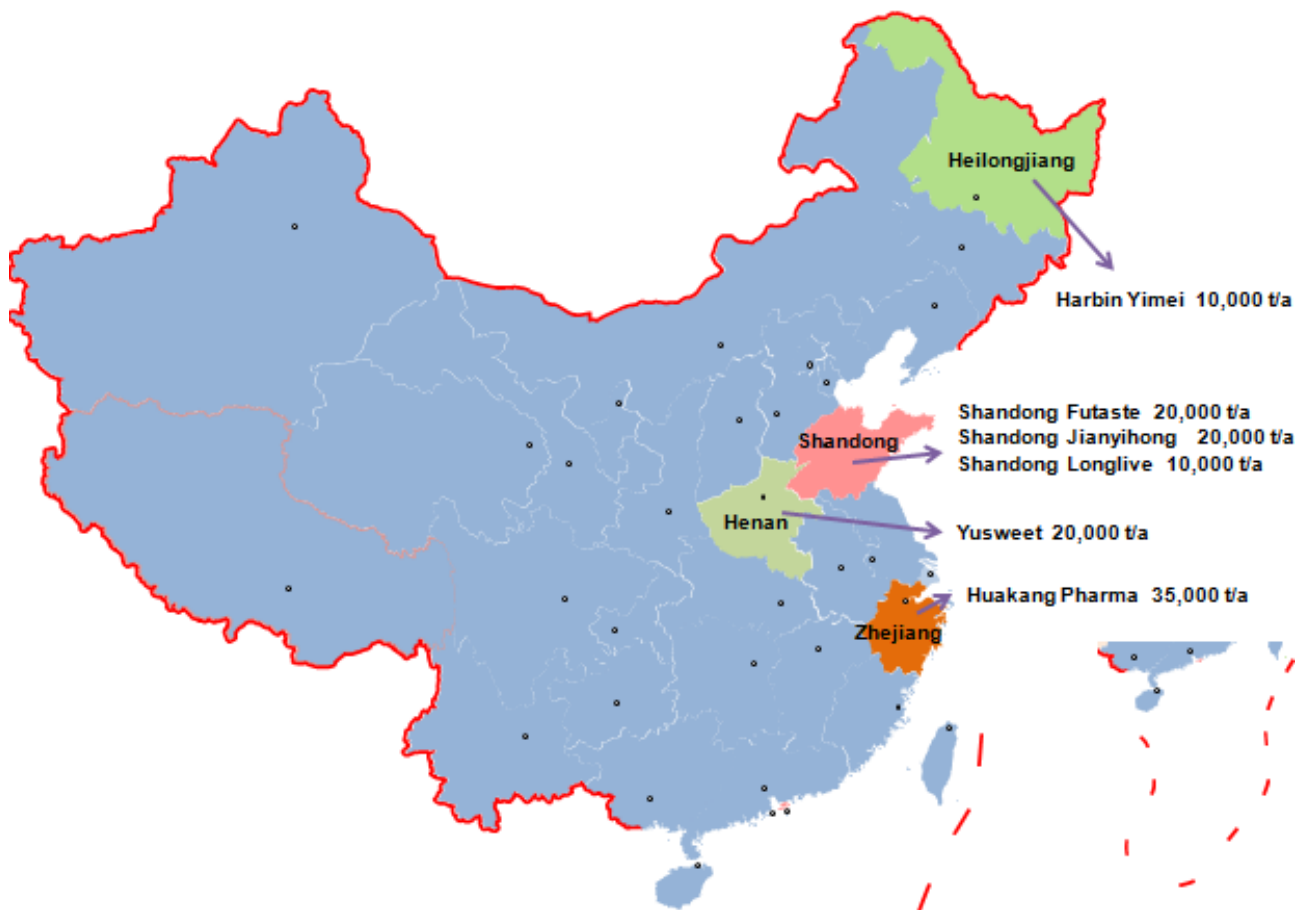
Table 5.2-1 Capacity and output of xylitol producers in China, 2017–2021

No.	Producer	Abbr.	Location	Status, 2021	Capacity, t/a					Output, tonne				
					2021	2020	2019	2018	2017	2021	2020	2019	2018	2017
1	Zhejiang Huakang Pharmaceutical Co., Ltd.	Huakang Pharma	Zhejiang	Active	35,000	35,000	35,000	30,000	20,000	34,000	32,000	34,000	34,000	21,000
2	Shandong Futaste Pharmaceutical Co., Ltd.	Shandong Futaste	Shandong	Active	20,000	20,000	20,000	20,000	20,000	9,000	9,000	9,000	9,000	7,000
3	Yusweet Xylitol Technology Co., Ltd.	Yusweet Xylitol	Henan	Active	20,000	20,000	10,000	10,000	10,000	10,000	9,000	9,000	7,700	7,000
4	Shandong Jianyihong Biotechnology Co., Ltd.	Shandong Jianyihong	Shandong	Active	20,000	/	/	/	/	1,000	/	/	/	/
5	Harbin Yimei Bioengineering Technology Co., Ltd.	Harbin Yimei	Heilongjiang	Active	10,000	10,000	10,000	0	0	3,000	3,000	200	0	0
6	Shandong Longlive Bio-technology Co., Ltd.	Shandong Longlive	Shandong	Active	10,000	10,000	10,000	10,000	10,000	0	0	2,300	7,300	10,000
7	Shandong Lvjian Biological Technology Co., Ltd.	Shandong Lvjian	Shandong	Stopped	/	/	8,000	8,000	8,000	/	/	4,500	4,500	4,500
Total					115,000	95,000	93,000	78,000	68,000	57,000	53,000	59,000	62,500	49,500

