

# NUCLEODUR®

## PolarTec

High purity silica phase for HPLC  
Octadecyl phase with embedded polar Group  
Endcapped · 17 % C · USP L1/L60

✓ **Key features:**

- Hydrophobic phase with pronounced hydrophilic properties
- Separation mechanism based on hydrophobic (van der Waals) and polar interactions
- Suitable for **LC/MS** due to low bleeding characteristics

✓ **Technical characteristics:**

Phase with embedded polar group; suitable for 100 % aqueous eluents; endcapped; pore size 110 Å; particle sizes 3 µm and 5 µm; carbon content 17 %; pH stability 1–9

✓ **Recommended application:**

Polar compounds like basic pharmaceuticals, organic acids, pesticides, amino acids, water soluble vitamins, etc.; **USP L1** and **L60**

outstanding retention of highly polar compounds ●

good peak symmetry over a wide pH range ●

100 % water stable ●

## Nitro aromatics EPA 8330

MN Appl. No. 124490

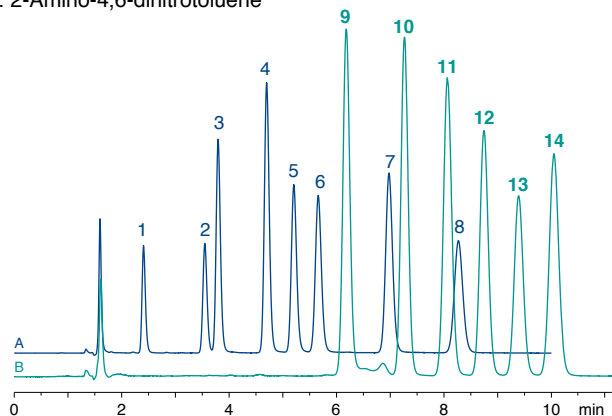
Column: 150 x 3 mm NUCLEODUR® PolarTec, 5 µm  
 Eluent: Mix A: water – methanol (50:50, v/v)  
 Mix B: water, 0.1 % formic acid – methanol (45:55, v/v)  
 Flow rate: 0.46 mL/min Detection: UV, 254 nm  
 Temperature: 50 °C / 60 °C Injection volume: 5 µL

### Peaks Mix A:

1. Octogen (HMX)
2. Hexogen (RDX)
3. 1,3,5-Trinitrobenzene
4. 1,3-Dinitrobenzene
5. Nitrobenzene
6. 2,4,6-Trinitrotoluene
7. 2,4-Dinitrotoluene
8. 2-Amino-4,6-dinitrotoluene

### Peaks Mix B:

9. N-Methyl-N-2,4,6-tetranitro-aniline (Tetryl)
10. 4-Amino-2,6-Dinitrotoluene
11. 2,6-Dinitrotoluene
12. 2-Nitrotoluene
13. 4-Nitrotoluene
14. 3-Nitrotoluene



## Pesticides

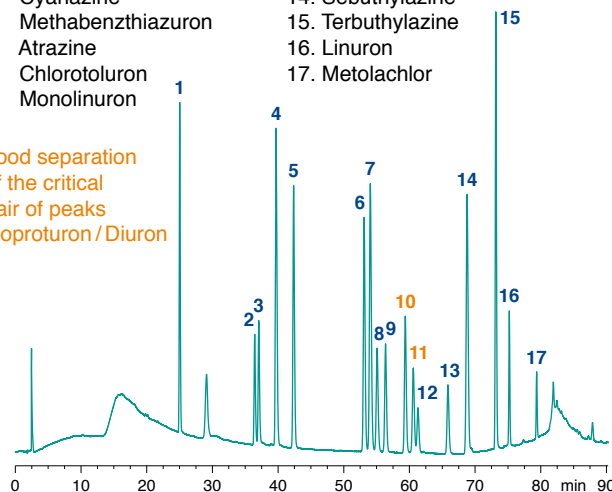
MN Appl. No. 124480

Column: 250 x 3 mm NUCLEODUR® PolarTec, 3 µm  
 Eluent: A) acetonitrile, B) water  
 2 % A (10 min) → 15 % A in 5 min → 33 % A in 55 min  
 → 60 % A in 17.5 min  
 Flow rate: 0.56 mL/min Detection: UV, 230 nm  
 Temperature: 45 °C Injection volume: 3 µL

### Peaks:

- |                       |                    |
|-----------------------|--------------------|
| 1. Desethylatrazine   | 10. Isoproturon    |
| 2. Metoxuron          | 11. Diuron         |
| 3. Hexazinone         | 12. Metazachlor    |
| 4. Simazine           | 13. Metobromuron   |
| 5. Cyanazine          | 14. Sebuthylazine  |
| 6. Methabenzthiazuron | 15. Terbuthylazine |
| 7. Atrazine           | 16. Linuron        |
| 8. Chlorotoluron      | 17. Metolachlor    |
| 9. Monolinuron        |                    |

good separation  
of the critical  
pair of peaks  
Isoproturon / Diuron



## Ordering information

Length →	50 mm	75 mm	100 mm	125 mm	150 mm	250 mm
<b>NUCLEODUR® PolarTec, 3 µm</b>						particle size 3 µm

### EC columns (pack of 1 each)

2 mm ID	760473.20			760477.20	760478.20	760479.20
3 mm ID	760473.30			760477.30	760478.30	760479.30
4 mm ID	760473.40			760477.40	760478.40	760479.40
4.6 mm ID	760473.46	760475.46	760476.46	760477.46	760478.46	760449.46

EC guard columns\* 4 x 2 mm: 761981.20 4 x 3 mm: 761981.30

CC guard columns\*\* 8 x 3 mm: 761160.30 8 x 4 mm: 761160.40

### NUCLEODUR® PolarTec, 5 µm

particle size 5 µm

### EC columns (pack of 1 each)

2 mm ID	760483.20			760487.20	760488.20	760489.20
3 mm ID	760483.30			760487.30	760488.30	760489.30
4 mm ID	760483.40			760487.40	760488.40	760489.40
4.6 mm ID	760453.46	760485.46	760486.46	760487.46	760488.46	760489.46

EC guard columns\* 4 x 2 mm: 761982.20 4 x 3 mm: 761982.30

CC guard columns\*\* 8 x 3 mm: 761161.30 8 x 4 mm: 761161.40

### Guard columns for EC columns with ID (pack of 3 each)

		2 mm	3 mm	4 mm	4.6 mm	Guard column holder
* EC guard columns for Column Protection System guard column holder	EC	4/2	4/3	4/3	4/3	718966
** ChromCart® guard columns for EC guard column holder	CC	8/3	8/3	8/4	8/4	721359

www.mn-net.com

**MACHERY-NAGEL**



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