



# Product Briefing

## Chromacol Screw Top Headspace Vials.

### 20-HSV and 10-HSV

#### New

When using headspace analysis the normal means of closure has been the use of a 20mm crimp. This gives a permanent and tamper proof closure but it does mean that the addition of material to the sample vial after crimping has required decapping and re-crimping. With the advent of sample preparation techniques such as SBSE (Stir Bar Sorbent Extraction) and the use of such products in the Electronic nose instruments from a range of companies such as Alpha MOS and Cyrano Systems, the application of a screw top closure becomes more necessary.

#### Universal Application

The new Chromacol Screw Top Headspace vials and their associated caps are designed for use in both Headspace and Sample Extraction processes. They are truly universal as they have caps that will support the use of thick headspace seals while also using thinner seals where more delicate SPME fibres may be used.

#### Magnetic Caps

The screw caps are nickel plated metal with magnetic properties making them suitable for the vial transport used in the popular range of CTC Autosamplers.

These are also extensively applied as OEM units by Varian and Shimadzu amongst GC instrument manufacturers.

#### Application Areas

Headspace SPME SBSE

Electronic Noses

#### Instruments

CTC/Leap CombiPAL

Gerstel Sample Processors

Alpha MOS Fox and Prometheus.

Shimadzu AOC-5000



20-HSV and 10-HSV vials with 18mm magnetic screw caps 18-MS



CTC Analytics CombiPAL GC Headspace Autosampler

### Vials and Combination Packs

Chromacol Part Number	Description	Pack Size
20-HSV	Screw Top Vial-Headspace Clear –20mL	125
10-HSV	Screw Top Vial-Headspace-Clear –10mL	125
20-HSVST3-CP	20mL Screw Top Headspace Vial + 18mm Magnetic Screw Cap Magnetic with Pre-fitted Silicone/PTFE Liner	100



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## **Caps and Seals**

The seals for use with these vials have to meet a number of strict criteria.

- Pressure

When used for headspace applications the seal must be capable of safely confining a headspace pressure of between 4 and 8 Bar.

- Chemical Resistance

Physically the seal should be resistant to both corrosive and solvent effects. In both cases the soft elastomer should be protected by a sturdy PTFE coating.

- Resealability

The seals should reseal after injection, allowing the sample to be extracted over a period of time for kinetic or degradation studies.

- High Purity

The seal should be free of volatile impurities that could interfere with headspace analysis. When exposed to elevated temperatures the bleed of material should be minimal.



20-HSV vials with  
18mm magnetic screw  
caps 18-MS-C-ST3

## **Caps and seals for Screw Top Headspace vials.**

Part Number	Description	Thickness	Compatibility
18-MS-C-ST3	Silicone/PTFE seal	3mm	Very clean for selective detectors
18-MS-C-CBT3	Blue chlorobutyl/PTFE	3mm	General Purpose
18-MS-C-ST101	Thin Blue silicone/clear PTFE	1 mm	Thin seal for delicate needles used in SPME and SBSE
18-MS-C	18mm Metallic Screw Cap for 20-HSV and 10-HSV	No seal	Cap Only

## **Unique Cap Design**

New caps contain a deeper cavity to accommodate 3mm seals to allow application in high temperature headspace analysis.

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