# MICROS

## Oral OTC anesthetic analyzed by HPLC – AppNote

### Isocratic HPLC method for phenol in oral OTC products

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 oral spray solution, which is intended for treatment of sore throat.

A number of inactive ingredients are present in the OTC 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 LCMS analyses as the Mobile Phase is MS-compatible.





#### Peak:

Phenol

#### **Method Conditions**

Column: Cogent Bidentate C18<sup>™</sup>, 4µm, 100Å Catalog No.: 40018-75P Dimensions: 4.6 x 75mm



Mobile Phase: 80% DI Water / 20% Acetonitrile / 0.1% Formic Acid (v/v) Injection vol.: 2μL Flow rate: 1.0mL / minute Detection: UV @ 270nm Sample Preparation: Chloraseptic® Solution containing 1.4% Phenol was filtered with a 0.45μm Nylon Syringe Filter (MicroSolv Tech Corp.). Solution was then diluted 1:100 with Mobile Phase diluent. Phenol peak identity was confirmed with a reference standard.

to: 0.9 minutes

**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.



Attachment

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