Source: CCM

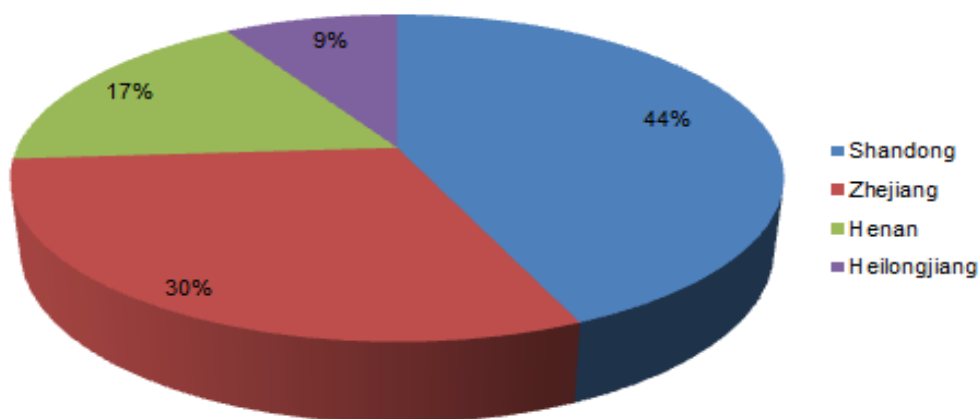
Domestic xylitol manufacturers are mainly located in Shandong, Zhejiang, Henan and Heilongjiang provinces. The capacity in Shandong Province accounted for around 44% of the total in 2021.

Figure 5.2-1 Capacity distribution of xylitol producers in China, 2021



Source: CCM

Figure 5.2-2 Share of xylitol capacity in China by region, 2021



Source: CCM

5.3 Monthly ex-works price of xylitol in China, Jan. 2017–Oct. 2022

During Jan. 2017–May 2018, the xylitol price in China went up rapidly and saw a record high of USD5,340/t in May 2018, which was mainly attributed to the surges in exports and domestic downstream demand.

Since then, the price fell back until July 2020 when the price was USD3,323/t, 37.4% lower than that in June 2018, due to abundant supply and poor demand abroad. According to customs data, the export volume of xylitol was 43,935 tonnes in 2019, down by 5.1% year on year; however, in H1 2020, due to sluggish overseas demand under the COVID-19 pandemic, the figure was only 20,502 tonnes, down by 2.9% year on year.

As the domestic economy started to recover since H2 2020, both the demand for xylitol and the price of corn witnessed increases, leading the price of xylitol to rise slowly and reach USD3,791/t in Feb. 2021. From April 2021 to March 2022, the price rose to USD4,443/t with an increase of about 27%, which was influenced by various factors, such as the increase in raw material prices and higher demand. And then the price kept dropping and reached USD3,662/t in Oct. 2022, due to the weak demand.

