Antioxidants

Analysis of additives in polyethylene

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

High temperature gas chromatography with an Agilent CP-SimDist UltiMetal column separates four additives in polyethylene glycol in 22 minutes.

Agilent Technologies

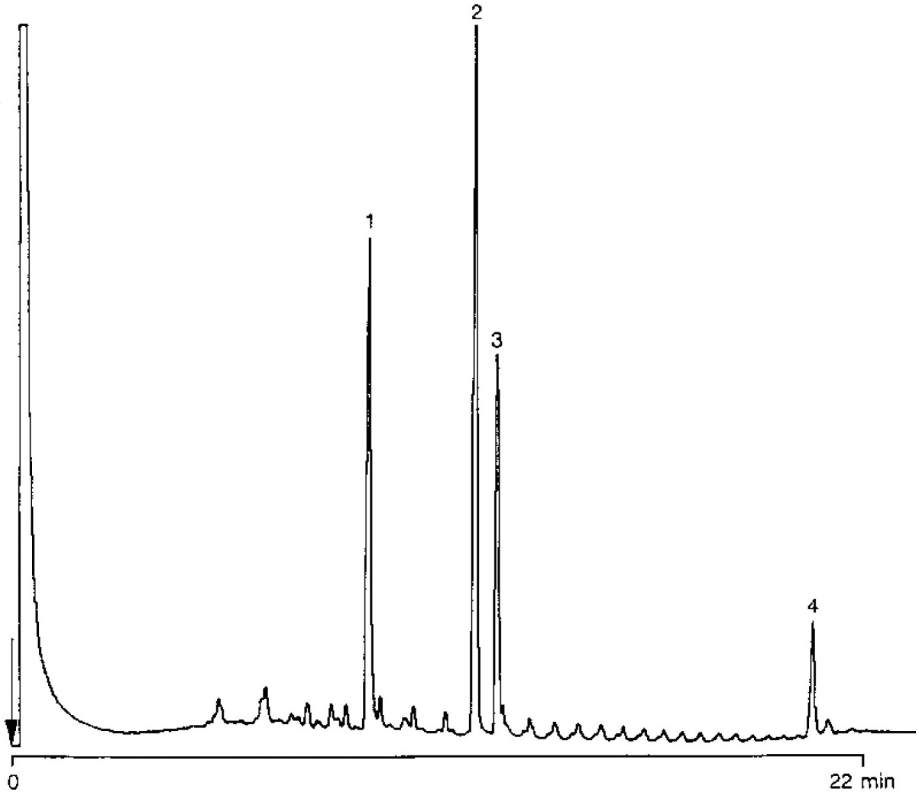
Conditions

Technique	: GC-wide-bore
Column	: Agilent CP-SimDist CB UltiMetal, 0.53 mm x 5 m WCOT CP-SimDist CB UltiMetal (df = 0.15µm) (Part no. CP7532)
Temperature	: 100 °C (2 min) → 380 °C, 15 °C/min; 380 °C (5 min)
Carrier Gas	: He, 18 kPa (0. 18 bar. 2.6 psi)
Injector	: On-column
Detector	: FID T = 380 °C
Sample Size	: 1 µL
Solvent sample	: toluene
Courtesy	: Dow Chemical Canada, Western Canada Division, R & D Lab, Jim Luong

Peak identification

1. Ericamide
2. Irgafos* - 168
3. Irganox* - 1076
4. Irganox* - 1010

* Irgafos and Irganox are trademarks of Ciba-Geigy



www.agilent.com/chem

Printed in the USA
31 October, 2011
First published prior to 11 May, 2010
A00749

Agilent Technologies