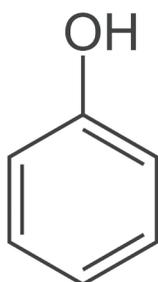
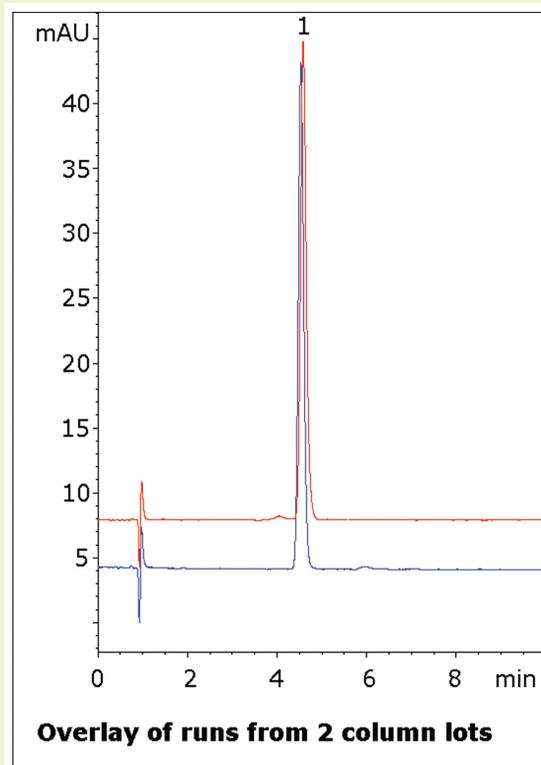


Phenol as an API

Simple isocratic assay method



Phenol

Note: Phenol is used in this solution as an oral anesthetic/analgesic. However, it also has applications as a starting material in many types of organic syntheses such as in plastics, pharmaceuticals, sunscreens, and cosmetics.

Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å

Catalog No.: 40018-75P

Dimensions: 4.6 x 75 mm

Mobile Phase: 80% DI H₂O / 20% acetonitrile / 0.1% formic acid (v/v)

Injection vol.: 2µL

Flow rate: 1.0 mL/min

Detection: UV 270 nm

Sample: Chloraseptic® solution containing 1.4% phenol was filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.). It was then diluted 1:100 with a mobile phase diluent. The phenol peak identity was confirmed with a reference standard.

Peak: 1. Phenol

t₀: 0.9 min

Discussion

This method shows how an assay of phenol can be readily performed with a simple isocratic mobile phase.

Phenol is the active ingredient in this common over-the-counter spray solution, which is intended for treatment of sore throat. A number of inactive ingredients are present in the solution as well but do not interfere with the API peak. Runs from two column lots are shown in the figure to demonstrate the stationary phase consistency. The method can also be used in LC-MS analyses since the mobile phase is MS-compatible.