Figure 5.3-1 Monthly ex-works price of xylitol in China, Jan. 2017–Oct. 2022

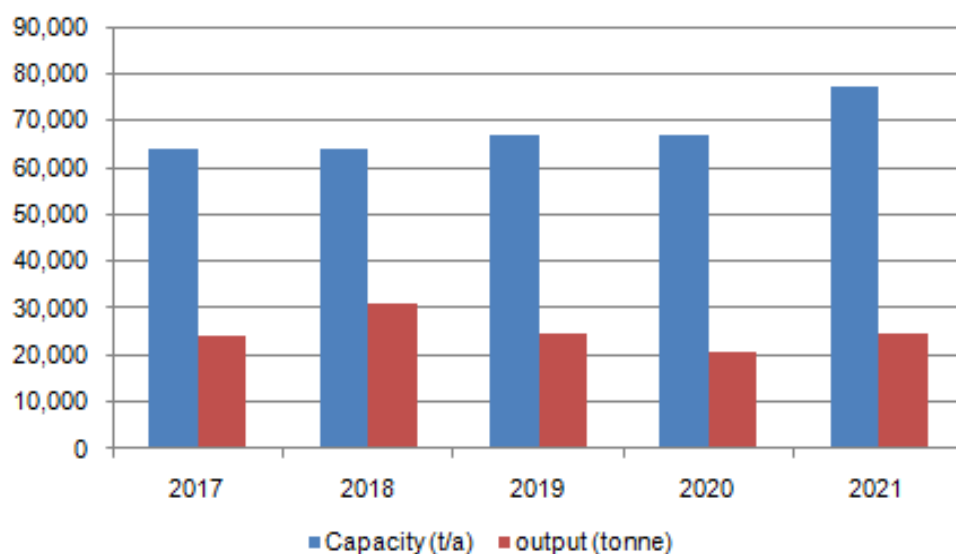


Source: CCM

6 Mannitol

6.1 Capacity and output of mannitol in China, 2017–2021

Figure 6.1-1 Capacity and output of mannitol in China, 2017–2021



Source: CCM

The capacity of mannitol in China declined from 66,000 t/a in 2016 to 64,000 t/a in 2017 and 2018, mainly because in 2017 Qingdao Bright Moon Seaweed Group Co., Ltd. expanded its mannitol capacity by 1,000 t/a while Hebei Zhaozhou Limin Sugar Industry Group Co., Ltd. stopped production. The domestic capacity increased to 67,000 t/a in 2019 and reached 77,000 t/a in 2021.

As for the output of mannitol, it increased from 23,300 tonnes in 2016 to 31,200 tonnes in 2018, at a CAGR of 15.7%. However, it declined by 20.5% year on year to 24,800 tonnes in 2019, with a relatively low operating rate of about 37.0%. The output figure reduced further to some 20,600 tonnes in 2020, experiencing a yearly decrease of 16.9% due to the aftermath of the COVID-19 pandemic. The output in 2021 recovered to 24,600 tonnes.

6.2 Major producers and distribution of mannitol in China, 2017–2021

There were six active mannitol producers in China in 2021. Among these producers, Shandong Tianli Pharmaceutical Co., Ltd. ranked first, with a capacity of 30,000 t/a. Notably, Harbin Yimei Bioengineering Technology Co., Ltd. started to produce mannitol in 2019, with a capacity of 3,000 t/a. Zhaoqing Huanfa Biotechnology Co., Ltd. started to produce mannitol in 2021. Shandong Jiejing Group Co., Ltd. and Jiangsu Zhongda Biotechnology Group Co., Ltd. suspended production since 2015.

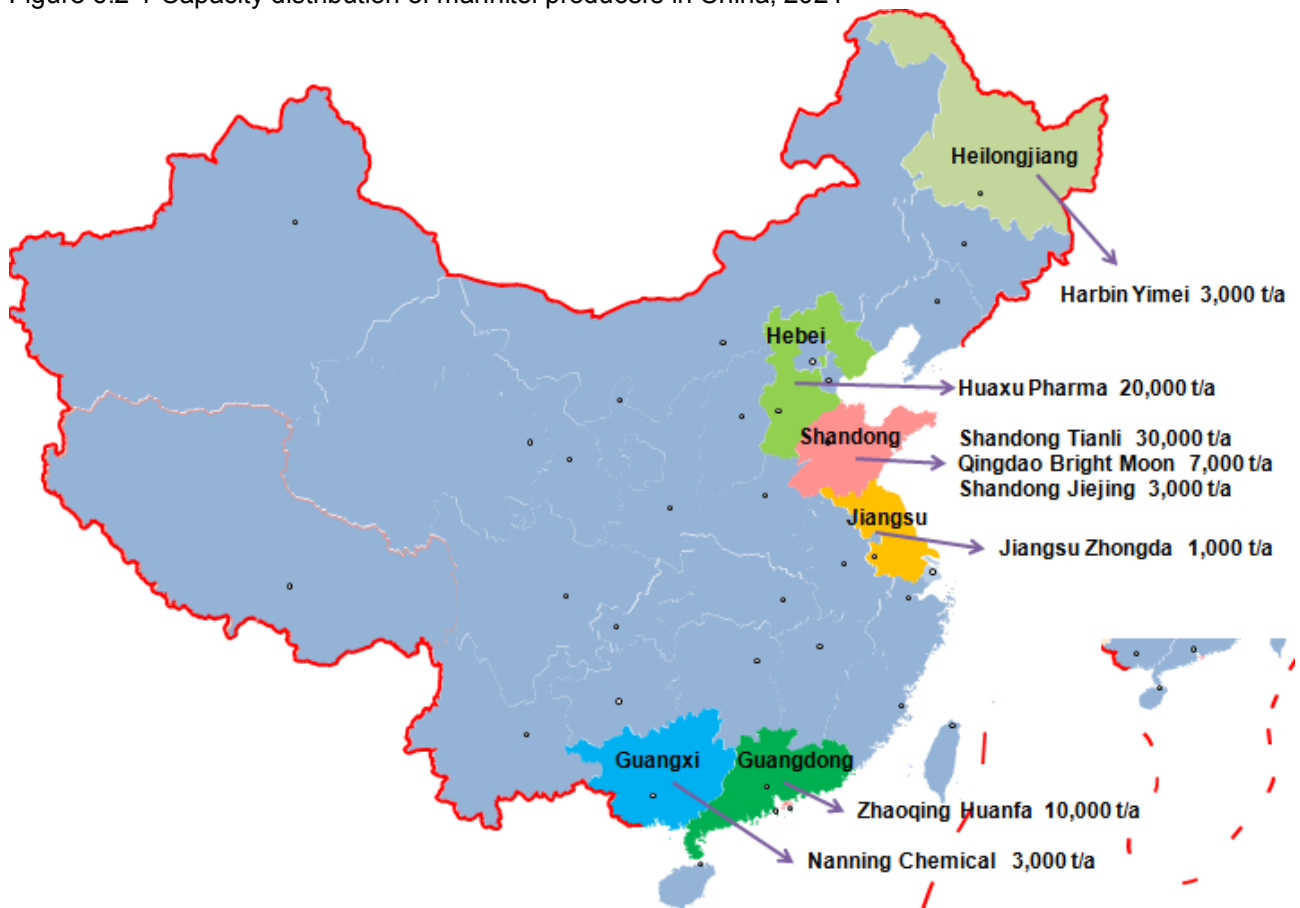
Table 6.2-1 Capacity and output of mannitol producers in China, 2017–2021

