

# The FocusLiner™

## Improves Precision Yet Again

A customer testimonial from Mr. B. Boardman, Zeneca Environmental Laboratories, Grangemouth, Scotland

An evaluation of the SGE FocusLiner was undertaken in Zeneca's Environmental Laboratory, Scotland. The %RSD's were calculated for each compound's peak area based on data obtained from 10 consecutive injections of mixed chlorinated benzene standards (8 compounds, concentrations approximately 1ppm). A HP6890 GC in split mode, split flow 40mL/min and capillary column flowrate 1.2mL/min were used. A 1µL-sample injection was performed with the injector temperature of 250°C. The detector was an HP5973 MSD using single ion mode.

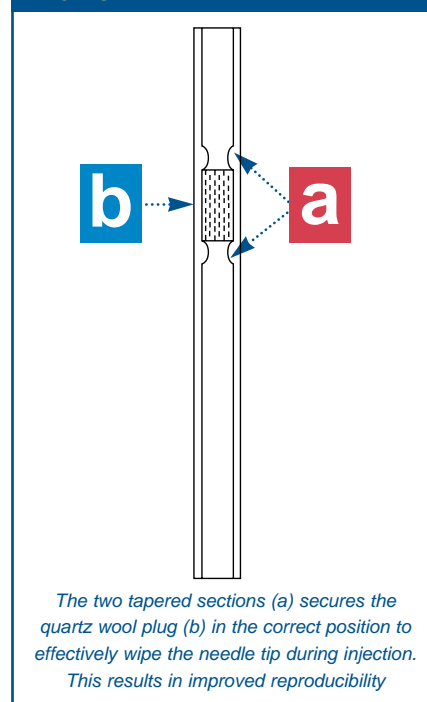
The same parameters were used to calculate %RSD's using the Jennings Cup style Split Inlet Liner. The Results are summarized in **Table 1**.

As can be clearly seen, the FocusLiner dramatically improves the precision, although there is a slightly lower peak area for the two compounds. This evidence alone suggests that a change to this style of liner will result in considerable improvements in sample precision. There is also no cost disadvantage compared to current alternatives. The unique design of the FocusLiner ensures the quartzwool is always in the optimum position in the liner. This leads to consistent wiping of the syringe needle by the deactivated quartz wool, producing exceptional reproducibility.

Incidentally, the HP6890 is supplied with a splitless style liner. Reproducibility evaluation on this liner gave results between 17 and 34% RSD for the compounds, emphasizing the need to use the correct liner for the injection mode used.



**Figure 1. How SGE FocusLiner™ works**



**Table 1. %RSD Comparisons between liners**

Compound	%RSD (Average Peak Area)	
	Jennings	SGE FocusLiner™
Monochlorobenzene	<b>8.46</b> (95799)	<b>0.87</b> (80059)
Hexachlorobenzene	<b>9.19</b> (103873)	<b>1.94</b> (97287)

### ORDERING INFORMATION - STANDARD FOCUSLINER™

Instrument	Injection Mode	Dimensions	Part No. (Pkt 5)
Carlo Erba 8000	Split	5mm ID x 8mm OD x 105mm	<b>092045</b>
Agilent Technologies (HP)	Split	4mm ID x 6.3mm OD x 78.5mm	<b>092002</b>
Perkin Elmer Autosystem	Split	4mm ID x 6.2mm OD x 92mm	<b>092092</b>
Shimadzu 14A/B	Split	3.4mm ID x 4.8mm OD x 99mm	<b>092065</b>
Shimadzu 17A	Split	3mm ID x 5mm OD x 95mm	<b>092062</b>
Varian 1075/1077	Split	4mm ID x 6.3mm OD x 72mm	<b>092022</b>
Varian 1078/1079	Split	3.4mm ID x 5mm OD x 54mm	<b>092037</b>