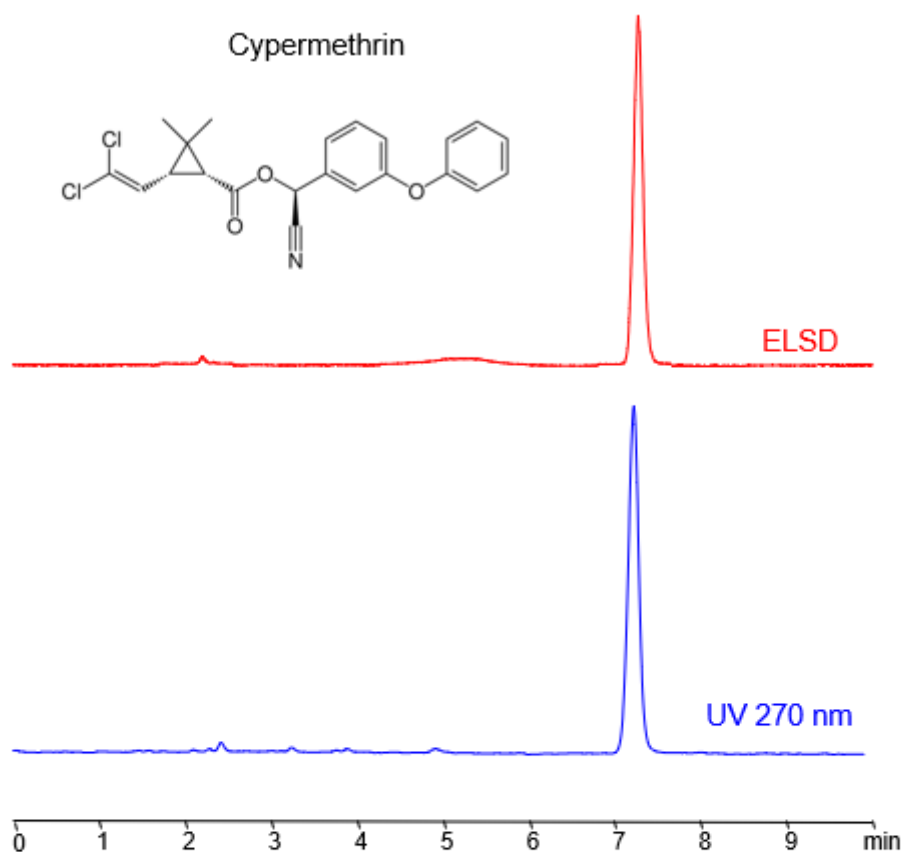


# HPLC Method for Analysis of Cypermethrin on Primesep 200 Column

<https://sielc.com/hplc-determination-of-cypermethrin>

## Chromatogram



|                            |                                |
|----------------------------|--------------------------------|
| <b>Column:</b>             | Primesep 200                   |
| <b>Column size:</b>        | 4.6 × 150 mm, 5 µm             |
| <b>Column part number:</b> | 100-46.150.0510                |
| <b>Mobile phase:</b>       | Gradient MeCN – 60-80%, 10 min |
| <b>Buffer:</b>             | Formic Acid - 0.5%             |
| <b>Flow rate:</b>          | 1.0 mL/min                     |
| <b>Detection:</b>          | ELSD, UV 270 nm                |

## Description

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Cypermethrin is a synthetic pyrethroid with the chemical formula  $C_{22}H_{19}Cl_2NO_3$ . It is primarily used as an insecticide, working effectively due to its neurotoxic properties. It is widely used due to degrading easily in soil. Despite that, it can be effective for weeks.

Cypermethrin can be retained, analyzed, and separated on a Primesep 200 column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and a Formic acid (FA) ionic modifier. This analysis method can be detected in the low UV regime at 270 nm as well as with an Evaporative Light Scattering Detector (ELSD) or any other evaporative detection method (CAD, ESI-MS).

## Method Parameters

|                     |                                |
|---------------------|--------------------------------|
| Mobile Phase        | Gradient MeCN – 60-80%, 10 min |
| Buffer              | Formic Acid – 0.5%             |
| Flow Rate           | 1.0 ml/min                     |
| Detection           | UV 270 nm, ELSD, 50C           |
| Peak Retention Time | 7.21                           |
| Class of Compounds  | Pesticide                      |
| Analyzing Compounds | Cypermethrin                   |

## HPLC Column Used

**Primesep 200, 4.6 x 150 mm, 5 µm, 100 Å, dual ended**

[Order this column at hplc-shop.de →](https://www.hplc-shop.de)