VDS optilab Delivery Program for PFAS Analysis

Per- and polyfluorinated alkyl substances (PFAS) as ubiquitous and enormously persistent pollutants ("forever chemicals") with partially substantial hazard potential represent an important and still growing target for environmental analysis. Due to the large number of samples that must be tested for PFAS and the multitude of structurally similar PFAS, their analysis poses special challenges with regard to separation efficiency and time. With the phase VDSpher PFAS, VDS optilab offers an excellent solution to this complex separation problem. In cooperation with Kevin Staudt of the Service Point for Mass Spectrometry of Saarland University, a method was developed to achieve very good separation for 20 PFAS in only eight minutes.

Separation of PFAS Standard (20 PFAS) on VDSpher PFAS 150 x 3 mm (P/N VDPFAS030150)

Eluent : Gradient Program
A: 20 mM triethanolamine in water, adjusted to pH 8 with acetic acid
B: 20 mM triethanolamine in acetonitrile, same amount of acetic acid added as in A
0 min 10 % B, 1 min 40 % B, 6,5 min 90 % B, 9 min 90 % B, 10 min 10 % B
Flow Rate: 0.5 mL/min
Detection: ESI–-MS

More information on separation and MS conditions in our application VDPFAS-001.

Column:

VDSpher PFAS 150 x 3.0 mm
P/N VDPFAS030150

Delay Column:

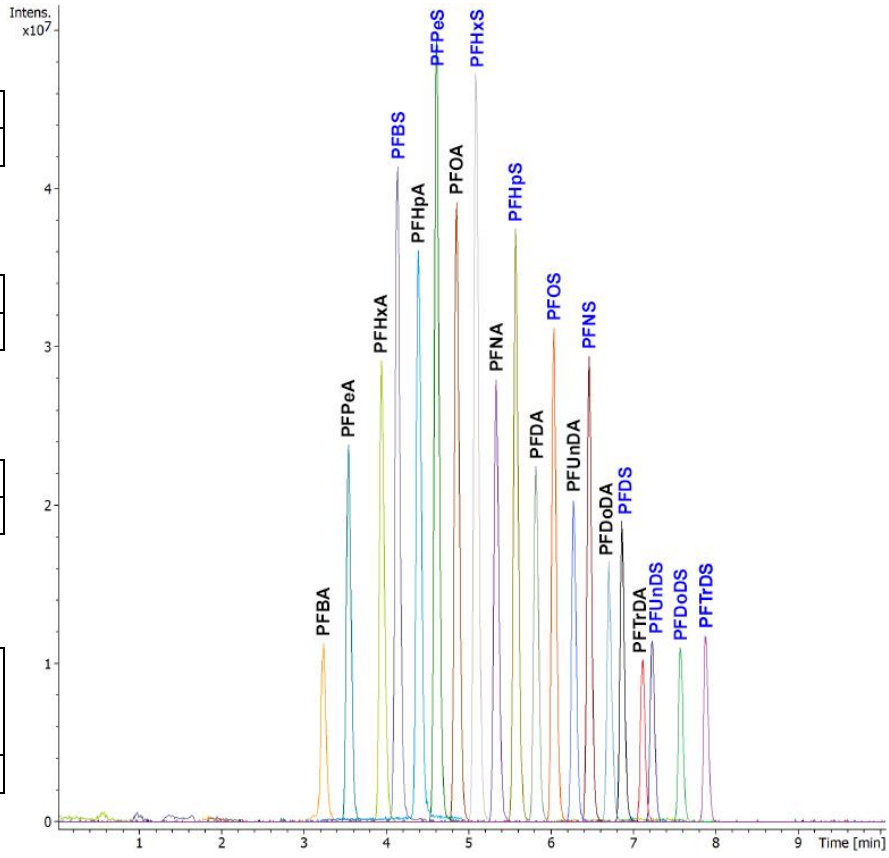
VDSpher PFAS 60 x 3.0 mm
P/N VDPFAS030060

Precolumn Cartridges:

VDSpher PFAS 10 x 3.0 mm, pk/5
P/N VDPFAS030010V

Precolumn Cartridge Head:

Precolumn Cartridge Head K1+K2 suitable for 10 and 20 mm long cartridges
P/N SZ-020046KK10-20



Recommended accessory for PFAS Analysis:

Syringe L-MARK 25 µL FN, PE-HD (22s/51mm/b), for PFAS analysis, fluorine-free
P/N LMK.2620518

SPE Cartridge BEKOlut PFAS WAX Volume: 6 mL Content: 150 mg, PCK/30, for PFAS enrichment
P/N 472053

Screw Cap G 9-L-Blue/Sil-PE from PP, Sealing Disk: Silicone/white with PE/transparent, 1.0 mm, fluorine-free, PCK/100
P/N 301394-BLUE

Screw Cap G 9-L-Blue/Sil-PE, slotted, from PP, Sealing Disk: Silicone/white with PE/transparent, 1.0 mm, fluorine-free, PCK/100
P/N 301394-B/GS

Short Neck Screw Cap Vial G 1-LF+FM, Amber, Volume: 1.5 mL, Thread: 9 mm, Vial Height x OD: 32.0 x 11.5 mm from Glass of 1st Hydrolytic Grade acc. to DIN ISO 719, PCK/100, suitable for screw caps shown above
P/N 88909479

PE Tubing, ID x OD: 1.5 mm x 3.0 mm, 5 m/PCK, fluorine-free solvent supply tubing
P/N 222725

SS Solvent Filter, fluorine-free
P/N U-A-302

Please request your individual offer!

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