

Description

ZHENGDA® ZD-140 Polyether Amine

ZHENGDA ZD-140 Polyether amine (also called Amine-terminated Polyether) is characterized by repeating oxypropylene units in the backbone. As shown by the representative structure, ZHENGDA ZD-140 Amine-terminated Polyether is a diffunctional, primary amine with average molecular weight of about 430. The primary amine groups are located on secondary carbon atoms at the end of the aliphatic polyether chains.

$$H_2N$$
 O
 X
 CH_3
 $X \approx 6.1$

APPLICATIONS

- Epoxy curing agent that provides increased flexibility and toughness
- Used in polyurethanes, polyureas, and thermoplastic polyamide adhesives
- Salts may be formed for use in cutting fluids

BENEFITS

- Low viscosity, color and vapor pressure
- Completely miscible with a variety of solvents

SALES SPECIFICATIONS

<u>Property</u>	<u>Specifications</u>	
Appearance, 25°C	Colorless to pale yellow liquid	
	with slight haze permitted	
Color, Pt-Co	50 max.	
Primary amine, % of total amine	95 min.	
Total amine, meq/g	4.0 - 4.6	
Water, wt%	0.25 max.	

ADDITIONAL INFORMATION

AHEW (Amine hydrogen equivalent wt.), g/ed	115	pH, 5% aqueous solution	11.6
Equivalent wt. with isocyanates, g/eq	230	Refractive index, n _D ²⁰	1.4482
Viscosity, cSt, 25°C (77°F)	22	Vapor pressure, mm Hg/°C	1/165
Density, g/ml (lb/gal) 25°C	0.972 (8.10)		10/193
Flash point, PMCC, °C (°F)	163 (325)	CAS Number	9046-10-0



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 (24-38°C)

Tanks Carbon steel Lines, valves Carbon steel **Pumps** Carbon steel Heat exchange Surfaces Stainless steel

Hoses

Stainless steel, polyethylene, polypropylene, and TEFLON $^{\otimes 1}$ Polypropylene or TEFLON $^{\otimes 1}$ (elastomers such as neoprene, Buna N, and Gaskets, packing

VITON®1 should be avoided)

Nitrogen or dry air Atmosphere

At temperatures above 100°F (38°C)

Stainless steel or aluminum **Tanks**

Lines, Valves Stainless steel

Pumps Stainless steel or Carpenter 20 equivalent

Atmosphere Nitrogen

ZHENGDA® ZD-140 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-140 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-140 Amine-terminated Polyether is available in tank cars, tank wagons, 55-gallon (208L) drums of 440 pounds (200kg) net weight, and 5-gallon (19L) cans.

Samples are available by contacting our office.

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