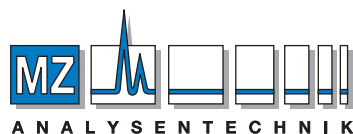




# VIALS & SYRINGES

<b>Vials</b>	<b>2</b>	SPME Vials	49
Selecting Vials, Inserts, and Closures	2	SPME Accessories	51
Popular Autosampler Vials by Instrument	4	Headspace Vials	51
Vials for Mass Spectrometry	6	Serum Bottles	53
Autosampler Vials with 9 mm Thread	12	Closures, Septa, and Crimpers for 20 mm Crimp Top Vials	54
Vials to fit Waters Alliance	15	Mininert® Valves	57
Autosampler Vials with fused-in 0.3 mL Insert	16	Center Drain (CD) Vials, 3.8 to 60 mL	57
Crimp top vials taking 8 mm seals	17	Clear Heavy Wall CD Vials	58
Vials to fit Waters® 96 Autosampler	19	Micro Reaction Vessels	59
Crimp Top Vials, 11 mm, standard opening, 12 x 32 mm, 4.6 mm opening	19	Crimpers and Decappers	60
Crimp top vials, 11 mm, large opening, 12 x 32 mm, 6.0 mm opening	20	Sampling and Storage Containers	61
Snap Ring Vials	23	Vial Accessories	62
Snap Seal™ Vials	25	<b>Syringes</b>	<b>64</b>
Closures for 11 mm Crimp top, Snap Ring, and Snap Seal™ vials	25	Syringe Selection	64
Versa Vial™	26	Syringe Care	65
Polypropylene vials and inserts	26	Sample Injectors	66
Crimp Top Vials and Accessories, 13 mm	27	Autosampler Syringes	68
12 x 30 mm Autosampler Vials for PerkinElmer® Clarus 600	28	HPLC Syringes	76
12 x 32mm Screw Top Vials, Standard Opening	28	Hamilton MICROLITER™ Syringes (600, 700 Series)	78
12 x 32 mm Screw Top Vials, Large Opening	31	SGE Plunger-protected Syringes	81
Inserts for 12 x 32 mm vials	33	SGE syringes with Superflex™ flexible plunger	81
4 mL Screw Top Vials	34	SGE MicroVolume syringes, standard plunger	81
Vials to fit Waters® 48, 717, 717 Plus	35	Hamilton MICROLITER™ Syringes (800, 900 Series)	82
Snap-Ring vials, 15 x 45 mm	36	SGE Syringes with extended glass barrel	83
Pre-Assembled Sampling Vials	36	7000 Series Modified Microliter™ Syringes	84
Sample vials in Lab-File®	37	SGE Microvolume Syringe (Plunger-in-needle), 0.5 µL- 5 µL	85
Pre-Assembled vials with graduations	38	Hamilton GASTIGHT® Syringes, 1000 Series	85
Vials Only	38	SGE Gas Tight Syringes, 1 mL to 100 mL	87
Screw Top Glass, Caps, and Septa for large volume vials (7-60 mL)	39	Hamilton GASTIGHT® Syringes, 1700 Series	88
Septa for Screw Top Vials	42	SGE Gas Tight Syringes, 10 µL to 10 mL	90
Screw Caps	44	Hamilton GASTIGHT® Syringes, 1800 Series	91
Closures with Pre-Cut Septa for HPLC Applications	46	Hamilton On-Column Syringes	92
Silane-Treated Vials and Accessories	47	Precision Sampling Syringes	92
Precleaned Sampling Containers	47	Hamilton Syringe Replacement Parts	96
Wheaton Shorty vials	48	SGE Replacement Needles	99
Scintillation vials	48	Syringe Accessories	100



## AUTHORIZED DISTRIBUTOR

MZ-Analysentechnik GmbH, Barcelona-Allee 17• D-55129 Mainz  
 Tel +49 6131 880 96-0, Fax +49 6131 880 96-20  
 e-mail: info@mz-at.de, www.mz-at.de

## Vials

Selecting Vials, Inserts, and Closures: *Vial Varieties*

## Vials

### Selecting Vials, Inserts, and Closures

#### Vial Varieties

**ABC Vial, R.A.M. or Short Thread** screw top vials. These vials have a unique 9mm thread design that allows you to screw on the caps, and still use them in a robotic autosampler. This thread is much higher on the top of the vial allowing space between the bottom of the thread and the shoulder of the vial.



**LVI, Interlock, or QSertVial.** These large opening vials have a coneshaped insert fused into the vial. These 300  $\mu\text{L}$  glass conical insert and 12 x 32 mm vial are one precise integral unit.



