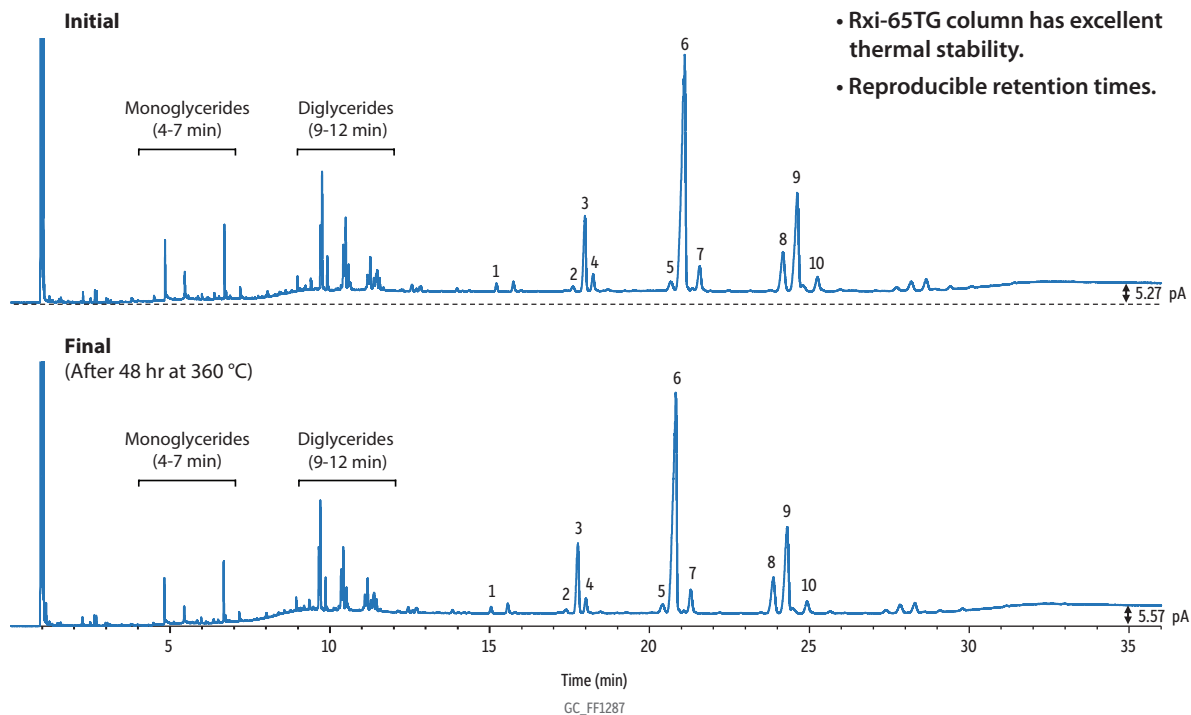


Rxi-65TG: High-Temp. Stability Overlay



- Rxi-65TG column has excellent thermal stability.
- Reproducible retention times.

Peaks

1. Tripalmitin (PPP)
2. 1,2-Palmitin-3-stearin (PPS)
3. 1,3-Palmitin-2-olein (POP)
4. 1,2-Palmitin-3-linolein (PPL)
5. 1-Palmitin-2-olein-3-stearin (POS)

Peaks

6. 1,2-Olein-3-palmitin (POO)
7. 1-Palmitin-2-linolein-3-olein (PLO)
8. 1,2-Stearin-3-olein (SSO)
9. Triolein (OOO)
10. 1,2-Olein-3-linolein (OOL)

Column	Rxi-65TG, 30 m, 0.25 mm ID, 0.1 µm (cat.# 17108)
Sample	Palm oil analytical standard Mono/diacylglycerol custom mix Isooctane
Diluent:	
Injection	
Inj. Vol.:	1 µL split (split ratio 100:1)
Liner:	Topaz 4.0 mm ID Precision inlet liner w/wool (cat.# 23305)
Inj. Temp.:	360 °C
Split Vent Flow Rate:	200 mL/min
Oven	
Carrier Gas	H ₂ , constant flow
Flow Rate:	2 mL/min
Detector	FID @ 360 °C
Make-up Gas Flow Rate:	30 mL/min
Make-up Gas Type:	N ₂
Hydrogen flow:	40 mL/min
Air flow:	370 mL/min
Data Rate:	50 Hz
Instrument	Agilent 7890B GC
Notes	

Sample prep:

~50 mg of a palm oil standard (which contains naturally occurring triglycerides) was fortified with the following mono- and diacylglycerol standards. The mixture was then brought up to 10 mL in isooctane, giving a final mono- and diglycerides concentration of ~100 µg/mL.

1. 1,2-Dipalmitin
2. 1,3-Dipalmitin
3. 1,2-Distearin
4. 1,3-Distearin
5. 1-Monopalmitin
6. 2-Monopalmitin
7. 1-Monostearin

Testing Conditions:

Six injections of fortified palm oil were made under the following conditions. Extended final hold times were used to challenge column stability. After each 24-hour challenge period, column performance was assessed using an injection with a final hold time that is typical for triglyceride analysis.

- Injection 1:* 100 °C (hold 1 min) to 325 °C at 30 °C/min to 345 °C at 1 °C/min to 360 °C at 5 °C/min (hold 12 hr)
Injection 2: 100 °C (hold 1 min) to 325 °C at 30 °C/min to 345 °C at 1 °C/min to 360 °C at 5 °C/min (hold 12 hr)
Injection 3: 100 °C (hold 1 min) to 325 °C at 30 °C/min to 345 °C at 1 °C/min to 360 °C at 5 °C/min (hold 5 min)
Injection 4: 100 °C (hold 1 min) to 325 °C at 30 °C/min to 345 °C at 1 °C/min to 360 °C at 5 °C/min (hold 12 hr)
Injection 5: 100 °C (hold 1 min) to 325 °C at 30 °C/min to 345 °C at 1 °C/min to 360 °C at 5 °C/min (hold 12 hr)
Injection 6: 100 °C (hold 1 min) to 325 °C at 30 °C/min to 345 °C at 1 °C/min to 360 °C at 5 °C/min (hold 5 min)