

## Technical Bulletin

# XTJ-566

**XTJ-566** is a polyethertriamine of approximately 400 molecular weight. At room temperature this material will show reduced epoxy cure speed compared with conventional polyetheramines, making it ideal for applications such as fabrication of large composite parts where longer pot life is desirable.

### APPLICATIONS

- Epoxy curing, composites

### BENEFITS

- Longer pot life than most other polyetheramine curing agents
- Good cured resin mechanical properties
- Relatively high glass transition temperature

## SALES SPECIFICATIONS

<u>Property</u>	<u>Specifications</u>	<u>Test Method*</u>
Appearance	Colorless to pale yellow liquid with slight haze	ST-30.1
Color, Pt-Co	75 max.	ST-30.12
Primary amine, % of total amine	90 min.	ST-5.34
Total acetylatables, meq/g	7.0 – 7.4	ST-31.39
Total amine, meq/g	6.6 – 6.9	ST-5.35
Water, wt%	0.2 max.	ST-31.53, 6

\*Methods of Test are available from Huntsman Corporation upon request.

## ADDITIONAL INFORMATION

### Regulatory Information

DOT/TDG Classification	Amines, liquids, corrosive, N.O.S. (Aliphatic polyether triamine)
HMIS Code	3-1-0
CAS Number	595582-39-1
US, TSCA	Listed
Canadian WHMIS Classification	D1B, E
Canada, DSL	Not Listed

### Typical Physical Properties

AHEW (Amine hydrogen equivalent wt.), g/eq	77
Viscosity, cSt, 25°C (77°F)	31
Density, g/ml (lb/gal), 25°C	0.958 (7.98)
Flash point, PMCC, °C (°F)	182 (359)
pH	11

## 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>
Gaskets, packing	Polypropylene or TEFLON <sup>®1</sup> (elastomers such as neoprene, Buna N, and VITON <sup>®1</sup> 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 trademark of Dupont

XTJ-566 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 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.

Cleanout of lines and equipment containing XTJ-566 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.

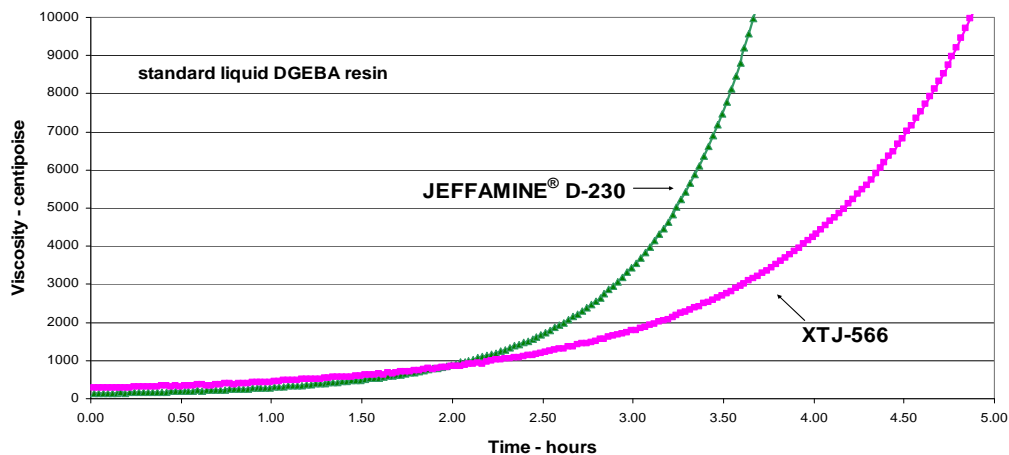
## ADDITIONAL INFORMATION

### EPOXY CURING WITH XTJ-566

XTJ-566, thoroughly mixed at 40 phr with standard bis-A epoxy resin (EEW-188), gives a viscosity of approximately 1450 cP. The following figure shows how the cure rate compares with that of JEFFAMINE® D-230 amine mixed at stoichiometric ratios with the same epoxy. Typical cured resin properties for XTJ-566 polyetheramine are as follows:

Glass transition temperature, °C	102	Tensile strength, psi	9500
Flexural strength, psi	16,700	Elongation to break, %	8.5
Flexural modulus, psi	400,000	Hardness, Shore D	90

Viscosity vs. Time - Cure at 40°C



## AVAILABILITY

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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