LVI Crimp Top Vial, 300  $\mu\text{L}$

**Screw Top Vials.** These standard (4.6mm) and large opening (6.0mm) vials are available in both clear and amber glass. They come with a variety of closures and septa.



Certified Vial, Large Opening, 10-425 thread

**Crimp Top Vials.** These standard (4.6mm) and large opening (6.0mm) vials are used with aluminum seals. The 11 mm aluminum seals have 6 mm openings.



Clear Glass Vial, Crimp finish

**Shell Vials.** Cylindrical shell vials compatible with plug-style needle closures to make syringe extraction easier.



From left to right: 24727, 24729

**Snap Seal vial** is made with more glass in the neck area of the vial than the Snap Ring vial. The Poly Crimp Seal, designed for use with the Snap Seal, will fit virtually any crimp finish vial with any liner thickness. The standard aluminum crimp seal can also be used to seal this vial.



Snap Seal vial, clear glass, 29132-U

**VersaVial** is a shell vial with a vase-like molded neck that allows the vial to be picked up by an autosampler. The 9 mm neck opening provides a large target area for adding or removing the sample to the vial. The variety of snap plug closure materials makes the vial useful for chromatographic samples.



VersaVial, clear glass, 29083-U

## Vials

Selecting Vials, Inserts, and Closures: *Insert Varieties***Insert Varieties**

**Glass Inserts with Top Springs**, Mandrel precision point – With the unique design, the insert is centered in the neck of the vial. The needle extracts nearly all of the sample.



Inserts with top spring

**Glass Inserts with Bottom Springs**, Mandrel precision point – The unique design allows the insert to be centered in the vial.



Insert with bottom spring

**Shell Style Inserts** – These economical inserts stand unsupported in the carrier vial. Capacity 0.25-0.35mL.



Shell style inserts

**Cap Varieties**

**Phenolic Hole Cap**, Temp. Limit 149°C. Autoclavable.



Phenolic hole cap

**Polypropylene Hole Cap**, Temp. Limit 135°C. Autoclavable.



Polypropylene hole cap

**Melamine Solid Cap w/PTFE liner**, Temp. Limit 49°C Not Autoclavable



Solid cap with PTFE liner

**Phenolic Solid Cap w/Aluminum**, Temp. Limit 135°C. Not Autoclavable



Solid cap with aluminum liner

**Selecting Screw Top Vials and Components**

Volume	Vial O.D. x Height	Cap Thread (GCM I Spec.)	Septum Diameter
2 mL (0.5 drams)	12 x 32 mm x 4.6 (I.D.) mm	8-425	8 mm
2 mL (0.5 drams)	12 x 32 mm x 6.0 (I.D.) mm	9 mm	9 mm
2 mL (0.5 drams)	12 x 32 mm x 6.0 (I.D.) mm	10-425	10 mm
4 mL (1 dram)	15 x 45 mm	13-425	11 mm
7 mL (2 drams)	17 x 60 mm	15-425	13 mm
15 mL (4 drams)	21 x 70 mm	18-400	16 mm
22 mL (6 drams)	23 x 85 mm	20-400	18 mm
40 mL (10.7 drams)	29 x 81 mm	24-400	22 mm
40 mL (10.7 drams)	28 x 98 mm	24-400	22 mm

