



C₁ – C₃ amines

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Agilent CP-Volamine elutes volatile amines as symmetrical peaks. Besides the volatile amines, the CP-Volamine also elutes low levels of alcohols that are often seen as by-products.

In addition, water and ammonia elute as sharp peaks. CP-Volamine can withstand aqueous injections of amine mixtures and is therefore one of the best solutions for amine analysis.



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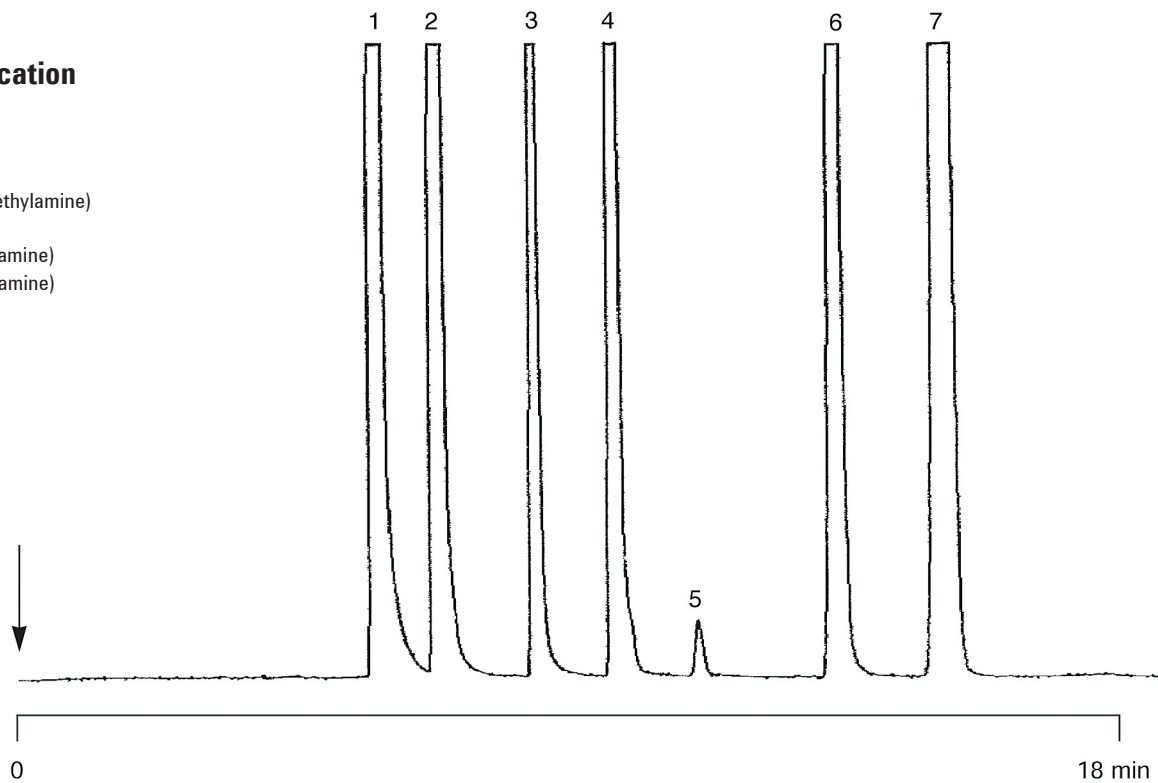
Conditions

Technique : GC-capillary
Column : Agilent CP-Volamine, 0.32 mm x 60 m fused silica
WCOT (Part no. CP7448)
Temperature : 40 °C (10 min) → 100 °C, 15 °C/min
Carrier Gas : He, 100 kPa (1 bar, 14 psi)
Injector : Split. 1:50,
T = 180 °C
Detector : FID,
T = 250 °C
Sample Size : 1.0 µL, liquid
Concentration Range : % levels

Courtesy : Dr. F. de Boever, UCB research centre Drogenbos,
Dr. G. Baele, UCB Gent,
Belgium

Peak identification

1. air
2. NH₃ (ammonia)
3. water
4. MMA (mono-methylamine)
5. methanol
6. DMA (di-methylamine)
7. TMA (tri-methylamine)



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