

Amines

Analysis of volatile aliphatic amines in fish

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

The Agilent CP-Sil 8 CB for Amines column makes the separation possible of standard 12 aliphatic amines, which are used in the analysis of fish. This column has the same inertness (peak shape) as a column with a very thick film (5 μm) of a 100% methylsilicone in a wide-bore (0.53 mm id) dimension. Furthermore, on the CP-Sil 8 CB for Amines, the relevant separation of dimethylethylamine and n-propylaminine is possible, which co-elute on the methylsilicone phase.



Conditions

Technique : GC-capillary

Column : Agilent CP-Sil 8 CB for Amines, 0.32 mm x 30 m

fused silica WCOT (df = 1.0 μ m) (Part no. CP7596)

Temperature : 60 °C

Carrier Gas : H₂, kPa (0.55 bar, 7.9 psi), 42 cm/s Injector : Headspace and Splitter, split 1/15

T = 265 °C

Detector : FID

 $T = 300 \, ^{\circ}C$

Sample Size : $500 \mu L \text{ vapor}$

Concentration Range : 50 µg N-equivalent each in 25 mL glass container

Solvent Sample : none

Courtesy : Dr. R. Kruse, Staatliches Veterinäruntersuchungsamt

für Fischwaren Cuxhaven, Cuxhaven, Germany

Peak identification

1. methylamine

2. dimethylamine

3. trimethylamine

4. isopropylamine

 $5. \ \ ethylmethylamine$

6. tert-butylamine

7. dimethylethylamine

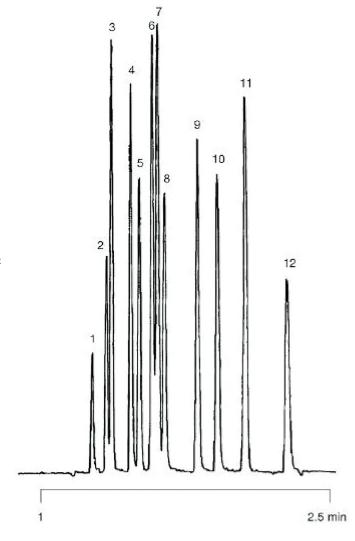
8. n-propylamine

9. diethylamine

10. sec-butylamine

11. diethylmethylamine

12. n-butylamine



www.agilent.com/chem

This information is subject to change without notice.

© Agilent Technologies, Inc. 2011

Printed in the USA
31 October, 2011

First published prior to 11 May, 2010

A01435

