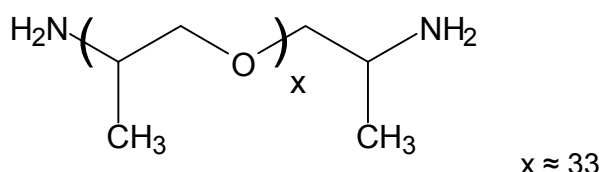


Technical Bulletin

JEFFAMINE® D-2000 Polyetheramine

JEFFAMINE D-2000 polyetheramine is characterized by repeating oxypropylene units in the backbone. As shown by the representative structure, JEFFAMINE D-2000 polyetheramine is a difunctional, primary amine with average molecular weight of about 2000. The primary amine groups are located on secondary carbon atoms at the end of the aliphatic polyether chains.



- APPLICATIONS**
- Key ingredient in the formulation of polyurea and RIM
 - Co-reactant in epoxy systems which require increased flexibility and toughness

- BENEFITS**
- Low viscosity, color and vapor pressure
 - Improved flexibility from high molecular weight polyether backbone
 - Increases peel strength

SALES SPECIFICATIONS

Property	Specifications	Test Method*
Appearance	Colorless to pale yellow liquid with slight haze permitted	ST-30.1
Color, Pt-Co	25 max.	ST-30.12
Primary amine, % of total amine	97 min.	ST-5.34
Total acetylatables, meq/g	0.98 – 1.1	ST-31.39
Total amine, meq/g	0.98 – 1.05	ST-5.22
Water, wt%	0.25 max.	ST-31.53, 6

*Methods of Test are available from Huntsman Corporation upon request.

ADDITIONAL INFORMATION

Regulatory Information

DOT/TDG Classification	Corrosive, liquids, N.O.S. (polyoxypropylene diamine)
HMIS Code	3-1-0
CAS Number	9046-10-0
US, TSCA	Listed
Canadian WHMIS Classification	D1B, E
Canada, DSL	Listed
European Union, EINECS/ELINCS	Polymer Exempt
Australia, AICS	Listed
Japan, ENCS	Contact Huntsman Regulatory
Korea, ECL	Listed
China, IECSC	Listed

Typical Physical Properties

AHEW (amine hydrogen equivalent wt.), g/eq	514
Equivalent wt. with isocyanates, g/eq	1030
Viscosity, cSt, 25°C (77°F)	248
Density, g/ml (lb/gal), 25°C	0.991(8.26)
Flash point, PMCC, °C (°F)	185 (365)
pH, 5% aqueous solution	10.5
Refractive index, n_D^{20}	1.4514
Vapor pressure, mm Hg/°C	0.93/235 4.95/254

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®
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

JEFFAMINE® D-2000 polyetheramine 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 JEFFAMINE D-2000 polyetheramine 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

JEFFAMINE D-2000 polyetheramine is available in tank cars, tank wagons, and 55-gallon (208L) drums of 440 pounds (200kg) net weight. Samples are available in North America and Asia by contacting our sample department at 1-800-662-0924. Samples in other locations, including Europe, are available by contacting any Huntsman Corporation sales office

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