

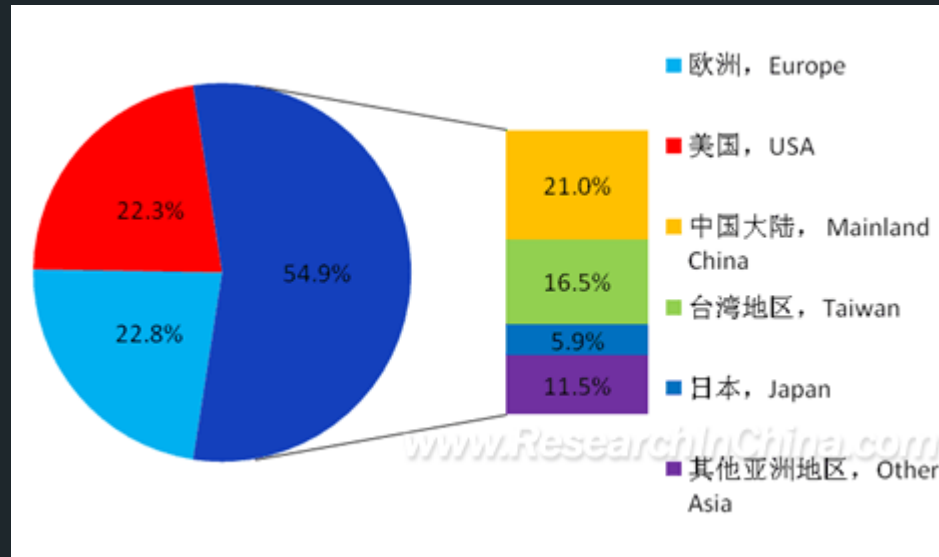
Global and China 1,4-Butanediol (BDO) Industry Report, 2009-2010



1,4-butanediol (BDO) is an important raw material for basic organic chemicals and fine chemicals. With the increasing demand from spandex, PBT and GBL industries, the global BDO capacity has been soaring in recent years, to about 2.119 million tons in 2009, up 12.1% year on year. However, a large proportion of capacity is for self use of BDO manufacturers, and the actual global BDO supply is far less than the capacity, and was no more than 1.519 million tons in 2009.

Due to high technology thresholds and limited raw material sources, the global BDO industry features high market and regional concentration. The world's major BDO manufacturers include Germany's Basf, Taiwan's Dairen, America's Lyondell and ISP, China's Shanxi Sanwei Group Co., Ltd, whose annual BDO capacity collectively totaled 1.267 million tons in 2009, accounting for 59.8% of the world's total. Asia, Europe and North America are the world's main BDO manufacturing bases, accounting for 54.9%, 22.8% and 22.3% of the global BDO capacity respectively. In particular, Mainland China boasts the largest BDO capacity with the fastest growth in Asia. In 2009, the BDO capacity of Mainland China hit 446,000 tons, up 96.5% over 2008.

Global BDO Capacity by Region in 2009



Source: ResearchInChina

China's BDO industry has grown up based on the introduction of advanced technologies from industry giants such as Basf, Davy, and INVISTA. However, with concern over raw material sources, enterprises in mainland China, except Dairen Chemical (Jiangsu) Co., Ltd., generally adopt the acetylene Reppe method and maleic anhydride method in BDO production. Furthermore, as the acetylene Reppe method has obvious cost advantages, it was adopted by most of the BDO facilities launched in mainland China in 2009. In recent years, with China's restriction on acetylene production, abolition of preferential electricity price policies, progress in natural gas exploitation, and coupled with acetylene BDO's weakness in performance, the maleic anhydride method and natural gas Reppe method are increasingly adopted by new BDO facilities built in China.

BDO Projects under Construction/Planning in China, 2010-2013 (1,000 tons)

Enterprise	Capacity	Technology	Remarks
Daqing Oilfield	65	Maleic Anhydride Method	Put into operation in 2010
Henan Kaixiang Fine Chemicals	25	Reppe Method	Put into operation in 2010
Sichuan Tianhua	60	Reppe Method	Put into operation in 2011
Nanjing Bluestar Phase II	55	Maleic Anhydride Method	Put into operation at the end of 2010 or the beginning of 2011
Shandong Zhongya Chemical	55	Maleic Anhydride Method	Put into operation in 2010
Sinopec Yizheng Chemical Fiber Company Limited	50	Maleic Anhydride Method	Put into operation at the end of 2011
Ningxia Yinglite Chemicals	100	—	Start construction in 2010 and put into operation in Sep. 2012
Xinjiang Markor	100	Natural Gas Acetylene Method	Launch in 2010 and put into operation at the end of 2012 or the beginning of 2013
Shaanxi Bidiou Chemical	7.0	—	Put into operation in 2013
Total	455	—	—

Source: ResearchInChina

This report not only analyzes the status quo, supply & demand, competition pattern, price tendency, development of BDO industry as well as the development trends of downstream industries concerned, but also introduces in detail the current development, operation and prospect of key BDO manufacturers across China and beyond.

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