

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-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	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)



Enriching lives through innovation

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.

Copyright © 2008 Huntsman Corporation or an affiliate thereof. All rights reserved.
ELASTAMINE[®] is a registered trademark of Huntsman Corporation or an affiliate thereof in one or more, but not all countries.

ELRE-900-1008

Huntsman Corporation warrants only that its products meet the specifications stated herein. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, HUNTSMAN MAKES NO WARRANTY OR GUARANTEE OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OF ANY THIRD PARTY, OR WARRANTIES AS TO QUALITY OR CORRESPONDENCE WITH PRIOR DESCRIPTION OR SAMPLE, AND ANY USER OF PRODUCTS DESCRIBED HEREIN SHOULD CONDUCT A SUFFICIENT INVESTIGATION TO ESTABLISH THE SUITABILITY OF ANY PRODUCT FOR ITS INTENDED USE AND ASSUMES ALL RISK AND LIABILITY WHATSOEVER RESULTING FROM THE USE OF SUCH PRODUCT, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER SUBSTANCES. Product(s) described in this publication may be hazardous and/or toxic and require special precautions in handling. For all product(s) described herein, the user should obtain from Huntsman detailed information on hazards and/or toxicity, together with proper shipping, handling, and storage procedures, and should comply with all applicable safety and environmental standards. The behavior, hazards and/or toxicity of the product(s) referred to in this publication in manufacturing processes and their suitability in any given end-use environment are dependent upon various conditions such as chemical compatibility, temperature, and other variables, which may not be known to Huntsman. It is the sole responsibility of the user of such product(s) to evaluate the manufacturing circumstances and the final product(s) under actual end-use requirements and to adequately advise and warn future purchasers and users thereof.

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
Technical Service Asia Pacific: Huntsman Performance Products / 61 Market Road, Brooklyn, Victoria / Australia 3012 / 61 3 9933 6666

www.huntsman.com