Waters™

应用纪要

# Analysis of Food Sugars/Saccharides in Cough Syrup Using ACQUITY UPLC BEH Amide Columns

Waters Corporation

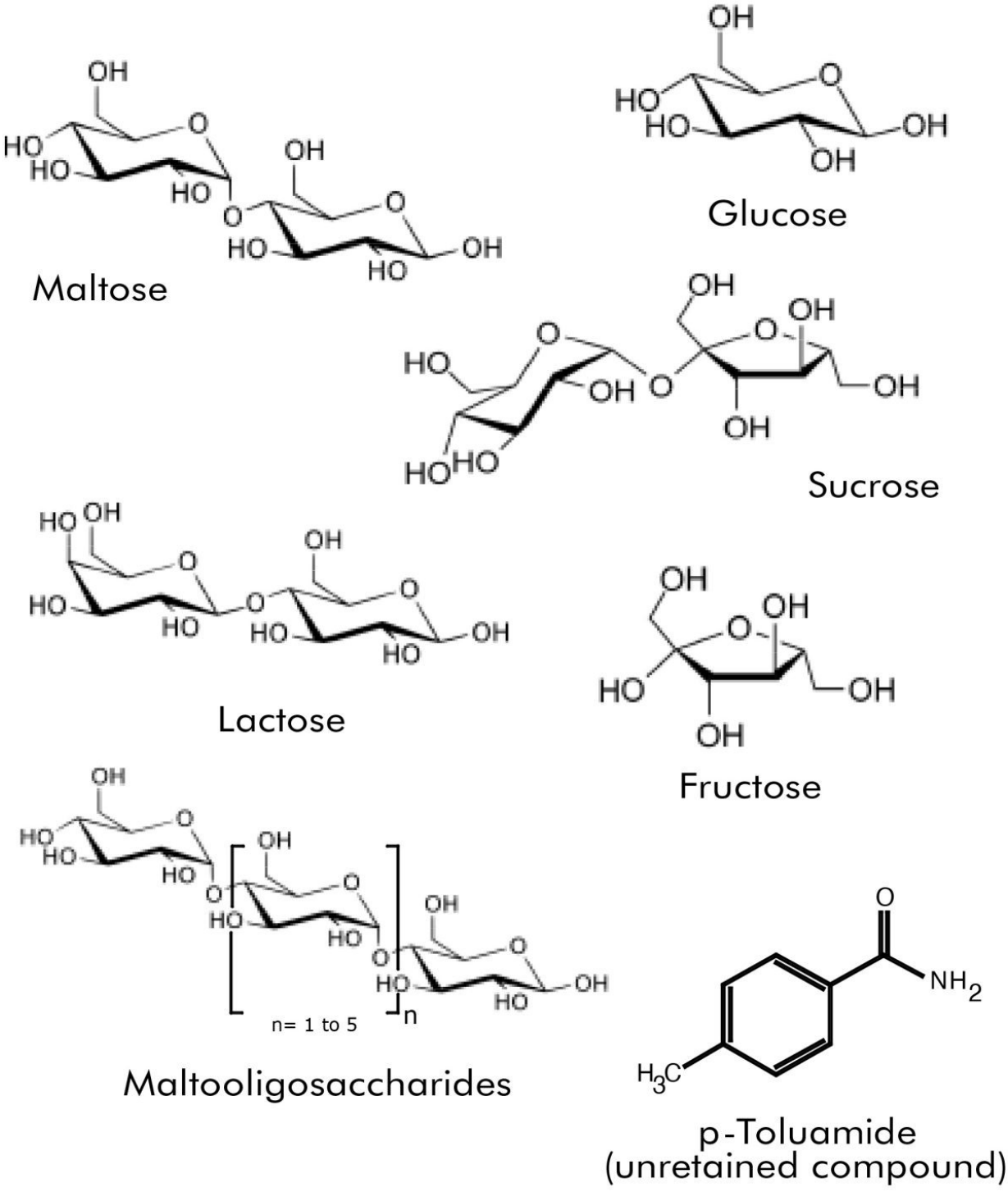
This is an Application Brief and does not contain a detailed Experimental section.

## Abstract

This application brief highlights the analysis of food sugars/saccharides in cough syrup using ACQUITY UPLC BEH Amide Columns.

## Introduction

## Structures


Maltose
Glucose
Sucrose
Lactose
Fructose
n= 1 to 5
Maltooligosaccharides
p-Toluamide
(unretained compound)

