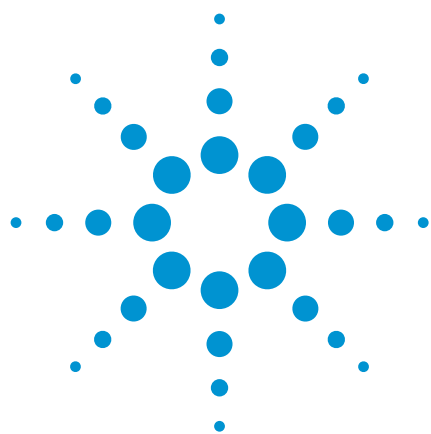




Hydrocarbons, C₁ – C₆

Application Note

Materials Testing & Research

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Al₂O₃/Na₂SO₄ column identifies 14 C₁ to C₆ hydrocarbon impurities in 1,3-butadiene in 15 minutes.



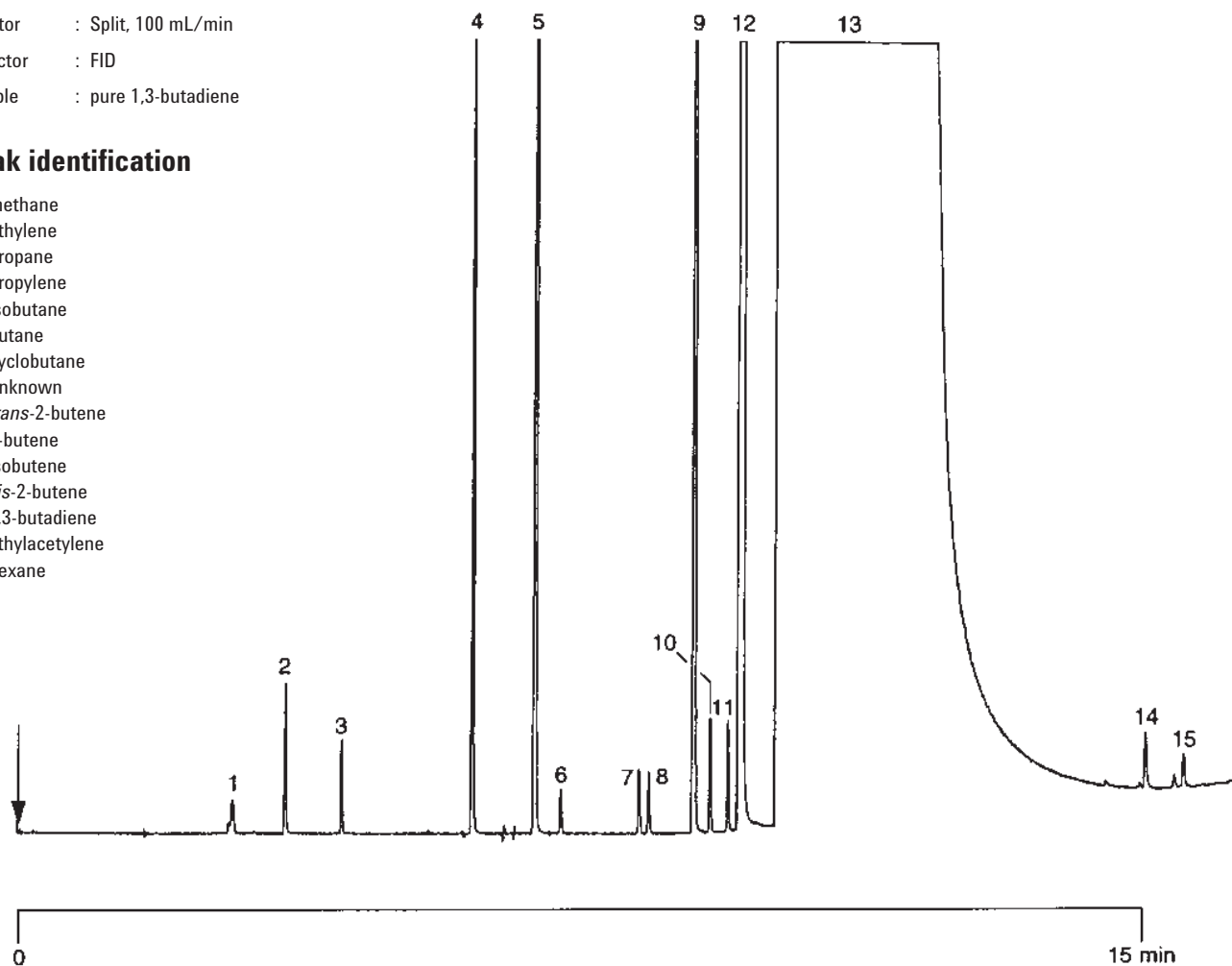
Agilent Technologies

Conditions

Technique : GC-capillary
Column : Agilent CP-Al₂O₃/Na₂SO₄, 0.25 mm × 50 m fused silica PLOT CP-Al₂O₃/Na₂SO₄ (df = 4.0 µm) (Part no. CP7587)
Temperature : 50 °C (1 min) → 200 °C, 10 °C/min
Carrier Gas : He, 220 kPa (2.2 bar, 31 psi)
Injector : Split, 100 mL/min
Detector : FID
Sample : pure 1,3-butadiene

Peak identification

1. methane
2. ethylene
3. propane
4. propylene
5. isobutane
6. butane
7. cyclobutane
8. unknown
9. *trans*-2-butene
10. 1-butene
11. isobutene
12. *cis*-2-butene
13. 1,3-butadiene
14. ethylacetylene
15. hexane



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