

# Fast and Safe Australia 99.9% BDO / 1, 4 Butanediol/Bdo/ 1, 4-Butanediol 110-63-4

Product Name: 1,4-Butanediol

Alias:1,4-Dihydroxybutane;1,4-Butylene glycol;Tetramethylene glycol

CAS NO.: 110-63-4

EINECS NO.: 203-786-5

MF: C4H10O2

MW:90.12

PURITY: 99%

APPEARANCE: colorless viscous liquid

MELTING POINT: 20°C

BOILING POINT: 230°C

Flash Point: 135°C

Solubility: Miscible

Density: 1.017g/mL

## 1, 4-Butanediol Description

1,4-Butanediol (1,4-B, butylene glycol, or BD) is a thick, colourless liquid which is nearly odorless with a distinct bitter taste. 1,4-Butanediol is used industrially as a solvent and in the manufacture of some types of plastics, elastic fibers and polyurethanes. In organic chemistry, 1,4-butanediol is used for the synthesis of  $\gamma$ -butyrolactone

In humans, it acts as a depressant and a prodrug for GH B where 1ml is equivalent to 1g of GH B. It is used as a recreational intoxicant with effects similar to alcohol.

1,4-Butanediol, as well as , will dissolve most types of plastic over time. For this reason, it is recommended to only transport and store the drug using a glass container, standard gelatin capsules (not vegetarian), or high-density polyethylene plastic (also known as #2 recycled plastic). To check the type of plastic used on a bottle, one can look at the bottom for a number in the triangle shaped recycling label.

## Industrial Use of 1,4-Butanediol:

1,4-Butanediol is used industrially as a solvent and in the manufacture of some types of plastics, elastic fibers and polyurethanes. In organic chemistry. In the presence of phosphoric acid and high temperature, it dehydrates to the important solvent tetrahydrofuran. At about 200 °C in the presence of soluble ruthenium catalysts, the diol undergoes dehydrogenation to form butyrolactone.

World production of 1,4-butanediol was claimed to be about one million metric tons per year and market price is about 2,000 USD (1,600 EUR) per ton (2005). In 2013, worldwide production was claimed to be billions of lbs (consistent with approximately one million metric tons).

## **1,4-Butanediol Application:**

1. 1,4-butanediol is an important raw materials for organic and refined. It is the basic material for producing PBT plastics and fiber.
2. 1,4-butanediol is the main raw material for producing THF, which is an important organic solvent.
3. 1,4-butanediol is the main material for producing-butyrolacton, which is widely used in pesticide, pharmaceuticals, cosmetics and other industries.
4. 1,4-butanediol is the main material for producing polyurethane artificial leather, polyurethane, elastomer and polyurethane sole glue.

Storage and transportation: Industrial 1, 4 butanediol storage temperature is not lower than 20 DEG C, so as to avoid crystallization, should be filled with dry nitrogen sealed storage. Steel packaging products should be stored in dry, ventilated environment.