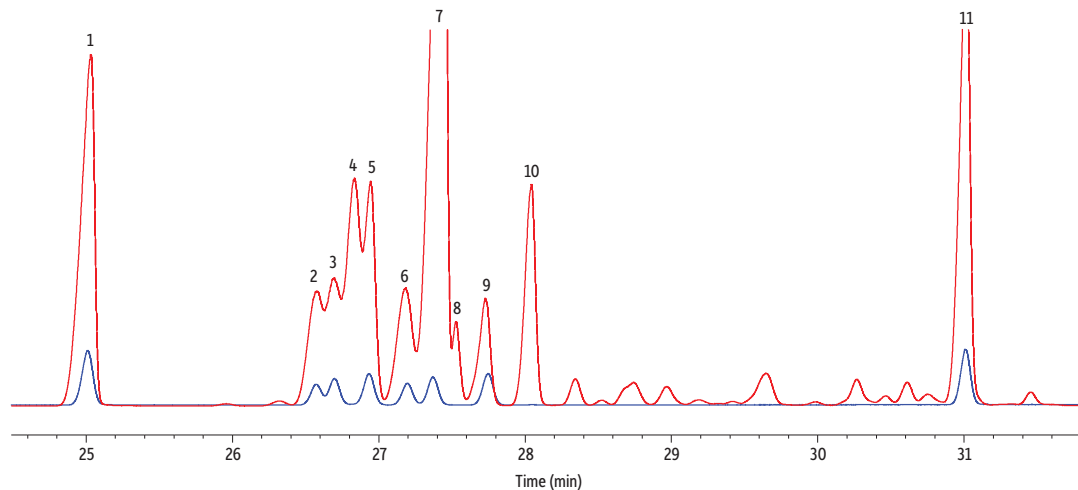


trans-Fats in Frosting on Rt-2560

Red trace = chocolate frosting

Blue trace = 0.16–0.40% *cis/trans* FAME standard



GC_FS0567

Peaks	tr (min)
1. C18:0	25.032
2. C18:1 (<i>trans</i> -6)	26.576
3. C18:1 (<i>trans</i> -9)	26.702
4. C18:1	26.835
5. C18:1 (<i>trans</i> -11)	26.937
6. C18:1 (<i>cis</i> -6)	27.201
7. C18:1 (<i>cis</i> -9)	27.372
8. C18:1	27.529
9. C18:1 (<i>cis</i> -11)	27.751
10. C18:1	28.045
11. C18:2 (<i>cis</i> -9,12)	31.011

Column Rt-2560, 100 m, 0.25 mm ID, 0.20 μ m (cat.# 13198)
Sample See notes
Injection
 Inj. Vol.: 1 μ L split (split ratio 100:1)
 Liner: Topaz 4.0 mm ID Precision inlet liner w/wool (cat.# 23305)
 Inj. Temp.: 250 °C
Oven
 Oven Temp.: 160 °C (hold 20 min) to 250 °C at 2 °C/min (hold 10 min)
Carrier Gas Hz, constant flow
Flow Rate: 2 mL/min
Detector FID @ 250 °C
 Constant Column +
 Constant Make-up: 52 mL/min
 Make-up Gas Type: N₂
 Hydrogen flow: 40 mL/min
 Air flow: 400 mL/min
 Data Rate: 50 Hz
Instrument Agilent 7890A GC

Notes

Sample: 0.12 g of chocolate frosting was dissolved in 1 mL hexane and 0.5 mL acetone and then reacted with 75 μ L NaOCH₃ (2 M). The sample was then vortexed for 10 sec, and the reaction was stopped by the addition of 1 mL of acetic acid (0.5 M). FAMES were extracted into the hexane layer, which was injected for analysis.

Standard: *cis/trans* FAME mix (cat.# 35079) was diluted 50x in hexane, resulting in a final FAME concentration of 0.16–0.40%.