No.	Company	Abbreviation	Location	Status 2021	Capacity (t/a)					Output (tonne)				
					2021	2020	2019	2018	2017	2021	2020	2019	2018	2017
1	Shandong Tianli Pharmaceutical Co., Ltd.	Shandong Tianli	Shandong	Active	30,000	30,000	30,000	30,000	30,000	10,000	7,600	9,800	15,000	9,500
2	Shijiazhuang Huaxu Pharmaceutical Co., Ltd.	Huaxu Pharma	Hebei	Active	20,000	20,000	20,000	20,000	20,000	5,500	5,400	6,200	7,200	6,200
3	Zhaoqing Huanfa Bio-technology Co., Ltd.	Zhaoqing Huanfa	Guangdong	Active	10,000	0	0	0	0	800	0	0	0	0
4	Qingdao Bright Moon Seaweed Group Co., Ltd.	Qingdao Bright Moon	Shandong	Active	7,000	7,000	7,000	7,000	7,000	5,000	4,900	6,000	6,500	6,200
5	Guangxi Nanning Chemical Pharmaceutical Co., Ltd.	Nanning Chemical	Guangxi	Active	3,000	3,000	3,000	3,000	3,000	2,800	2,400	2,500	2,500	2,200
6	Harbin Yimei Bioengineering Technology Co., Ltd.	Harbin Yimei	Heilongjiang	Active	3,000	3,000	3,000	0	0	500	300	300	0	0
7	Shandong Jiejing Group Co., Ltd.	Shandong Jiejing	Shandong	Idle	3,000	3,000	3,000	3,000	3,000	0	0	0	0	0
8	Jiangsu Zhongda Biotechnology Group Co., Ltd.	Jiangsu Zhongda	Jiangsu	Idle	1,000	1,000	1,000	1,000	1,000	0	0	0	0	0
Total					77,000	67,000	67,000	64,000	64,000	24,600	20,600	24,800	31,200	24,100

Source: CCM

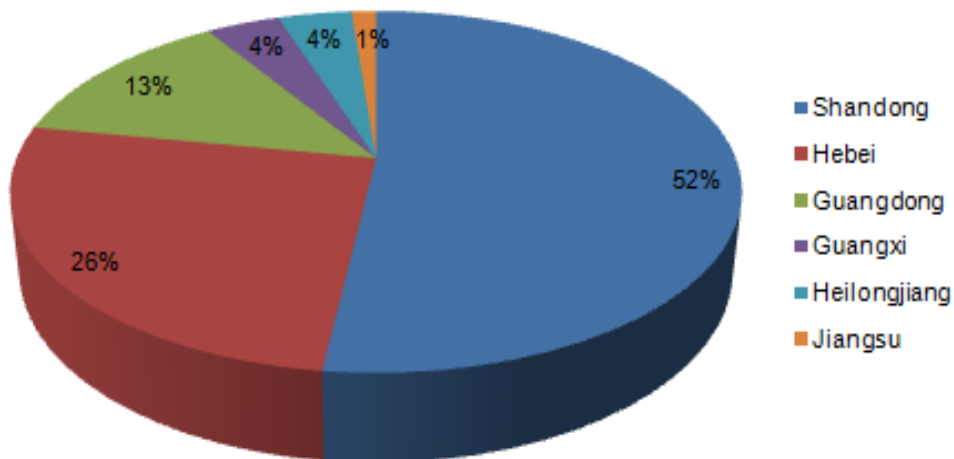
There are three mannitol producers in Shandong Province, where the accumulative capacity reached 40,000 t/a in 2021 and accounted for 51.9% of the total in China.

Figure 6.2-1 Capacity distribution of mannitol producers in China, 2021



Source: CCM

Figure 6.2-2 Shares of mannitol capacity in China by region, 2021



Source: CCM

6.3 Monthly ex-works price of mannitol in China, Jan. 2017–Oct. 2022

During Jan. 2017–Dec. 2019, encouraged by growing demand, the price of mannitol showed an upward trend on the whole and peaked at USD4,981/t in Dec. 2019.

