

Avoid microbial growth in HPLC mobile phases - How to

Bacteria can be a problem in the case of aqueous mobile phase solvents.

If present, they can create problems for an instrument's operation. There are a few things you can do to avoid their formation in your mobile phase. One is to add an acid such as 0.1% formic acid. Many HPLC methods may use an acidified mobile phase anyway, so this just another advantage.

Another technique is to use a small percent of organic solvent in the aqueous solvent. The presence of an organic solvent like acetonitrile will inhibit bacterial growth.

If your aqueous solvent requires a near neutral pH buffer, store a concentrated stock solution in the refrigerator and prepare fresh dilutions to use as your mobile phase solvent as needed. Then when you need to change this solution for a new one, be sure to completely switch them out and don't simply add the new one to the old one, in order to prevent cross-contamination.

