HUNTSMAN
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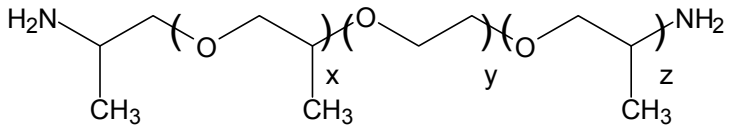
Technical Bulletin

JEFFAMINE® ED-2003 Polyetheramine

JEFFAMINE ED-2003 polyetheramine is a water soluble aliphatic diamine derived from a propylene oxide capped polyethylene glycol. It is a waxy solid at room temperature with an approximate molecular weight of 2000.



y ≈ 39, (x+z) ≈ 6

APPLICATIONS

- Hydrophilic polymers
- Antistatic agents
- Epoxy modifiers
- Textile treating
- Water-based coatings
- Water-soluble, water-dispersible, water-swellable polyamides
- Water-soluble polyureas

BENEFITS

- Low color and vapor pressure
- Water soluble
- Reactivity of the primary amine end groups

SALES SPECIFICATIONS

Property	Specifications	Test Method*
Appearance, 60°C	Colorless to yellow liquid, slight haze permitted	ST-30.1
Color, Pt-Co	75 max.	ST-30.12
Primary amine, % of total amine	95 min.	ST-5.34
Total acetylatables, meq/g	0.9 – 1.05	ST-31.39
Total amine, meq/g	0.9 – 1.05	ST-5.35
Water, wt%	0.35 max.	ST-31.53, 6

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

ADDITIONAL INFORMATION

Regulatory Information

DOT/TDG Classification	Not regulated
HMIS Code	0-1-0
CAS Number	65605-36-9
US, TSCA	Listed
Canadian WHMIS Classification	Not regulated
Canada, DSL	Not Listed
European Union, EINECS/ELINCS	Polymer Exempt
Australia, AICS	Not Listed
Japan, ENCS	Contact Huntsman Regulatory
Korea, ECL	Listed
China, IECSC	Listed

Typical Properties

AHEW (Amine hydrogen equivalent wt.), g/eq	575
Viscosity, cSt, 50°C (122°F)	134
Density, g/ml (lb/gal), 50°C	1.068 (8.91)
Flash point, PMCC, °C (°F)	260 (500)
pH	11.2
Melting Point, °C (°F)	43 (109)

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)

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® ED-2003 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 ED-2003 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 ED-2003 polyetheramine is available in tank cars, tank wagons, 55-gallon (208L) drums of 420 pounds (190kg) net weight, and 5-gallon (19L) cans. 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.

Main Offices US: Huntsman Corporation / 10003 Woodloch Forest Drive / The Woodlands, Texas 77380 / 281-719-6000
Technical Service US: 8600 Gosling Road / The Woodlands, Texas 77381 / 281-719-7780

Main Offices Europe: Huntsman Belgium BVBA / Everslaan 45 / B-3078 Everberg, Belgium / 32-2 -758-9211
Technical Service Europe: Technical Services Representative / Everberg Office / 32-2-758-9392

Main Offices Asia Pacific: Huntsman Singapore PTE / 150 Beach Road #37-00 Gateway West / Singapore 189720 / 65 6297 3363
Technical Service Asia Pacific: Huntsman Performance Products / 61 Market Road, Brooklyn, Victoria / Australia 3012 / 61 3 9933 6666

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