

Technical Bulletin**ELASTAMINE[®] RE1-2007 Amine**

ELASTAMINE[®] RE1-2007 amine is a hydrophilic polyethermonoamine of approximately 2000 molecular weight, with a PO/EO mole ratio of about 10/31. It is a liquid at room temperature, with moderate viscosity and low vapor pressure, and it is essentially colorless.

- APPLICATIONS**
- Modification of thermoplastic polymers, such as polyolefinic polymers
 - 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
 - Low color and low vapor pressure

SALES SPECIFICATIONS

<u>Property</u>	<u>Specifications</u>	<u>Test Method*</u>
Appearance	Colorless to pale yellow liquid with slight haze permitted	ST-30.1
Color, Pt-Co	75 max.	ST-30.12
Total acetylatables, meq/g	0.48 min. – 0.52 max.	ST-31.39
Total amine, meq/g	0.45 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, Einecs/Elincs	Polymer Exempt
Australia, AICS	Polymer exempt (2% rule)
Japan, METI	Contact Huntsman Regulatory
Korea, ECL	Listed
China, IECSC	Listed

Typical Physical Properties

AHEW (amine hydrogen equivalent weight)	1040
PO/EO ratio	10/31
Viscosity, cSt, 25°C (77°F)	283
Viscosity, cSt, 37.8°C (100°F)	186
Density, g/ml (lb/gal), 25°C	1.072 (8.9)
Melting point, °C (°F)	17 (63)
Flash point, PMCC, °C (°F)	243 (470)
pH, 5% aqueous solution	10.9
HLB value	13.8

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[®] RE1-2007 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[®] RE1-2007 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[®] RE1-2007 amine is available in 55-gallon (208 L) drums of 460 pounds (209 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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