



# **Global and China 1,4-Butanediol (BDO)**

## **Industry Report, 2014-2017**

**Oct. 2014**

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications.

Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

As an important organic and fine chemical, 1,4-butanediol (BDO) is widely used in pharmaceutical, chemical, textile and household chemical fields.

By the end of September 2014, the BDO capacity worldwide topped around 3.35 million tons, of which about 48% came from Mainland China. Global BDO manufacturers mainly include Taiwan-based Dairen Chemical Corporation (DCC), Germany-based BASF and U.S.-based LyondellBasell, combining 38.5% of total worldwide capacity.

The BDO production process on a global scale is dominated by BASF, U.S.-based ISP and Invista, U.K.-based Davy, Japan's Mitsubishi Chemical, and DCC. In spite of relatively small BDO capacity, Invista, Mitsubishi Chemical and Davy with core production technologies and patents are playing an important role in the global BDO industry by technology transfer or other means.

During 2009-2011, the BDO industry in China faced a tight supply, the rising BDO price drove a large number of enterprises to add or expand capacity projects, which gave rise to the BDO capacity swelling. By the end of September 2014, China's BDO capacity has been around 1.616 million tons, while the severe overcapacity was accompanied by an operating rate (regarding to BDO facilities) of merely 30% or so.

Capacity of Major BDO Manufacturers in China as of End of Sep.2014

Unit:Kt



Source: Global and China 1,4-Butanediol (BDO) Industry Report, 2014-2017 by ResearchInChina

At present, the BDO in Mainland China is mostly manufactured via reppe process and maleic anhydride process, of which maleic anhydride-process BDO makes up roughly 27.5% of capacity. From 2012 onward, due to the stubbornly high price of maleic anhydride, maleic anhydride-process BDO facilities were in the red, basically shut down. While reppe-process BDO facilities are in relatively steady operation, but the profit margin thereof has been sharply reduced.

In the next few years, more new BDO capacities were to be built in Mainland China as it is planned, totaling 1.4 million tons or so, however, against the excess capacity and the sluggish market demand, some projects will probably be put aside or cancelled, and the growth rate of BDO capacity will slacken. In the meantime, the concentration of China's BDO industry is expected to increase step by step. Mainstream manufacturers such as Markor Chem and Shanxi Sanwei will continue to expand their BDO capacities and the BDO facilities of some small producers will be gradually eliminated under cost pressure.

Up to the end of September 2014, the top 3 BDO manufacturers in Mainland China were Markor Chem, Shanxi Sanwei and Chang Chun Dairen Chemical (PANJIN), respectively featuring capacity of 160,000 tons, 150,000 tons and 150,000 tons.

Global and China 1,4-Butanediol (BDO) Industry Report, 2014-2017 by ResearchInChina mainly highlights the followings:

- Supply & demand, competitive landscape, price trend, etc. of global BDO industry;
- Supply & demand, competitive landscape, import & export, price trend and development forecast (2014-2017) of the BDO industry in China;
- Supply & demand, competitive landscape, import & export, price trend, etc. of BDO downstream industries such as PTMEG, PBT, GBL, etc. at home and abroad;
- Operation and BDO business of 13 BDO manufacturers in the world and China and progress of BDO projects of 16 Chinese enterprises.

### 1. Profile of BDO

- 1.1 Properties and Purposes
- 1.2 Process

### 2. Overview of Global BDO Industry

- 2.1 Status Quo
- 2.2 Supply
- 2.3 Demand
- 2.4 Competitive Landscape
- 2.5 Price

### 3. Overview of China BDO Industry

- 3.1 Policy
- 3.2 Supply
- 3.3 Demand
- 3.4 Competitive Landscape
- 3.5 Import & Export
- 3.6 Price

### 4. Development of BDO Downstream Industry

- 4.1 THF/PTMEG
  - 4.1.1 World
  - 4.1.2 China
- 4.2 PBT
  - 4.2.1 World
  - 4.2.2 China
- 4.3 GBL
  - 4.3.1 World
  - 4.3.2 China

