

Technical Bulletin**ELASTAMINE® RE-2000 amine**

ELASTAMINE® RE-2000 amine is a water soluble aliphatic polyetherdiamine derived from a propylene oxide capped polyethylene glycol. It is a waxy solid at room temperature with an approximate molecular weight of 2000. 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 nylons
- Hydrophilic polymers, antistatic polymers
- Water-soluble, water-dispersible, water-swallowable 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

<u>Property</u>	<u>Specifications</u>	<u>Test Method*</u>
Appearance	Melt shall be colorless to pale yellow liquid with slight haze permitted	ST-30.1
Color, Pt-Co	75 max.	ST-30.12
Total acetylatables, meq/g	0.9 min. – 1.05 max.	ST-31.39
Total amine, meq/g	0.9 min. – 1.05 max.	ST-5.35
Primary amine, % of total amine	95 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, IECS	Listed

Typical Physical Properties

AHEW (amine hydrogen equivalent weight)	505
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 ^{®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

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ELASTAMINE[®] RE-2000 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-2000 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-2000 amine is available in 55-gallon (208 L) drums of 420 pounds (191 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.

ELRE-2000-1008

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