## Vials

Popular Autosampler Vials by Instrument

## Popular Autosampler Vials by Instrument

	Glass	Features	Cat. No.	Pk. Size	Page	Agilent 1050/1090	Agilent 1100	Agilent 7673A, Series I, II	CTC LC PAL	CTC GC PAL	Merck/Hitachi, AS/4000	PerkinElmer Autosystem and Clarus 500	PE ISS-100, 200, Integral 4000 and Series 200	Shimadzu GC Autosamplers
<b>Crimp Top Vials</b>														
6 x 32 mm	clear	tapered bottom	27283	100	17			✓		✓				
7 x 30 mm	amber	conical	27312	200	18			✓						
7 x 32 mm	amber	round bottom	27314	100	18			✓						
7 x 40 mm	amber	conical bottom	24744	100	18									
8 x 40 mm	clear	flat bottom	33321-U	200	19									
12 x 32 mm	clear	PTFE/red rubber	29124-U	100	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
	clear	PTFE/silicone	29125-U	100	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
	amber	PTFE/red rubber	29127-U	100	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
	amber	PTFE/silicone	29128-U	100	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Screw Thread, 12 x 32 mm</b>														
Certified Vials, 9 mm thread	clear	PTFE/silicone	29381-U	100	4	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/Silicone w/slit	29384-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29386-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/Silicone w/slit	29387-U	100	4	✓	✓	✓	✓	✓	✓			✓
Center Drain Vials	clear	PTFE/silicone	29307-U	100	11	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/Silicone w/slit	29309-U	100	11	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/silicone/PTFE	29308-U	100	11	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29313-U	100	11	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/Silicone w/slit	29314-U	100	11	✓	✓	✓	✓	✓	✓			✓
Low Adsorption Vials	clear	PTFE/silicone	29651-U	100	4	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/Silicone w/slit	29652-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29653-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/Silicone w/slit	29654-U	100	4	✓	✓	✓	✓	✓	✓			✓
Large Opening, 2 mL	clear	PTFE/red rubber	29116-U	100	15				✓				✓	✓
	amber	PTFE/red rubber	29117-U	100	15				✓				✓	✓
	clear	PTFE/silicone	29432-U	100	31				✓				✓	✓
	amber	PTFE/silicone	29119-U	100	15				✓				✓	✓
	clear	silanized	27060U	100	15				✓		✓		✓	✓
	amber	silanized	27225-U	100	15				✓		✓		✓	✓
<b>Screw Thread, 15 x 45 mm</b>														
13/425 thread	clear	vial only	854190	100	34									✓
	clear	vial only	27111	100	34									✓
	clear	marking spot	27113	1000	34									✓
	amber	marking spot	27116-U	100	34									✓
	amber	vial only	27115-U	100	34									✓
	amber	vial only	854986	100	34									✓
	<b>Style</b>	<b>Dimensions</b>												
<b>Glass Inserts for 12 x 32 mm Vials</b>														
	bottom spring	6 x 28 mm	24721	100	13	✓	✓	✓	✓	✓	✓	✓	✓	✓
	conical	6 x 31 mm	24717	100	13	✓	✓	✓	✓	✓	✓	✓	✓	✓

Vials

Popular Autosampler Vials by Instrument

	Glass	Features	Cat. No.	Pk. Size	Page	Shimadzu LC Autosamplers	Spark Marathon, Midas, Triathlon	Thermo HPLC Spectra System	Thermo GC TRACE/AS3000/AI3000/AS3500	Varian GC Autosamplers 8000/8100/8200/8400/8410	Varian LC Autosamplers 9090, 9095, Marathon	Waters 48, 717, 717 Plus	Waters 96 Autosampler	Waters Alliance
<b>Crimp Top Vials</b>														
6 x 32 mm	clear	tapered bottom	27283	100	17	✓		✓						
7 x 30 mm	amber	conical	27312	200	18									
7 x 32 mm	amber	round bottom	27314	100	18									
7 x 40 mm	amber	conical bottom	24744	100	18			✓						
8 x 40 mm	clear	flat bottom	33321-U	200	19								✓	
12 x 32 mm	clear	PTFE/red rubber	29124-U	100	15	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/silicone	29125-U	100	15	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/red rubber	29127-U	100	15	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29128-U	100	15	✓	✓	✓	✓	✓	✓			✓
<b>Screw Thread, 12 x 32 mm</b>														
Certified Vials, 9 mm thread	clear	PTFE/silicone	29381-U	100	4	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/Silicone w/slit	29384-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29386-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/Silicone w/slit	29387-U	100	4	✓	✓	✓	✓	✓	✓			✓
Center Drain Vials	clear	PTFE/silicone	29307-U	100	11	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/Silicone w/slit	29309-U	100	11	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/silicone/PTFE	29308-U	100	11	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29313-U	100	11	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/Silicone w/slit	29314-U	100	11	✓	✓	✓	✓	✓	✓			✓
Low Adsorption Vials	clear	PTFE/silicone	29651-U	100	4	✓	✓	✓	✓	✓	✓			✓
	clear	PTFE/Silicone w/slit	29652-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/silicone	29653-U	100	4	✓	✓	✓	✓	✓	✓			✓
	amber	PTFE/Silicone w/slit	29654-U	100	4	✓	✓	✓	✓	✓	✓			✓
Large Opening, 2 mL	clear	PTFE/red rubber	29116-U	100	15	✓								✓
	amber	PTFE/red rubber	29117-U	100	15	✓								✓
	clear	PTFE/silicone	29432-U	100	31	✓								✓
	amber	PTFE/silicone	29119-U	100	15	✓								✓
	clear	silanized	27060-U	100	15	✓								✓
	amber	silanized	27225-U	100	15	✓								✓
<b>Screw Thread, 15 x 45 mm</b>														
13/425 thread	clear	vial only	854190	100	34	✓						✓		
	clear	vial only	27111	100	34	✓						✓		
	clear	marking spot	27113	1000	34	✓						✓		
	amber	marking spot	27116-U	100	34	✓						✓		
	amber	vial only	27115-U	100	34	✓						✓		
	amber	vial only	854986	100	34	✓						✓		
	<b>Style</b>	<b>Dimensions</b>												
<b>Glass Inserts for 12 x 32 mm Vials</b>														
	bottom spring	6 x 28 mm	24721	100	13	✓	✓	✓	✓	✓	✓			✓
	conical	6 x 31 mm	24717	100	13	✓	✓	✓	✓	✓	✓			✓

## Vials

Vials for Mass Spectrometry

## Vials for Mass Spectrometry

NEW PRODUCTS

The products listed in this section have been manufactured with Mass Spectrometry applications in mind. These vials and closures are designed, engineered and manufactured for optimum performance in HPLC, GC/MS, and LC/MS applications.

