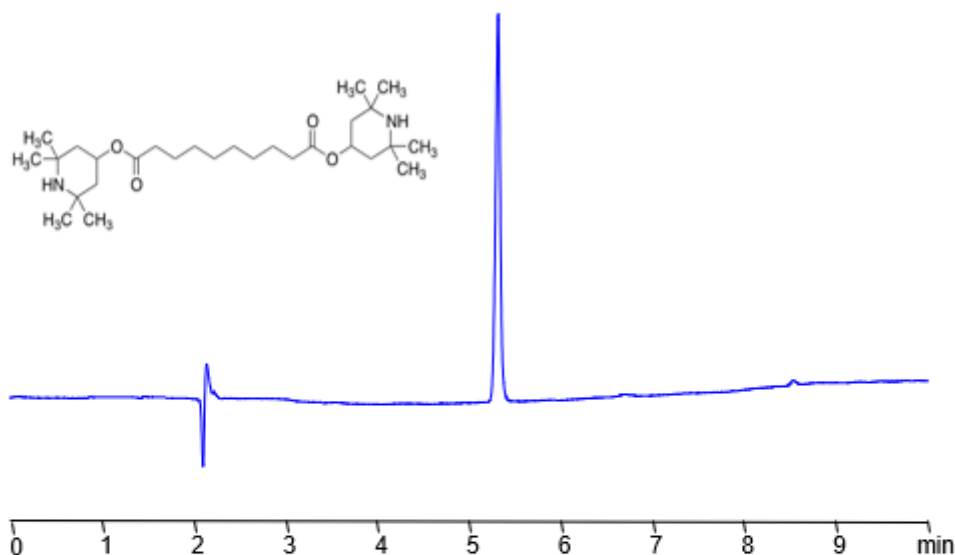


HPLC Method for Analysis of Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate on Primesep B Column

<https://sielc.com/hplc-method-for-analysis-of-bis2266-tetramethyl-4-piperidyl-sebacate-on-primesep-b-column>

Chromatogram



Column:	Primesep B
Column size:	4.6 × 150 mm, 5 µm, 100 Å
Column part number:	B-46.150.0510
Mobile phase:	Gradient MeCN 10-70%, 10 min
Buffer:	H ₂ SO ₄ - 0.2%
Flow rate:	1.0 mL/min
Detection:	UV 210 nm

Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate is an ultra violet hindered amine light stabilizer with the chemical formula C₂₈H₅₂N₂O₄. It is commonly used in plastics production and in the packaging and manufacturing of pharmaceutical products. It helps prevent oxidation caused by sunlight weathering in coatings and paint. In 2024, it was found added in illicitly sold fentanyl.

Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate can be retained and analyzed on a Primesep B reverse-phase column using a gradient analytical method with a mobile phase consisting of Acetonitrile (MeCN), water, and Sulfuric acid as the ionic modifier. This analysis method can be UV detected at 210 nm with high resolution and peak symmetry.

Method Parameters

Mobile Phase	Gradient MeCN
Buffer	H ₂ SO ₄ – 0.2%
Flow Rate	1.0 ml/min

Detection	UV 210 nm
Class of Compounds	Hydrophobic
Analyzing Compounds	Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

HPLC Column Used

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

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