

## Spark Ignition Fuel with Butanol Impurities on D3606 Application Column Set by ASTM D3606-20

- Complete resolution of benzene and toluene from other fuel components.
- Accurate quantitation of butanol blend fuel.

- Peaks**
1. MEK (IS)
  2. Benzene
  3. 2-Butanol (impurity)
  4. 1-Propanol (impurity)
  5. Toluene
  6. Isobutanol (impurity)
  7. *n*-Butanol

**Column**  
D3606 application column (2 column set). Column 1: Sulfinert tubing, 6 ft (1.8 m), 2.00 mm ID, 0.125 in OD; Rt-D3606-1 proprietary packing material. Column 2: Sulfinert tubing, 15.5 ft (4.7 m), 2.00 mm ID, 0.125 in OD; Rt-D3606-2 proprietary packing material (cat.# 83606A-800)

**Sample**  
Conc.: Neat  
Injection: Neat  
Inj. Vol.: 0.8 µL packed not on-column  
Liner: Topaz 2.0 mm ID straight inlet liner (cat.# 23313)  
Inj. Temp.: 200 °C

**Oven**  
Oven Temp.: 75 °C (hold 3 min) to 85 °C at 5 °C/min (hold 6 min) to 135 °C at 20 °C/min (hold 14 min)

**Carrier Gas**  
Flow Rate: He, constant flow  
25 mL/min @ 135 °C

**Detector**  
Constant Column +  
Constant Make-up: FID @ 250 °C  
25 mL/min  
Hydrogen flow: 40 mL/min  
Air flow: 380 mL/min

**Instrument**  
Agilent/HP6890 GC

**Notes**  
Valve box temperature: 150 °C  
Backflush (valve) times for this column set are:  
• Valve on at ~12.0 minutes  
• Valve off at 17.0 minutes

