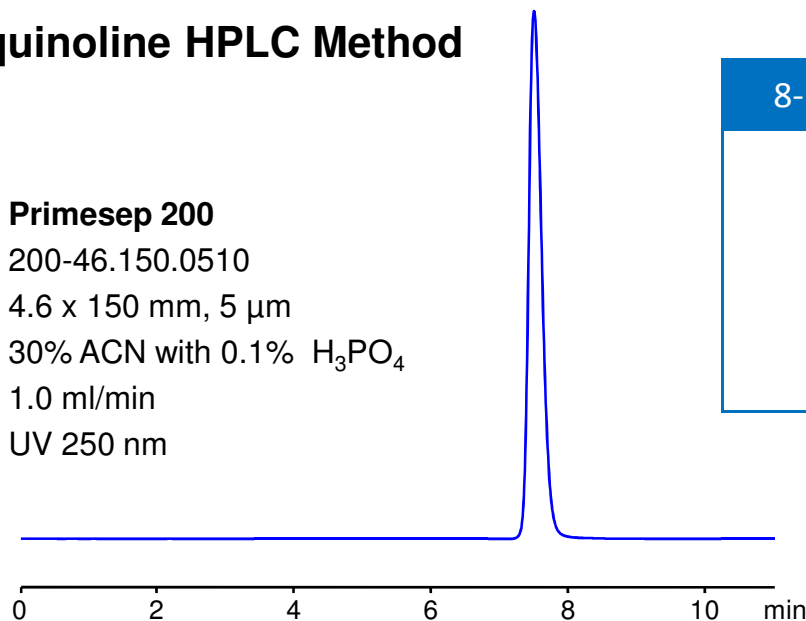


# Cool Applications

"Making Tough LC Applications Look Cool"

## Cool 8-Hydroxyquinoline HPLC Method

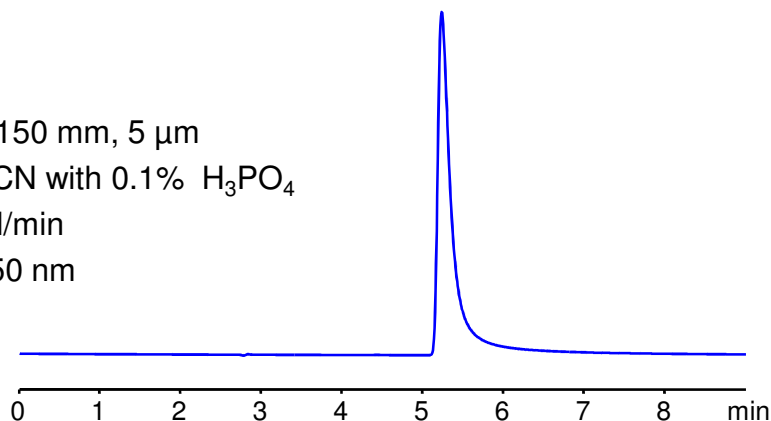
**Column:** Primesep 200  
**Part number:** 200-46.150.0510  
**Column size:** 4.6 x 150 mm, 5  $\mu$ m  
**Mobile phase:** 30% ACN with 0.1%  $H_3PO_4$   
**Flow rate:** 1.0 ml/min  
**Detection:** UV 250 nm



8-Hydroxyquinoline



**Column:** C18  
**Column size:** 4.6 x 150 mm, 5  $\mu$ m  
**Mobile phase:** 5% ACN with 0.1%  $H_3PO_4$   
**Flow rate:** 1.0 ml/min  
**Detection:** UV 250 nm



## Application Comments

HPLC analysis of 8-Hydroxyquinoline is complicated due to the chelating properties of this chemical.

8-Hydroxyquinoline forms a complex with many transition metal ions and as result it is often used to measure the degree of metal contamination on silica columns. Even trace amounts of metal ions on the silica surface cause peak distortion with low peak efficiency and poor symmetry.

The same chemical can be analyzed on the Primesep 200 column with a simple method based on acetonitrile-water mixture and phosphoric acid as an ionic modifier. High efficiency and symmetrical peak shape is obtained. Phosphoric acid can be substituted with ammonium formate for mass-spectroscopy detection (LC-MS).

Primesep 200 also offers more retention compared to any C18 column due to ionic interaction of basic quinoline molecule with cation-exchange functional groups of the Primesep 200 stationary phase.