



# Impurities in 1,3 butadiene

## Application Note

Materials Testing & Research

### Authors

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### Introduction

Selectivity of the Agilent Select Al<sub>2</sub>O<sub>3</sub> MAPD column is very good for separating impurities in 1,3 butadiene by GC.



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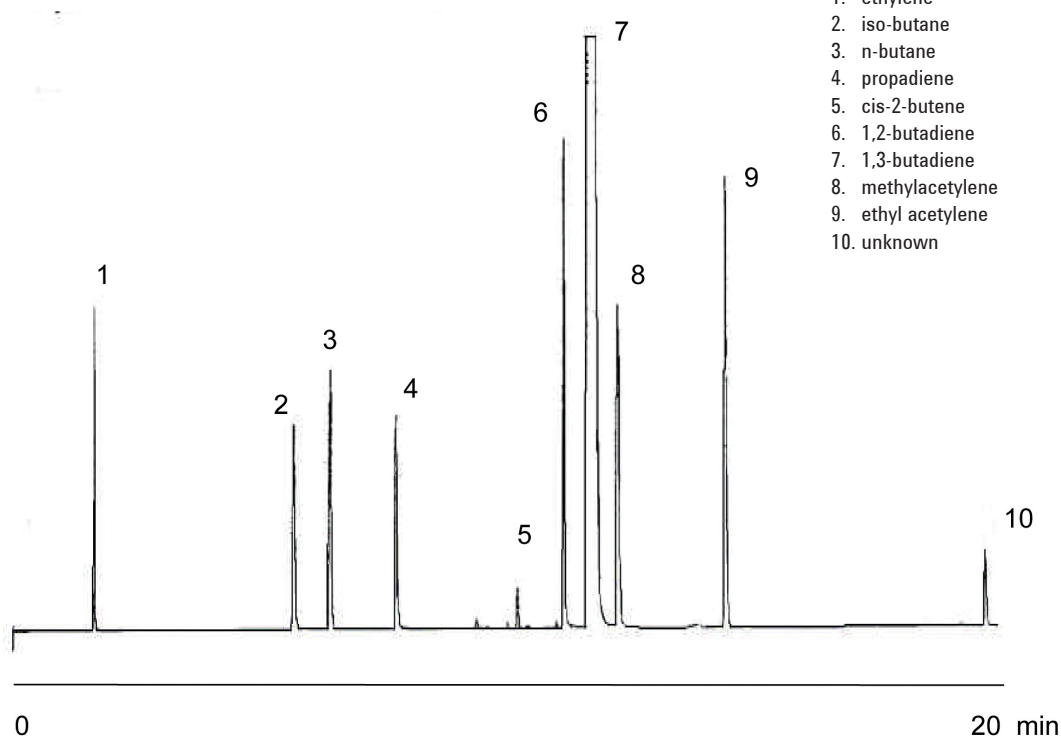
## Conditions

Technique : GC  
Column : Agilent Select Al<sub>2</sub>O<sub>3</sub> MAPD, 0.53 mm x 50 m fused silica (Part no. CP7432)  
Temperature : 40 °C, 5min → 160 °C, 10 °C/min → 200 °C, 20 °C/min, hold 1 min  
Carrier Gas : He, 4 psig, 4 min → 11 psig, 0.5 psig/min, 2 min  
Injector : Split 60 mL/min  
Detector : FID  
Concentration Range : 1,3 butadiene, synthetic standard, approx 100 ppm impurities

Courtesy : J. Luong, Dow Chemical Canada

## Peak identification

1. ethylene
2. iso-butane
3. n-butane
4. propadiene
5. cis-2-butene
6. 1,2-butadiene
7. 1,3-butadiene
8. methylacetylene
9. ethyl acetylene
10. unknown



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This information is subject to change without notice.

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