### 5. Major Overseas BDO Manufacturers

- 5.1 BASF
- 5.2 Dairen Chemical
- 5.3 LYONDELLBASELL
- 5.4 Ashland
- 5.5 Nan Ya Plastics

### 6. Major BDO Manufacturers in Mainland China

- 6.1 Shanxi Sanwei
  - 6.1.1 Profile
  - 6.1.2 Operation
  - 6.1.3 Revenue Structure
  - 6.1.4 Gross Margin
  - 6.1.5 Clients and Suppliers
  - 6.1.6 BDO Business
  - 6.1.7 Forecast and Outlook
- 6.2 Yunnan Yunwei
  - 6.2.1 Profile
  - 6.2.2 Operation
  - 6.2.3 Revenue Structure
  - 6.2.4 Gross Margin
  - 6.2.5 BDO Business
  - 6.2.7 Forecast and Outlook
- 6.3 Sinopec Yizheng Chemical Fibre
  - 6.3.1 Profile
  - 6.3.2 BDO Business
- 6.4 Markor Chem
  - 6.4.1 Profile
  - 6.4.2 Operation
  - 6.4.3 Clients and Suppliers

### 6.4.4 BDO Business

- 6.5 Fujian Meizhouwan
- 6.6 Nanjing Bluestar
- 6.7 China New Materials
- 6.8 HNCC
- 6.9 Other Companies
  - 6.9.1 Shaanxi BDO
  - 6.9.2 Sichuan Tianhua
  - 6.9.3 Jianfeng Chemical
  - 6.9.4 Guodian Younglight
  - 6.9.5 Henan Kaixiang
  - 6.9.6 Inner Mongolia Zhongyuan
  - 6.9.7 Sinopec Sichuan Vinylon Works
  - 6.9.8 Zhongjia Huachen Energy
  - 6.9.9 Jiangshan Chemical
  - 6.9.10 Xinjiang Tianye
  - 6.9.11 Yanchang Petroleum
  - 6.9.12 Hengyuan Coal Industry and Electricity Power
  - 6.9.13 Shandong Weijiao
  - 6.9.14 Shaanxi Ronghe Chemical
  - 6.9.15 Xinjiang Blue Ridge Tunhe Chemical Industry Joint Stock
  - 6.9.16 Xinjiang Guotai Xinhua Mining

### 7. Summary and Forecast

- 7.1 Summary
- 7.2 Forecast
  - 7.2.1 Development Trend
  - 7.2.2 Supply & Demand

- 
- BDO Industry Chain
  - Advantages and Disadvantages of BDO Production Process
  - Application of Global BDO Production Technology
  - Global BDO Capacity and Growth Rate, 2007-2014
  - Major BDO Manufacturers Worldwide and Their Capacity, as of Sep. 2014
  - Global BDO Demand and Growth Rate, 2007-2014
  - Capacity Share of Major BDO Manufacturers in the World, as of Sep. 2014
  - BDO Price Trend Worldwide, 2005-2014
  - BDO Anti-dumping Cases in China
  - Deposit and Anti-dumping Tax Rates Levied by China on Saudi Arabian and Taiwanese BDO Companies
  - BDO Manufacturers and Their Capacity in China, as of Sep. 2014
  - BDO Capacity Structure (by Production Process) in China, as of Sep. 2014
  - Proposed/Ongoing BDO Projects in China, 2014
  - BDO Capacity and Growth Rate in China, 2006-2014
  - BDO Output and Operating Rate in China, 2006-2014
  - BDO Apparent Consumption and Growth Rate in China, 2006-2014
  - BDO Downstream Consumption Structure in China, 2013
  - Major BDO Downstream Users, 2013
  - Capacity Share of Major BDO Manufacturers in China, as of Sep. 2014
  - Import/Export Volume of Other Diols in China, 2009-2014
  - Average Import/Export Price of Other Diols in China, 2009-2014
  - Import Sources of Other Diols (by Import Volume) in China, 2013
  - Export Destinations of Others Diols (by Export Volume) in China, 2013
  - Main Other Diols Importing Regions and Import Structure in China, 2013
  - Main Other Diols Exporting Regions and Export Structure in China, 2013

