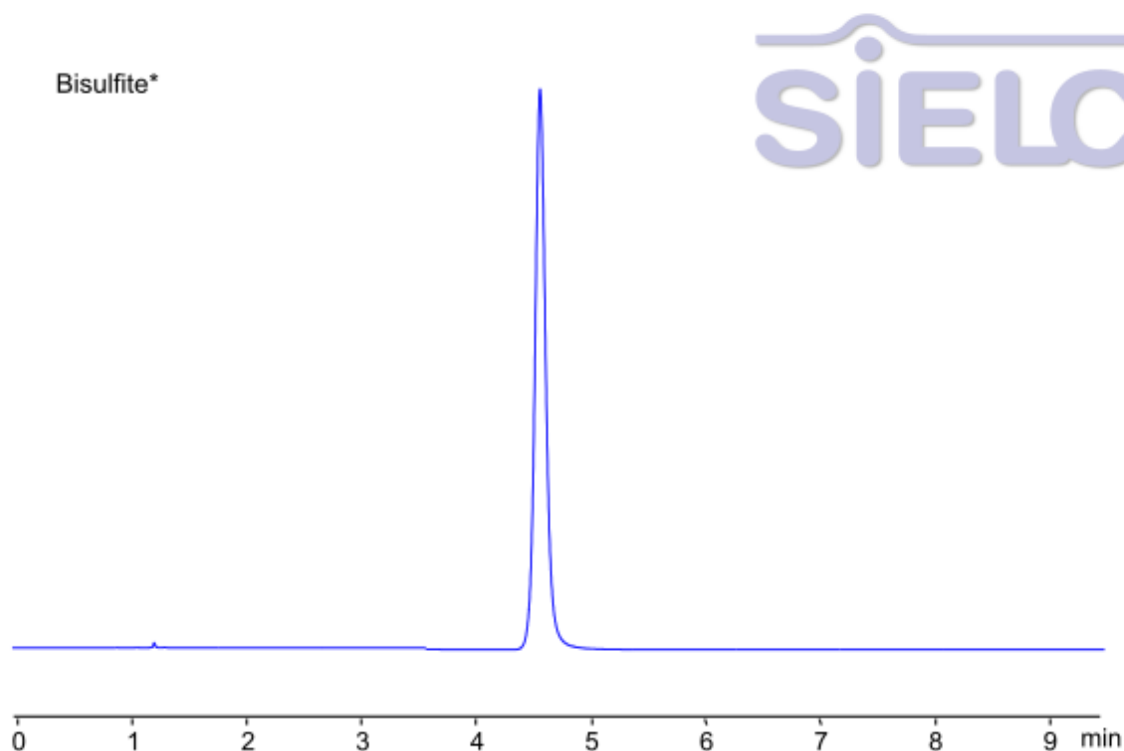


HPLC Isocratic Method for Analysis of Sodium Metabisulfite on Primesep SB Column

<https://sielc.com/hplc-method-for-analysis-metabisulfite>

Chromatogram



Column:	Primesep SB
Column size:	4.6 × 150 mm, 5 µm
Column part number:	SB-46.150.0510.M
Mobile phase:	MeCN/H ₂ O - 50/50%
Buffer:	H ₃ PO ₄ - 0.5%
Flow rate	1.0 mL/min
Detection:	UV 200 nm
Concentration:	5 mg/mL
Injection Volume:	1 µL
Diluent:	MeCN/H ₂ O - 50/50%
Limit of Detection:	200 ppb

Description

*The metabisulfite ion ($\text{S}_2\text{O}_5^{2-}$) is hydrolyzed to bisulfite (HSO_3^-) in water. Sodium metabisulfite is a white crystalline or powder solid. It has many uses, but some of its more prominent are: as the source of SO_2 in wine, as a bleaching agent in the production of Coconut cream, and added to anesthetic solutions to prevent oxidation to improve the shelf life of the solution. Ascorbic is found naturally in citrus fruits and many vegetables. As a medication, it is used to prevent or treat low levels of vitamin C, since it is that vitamin. Vitamin C is needed to maintain the health of skin, cartilage, teeth, bone, and blood vessels. Ascorbic Acid and Sodium Metabisulfite can be separated, retained, and analyzed on a Primesep SB mixed-mode stationary

phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and a phosphoric acid (H₃PO₄) buffer. This analysis method can be detected in the UV 200 nm.

Method Parameters

Mobile Phase	MeCN/H ₂ O – 50/50%
Buffer	H ₃ PO ₄ – 0.5%
Flow Rate	1.0 ml/min
Detection	UV, 200 nm
Class of Compounds	Acid, Hydrophilic, Ionizable, Disinfectant, Antioxidant, Preservative agent.
Analyzing Compounds	Sodium metabisulfite

HPLC Column Used

Primesep SB.M, 4.6 x 150 mm, 5 µm, 100 Å, dual ended