

### Chlorofluorocarbon Gases

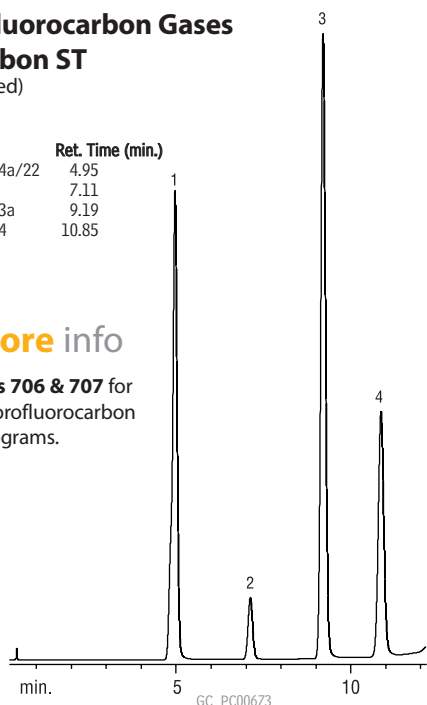
#### ShinCarbon ST

(micropacked)

Peak	Ret. Time (min.)
1. Freon® 134a/22	4.95
2. Freon® 12	7.11
3. Freon® 133a	9.19
4. Freon® 114	10.85

for **more** info

see **pages 706 & 707** for more chlorofluorocarbon chromatograms.



GC\_PC00673  
Column: ShinCarbon ST, 100/120 mesh, 1m, 1mm ID  
Silcosteel® micropacked column (cat.# 19809)  
Sample: fluorocarbon blend, 5µL ~1-3% each  
Inj. temp.: 200°C  
Det.: FID @ 250°C  
Carrier gas: helium  
Linear velocity: 10mL/min.  
Oven temp.: 125°C to 320°C @ 16°C/min.

## ChromaBLOGraphy

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### Butane Lighter Fluid

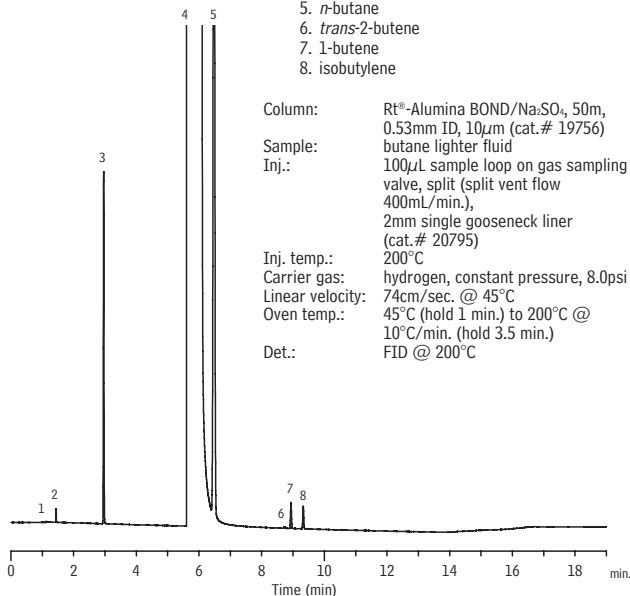
#### Rt®-Alumina BOND/Na<sub>2</sub>SO<sub>4</sub>

(PLOT)



1. methane
2. ethane
3. propane
4. isobutane
5. *n*-butane
6. *trans*-2-butene
7. 1-butene
8. isobutylene

Column: Rt®-Alumina BOND/Na<sub>2</sub>SO<sub>4</sub>, 50m, 0.53mm ID, 10µm (cat.# 19756)  
Sample: butane lighter fluid  
Inj.: 100µL sample loop on gas sampling valve, split (split vent flow 400mL/min.), 2mm single gooseneck liner (cat.# 20795)  
Inj. temp.: 200°C  
Carrier gas: hydrogen, constant pressure, 8.0psi  
Linear velocity: 74cm/sec. @ 45°C  
Oven temp.: 45°C (hold 1 min.) to 200°C @ 10°C/min. (hold 3.5 min.)  
Det.: FID @ 200°C



GC\_PC01083

### Propane Camping Fuel

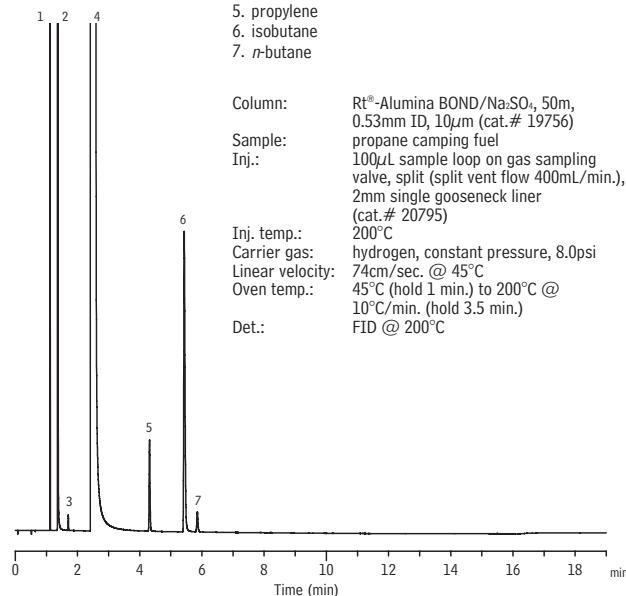
#### Rt®-Alumina BOND/Na<sub>2</sub>SO<sub>4</sub>

(PLOT)



1. methane
2. ethane
3. ethylene
4. propane
5. propylene
6. isobutane
7. *n*-butane

Column: Rt®-Alumina BOND/Na<sub>2</sub>SO<sub>4</sub>, 50m, 0.53mm ID, 10µm (cat.# 19756)  
Sample: propane camping fuel  
Inj.: 100µL sample loop on gas sampling valve, split (split vent flow 400mL/min.), 2mm single gooseneck liner (cat.# 20795)  
Inj. temp.: 200°C  
Carrier gas: hydrogen, constant pressure, 8.0psi  
Linear velocity: 74cm/sec. @ 45°C  
Oven temp.: 45°C (hold 1 min.) to 200°C @ 10°C/min. (hold 3.5 min.)  
Det.: FID @ 200°C



GC\_PC01084