In 2020, the price stood above USD5,000/t in Q1, but then dropped quite steadily to USD3,858/t in Aug. due to sluggish demand and fierce competition under COVID-19. Later, with economy perking up and demand increasing, the price of mannitol recovered slightly and remained hovering around USD4,300/t till May 2021. However, as the price of raw material declined since May 2021, the price of mannitol fell to USD3,556/t in Sept. From Oct. 2021 to April 2022, the price rose to USD4,094/t in April, because of global inflation. Subsequently, the price dropped to a range of USD3,400/t to USD3,500/t, as the pandemic continued to recant and demand fell.

Figure 6.3-1 Monthly ex-works price of food grade mannitol in China, Jan. 2017–Oct. 2022

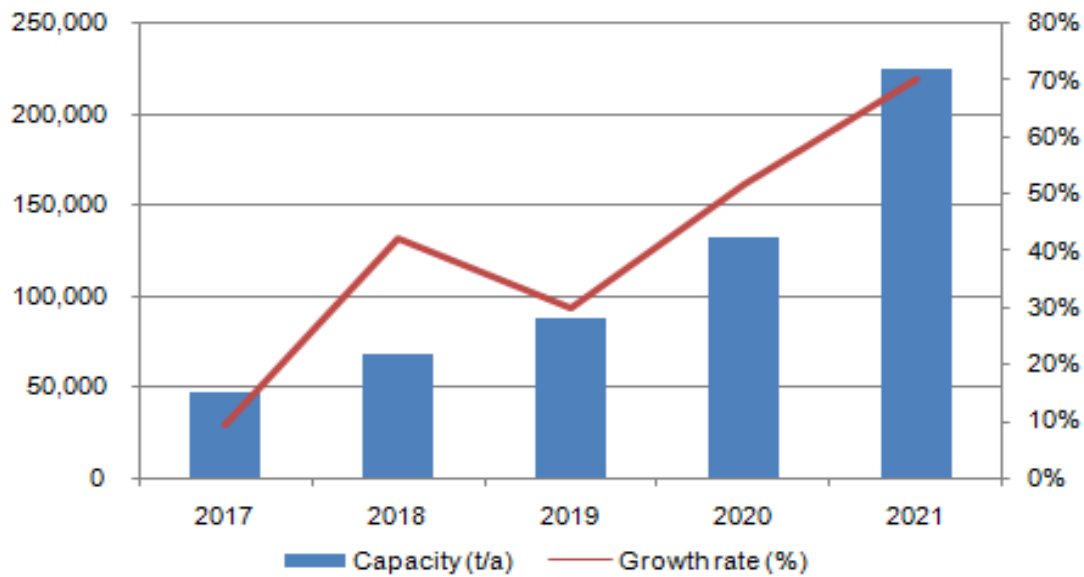


Source: CCM

7 Erythritol

7.1 Capacity and output of erythritol in China, 2017–2021

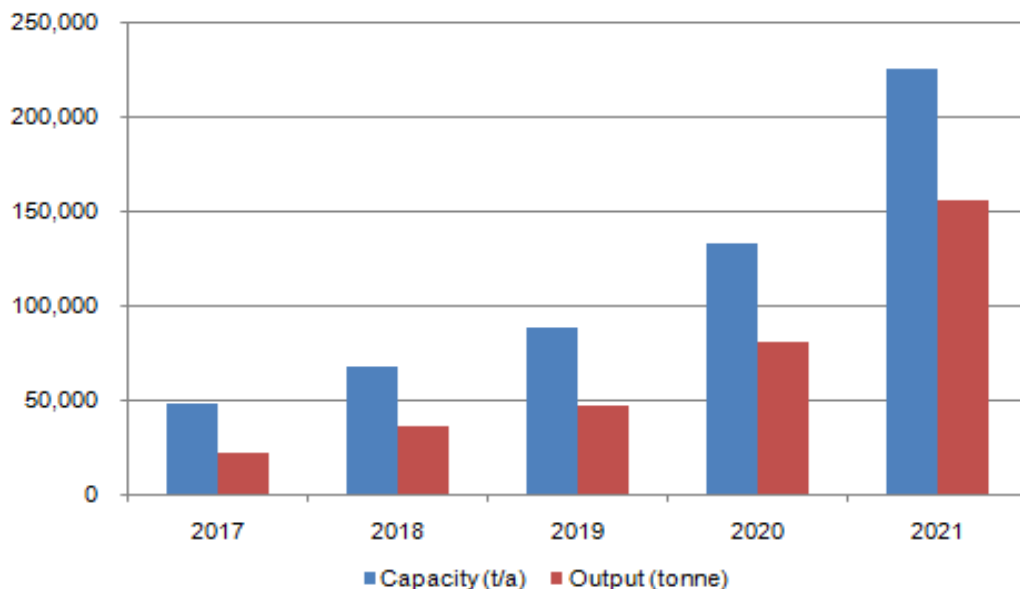
Figure 7.1-1 Capacity and its growth rate of erythritol in China, 2017–2021



Source: CCM

The capacity of erythritol rose from 47,500 t/a in 2017 to 225,500 t/a in 2021, growing at a CAGR of 47.6%, as the rising demand in the market has driven major producers to expand their erythritol capacity over the past few years.

