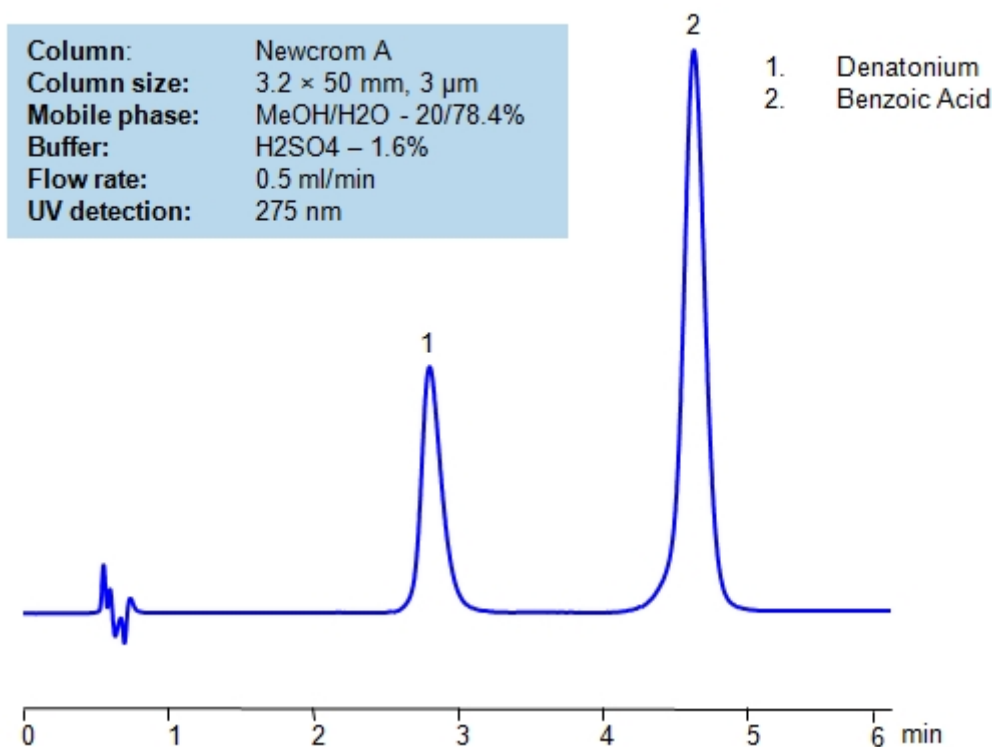


HPLC Separation of Denatonium benzoate on Newcrom A Column

<https://sielc.com/hplc-separation-of-denatonium-benzoate-2>

Chromatogram



Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Denatonium benzoate , Benzoic Acid

Denatonium benzoate , also known as Denatonium, is the bitterest chemical that is safe to be ingested. It is often used as a bittering agent to antifreeze, detergents, and cosmetics to prevent consumption. Even low concentrations of it can cause an incredibly bitter taste. In France and Italy it is mandatory to add Denatonium to antifreeze. It has the chemical formula $C_{12}H_{15}N_3O_2$.

Benzoic Acid is an organic compound with the chemical formula $C_7H_6O_2$. It is considered to be the simplest aromatic carboxylic acid. In nature, it can be found in many plants, especially berries. It is used for food preservation of food, as it can inhibit growth of bacteria and mold. While it is safe in food, it can cause irritation to skin, eye, and respiratory systems.

Denatonium benzoate , Benzoic Acid can be retained and analyzed using the Newcrom A stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a sulfuric acid buffer. Detection is performed using UV.

Method Parameters

Mobile Phase	MeOH/H ₂ O – 20/78.4%
Buffer	H ₂ SO ₄ – 1.6%
Flow Rate	0.5 ml/min

Detection	UV 275 nm
Class of Compounds	Drug, The bitter chemical compound, Basic, Hydrophobic, Ionizable
Analyzing Compounds	Denatonium benzoate, Benzoic Acid

HPLC Column Used

Newcrom A, 3.2 x 50 mm, 3 µm, 100 A, dual ended

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