- 
- BDO Ex-factory Price of Shanxi Sanwei, 2009-2014
  - BDO Price (by Region) in China, Sep. 17, 2014
  - BDO Price (by Business) in China, Sep. 17, 2014
  - Geographical Distribution of Global PTMEG Capacity, 2013
  - Capacity Share of Major PTMEG Manufacturers in the World, 2013
  - Global PTMEG Capacity, 2007-2013
  - PEMEG Capacity in China, 2006-2013
  - PTMEG Output and Operating Rate in China, 2006-2013
  - PTMEG Manufacturers and Their Capacity in Mainland China, 2013
  - Proposed/Ongoing PTMEG Projects in China, 2014
  - PTMEG Apparent Consumption and Self-sufficiency Rate in China, 2008-2013
  - PTMEG Consumption Structure in China, 2013
  - PTMEG Import/Export Volume in China, 2008-2014
  - Average PTMEG Import/Export Price in China, 2008-2014
  - Distribution of PTMEG Import Sources (by Import Volume) in China, 2013
  - Distribution of PTMEG Export Destinations (by Export Volume) in China, 2013
  - Average PTMEG (MW: 1000 or 2000) Price in East China, 2013-2014
  - Global PBT Consumption Structure, 2013
  - Global PBT Consumption Structure (by Region), 2013
  - PBT Manufacturers and Their Capacity in China, 2013
  - PBT Consumption Structure in China, 2013
  - PBT Import/Export Volume in China, 2008-2014
  - Average PBT Import/Export Price in China, 2008-2014
  - Distribution of PBT Import Sources (by Import Volume) in China, 2013
  - Distribution of PBT Export Destinations (by Export Volume) in China, 2013

- 
- PBT (G10) Market Price of Jiangsu Sanfangxiang Group, 2009-2014
  - Quotations of Major PBT Manufacturers in China, Sep. 2014
  - Major GBL Manufacturers and Their Capacity in China, 2013
  - Sales and Net Income of BASF, 2009-2014
  - Sales Structure of BASF (by Division), 2013
  - Sales and EBITDA of BASF's Chemical Division, 2012-2014
  - Sales Breakdown of BASF's Chemical Division (by Product), 2012-2014
  - Sales Structure of BASF's Chemical Division (by Product), 2012-2014
  - Intermediates Sales Structure of BASF (by Region), 2011-2013
  - Address, Capacity and Process of BDO Facilities of BASF, 2013
  - Main Products and Capacity of Dairen Chemical, 2013
  - Address and Capacity of BDO Plants of Dairen Chemical, 2013
  - BDO Industry Chain of Dairen Chemical
  - Revenue and Net Income of LYONDELLBASELL, 2011-2014
  - Revenue Structure of LYONDELLBASELL (by Division), 2013
  - Revenue and Operating Income of Intermediate and Derivative Division of LYONDELLBASELL, 2011-2014
  - Main Products and Capacity of Intermediate and Derivative Division of LYONDELLBASELL, 2013
  - Revenue and Net Income of Ashland, FY2010-FY2014
  - Revenue Structure of Ashland (by Division), FY2011-FY2013
  - Revenue Structure of Ashland's Functional Material Division (by Market), 2013
  - Revenue Structure of Ashland's Functional Material Division (by Product), 2013
  - Revenue Structure of Ashland's Functional Material Division (by Region), 2013
  - Address, Capacity and Process of BDO Facilities of ISP, 2013
  - Main Products of Nan Ya Plastics
  - Revenue and Net Income of Nan Ya Plastics, 2009-2013

