



# HICHROM

Chromatography Columns and Supplies

LC CONSUMABLES  
AND ACCESSORIES  
Smart Caps

Catalogue 9

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## SMART CAPS

### Smart Healthy Caps (for inlet solvent bottles)

- Protect health
- Minimise solvent evaporation
- Maintain accurate solvent concentrations
- No external contamination of eluent

Smart Healthy Caps were designed to comply with the increasing safety regulations of the modern laboratory. They are made from inert, chemically resistant materials, such as PTFE and polypropylene. Figure 1 shows a Smart Healthy Cap screwed onto a solvent inlet reservoir.

The use of Smart Healthy Caps can reduce harmful solvent evaporation from solvent inlet reservoirs by up to 80%, protecting health and keeping the HPLC eluent concentration accurate for several days. This is achieved by the use of a one-way check valve (Figure 2), which allows air to enter the bottle for pressure equalization, but eliminates solvent vapour emissions.

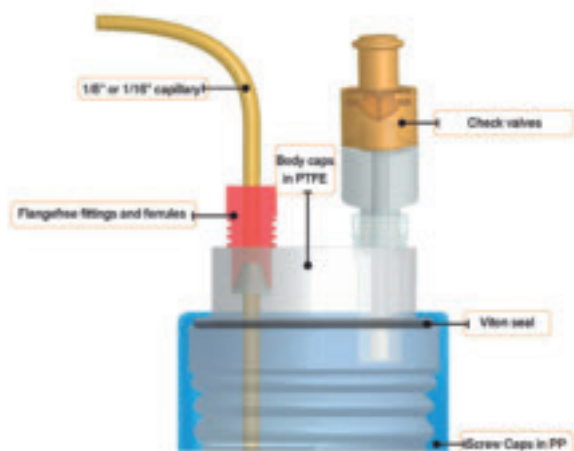


Figure 1. Smart Healthy Cap on solvent inlet reservoir

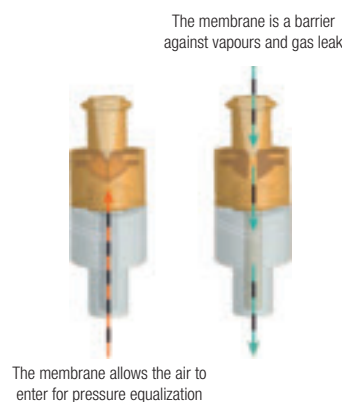


Figure 2. One-way check valve

Smart Healthy Caps also protect solvents against external contamination and are available to fit a wide range of bottle types and sizes. They can be supplied with 1 to 4 outlet ports to accommodate multiple HPLCs. Tubing ( $1/8"$  or  $1/16"$  o.d.) is securely fixed by use of a ferrule and flange-free fitting. Smart Healthy Caps are designed to fit the standard GL45 bottle thread. For alternative bottle threads such as GL40 and GL32, adaptors are available (see Figure 3).

### Ordering Information

#### Smart Healthy Caps<sup>1</sup> (to fit standard GL45 bottle thread)

No. Outlet Ports	Catalogue No.	Price
1	SHC-1	
2	SHC-2	
3	SHC-3	
4	SHC-4	

<sup>1</sup> Supplied with check valve, fittings and ferrules for  $1/8"$  o.d. tubing (fittings and ferrules for  $1/16"$  o.d. tubing supplied on request)

#### Smart Healthy Caps Adaptors (to convert a GL40 or GL32 thread for use with GL45 Smart Healthy Caps)

Adapter Thread	Material	Cat. No.	Price
GL40	Teflon	AD-40-T	
GL40	Polypropylene	AD-40-PP	
GL32	Teflon	AD-32-T	
GL32	Polypropylene	AD-32-PP	



Figure 3. Smart Healthy Caps adaptors

#### Starter Kit – contains:

- 1 x Smart Healthy Cap GL45 thread with 2 x  $1/8"$  outlet ports
- 2 x Fittings and ferrules for  $1/8"$  tubing
- 1 x Port plug for unused ports
- 1 x check valve

Cat. No. SHC-2-SK Price:  
**(Contains everything required)**

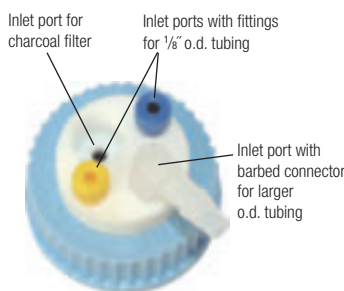
Please contact Hichrom for Smart Healthy Cap items not listed above.

