



SIGMA-ALDRICH

3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

Triethylamine

Product Number **T 0886**
Store at Room Temperature

Product Description

Molecular Formula: $C_6H_{15}N$
Molecular Weight: 101.2
CAS Number: 121-44-8
 $pK_a = 11.01$ (18 °C, H_2O)¹; 10.72 (25 °C, H_2O)²
Melting Point: -115 °C³
Boiling Point: 89-90 °C³
Density: 0.73 g/ml³
Concentration (neat): 7.2 M

Triethylamine is a mobile phase modifier in the reverse phase high pressure liquid chromatography (RP-HPLC) separation of drugs. It improves resolution of amino acids and amino acid amides by HPLC by suppressing tailing. It has also been used in gas chromatographic analysis of volatile fatty acids.^{4,5} The physical properties have been reported.⁶

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

The product is slightly miscible in water above 18.7 °C and is miscible with alcohol, ether, and water below 18.7 °C.³ Triethylamine is miscible in ethanol (0.1 ml/ml) yielding a clear, colorless solution.

References

1. Dictionary of Organic Compounds, 5th ed., Buckingham, J., Ed., Chapman and Hall (New York: 1982), p. 5470.
2. Lange's Handbook of Chemistry, 13th ed., Dean, J.A., Ed., McGraw-Hill (New York: 1985), pp. 5-58.
3. The Merck Index, 11th ed., Entry# 9582.
4. Roos, R. W., and Lau-Cam, C. A., General Reversed-phase High-performance Liquid Chromatographic Method for the Separation of Drugs Using Triethylamine as a Competing Base. *J. Chromatogr.*, **370**, 403-418 (1986).
5. *J. High Res. Chromatogr.*, **10**, 552 (1987).
6. Dangerous Properties of Industrial Materials, 5th ed., Sax, N.I., Ed., Van Nostrand Reinhold Co.(New York:1979), p.1050.

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