Flavors and aromas
Differences between two brands of Pilsner beer

Application Note

Food Testing & Agriculture

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Introduction
Gas chromatography with an Agilent CP-Wax 52 CB column separates ten components in two Pilsner beers in 27 minutes.
**Conditions**

**Technique**: GC-PTI

**Column**: Agilent CP-Wax 52 CB, 0.32 mm x 50 m fused silica WCOT CP-Wax 52 (df = 1.2 μm) (Part no. CP7723)

**Temperature**: 50 °C (5 min) → 240 °C, 5 °C/min, 240 °C (10 min)

**Carrier gas**: He, 97 kPa (0.97 bar, 14 psi)

**Injector**
- Cold trap: CP-Sil 8 CB 0.53 mm; df = 5 μm
- Precool temp.: -120 °C
- Precool time: 3 min
- Purge time: 10 min
- Purge flow: 10 mL/min
- Injection temp.: 200 °C
- Injection time: 1 min
- Backflush flow: 50 mL/min

**Detector**: FID, T = 250 °C

**Sample Size**: 8 mL
1 mL of saturated BaOH was added to prevent foaming
1 mL of saturated NaCl was added to increase purgeability

**Sample Temperature**: ambient

**Concentration Range**: ppb/ppm

**Peak identification**

1. acetaldehyde
2. dimethyl sulfide
3. ethyl acetate
4. ethanol
5. n-propanol
6. isobutanol
7. 2-pentanol
8. isoamyl acetate
9. isoamyl alcohol
10. amyl alcohol