

**Technical Bulletin****ELASTAMINE<sup>®</sup> RE1-1000 Amine**

**ELASTAMINE<sup>®</sup> RE1-1000 amine** is a hydrophilic polyethermonoamine of approximately 1000 molecular weight, with a PO/EO mole ratio of about 3/19. It is a white waxy solid at room temperature.

**APPLICATIONS**

- Modification of thermoplastic polymers, such as polyolefins
- Colored plastics, fibres and films
- Compatibilization of polymer alloys

**BENEFITS**

- Increased hydrophilicity and polarity from polyethyleneglycol backbone
- Improved antistatic properties
- Improved paint adhesion
- Amine end group much more reactive than alcohol
- High flexibility from polyether backbone
- The melt has 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	0.95 min. – 1.15 max.	ST-31.39
Total amine, meq/g	0.94 min.	ST-5.35
Total amine, % of total acetylatables	95 min.	Calculated
Primary amine, % of total amine	95 min.	ST-5.34
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	Not regulated
HMIS Code	0-1-0
CAS Number	83713-01-3
US, TSCA	Listed
Canadian WHMIS Classification	Not regulated
Canada, DSL	Listed
European Union	Polymer Exempt
Australia, AICS	Listed
Japan, METI	Listed
Korea, ECL	Listed
China, IECSC	Listed

**Typical Physical Properties**

AHEW (amine hydrogen equivalent weight)	489
PO/EO ratio	3/19
Density, g/ml (lb/gal), 38°C	1.066 (8.90)
Melting point, °C (°F)	29.4 (85)
Flash point, PMCC, °C (°F)	98 (208)
HLB value	17.0

**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 (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 <sup>®1</sup> fluoropolymers
Gaskets, packing	Polypropylene or TEFLON <sup>®</sup> fluoropolymers (Elastomers such as neoprene, Buna N, and VITON <sup>®1</sup> 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

<sup>1</sup> Registered trademarks of DuPont

ELASTAMINE<sup>®</sup> RE1-1000 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<sup>®</sup> RE1-1000 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<sup>®</sup> RE1-1000 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.

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