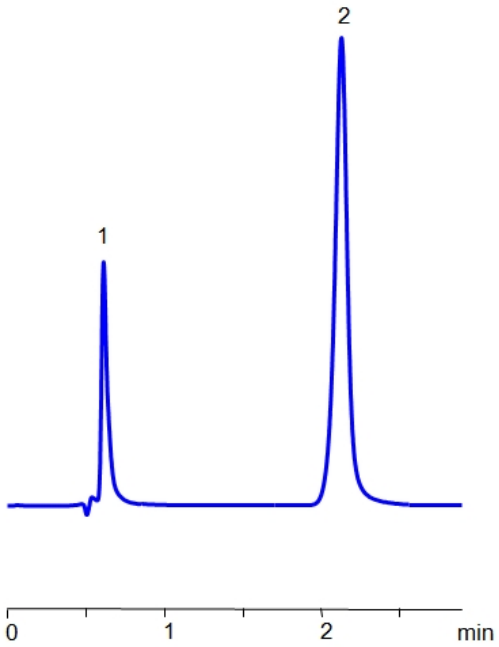
HPLC Separation of Benzoic and 2-naphtalenesulfonic Acids



1. Benzoic Acid
2. 2-Naphthalenesulfonic Acid

Column:	Newcrom BH
Column size:	3.2 × 50 mm, 3 µm
Mobile phase:	MeCN/H2O - 80/20%
Buffer:	H2SO4 – 0.2%
Flow rate:	0.5 ml/min
UV detection:	275 nm

High Performance Liquid Chromatography (HPLC) Method for Analysis of Benzoic Acid , 2-Naphthalenesulfonic Acid .

Benzoic Acid is an organic acid with antimicrobial properties. It is typically used in cosmetics, food, and pharmaceuticals as a preservative against yeast and mold. As treatment, it is also used as a topical medicine of fungal skin infections. It can be naturally found in many berries and vegetable resins. With it's chemical formula being C7H6O2 , it is considered the simplest aromatic carboxylic acid. You can find detailed UV spectra of Benzoic Acid and information about its various lambda maxima by visiting the following link.

2-Naphthalenesulfonic Acid is an organic compound with the formula C10H7SO3H . It is used primarily in the production of dyes, but has also historically been industrially used for a it's various chemical reactions.

Newcrom BH column is used for HPLC separation of weak and strong organic acids using a mixed-mode method. Benzoic and naphthalenesulfonic acids are retained based on polar interaction mode and anion-exchange mode. The isocratic separation is achieved very quickly on a short 3.2 x 50 mm column in under 3 minutes. The mobile phase is acetonitrile (ACN) and water with sulfuric acid buffer. UV detection at 275 nm.

Method Parameters

Column	Newcrom BH, 3.2 x 50 mm, 3 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 80/20%
Buffer	H2SO4 – 0.2%
Flow Rate	0.5 mL/min
Detection	UV 275 nm

Quelle: https://sielc.com/hplc-separation-of-benzoic-and-2-naphtalenesulfonic-acids