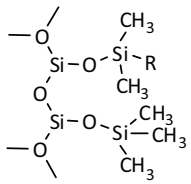
SiliaChrom XDB C18 and C8

Description

SiliaChrom XDB C18 and **C8** are made of a special silica with a larger pore size and lower surface area for the separation of large hydrophobic molecules. The relatively low surface area allows a shorter retention time for such compounds.

SiliaChrom XDB phases are ideal for separation of barbiturates, fat-soluble vitamins, fatty acids and steroids.

Structure



For C18 R = $(CH_2)_{17}CH_3$
For C8 R = $(CH_2)_7CH_3$

SiliaChrom XDB C18

SiliaChrom XDB C8

Sorbent Characteristics

- **Pore Size: 150 Å**
- **Specific Surface Area: 200 m²/g**
- **Particle Sizes Available: 3, 5 and 10 µm**
- **USP Code: SiliaChrom SB C18 L1**
  SiliaChrom SB C8 L7
- **Typical Carbon Loading: SiliaChrom XDB C18: 15%**
  SiliaChrom XDB C8: 8%

SiliaChrom XDB C18 Main Charateristics

- **Better choice for molecules > 500 Dalton**
- **High Loading capacity**
- **Wide pH range: 1.5 to 9.0**
- **Double endcapped**

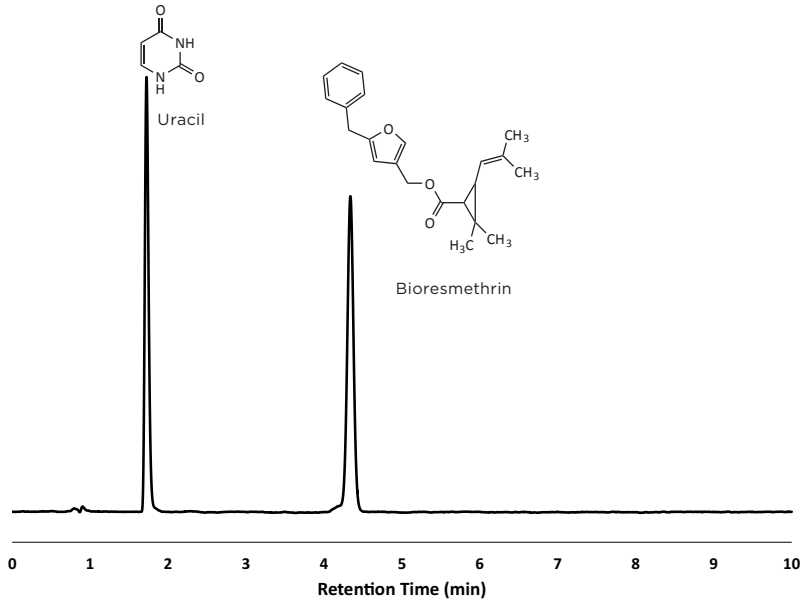
Resolution and Peak Shape of a Highly Hydrophobic Domestic Insecticide

Environment

This application illustrates the high separation efficiency of the SiliaChrom XDB C18 for very hydrophobic compounds.

Chromatographic conditions

- **Column**: SiliaChrom XDB C18, 5 µm
- **Column size**: 4.6 x 150 mm
  SiliCycle P/N: H111805H-N150
- **Mobile phase**: ACN/water (*90/10*)
- **Temperature**: 23°C
- **Flow rate**: 1.000 mL/min
- **Detector**: UV at 235 nm
- **Injection Volume**: 1 µL



Column Performance Results

Compounds	Retention Time (min)	Peak Asymmetry Factor (USP)	Theoretical Plates (USP)
Uracil	1.72	1.26	5,936
Bioresmethrin	4.34	1.03	14,090