TECHNICAL DATA SHEET

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TRI-ETHANOLAMINE (TEA)

PRESENTATION:
Triethanolamine (TEA) is a colorless, viscous liquid. In solid form, white hygroscopic crystals with a typical ammoniacal smell. It is both a tertiary amine and a triol. The solution in water is a moderately strong organic base, which violently reacts with acids or oxidizers and (like other basic solutions) is corrosive to aluminum and zinc.

APPLICATIONS:
Triethanolamine is used primarily as an emulsifier and surfactant. It is a common ingredient in formulations used for both industrial and consumer products. The triethanolamine neutralizes fatty acids, adjusts and buffers the pH, and solubilises oils and other ingredients that are not completely soluble in water. Some common products in which triethanolamine is found are liquid laundry detergents, dishwashing liquids, general cleaners, hand cleaners, polishes, metalworking fluids, paints, shaving cream, pharmaceutics and printing inks. Triethanolamine is also used as organic additive (0.1 wt. %) in the grinding of cement clinker. It facilitates the grinding process by preventing agglomeration and coating of the powder at the surface of balls and mill wall.

TYPICAL PROPERTY

PROPERTY	UNIT	TYPICAL	TEST METHOD
Purity Triethanolamine (TEA)	% wt	99.0	GC*
Total Impurities	% wt	1.0	GC*
Diethanolamine (DEA)	% wt	0.1	GC*
Lovibond spectrometric color	Pt-Co	40	ASTM D 5386*
Water	% wt	0.1	ASTM E 203*

*or equivalent method