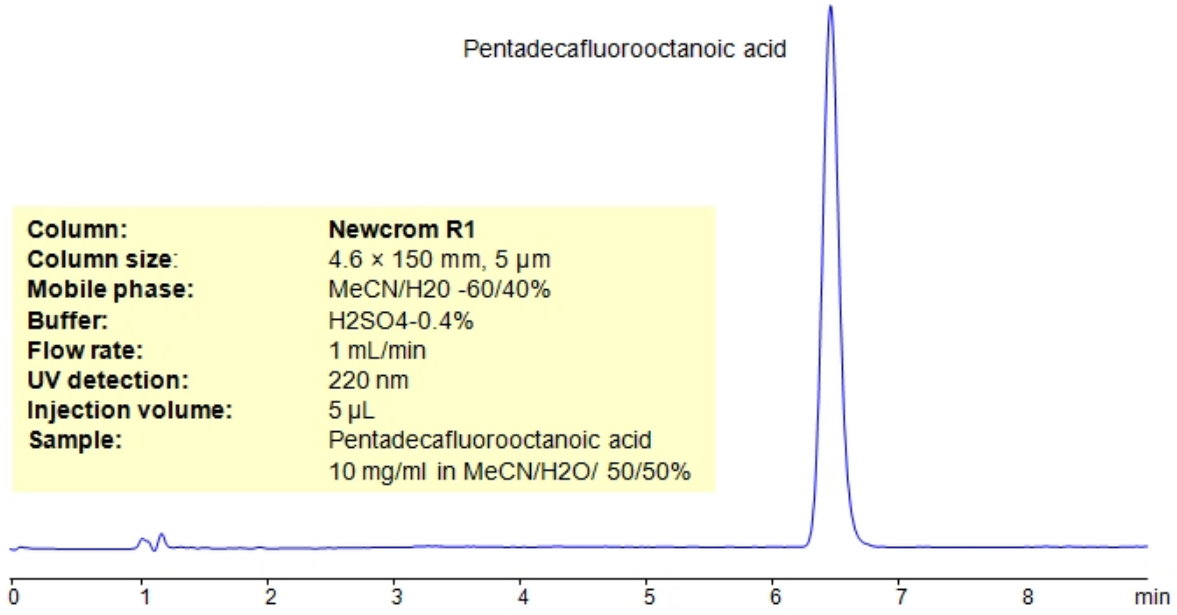
HPLC Determination of Pentadecafluorooctanoic acid (PFOA) on Newcrom R1 Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of Perfluorooctanoic acid (PFOA) .

Pentadecafluorooctanoic acid , also known as C8 due to it's chemical being C8HF15O2 , is an industrial surfactant. It is classified by the IARC as a carcinogen to humans. Due to it not breaking down via natural processes, it is also considered a "forever chemical." It can easily move through soil and contaminate water, leading up to it building up[in fish and wildlife. Despite that, it has wide use across industries from upholstery, to floor wax, to fire fighting sealants. PFOA was a key point in a renowned legal case of Robert Bilott against DuPont.

Perfluorooctanoic acid (PFOA) can be retained and analyzed using the Newcrom R1 stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a sulfuric acid buffer. Detection is performed using UV.

Method Parameters

Column	Newcrom R1, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 60/40%
Buffer	H2SO4 – 0.4%
Flow Rate	1.0 mL/min
Detection	UV, 220 nm

Quelle: https://sielc.com/hplc-determination-of-pentadecafluorooctanoic-acid-on-newcrom-r1-column