- 
- Nan Ya Plastics' Revenue from Main Products and % of Total Revenue, 2013
  - Nan Ya Plastics' Revenue from BDO and % of Total Revenue, 2009-2013
  - BDO Capacity and Output of Nan Ya Plastics, 2008-2013
  - BDO Sales Volume and Sales/Output Ratio of Nan Ya Plastics, 2009-2013
  - Proportion of BDO Self-used Volume and External Sales Volume in Total Sales Volume of Nan Ya Plastics, 2011-2013
  - Revenue and Net Income of Shanxi Sanwei, 2009-2014
  - Revenue Breakdown of Shanxi Sanwei (by Product), 2012-2014
  - Revenue Structure of Shanxi Sanwei (by Product), 2012-2014
  - Revenue Breakdown of Shanxi Sanwei (by Region), 2012-2014
  - Revenue Structure of Shanxi Sanwei (by Region), 2012-2014
  - Gross Margin of Main Products of Shanxi Sanwei, 2010-2014
  - Shanxi Sanwei's Revenue from Top 5 Clients and % of Total Revenue, 2011-2013
  - Name List and Revenue Contribution of Shanxi Sanwei's Top 5 Clients, 2013
  - Shanxi Sanwei's Procurement from Top 5 Suppliers and % of Total Procurement, 2011-2013
  - Name List and Procurement Contribution of Shanxi Sanwei's Top 5 Suppliers, 2013
  - Development Course of BDO Business of Shanxi Sanwei
  - Capacity of BDO and Downstream Products of Shanxi Sanwei, 2013
  - Revenue and Net Income of Shanxi Sanwei, 2013-2017E
  - Capacity of Main Products of Yunnan Yunwei, 2013
  - Revenue and Net Income of Yunnan Yunwei, 2009-2014
  - Revenue Breakdown of Yunnan Yunwei (by Product), 2012-2014
  - Revenue Structure of Yunnan Yunwei (by Product), 2012-2014
  - Revenue Breakdown of Yunnan Yunwei (by Region), 2012-2014
  - Revenue Structure of Yunnan Yunwei (by Region), 2012-2014
  - Gross Margin of Yunnan Yunwei (by Product), 2012-2014

- 
- BDO Capacity and Output of Yunnan Yunwei, 2011-2014
  - Revenue and Net Income of Yunnan Yunwei, 2010-2014
  - Revenue and Net Income of Yunnan Yunwei, 2013-2017E
  - Financial Indicators of Markor Chem, 2012-2013
  - Major Clients and BDO Supply of Markor Chem, 2012
  - Markor Chem's Procurement and Products Procured from Major Suppliers, H1 2013
  - BDP Process of Markor Chem
  - BDO Capacity, Output, Sales Volume and Sales Price of Markor Chem, 2010-2013
  - Capacity of Main Products of Fujian Meizhouwan, 2013
  - Development Course of BDO-related Business of Dongying Shengli
  - Comparison of Some Global and Chinese Enterprises by BDO Revenue, 2013-2014
  - BDO Capacity and Growth Rate in China, 2013-2017E
  - BDO Output and Apparent Consumption in China, 2013-2017E

You can place your order in the following alternative ways:

1. Order online at [www.researchinchina.com](http://www.researchinchina.com)
2. Fax order sheet to us at fax number: +86 10 82601570
3. Email your order to: [report@researchinchina.com](mailto:report@researchinchina.com)
4. Phone us at +86 10 82600828/ 82601561

<b>Party A:</b>			
Name:			
Address:			
Contact Person:		Tel	
E-mail:		Fax	

<b>Party B:</b>			
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)		
Address:	Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080		
Contact Person:	Liao Yan	Phone:	86-10-82600828
E-mail:	<a href="mailto:report@researchinchina.com">report@researchinchina.com</a>	Fax:	86-10-82601570
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng, Landianchang, Haidian District, Beijing Bank Account No #: 110060668012015061217 Routing No #: 332906 Bank SWIFT Code: COMMCNSHBJG		

Title	Format	Cost
Total		

Choose type of format

PDF (Single user license) .....2,350 USD  
 Hard copy ..... 2,500 USD  
 PDF (Enterprisewide license)..... 3,600 USD

※ Reports will be dispatched immediately once full payment has been received.  
 Payment may be made by wire transfer or credit card via PayPal.

### **About ResearchInChina**

ResearchInChina ([www.researchinchina.com](http://www.researchinchina.com)) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

### **Our Major Activities**

- ❑ *Multi-users market reports*
- ❑ *Database-RICDB*
- ❑ *Custom Research*
- ❑ *Company Search*

**RICDB** (<http://www.researchinchina.com/data/database.html>), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at [www.researchinchina.com](http://www.researchinchina.com)

For any problems, please contact our service team at: