

Theophylline and Related Compounds

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

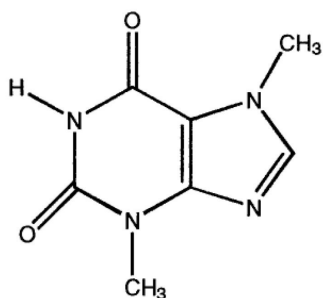
Abstract

This application brief highlights the analysis of theophylline and related compounds using Symmetry Shield RP₁₈ Columns.

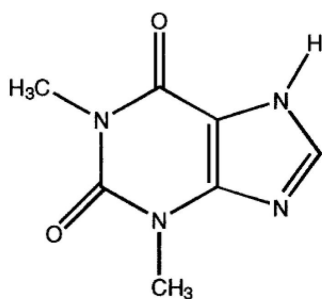
Introduction

The compounds analyzed in this study are:

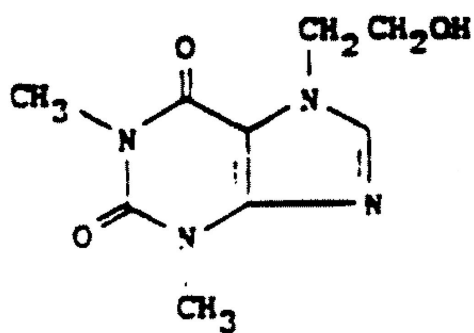
1. Theobromine
2. Theophylline
3. 7-(2-hydroxyethyl) Theophylline



1. Theobromine



2. Theophylline



3. 7-(2-hydroxyethyl) Theophylline

Experimental

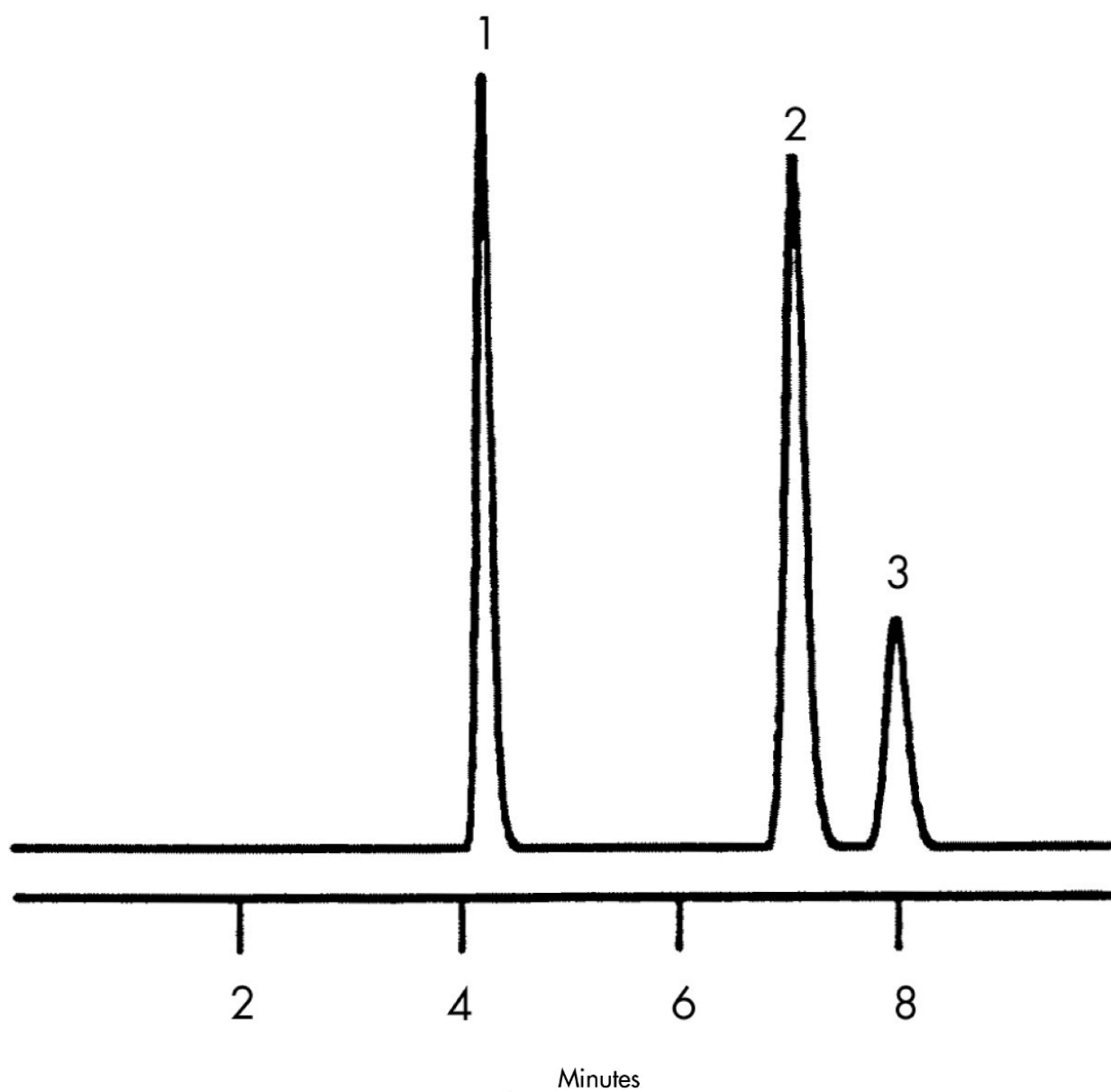
HPLC Method

Column:

Symmetry Shield RP₁₈, 3.0 x 150 mm, 5 μm

| | |
|-------------------|---|
| Part number: | 186000692 |
| Mobile phase: | 5 mM potassium phosphate, pH 2.0/acetonitrile 95:5 |
| Flow rate: | 0.6 mL/min |
| Injection volume: | 5 μ L injection of solution containing theobromine (0.22 mg/mL), theophylline (0.26 mg/mL), and 7- (2-hydroxyethyl) theophylline (0.13 mg/mL) |
| Detection: | UV @ 270 nm |

Results and Discussion



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WA31763.169, June 2003



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