Figure 7.1-2 Capacity and output of erythritol in China, 2017–2021



Source: CCM

The operating rate of the erythritol industry in China climbed from around 45% in 2017 to about 69% in 2021. Erythritol has become more popular, due to its low hygroscopicity, anti-cavity effect and low calorie, which allows it to be used as a functional condiment. The output of erythritol grew rapidly to 155,000 tonnes in 2021, over 7 times of that in 2017.

7.2 Major producers and distribution of erythritol in China, 2017–2021

There were seven active erythritol producers in China in 2021, 6 of which are located in Shandong Province.

Upon completion of a series of technical transformation projects on erythritol production since 2018, Shandong Sanyuan Biotechnology Co., Ltd. (Shandong Sanyuan) has become the largest erythritol producer in China, with 85,000 t/a capacity and an operating rate of over 95% in 2021. Zhucheng Dongxiao Biotechnology Co., Ltd. and Baolingbao Biology Co., Ltd. (Baolingbao Biology) also expanded production capacity in 2020 and 2021.

However, Shandong Futaste Pharmaceutical Co., Ltd. and Zibo Zhongshi Green Biotech Co., Ltd. stopped production in 2020, besides the suspension in Sichuan Anyi Biotechnology Co., Ltd. since 2018.

Table 7.2-1 Capacity and output of erythritol producers in China, 2017-2021

No.	Producer	Abbreviation	Location	Status 2021	Capacity, t/a					Output, tonne				
					2021	2020	2019	2018	2017	2021	2020	2019	2018	2017
1	Shandong Sanyuan Biotechnology Co., Ltd.	Shandong Sanyuan	Shandong	Active	85,000	65,000	50,000	30,000	10,000	82,000	49,000	26,600	17,000	6,000
2	Baolingbao Biology Co., Ltd.	Baolingbao Biology	Shandong	Active	33,000	20,000	10,000	10,000	10,000	25,000	15,000	9,800	9,500	7,000
3	Zhucheng Dongxiao Biotechnology Co., Ltd.	Zhucheng Dongxiao	Shandong	Active	30,000	30,000	10,000	10,000	10,000	27,000	16,000	9,000	7,700	5,500
4	Hebei Yuxing Bio-Engineering Co., Ltd.	Hebei Yuxing	Hebei	Active	20,000	/	/	/	/	10000	/	/	/	/
5	Shandong Fuyang Biotechnology Co., Ltd.	Shandong Fuyang	Shandong	Active	20,000	/	/	/	/	8000	/	/	/	/
6	Shandong Chiping Chunrui Bio-Food Co., Ltd.	Shandong Chunrui	Shandong	Active	20,000	/	/	/	/	2000	/	/	/	/
7	Zibo Zhongshi Green Biotech Co., Ltd.	Zhongshi Green	Shandong	Active	4,500	4,500	4,500	4,500	4,500	0	0	500	1,000	1,000
8	Shandong Futaste Pharmaceutical Co., Ltd.	Shandong Futaste	Shandong	Idle	3,000	3,000	3,000	3,000	3,000	1000	0	700	800	1,500
9	Sichuan Anyi Biotechnology Co., Ltd.	Sichuan Anyi	Sichuan	Idle	10,000	10,000	10,000	10,000	10,000	0	0	0	0	500
Total					225,500	132,500	87,500	67,500	47,500	155,000	80,000	46,600	36,000	21,500

