
Why use buffers during analysis and acid buffers such as the phosphoric acid for column storage solvents for Bidentate C18 columns? Will phosphate precipitate in the column INTERNAL ONLY

INTERNAL ONLY - This information may not be current June 2022

The Cogent Bidentate C18™ phase can be stored in un-buffered aqueous / organic solvents, but flowing significant bed volumes of un-buffered aqueous will cause a drop in efficiency of approximately 35% before reaching a new steady state. This is why we recommend either acid or basic buffers but not un-buffered eluents during analysis.

For storage 0.04% v/v phosphoric acid (85% bench phosphoric acid) is preferred.

No, Phosphoric Acid will not precipitate in the columns.

Sodium phosphate (which is **not recommended**) but which is often used as a buffer, will precipitate in the columns and should be avoided as a storage solvent for all HPLC Columns.

Phosphoric acid may be used to acidify 99+ % organic solvents such as methanol and acetonitrile without precipitation provided no sodium salt used.

[How to store Cogent Bidentate C18 columns](#)

