



## **Method development for the determination of alkanolamines using high performance liquid chromatography**

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Triethanolamine (TEA) and triisopropanolamine (TiPA) are both of the alkanolamines used in many industrial applications. The determination of these compounds in industrial product plays an important role in quality control for the production process. This research was developed a reliable method for the determination of TEA and TiPA using high performance liquid chromatography (HPLC). The studied compounds of TEA and TiPA were separated on a C18 column, EC250/4.6 NUCLEODUR 100-5 using a mobile phase of 2 mM sodium acetate solution and acetonitrile at the ratio of 80:20 (v/v). The UV-Vis detector was set at wavelength of 210 nm. Linear range was successfully performed in the study range of 1-100 ppm with good linear correlation. Limit of detection (LOD) were 0.3 and 0.9 ppm for TEA and TiPA, respectively. Also, the quantitation limit of the HPLC system was 1.1 ppm for TEA and 3.0 ppm for TiPA analysis.

**Keywords** Alkanolamines; TEA; TiPA; HPLC-UV