MICROSOLV TECHNOLOGY CORPORATION
HPLC Columns and Chromatography Accessories
SINCE 1992

Store and condition Cogent TYPE-C HPLC columns – How To

This article describes how best to prepare Cogent TYPE-C Silica™ HPLC columns for initial use when you first receive them as well as how to store them, for either overnight or long-term storage to prevent column degradation.

Storage Solvents for Reversed Phase RP or Aqueous Normal Phase ANP:

If Reversed Phase and Aqueous Normal Phase ANP are your desired next use for these columns storage in 100% Acetonitrile may be used.

Storage Solvents for Organic Normal Phase NP:

If Normal Phase is your desired next use for these columns, storage in Hexane is recommended.

Note:

Due to the immiscibility of many organic normal phase (NP) solvents and aqueous NP / RP based solvents, conversion from NP to ANP / RP can be best effected by flowing a mutually miscible solvent, such as methylene chloride, through the column for 15 bed volumes, prior to re-equilibration in the aqueous or organic based solvents to be next used. A simple 30 minute procedure (see below) allows switching from one mode to another.

Procedure:

A – For moving from RP-HPLC to NP-HPLC pump 100% Methanol for 15 minutes at 1 mL/min. Flow Rate, followed by 15 minutes 100% Methylene Chloride. The column is ready to be equilibrated with your Mobile Phase for NP-HPLC.

B – for moving from NP-HPLC to RP-HPLC pump 100% Methylene Chloride for 15 minutes at 1 mL/min. Flow Rate, followed by 15 minutes 100% Methanol. The column is ready to be equilibrated with your Mobile Phase for RP-HPLC.

Due to the minimal Water adsorption on the surface of TYPE-C Silica™ particless, bonded and un-bonded TYPE-C™ Columns Equilibrate from organic/aqueous and to pH changes much quicker than most irregular, Type-A or spherical Type-B based Columns.

Important:

- Store column at room temperature. Never refrigerate or store in heated appliances.
- Never let the column dry out.
- Never store the column intended for use in RP HPLC in solvents containing DI water without the suggested 0.1% formic acid below.

Storage Procedures

How to Store Cogent TYPE-C™ HPLC Columns for Reversed Phase (RP) or Aqueous Normal Phase use (ANP).

Overnight:

1.Rinse the column with 8-10 Column Volumes with 100% Acetonitrile can be used instead.
Cap the ends of the Column with the protective end caps or Column plugs provided. Leaving the ends of the Column open will cause permanent damage to the Column.

Long Term Storage:
1.Rinse the column with 15 – 20 column volumes of 100% Acetonitrile.
Cap the ends of the column with the protective end caps or column plugs provided.
2.Return the column to the box it came in for safekeeping.
3.Store column at room temperature. Do not store in refrigerators or in heated appliances.

** ***Diamond Hydride™ columns have a special storage protocol, given click HERE.***

How to Store Cogent TYPE-C™ HPLC Columns for Organic Normal Phase (ONP) use.

Overnight:
1.Rinse the column with 8-10 Column Volumes of 100% Hexane or other non polar Solvent.
2.Cap the ends of the Column with the protective end Caps or column plugs provided. Leaving the ends of the Column open will cause permanent damage to the Column.

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Long Term Storage:

1.Rinse the column with 15 – 20 Column Volumes of 100% Hexane or other non polar Solvent.
2.Cap the ends of the Column with the protective end Caps or Column plugs provided.
3.Return Column to the box it came in for safekeeping.
4.Store Column at room temperature. Do not store in refrigerators or heated appliances.
5.*MARK THE COLUMN AS DESIGNATED FOR ORGANIC NORMAL PHASE AND WRITE WHAT SOLVENT IS INSIDE.*

COGENT HPLC Columns™