

Using Ammonium Acetate or Ammonium Formate in Diamond Hydride Methods - Tips & Suggestions

Date: 22-DECEMBER-2023 Last Updated: 1-DECEMBER-2025

Ammonium acetate is perfectly fine to use in the Diamond Hydride, we just recommend if you use that as an additive to your mobile phase to designate that column to that salt and not to switch back and forth between something like ammonium formate.

The idea behind this recommendation is salts like ammonium acetate and ammonium formate have been shown to adsorb to *any* silica-based stationary phase material and may affect the chromatography, therefore the column should thereafter be dedicated to methods using your developed method with the chosen additive, i.e., ammonium acetate.

If the column is to be used in a lab where there is multiple user access on HPLC systems, it may be helpful to run 50:50 IPA/DI Water with a union before putting your HPLC column on. (This is just an added precaution to flush all lines before installing the column so that an unwanted chemical isn't inadvertently being introduced onto your clean column.

Just a friendly reminder to keep in mind is that that neither salt are soluble in neat acetonitrile. 10% aqueous is usually a good choice or starting point, but you can use as low a concentration as 5% with a buffer concentration not to exceed 10mM.

Note: Always ensure to vacuum filter any mobile phase that contains dissolved solids, in the event they are not fully solubilized. Use a filter with a maximum pore size of 0.45um.