Source: CCM

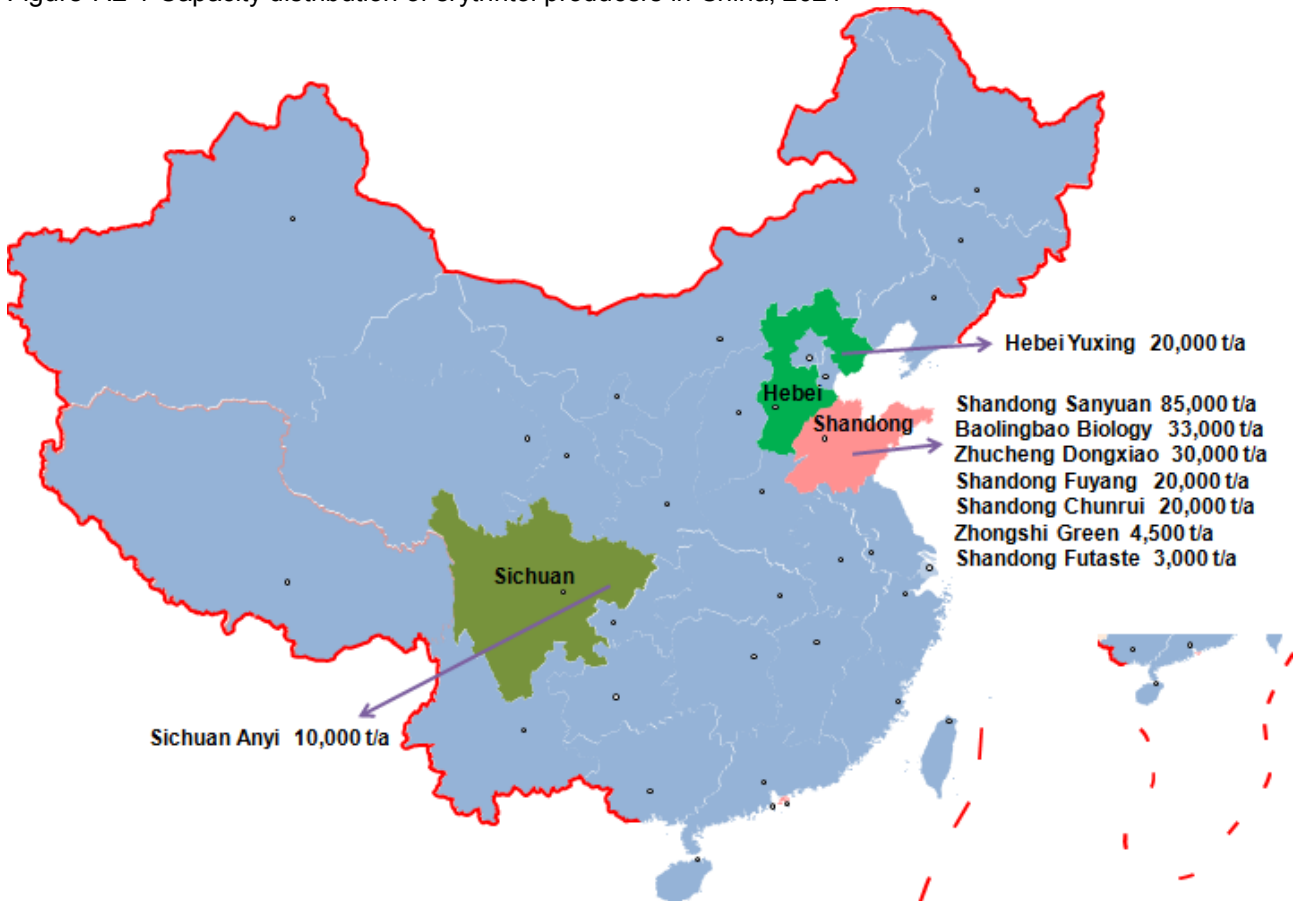
Increasingly popular among consumers, erythritol has witnessed a sharp rise in demand. In order to seize more market shares in the booming sector, many companies planned to establish new erythritol projects and accelerated the construction of new projects in the past two years.

In 2021, there were five new erythritol projects built and put into production, including two expansion projects by Shandong Sanyuan and Baolingbao Biology, and three new construction in newcomers.

- Shandong Fuyang's 20,000 t/a erythritol project started production in March 2021.
- Shandong Sanyuan's 20,000 t/a and Baolingbao Biology's 13,000 t/a expansion projects were completed in H1 2021, and fully put into production in June and late July, respectively.
- Hebei Yuxing's 20,000 t/a and Shandong Chunrui's 20,000 t/a production lines were put into operation in Aug.

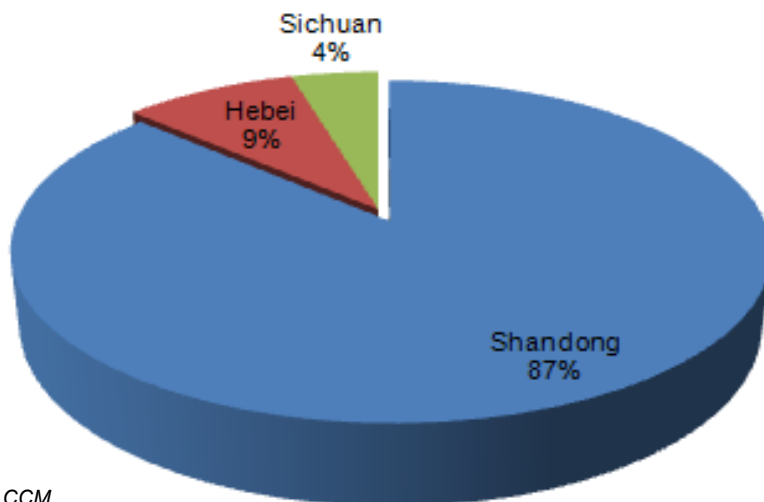
In addition, Anhui BBKA Likang Pharmaceutical Co., Ltd.'s 30,000 t/a erythritol project was built in Oct. 2020, but the commercial operation is not permitted without the pollutant discharge permit till July 2022.

