



# Chlorinated compounds in ethylene

## Analysis of impurities in ethylene

### Application Note

Materials Testing & Research

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#### Introduction

GC/MS analysis of chlorinated impurities in ethylene is achieved in 10 minutes with an Agilent CarboBOND column.



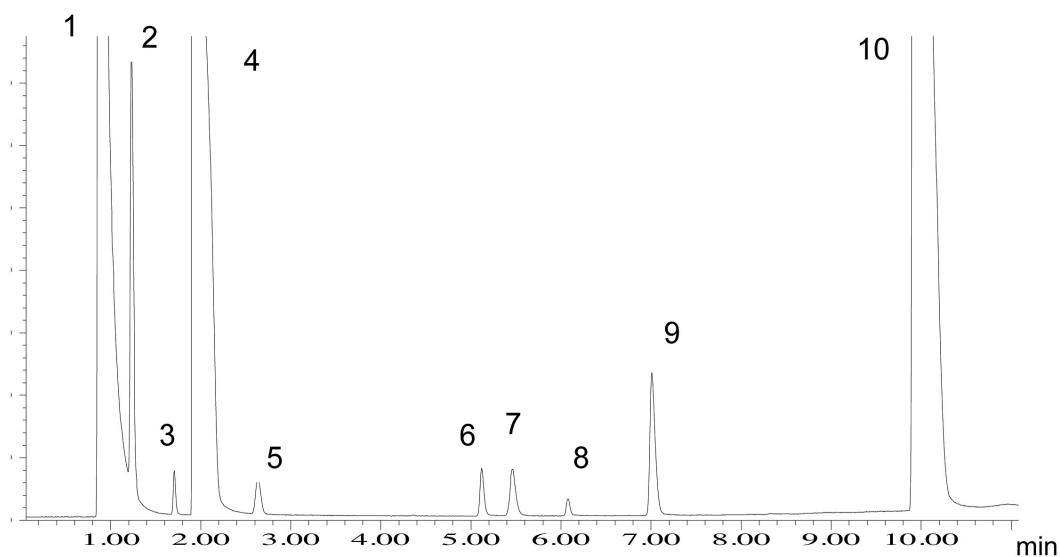
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## Conditions

Technique : GC  
Column : Agilent CarboBOND, 0.53 mm x 25 m fused silica  
(df = 10 µm) (Part no. CP7374)  
connected with 0.1 mm x 20 cm methyl deactivated  
fused silica at inlet  
Temperature : 80 °C (1 min) → 300 °C, 25 °C/min  
Carrier Gas : Helium, 20 kPa  
Injector : Split, 10:1  
Detector : MS  
Sample Size : 0.5 mL  
Concentration range : ethylene standard with approx. 100 ppm impurities  
Concentration range : air & ethylene

## Peak identification

1. air
2. carbon dioxide
3. acetylene
4. ethylene
5. ethane
6. propylene
7. propane
8. vinyl chloride
9. ethyl chloride
10. 1,2-dichloroethane



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