

Technical Information

Tomamine® Ethoxylated Amines (E-Series)

Description

Evonik produces a wide range of ethoxylated ether amines and ethoxylated fatty amines. These amines have been reacted with various amounts of ethylene oxide to modify emulsification, surface tension, solubility and cationic strength.

Some of the more popular uses of the Tomamine® E-Series products include: acid thickening, microemulsification, detergent boosting, and textile processing aids.

The Tomamine® E-series is especially useful for creating microemulsions and for targeting very oily stains on cloth/linen substrates

The Tomamine® E-Series ether amines are represented by the formula to the right, where R is the alkyl radical and n is the total number of moles of ethylene oxide.

Applications

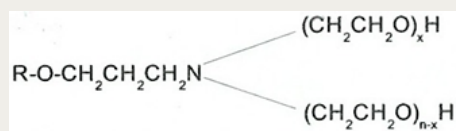
- Cleaners and degreasers
- Microemulsions
- Anti-static agents
- Textile processing aids
- Cationic emulsification
- Intermediates for the manufacturer of quaternaries and amine oxides

Example Cleaning Applications

- Laundry detergents
- Detergent boosters
- Heavy duty degreasers
- All-purpose cleaners
- Target more hydrophobic soils

Storage and Handling

Tomamine® PA-14 Acetate surfactant should be stored under dry and clean conditions between -10 °C and 50 °C. Please refer to Material Safety Data Sheet.



Product	R Equals	Description
Tomamine® E-14-2	Branched C ₁₀ H ₂₁	bis-(2-hydroxyethyl) isodecyloxypropylamine
Tomamine® E-14-5	Branched C ₁₀ H ₂₁	poly (5) oxyethylene isodecyloxypropylamine
Tomamine® E-17-2	Branched C ₁₃ H ₂₇	bis-(2-hydroxyethyl) isotridecyloxypropylamine
Tomamine® E-17-5	Branched C ₁₃ H ₂₇	poly (5) oxyethylene isotridecyloxypropylamine
Tomamine® E-T-2	Stearic/Oleic	bis-(2-hydroxyethyl) tallow amine
Tomamine® E-DT-3	Stearic/Oleic	N-tallow-poly (3) oxyethylene-1,3-diaminopropane
Tomamine® E-C-2	Linear C ₁₂ -16	bis-(2- hydroxyethyl) cocoalkyloxypropylamine
Tomamine® E-C-15	Linear C ₁₂ -16	poly bis-(2- hydroxyethyl) oxyethylene cocoalkyloxypropylamine

Typical Properties: Tomamine Ethoxylated Amines

	E-14-2	E-14-5	E-17-2	E-17-5	E-T-2	E-DT-3	E-C-2	E-C-15
Molecule weight	310	445	345	485	360	461	286	858
Amine value, min	175	123	155	112	156	230	187	64
Tertiary amine %	97	100	97	100	97	97	95	ND
Flash point, °F	>200	>200	>200	>200	>200	>200	>200	>200
Specific gravity, 25 °C	0.94	0.99	0.94	0.99	0.91	0.95	0.9	1.03
Gardner color, max	9	11	9	11	16	17	3	11
Pour point, °F	20	20	20	20	50	68	45	24
Physical form @ 25 °C	Liquid	Liquid	Liquid	Liquid	Paste	Paste	Liquid	Liquid

Shelf-Life

12 months from the date of manufacture.

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicity and ecological effects

is given in our material safety data sheets.

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