

**Technical Bulletin****ELASTAMINE<sup>®</sup> RP3-5000 amine**

**ELASTAMINE<sup>®</sup> RP3-5000 amine** is a trifunctional primary amine of approximately 5000 molecular weight, characterized by repeating oxypropylene units. It is a clear, almost colorless, viscous, liquid product, having very low vapor pressure.

- APPLICATIONS**
- Modification of thermoplastic polymers, such as nylon
  - Soft block initiator for star-block polyether-amide copolymers, such as nylon castings
  - High flow nylon compounds

- BENEFITS**
- Increased toughness
  - Improved flow (shear thinning)
  - Nylon with lower water absorption
  - 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	Colorless to pale yellow liquid with slight haze permitted	ST-30.1
Color, Pt-Co	75 max.	ST-30.12
Total acetylatables, meq/g	0.57 min. – 0.64 max.	ST-31.39
Total amine, meq/g	0.50 min. – 0.54 max.	ST-5.35
Primary amine, % of total amine	97 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	3-1-0
CAS Number	64852-22-8
US, TSCA	Listed
Canadian WHMIS Classification	D2B
Canada, DSL	Exempt
European Union, Einecs/Eincls	Polymer Exempt
Australia, AICS	Listed
Japan, ENCS	Contact Huntsman Regulatory
Korea, ECL	Listed
China, IECSC	Listed

**Typical Physical Properties**

AHEW (amine hydrogen equivalent weight)	950
Viscosity, cSt, 25°C (77°F)	819
Density, g/ml (lb/gal), 25°C	0.997 (8.31)
Flash point, PMCC, °C (°F)	213 (415)

**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> RP3-5000 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> RP3-5000 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> RP3-5000 amine is available in 55-gallon (208 L) drums of 440 pounds (200 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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