

Using triethylamine TEA in Aqueous Normal Phase ANP methods for simple sugars – Tips & Suggestions

Triethylamine TEA is an organic base and sometimes used in some HPLC methods to adjust the mobile phase pH.

Get improved peak shape and selectivity when separating **simple sugars** with TEA and Cogent TYPE-C™ columns as long as the concentration of TEA does not exceed 0.1%. This improved peak shape is thought to be due at least partly to an ion-pairing mechanism of the TEA on the surface of the stationary phase material.

Alternatively, ammonium acetate, a near-neutral pH is obtained with this additive, so it is a popular choice for keeping most organic acids ionized, which is generally preferred for ANP methods. In addition, it is LC-MS compatible, in contrast to a near neutral pH phosphate buffer.

Our research has indicated that TEA may be difficult to remove from columns once introduced therefore if TEA is to be used with a column, the column should be dedicated to methods with TEA. The same research has shown though that TEA can be used to obtain advantageous changes in chromatography in under certain conditions.

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