



RedLite™ & Thermolite® Restek - Still the Low-Bleed Champs!

Introduction

How do you know which septa will work best when every manufacturer claims to have the best? Restek investigated the variables in septa (i.e., off-gassing, puncturability, heat tolerances, size or fit, and reproducibility from lot-to-lot) to determine which brand gave the best results for the analysis and detector used. Because of the chemical additives used in the manufacturing process, all septa don't exhibit the same results

from one detector to another. Septa contamination is more apparent with splitless injections with long hold times. With split injections, the contamination is swept out the purge and split lines and is less noticeable.

Experiment

Production lots of each of the manufacturers "high temperature" septa were tested under identical conditions using an FID and ECD detector to determine the lowest bleed septa. Each septa lot number

was recorded (excluding Chromseal™ 9001 HT which had no listed lot number) to ensure traceability and reproducible results. The following results compare bleed from several commercially available septa, many of which are marketed specifically as "low-bleed" or "high-temperature" brands.

Conclusion

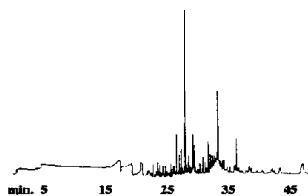
The results indicate that Restek's Thermolite™ and RedLite™ septa exhibit less bleed than the other

gies "high-temperature" septa. Restek's quality control ensures consistent quality from batch-to-batch. Restek's septa exhibit less coring and fragmentation, remain pliable at high temperatures, and will not stick to the injector surface. So, if you're tired of the problems associated with your septa, try Restek's quality septa.

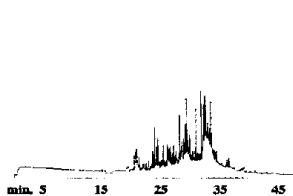
They're a knockout!

Figure 1
FID BLEED - Regardless of the variables Restek's and RedLite's™ septa are the low-bleed champs!

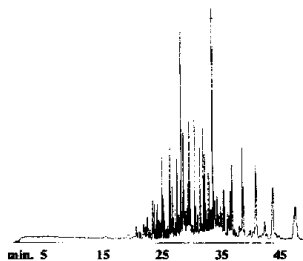
Restek Thermolite™ Septa
(Lot.# 178)



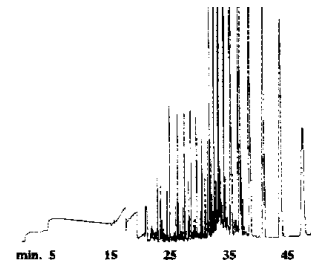
Restek RedLite™ Septa
(Lot.# 149)



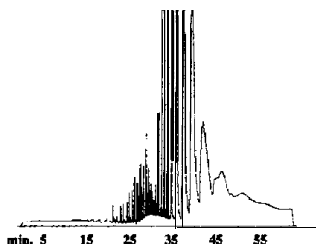
Baxter Septa 77
(Lot.# 0081)



Supelco Thermogreen* LB-2
(Lot.# 781-021c)



Chromacol Chromseal™
9001 HT Septa



15m, 0.53mm ID, 1.0um Rtx™-5 (cat.# 10252)
Oven **temp.:** 40°C (hold 15 min.) to 300°C @ (hold 40 min.), **Inj./det. temp.:** 250°C/300C,
Carrier gas: hydrogen, Linear **velocity:**
Splitless hold time: 15 min., **Split vent:** 40
Septum purge: 3.5 ml/min., **FID range:** 5