Hydrocarbons, C_1 – C_6

Analysis of impurities in cis-2-butene

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Al_2O_3/KCl column resolves 21 C_1 to C_6 hydrocarbon impurities in cis-2-butene in 20 minutes.

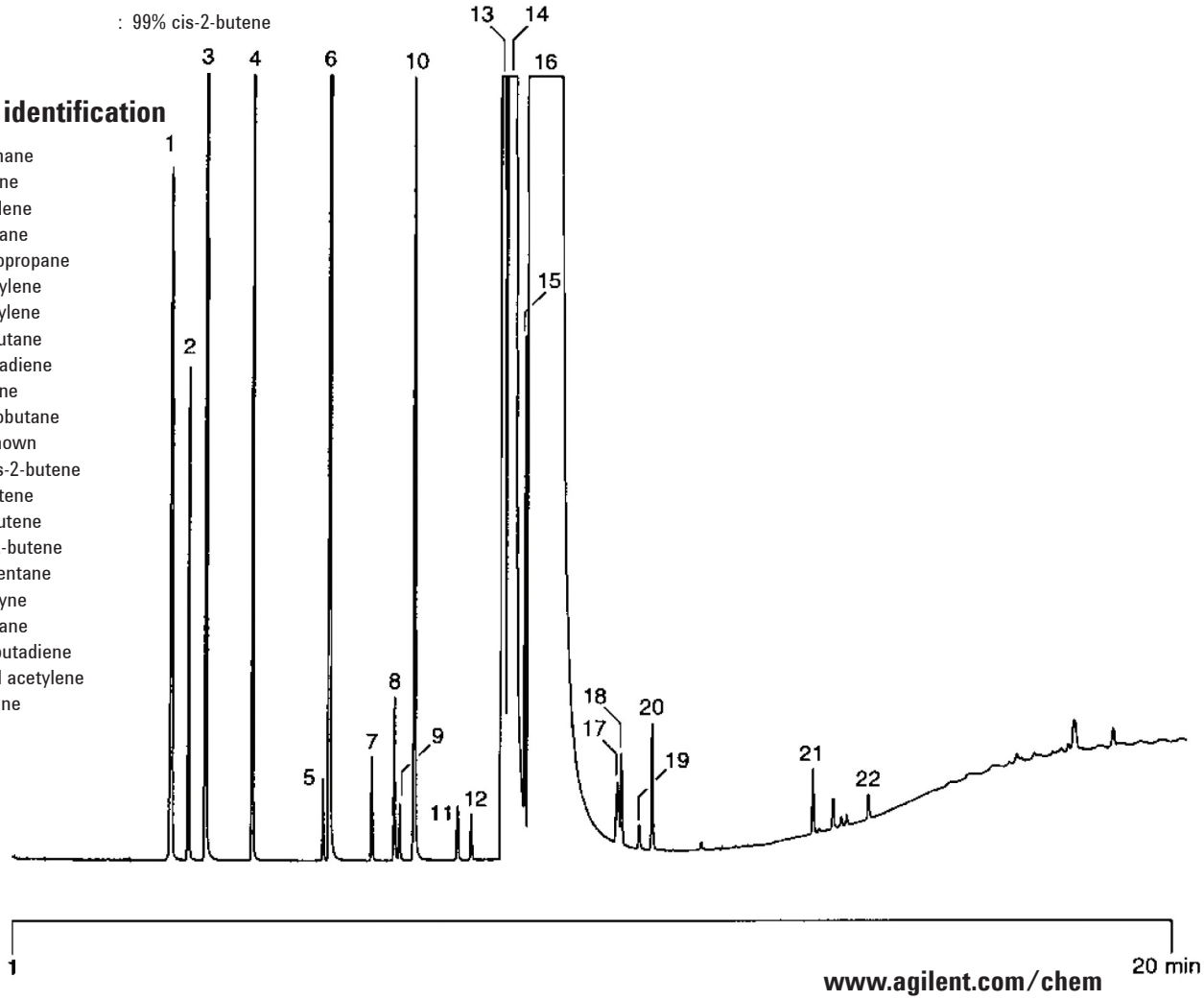
Agilent Technologies

Conditions

Technique	:	GC-capillary
Column	:	Agilent CP-Al_2O_3/KCl, 0.25 mm x 50 m fused silica PLOT CP-Al_2O_3/KCl (df= 4.0 µm) (Part no. CP7577)
Temperature	:	50 °C (1 min) → 200 °C, 10 °C/min
Carrier Gas	:	He, 220 kPa (2.2 bar, 31 psi)
Injector	:	Split, 20 mL/min
Detector	:	FID
Sample	:	99% cis-2-butene

Peak identification

1. methane
2. ethane
3. ethylene
4. propane
5. cyclopropane
6. propylene
7. acetylene
8. isobutane
9. propadiene
10. butane
11. cyclobutane
12. unknown
13. trans-2-butene
14. 1-butene
15. isobutene
16. cis-2-butene
17. isopentane
18. propyne
19. pentane
20. 1,3-butadiene
21. ethyl acetylene
22. hexane



www.agilent.com/chem

Printed in the USA
31 October, 2011
First published prior to 11 May, 2010
A01099

Agilent Technologies