

# **Description**

# **ZHENGDA® ZD-123 Polyether Amine**

**ZHENGDA ZD-123** Polyether Amine (also called Amine-terminated Polyether) is characterized by repeating oxypropylene units in the backbone. As shown by the representative structure, ZHENGDA ZD-123 Amine-terminated Polyether is a difunctional, primary amine with an average molecular weight of about 230. The primary amine groups are located on secondary carbon atoms at the end of the aliphatic polyether chain.

$$H_2N$$
 $CH_3$ 
 $CH_3$ 
 $CH_3$ 

 $x \approx 2.5$ 

#### **APPLICATIONS**

- Epoxy curing agent
- Reacts with carboxylic acids to form hot melt adhesives
- Reacts quickly with isocyanates
- · Salts may be formed readily for surfactant use

#### **BENEFITS**

- · Low viscosity, color and vapor pressure
- · Completely miscible with a wide variety of solvents, including water
- Provides tough, clear, impact resistant coatings, castings, and adhesives
- Coatings are free of surface blush prevalent with many amine curing agents

# **SALES SPECIFICATIONS**

| <b>Property</b>                 | <b>Specifications</b>           |  |
|---------------------------------|---------------------------------|--|
| Appearance                      | Colorless to pale yellow liquid |  |
|                                 | with slight haze permitted      |  |
| Color, Pt-Co                    | 25 max.                         |  |
| Primary amine, % of total amine | 95 min.                         |  |
| Total acetylatables,meq/g       | 8.3-8.7                         |  |
| Total amine, meq/g              | 8.1 - 8.7                       |  |
| Water, wt%                      | 0.25 max.                       |  |
|                                 |                                 |  |

# ADDITIONAL INFORMATION

| AHEW (Amine hydrogen equivalent wt.), g/eq | 60           | Flash point, PMCC, °C (°F)                     | 121 (250) |
|--|--------------|--|-----------|
| Equivalent wt. with isocyanates, g/eq      | 120          | pH, 5% aqueous solution                        | 11.7      |
| Viscosity, cSt, 25°C (77°F)                | 9.5          | Refractive index, n <sub>D</sub> <sup>20</sup> | 1.4466    |
| Density, g/ml (lb/gal), 25°C               | 0.948 (7.90) | Vapor pressure, mm Hg/°C                       | 1/100     |
| CAS Number                                 | 9046-10-0    |  | 10/133    |



#### TOXICITY AND SAFETY

For additional information on the toxicity and safe handling of this product, consult the Material Safety Data Sheet (Safety Data Sheet in Europe) prior to use of this product.

#### HANDLING AND STORAGE

# **Materials of Construction**

### At temperatures of 75-100°F (34-38°C)

TanksCarbon steelLines, valvesCarbon steelPumpsCarbon steelHeat exchange SurfacesStainless steel

Hoses Stainless steel, polyethylene, polypropylene, and TEFLON®

Gaskets, packing Polypropylene or TEFLON® (elastomers such as neoprene, Buna N, and

VITON® should be avoided)

Atmosphere Nitrogen or dry air

At temperatures above 100°F (38°C)

Tanks Stainless steel or aluminum

Lines, Valves Stainless steel

Pumps Stainless steel or Carpenter 20 equivalent

Atmosphere Nitrogen

ZHENGDA® ZD-123 Amine-terminated Polyether may be stored under air at ambient temperatures for extended periods. A nitrogen blanket is suggested for all storage, however, to reduce the effect of accidental exposure to high temperatures and to reduce the absorption of atmospheric moisture and carbon dioxide. It should be noted that pronounced discoloration is likely to occur at temperatures above 140°F (60°C), whatever the gaseous pad. Cleanout of lines and equipment containing ZHENGDA ZD-123 Amine-terminated Polyether can be accomplished using warm water and steam. In the event of spillage of this product, the area may be flushed with water. The proper method for disposal of waste material is by incineration with strict observance of all federal, state, and local regulations.

# **AVAILABILITY**

ZHENGDA ZD-123 Amine-terminated Polyether is available in tank cars, tank wagons, 55-gallon (208L) drums of 430 pounds (195kg) net weight, and 5-gallon (19L) cans.

Samples are available by contacting our office.

Main Offices: ZIBO ZHENGDA POLYURETHANE Co.,Ltd.

Add:RM 1904, ChuangYeHuoJuGuangChang E, Zhangdian, Zibo City, 255000, Shandong Province, P.R.China

Tel:0086-533-3146343 Fax:0086-533-3142021 E-mail: arnie@dexin-chem.com

www.china-polyol.com