Automated Sample Clean-Up for PCB and Dioxin Analysis

DEXTech *Pure*

The Optimized Solution
for "Pure" Fractions

The automated sample preparation system DEXTech Pure separates PCBs and dioxins in one fraction each. It is the perfect solution to measure PCBs and dioxins in one GC-MS run each.

DEXTech Pure is based on the already established DEXTech Plus system, but is modified in terms of fluidics and software. The system is equipped with connections for 4 solvent bottles.

After an easy insertion - "just click it" -, the columns are locked pressure-tight by an electrical mechanism - without tools, without screwing, and without further working steps: Incredibly easy!

High-Quality Approved Columns

The samples are cleaned-up by a 3-column setup with chemical inert, ready-to-use, and economic columns:

1. **Acidic silica gel columns**
   Depending on the sample either the SMART column (samples of up to 1.5 g fat) or the Universal column (sample of up to 5 g fat) can be used. Easy and fast change between Universal and SMART-column by fitting an adapter.
2. **Aluminium oxide column**
   (accepting toluene up to 1 mL)
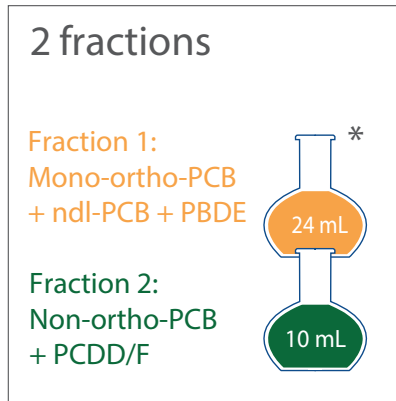3. **Carbon column**
   (stainless steel, reusable)
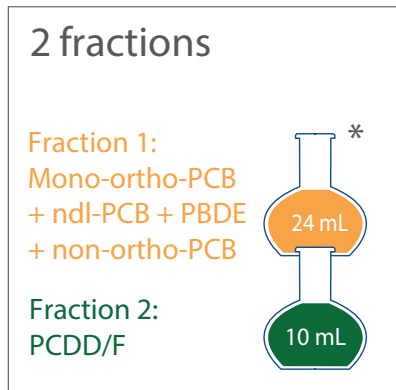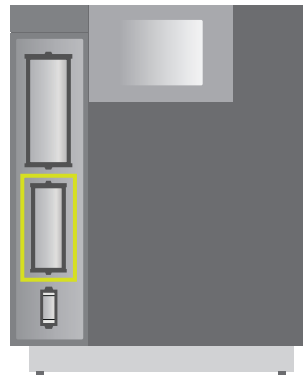

A Special Highlight!

Some laboratories are only interested in measuring PCBs. DEXTech Pure offers the ideal solution for these users: A dummy column can replace the carbon column and the sample is only loaded onto two columns. This saves time, solvents, and the costs per sample are once again enormously reduced.
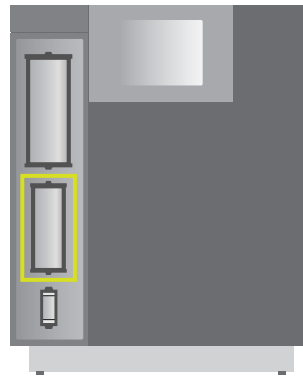
2 Fractions – Perfect Separations

DEXTech Pure offers the choice between the already established DEXTech Plus method with the aluminium oxide column or the DEXTech Pure method that separates the PCBs and dioxins in one fraction each.

2 fractions

Fraction 1:
Mono-ortho-PCB
+ ndl-PCB + PBDE

*

24 mL

Aluminium
oxide column

Fraction 2:
Non-ortho-PCB
+ PCDD/F

10 mL

2 fractions

Fraction 1:
Mono-ortho-PCB
+ ndl-PCB + PBDE
+ non-ortho-PCB

*

24 mL

Aluminium
oxide column

Fraction 2:
PCDD/F

10 mL

* Dichloromethane / n-hexane   Toluene

| Method Name | Alox Pure SMART | N° | 1 |

back   Conditioning

| | ml/min | min | n-Hexane ▼ |

	ml/min	min	
Conditioning 1	7.0	8.0	n-Hexane
Conditioning 2	0.0	0.0	n-Hexane
Conditioning 3	0.0	0.0	Toluene
Conditioning 4	0.0	0.0	DCM/n-Hexane 50:50

The Step Towards the Fully Automation

Methods, developed and evaluated on the DEXTech Pure, are transferable to the fully automated sample preparation system DEXTech 16, that processes up to 16 samples within one sequence, fully automated and unattended.

Sophisticated Methods

Two evaluated standard methods are stored in the DEXTech Pure software, each of them with a version for both, the Universal and the SMART column. However, an individual parameterisation is also possible with only a few mouse clicks. Up to 2 x 28 further methods can be saved and reopened in the system at any time.

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