

How does ammonium fluoride affect chromatography using Cogent TYPE-C HPLC columns - FAQ

DATE: 24-OCTOBER-2016 Last Updated: 6-OCTOBER-2025

Ammonium fluoride offers several advantages when used as a mobile phase additive in LC-MS applications when used with Cogent TYPE-C HPLC Columns. The columns have a **longer lifetime** than standard HPLC columns due to the silica hydride particle that is somewhat resistant to the corrosive effects of the acid.

- **Acts as a buffer**, helping to control pH
- **Enhances peak shapes**, leading to better chromatographic performance
- **Improves MS sensitivity** for certain analytes

For more detailed information, refer to the following third-party journal article: J. Pesek, M. Matyska, "Ammonium fluoride as a mobile phase additive in aqueous normal phase chromatography," J. Chromatogr. A. 1401, 2015, pp. 69–74.

Important Note:

Ammonium fluoride is corrosive to glass, so Teflon containers are recommended. Additionally, concentrations above 1 mM may cause irreversible damage to HPLC columns. While Cogent TYPE-C™ Silica columns have been reported to exhibit greater durability compared to conventional columns, ammonium fluoride may still reduce their lifespan to some extent.



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