# Experimental

## Chromatographic Conditions

| | |
|---|---|
| Column: | ACQUITY UPLC BEH Amide 2.1 x 100 mm, 1.7 µm |
| Part Number: | 186004801 |
| Mobile Phase A: | 80/20 MeCN/$H_2O$ with 0.2% triethylamine [TEA] |
| Mobile Phase B: | 30/70 MeCN/$H_2O$ with 0.2% triethylamine [TEA] |
| Flow Rate: | 0.26 mL/min |
| Gradient: | 6 minute gradient, 80%-50% MeCN (w/0.2% TEA) with 12 minute re-equilibration |
| Injection Volume: | 1.3 µL (PLNO) |
| Sample Concentration: | Standards at 1 mg/mL each, cough syrups at 1% (v/v) |
| Sample Diluent: | 50/50 MeCN/$H_2O$ |
| Column Temperature: | 35 °C |
| Strong Needle Wash: | MeCN/$H_2O$ 20/80 (800 µL) |
| Weak Needle Wash: | MeCN/$H_2O$ 75/25 (500 µL) |
| Seal Wash: | MeCN/$H_2O$ 50/50 |

| | |
|---|---|
| Instrument: | Waters ACQUITY UPLC with ELSD |

## Gradient

| Time (min) | Profile | |
|---|---|---|
| | %A | %B |
| 0.00 | 100.00 | 0.00 |
| 6.00 | 40.00 | 60.00 |
| 6.01 | 100.00 | 0.00 |
| 18.00 | 100.00 | 0.00 |

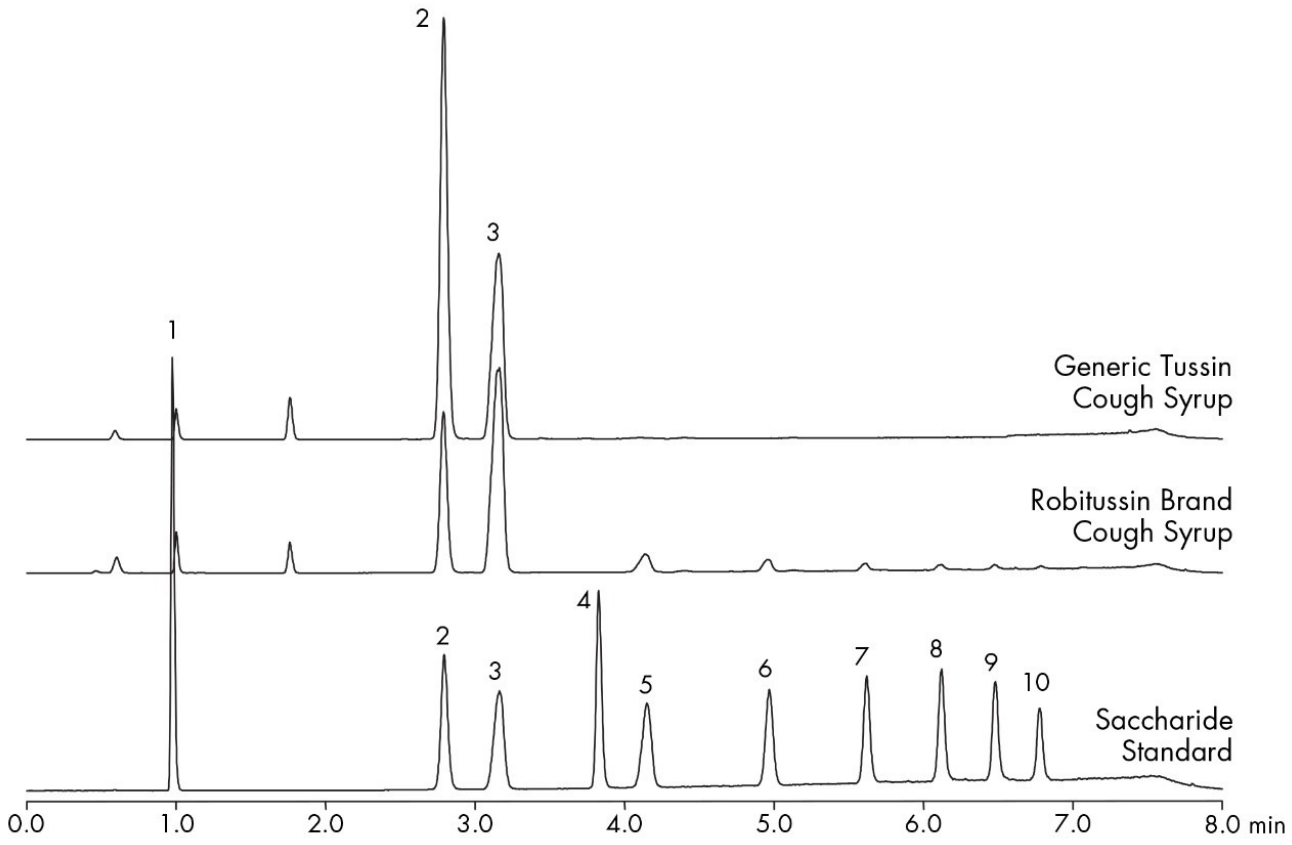
## ELSD Conditions

| | |
|---|---|
| Gain: | 200 |
| Pressure: | 40 psi |
| Drift Tube Temperature: | 40 °C |
| Nebulizer: | Cooling |
| Data Rate: | 10 pps |
| Filter Time Constant: | Normal |

# Results and Discussion

The compounds analysed in this study are:

1. p-Toluamide
2. Fructose
3. Glucose
4. Sucrose
5. Maltose
6. Maltotriose
7. Maltotetraose
8. Maltopentaose
9. Maltohexaose
10. Maltoheptaose

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ACQUITY UPLC ELS Detector <https://www.waters.com/514219>

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