Figure 7.2-1 Capacity distribution of erythritol producers in China, 2021



Source: CCM

Figure 7.2-2 Shares of erythritol capacity in China by region, 2021



Source: CCM

7.3 Monthly ex-works price of erythritol in China, Jan. 2017–Oct. 2022

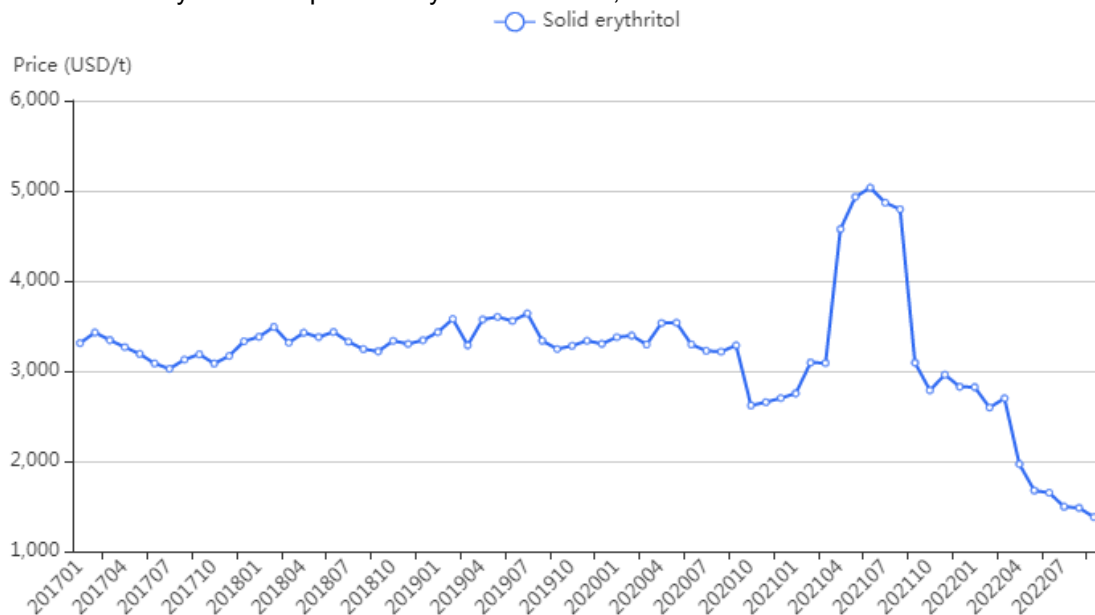
Generally speaking, the ex-works price of erythritol in China declined from 2016 to 2017. In this period, the lowest was recorded at USD2,325/t in July 2017, about 26.7% lower than the highest in June 2016 at USD3,170/t. The drop was brought about by increasingly mature production technology and pressure from declining prices of other sweeteners.

During 2018–2019, due to surges in erythritol exports and domestic downstream demand, the price of erythritol rose slightly. The annual average in 2018 and 2019 were USD2,649/t and USD2,730/t, respectively.

In H1 2020, against the COVID-19 outbreak, the price climbed generally due to an increase in the price of its raw material corn starch and rising downstream demand. In H2, the price first went down as new capacity came on stream, but it soon edged up with the raw material prices mounting.

In April 2021, with the demand growing rapidly, erythritol was in short supply and its price soared to USD4,574/t. The price stayed at such a level for several months. As new erythritol capacity in several enterprises was put into production, the shortage eased and the price plummeted in Sept. and dipped further in Oct. to USD2,786/t. From Nov. 2021 to Oct. 2022, as a large number of producers rushed to put new projects into production, the erythritol market fell into vicious competition, leading the price of erythritol to fall all the way to USD1,338/t in Oct.

Figure 7.3-1 Monthly ex-works price of erythritol in China, Jan. 2017–Oct. 2022



Source: CCM

Kcomber's legal disclaimers

1. Kcomber guarantees that the information in the report is accurate and reliable to the best of its knowledge and experience. Kcomber defines the report as a consulting product providing information and does not guarantee its information is completely in accordance with the fact. Kcomber shall not have any obligations to assume any possible damage or consequences caused by subscribers' any corporate decisions based upon subscribers' own understanding and utilization of the report.

2. The complete copyright of the report is and will be held by Kcomber. Subscribers shall not acquire, or be deemed to acquire the copyright of the report.

3. The report provided by Kcomber shall be only used as source of subscriber's internal business decisions and shall not be used for any other purposes without Kcomber's prior written consent, unless stated and approved in license contract signed by both parties. Subscribers shall not distribute, resell and disclose the whole report or any part of the report to third parties and shall not publish any article or report by largely or directly copying or citing the information or data based on Kcomber's report without the prior written consent of Kcomber.

4. "Single User License" means that there shall be only ONE person to receive access and utilize the report. Subscriber can present the content of the report that marked the source from Kcomber to their internal colleagues for their internal communication and utilization, but cannot share the whole report to other individuals. Any citation, distribution, reselling and disclosure of the report as well as its partial content to any third party are prohibited, including but not limited to their parent companies or subsidiaries.

5. "Corporate License" means that subscriber shall not cite, distribute, resell the report or disclose information of the report to any third party without Kcomber's prior written consent, except subscribers' affiliates controlled with ownership of more than 50% of shares.

17th Floor, Huihua Commercial & Trade Building, No. 80 Xianlie Zhong Road Guangzhou,
510070, P.R.China

Website: <http://www.cnchemicals.com>

Tel: +86-20-37616606

Fax: +86-20-37616968

Email: econtact@cnchemicals.com