

Technical Bulletin**ELASTAMINE[®] HT-1700 Amine**

ELASTAMINE[®] HT-1700 amine is an amine of approximately 1700 average molecular weight, based on a PTMEG [poly(tetramethylene ether glycol)]. It contains a significant amount of secondary amine as well as primary amine. Polyetheramines of this type are useful in a variety of polymers, including nylon, cured epoxy resins, and elastane.

APPLICATIONS

- Modification of thermoplastic polymers, such as nylon
- Modification of elastane (Spandex)
- Modification of thermoset polymers, such as epoxy

BENEFITS

- High flexibility from polyether backbone
- Amine end groups much more reactive than alcohol end groups
- Improved color retention
- Improved peel strength
- Low color, and low vapor pressure

SALES SPECIFICATIONS

Property	Specifications	Test Method*
Appearance	Melt shall be colorless to pale yellow liquid with slight haze permitted	ST-30.1
Color, Pt-Co	50 max.	ST-30.12
Total acetylatables, meq/g	1.4 min. – 1.7 max.	ST-31.39
Total amine, meq/g	1.4 min. – 1.7 max.	ST-5.35
Total amine, % of total acetylatables	96 min.	Calculated
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	Amines, solid, corrosive, N.O.S. (polyetheramine)
HMIS Code	3-2-0
CAS Numbers	960525-56-8
US, TSCA	Listed
Canadian WHMIS Classification	E
Canada, DSL	Not listed
Canada, NDSL	Not listed
European Union	Polymer Exempt
Australia, AICS	Not listed
Japan, ENCS	Not listed
Korea, ECL	Not listed
China, IECSC	Not listed

Typical Physical Properties

Viscosity, cSt, 38°C (100°F)	936
Density, g/ml, (lb/gal), 38°C (100°F)	0.965 (8.05)
Flash point, PMCC, °C (°F)	>232 (>450)
pH	11-12
Melting point, °C (°F)	approx. 33 (91)

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 up to 100°F (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[®] HT-1700 amine may be stored under air at ambient temperatures for extended periods. A nitrogen blanket is suggested for all storage, however, to reduce the effect of accidental exposure to high temperatures. 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[®] HT-1700 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[®] HT-1700 amine is available in 55-gallon (208 L) drums of 430 pounds (195 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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