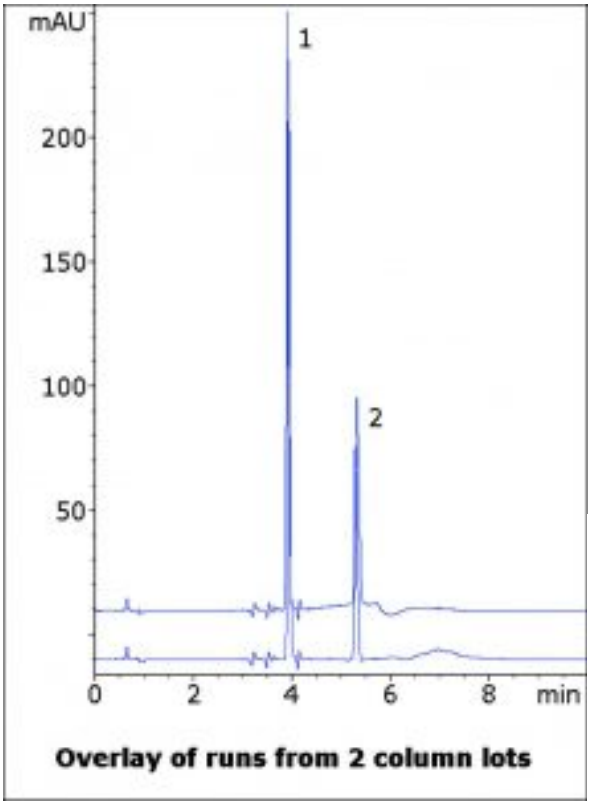
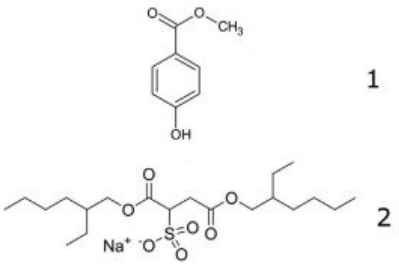
Docusate Sodium Analyzed by HPLC – AppNote

A Simple Gradient with Good Separation

The official USP assay method for Docusate Sodium tablets calls for a Mobile Phase of 50% 7mM Ammonium Acetate / 50% Acetonitrile at 40°C. However, retention for the API and the System Suitability compound Methyl Paraben were found to be low using these conditions.

This Method not only exceeds the System Suitability resolution, but has both compounds adequately retained in order to allow for separation from other peaks that may be present in the sample. This Method is suitable for analysis of Docusate in a variety of matrices.





Peaks:

1. Methyl Paraben
2. Docusate Sodium

Method Conditions

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

Catalog No.: 40018-75P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 10 mM Ammonium Acetate

B: 95% Acetonitrile / 5% Solvent A (v/v)

Time *(minutes)*	%B
0	20

1	20
6	80
7	20

Temperature: 40˚C

Post Time: 3 minutes

Injection vol.: 10µL

Flow rate: 1.0mL / minute

Detection: UV @ 210nm

Sample Preparation: 1.0mg / mL Docusate Sodium and 0.01mg / mL Methyl Paraben USP reference standards in diluent of 50:50 Solvent A / Solvent B. Peak identities were confirmed with individual standards.

t0: 0.9 minutes

Note: *Docusate is used in many laxative formulations. It is also an emulsifying, wetting, and dispersing agent. It was one of the components in the oil dispersant Corexit® used to help clean the Deepwater Horizon oil spill of 2010.*

Attachment

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Date: 04-05-2024