HUNTSMAN

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Technical Bulletin

ELASTAMINE® RE-900 amine

ELASTAMINE® RE-900 amine is an aliphatic polyetherdiamine derived from a propylene oxide capped polyethylene glycol. It is water soluble, with an approximate molecular weight of 900 and a melting point around room temperature. Polyetheramines of this type are useful in a variety of polymers because of the hydrophilicity and flexibility imparted by the polyethylene glycol chain. Antistatic properties and moisture vapor transmission can be enhanced by incorporation of PEG-based polyetheramines.

APPLICATIONS

- Modification of thermoplastic polymers, such as nylon
- Hydrophilic polymers, antistatic polymers
- Water-soluble, water-dispersible, water-swellable polyamides

BENEFITS

- High flexibility from polyether backbone
- Increased hydrophilicity, polarity and improved antistatic properties from polyethyleneglycol backbone
- Water soluble
- Improved moisture transport in fibre and film applications
- Amine end group much more reactive than alcohol
- Low color and low vapor pressure

SALES SPECIFICATIONS

Property	Specifications	Test Method*
Appearance	Colorless to pale yellow liquid with slight haze permitted	ST-30.1
Color, Pt-Co	100 max.	ST-30.12
Total acetylatables, meq/g	2.10 min. – 2.40 max.	ST-31.39
Total amine, meq/g	1.80 min. – 2.25 max.	ST-5.35
Total amine, % of total acetylatables	95 min.	Calculated
Primary amine, % of total amine	98 min.	ST-5.34
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 Physical Properties

AHEW (amine hydrogen equivalent weight)	250
Viscosity, cSt, 38°C (100°F)	119
Density, g/ml (lb/gal), 38°C	1.065 (8.88)
Flash point, PMCC, °C (°F)	174 (345)
pH	11.4
Melting point, °C (°F)	22 (72)

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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® [1] fluoropolymers
Gaskets, packing	Polypropylene or TEFLON® fluoropolymers (Elastomers such as neoprene, Buna N, and VITON® [1] fluoroelastomers 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

[1] Registered trademarks of DuPont

ELASTAMINE® RE-900 amine may be stored under air at ambient temperatures for short 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.

Cleaning of line and equipment containing ELASTAMINE® RE-900 amine 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

ELASTAMINE® RE-900 amine is available in 55-gallon (208 L) drums of 450 pounds (204 kg) 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.

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
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