

# Separation of four Slip Agents Separation of saturated and unsaturated fatty acid monoamides

## **Application Note**

#### **Authors**

Eric Vermeulen and Norbert Reuter Agilent Technologies, Inc.

#### Introduction

Fatty acid monoamides are widely used in the production of polymeric films as slip agents (lubricants) and in the food industry as anti-adhesives. The advantage in using fatty acid monoamides is their biodegradability. The unsaturated amides show a better performance than their saturated analoques. Some of these amides are also endogenous bioactive substances and cause sleepiness.



### **Methods and Materials**

Technique: GC-Capillary Wide Bore

Column: CP-Sil 5 CB, 0.53 mm x 15 m, df = 0.15  $\mu$ m

(part number CP8673)

Carrier Gas: Helium at 10 mL/min

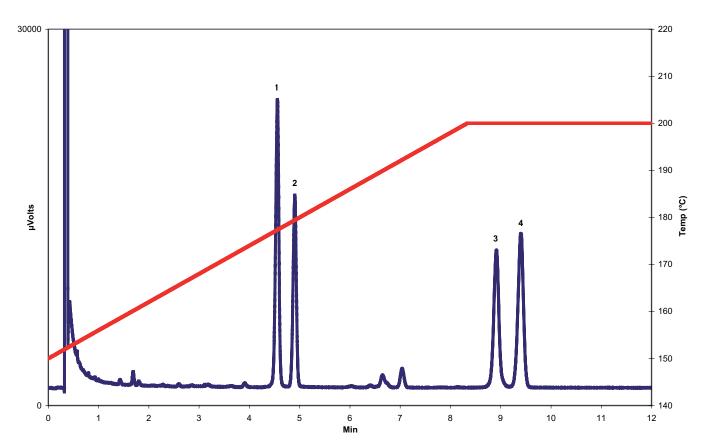
Temp Program: 150 °C - 6 °C/min - 200°C until end Injector: 1041 Packed/Wide Bore On-Column

(PWOC) Injector

Detector: Flame Ionization Detector at 250 °C

Table 1. Peak Identification

| Peak | Component  | IUPAC Name             |
|------|------------|------------------------|
| 1    | Oleamide   | (9Z)-Octadec-9-enamide |
| 2    | Stearamide | Octadecanamide         |
| 3    | Erucamide  | (13Z)-Docos-13-enamide |
| 4    | Behenamide | Docosanamide           |



Separation of saturated and unsaturated fatty acid monoamides

#### www.agilent.com/chem

This information is subject to change without notice.

© Agilent Technologies, Inc. 2010

Published in UK, October 08, 2010

SI-02065

