

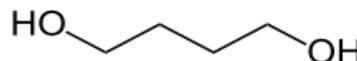
# PRODUCT DATA SHEET

## 1,4 Butanediol (1,4 BDO)

### Product Description

1,4 BDO is a colorless viscous liquid (at or above room temperature) or white solid (below room temperature).

Formula ..... C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>  
 Molecular Weight ..... 90.1  
 PRD Number ..... 30041337  
 CAS Registry Number..... 110-63-4



### Precautions

Before using 1,4 BDO in any application, the user should review and understand the Safety Data Sheet.

### Major Industrial Uses

1,4 BDO is used in both the hard and soft segments of polyurethanes; in the hard segment as a chain extender and in the soft segment as polyesterdiols such as polybutylene adipate glycol.

1,4 BDO is used to make a variety of esters, including monomeric plasticizers, the engineering plastic polybutylene terephthalate (PBT) and low molecular weight polyester glycols. The polyester glycols are used as soft segments in polyurethanes and are made by reacting 1,4 BDO with various dibasic acids such as adipic and sebacic acid.

In addition to its use in the soft segments of polyurethanes, 1,4 BDO is used in the hard segments of some polyurethanes, particularly those made with MDI or TDI. In the hard segment or as a crosslinker, 1,4 BDO produces a good balance between hardness and low temperature flexibility.

### Sales Specifications

Color, APHA	<10
Water, ppm	<500
Carbonyl #, mg KOH/g	<0.10
Assay, wt%	>99.5

### Physical Properties

Molecular weight	90.1
Hydroxyl number <sup>1</sup>	1240-1246
Viscosity, cP (mPa•s), 25°	72
Density, 25°C g/mL	1.02
Melting point <sup>2</sup> , °C	20
Boiling point, °C	228

<sup>1</sup> calculated

<sup>2</sup> Freezing point

## **For Samples and Information:**

[www.terathane.invista.com](http://www.terathane.invista.com)

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