## Smart Waste Caps (for waste solvent bottles)

- Protect health
- 95% reduction in harmful emissions
- Activated charcoal filter cartridge

Smart Waste Caps reduce harmful substance emissions from waste bottles by up to 95% and are available to fit a wide range of waste bottle sizes, including drums. They allow waste solvents from an HPLC to enter the waste bottle but prevent solvent vapours from escaping into the laboratory, by use of an activated charcoal filter cartridge. Smart Waste Caps (see Figure 4) are available to fit waste solvent containers with GL45 to S90 threads (and can be custom manufactured for all applications).

Smart Waste Caps can be supplied with multiple inlet ports to accommodate multiple HPLC lines. Tubing ( $\frac{1}{8}$ " or  $\frac{1}{16}$ " o.d.) is securely fixed by use of a ferrule and flange-free fitting. Larger o.d. tubing (up to 9mm) can be connected by use of a barbed connector.



SW45-2-C-1L  
Smart Waste Cap

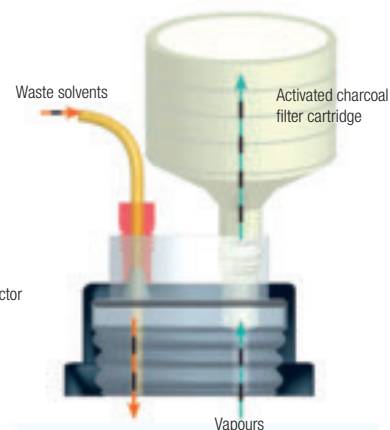


Figure 4. Smart Waste Cap on solvent waste bottle

## Ordering Information

### Smart Waste Caps (charcoal filter cartridge purchased separately – see below)

No. and Type of Inlet Ports	Thread Size			
	GL45	S51/S55	S60/S61	S90
3 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) inlet ports <sup>1</sup>	SW45-3-C	SW55-3-C	SW60-3-C	SW90-3-C
4 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) inlet ports <sup>1</sup>	SW45-4-C	-	-	-
1 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) + 3 barbed inlet ports <sup>1</sup>	-	SW55-1-C-3L	-	-
2 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) + 1 barbed inlet port <sup>1</sup>	SW45-2-C-1L	SW55-2-C-1L	SW60-2-C-1L	-
3 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) + 1 barbed inlet port <sup>1</sup>	SW45-3-C-1L	-	-	SW90-3-C-1L
3 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) + 2 barbed inlet ports <sup>1</sup>	-	-	-	SW90-3-C-2L
3 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) + 3 barbed inlet ports <sup>1</sup>	-	-	SW60-3-C-3L	-
4 x $\frac{1}{8}$ " (or $\frac{1}{16}$ " ) + 1 barbed inlet port <sup>1</sup>	-	-	SW60-4-C-1L	SW90-4-C-1L

<sup>1</sup> Comes with fittings and ferrules for  $\frac{1}{8}$ " o.d. tubing and 90° angled barbed connectors for 6-9mm o.d. tubing as standard. Fittings and ferrules for  $\frac{1}{16}$ " o.d. tubing and 90° angled and straight barbed connectors for 3-4mm, 5-6mm and 9-11mm o.d. tubing, plus straight barbed connectors for 6-9mm o.d. tubing are available on request.

## Charcoal Filter Cartridges

Wt. Charcoal (g)	Lifetime (months)	Cat. No.	Price
25	3	FC25	
50	6	FC50	
100	12	FC100	



Ref: FC25



Ref: FC50



Ref: FC100

Figure 5. Charcoal filter cartridges



Please contact Hichrom to request your Smart Caps catalogue

## Barbed Connectors

Tubing o.d. (mm)	90° Angled	Straight	Price
3 - 4	RC-34	RD-34	
5 - 6	RC-56	RD-56	
7 - 9	RC-69	RD-69	
9 - 11	RC-911	RD-911	

## Starter Kit – contains:

- 1 x Smart Waste Cap GL45 thread with 3 x  $\frac{1}{8}$ " inlet ports
- 3 x Fittings and ferrules for  $\frac{1}{8}$ " tubing
- 2 x Port plugs for unused ports
- 1 x 25g Charcoal filter cartridge

Cat. No. SW45-3-C-SK Price:  
(Contains everything you need)