The chemist spends a great deal of energy, money and precious time on sample preparation. After that, the last thing a chemist needs is for the sample vials to contribute to contamination that may result in complicated data interpretation or complete reanalysis. By using vials certified to be nearly contaminant free the chemist can reduce the risk significantly by using vial products made specifically for these applications.

## Certified Low Adsorption (LA) Vials

## Certified Vial Kit, Low Adsorption (LA), 2 mL

Supelco's new Low Adsorption (LA) vials are manufactured using a process that decreases the number of hydroxyl groups on the vial's glass surface, significantly reducing surface activity while improving analytical quantitation and minimizing pH shifts in the sample. This same process also removes unwanted surface metals such as sodium and boron that can contaminate samples and interfere with trace analysis. Unlike other methods used to decrease vial surface activity, the elimination of surface activity in LA vials is integral to the manufacturing process and is not a chemical surface treatment.

These vials and closures are designed, engineered, and manufactured for optimum performance in HPLC, GC/MS, and LC/MS applications. All of the parts of the vial system (vial, cap, and septum) can come into contact with the sample and are critical to the outcome of the analysis.

We recommend using LA vials with MSQ polypropylene cap/PTFE silicone septa. This cap and septa combination was purposely designed for use with mass spectrometry. It shows little to no background contamination when compared to other cap and septa products in the marketplace.

light blue polypropylene cap  
O.D. × H × I.D. .... 12 mm × 32 mm × 6.0 mm



Vial, 2 mL

Description	Cat. No.	Qty
2 mL, clear glass (with marking spot), natural PTFE/silicone septa, 9 mm	29651-U	100 ea
2 mL, clear glass (with marking spot), natural PTFE/silicone septa (with slit), 9 mm	29652-U	100 ea
2 mL, amber glass (with marking spot), natural PTFE/silicone septa, 9 mm	29653-U	100 ea
2 mL, amber glass (with marking spot), natural PTFE/silicone septa (with slit), 9 mm	29654-U	100 ea

## Certified Vial Kit, Low Adsorption (LA) CD™ (Center Drain) vial

light blue polypropylene cap  
O.D. × H × I.D. .... 12 mm × 32 mm × 6.0 mm



Center Drain (CD) Vial

Description	Cat. No.	Qty
1.5 mL, CD (Center Draining) Vial, clear glass, natural PTFE/silicone septa, 9 mm	29655-U	100 ea
1.5 mL, CD (Center Draining) Vial, clear glass, natural PTFE/silicone septa (with slit), 9 mm	29656-U	100 ea

## Certified Vial Kit, Low Adsorption (LA) MRQ30 CD™ vial

light blue polypropylene cap  
O.D. × H × I.D. .... 12 mm × 32 mm × 6.0 mm



MRQ30 CD Vial, 0.2 µL

Description	Cat. No.	Qty
1.2 mL, MRQ30 Vial, clear glass, natural PTFE/silicone septa, 9 mm	29658-U	100 ea
1.2 mL, MRQ30 Vial, clear glass, natural PTFE/silicone septa (with slit), 9 mm	29659-U	100 ea

## Certified Vial Kit, Low Adsorption (LA) QsertVial™

light blue polypropylene cap  
O.D. × H × I.D. .... 12 mm × 32 mm × 6.0 mm



Low Adsorption QsertVial

Description	Cat. No.	Qty
0.3 mL, QsertVial, clear glass, natural PTFE/silicone septa, 9 mm	29661-U	100 ea
0.3 mL, QsertVial, clear glass, natural PTFE/silicone septa (with slit), 9 mm	29662-U	100 ea
0.3 mL, QsertVial, amber glass, natural PTFE/silicone septa, 9 mm	29663-U	100 ea
0.3 mL, QsertVial, amber glass, natural PTFE/silicone septa (with slit), 9 mm	29664-U	100 ea



## Vials

Vials for Mass Spectrometry: *Certified Low Adsorption (LA) Vials***MSQ™ Caps with septa, Mass Spec Quality**

We recommend using LA Vials with the MSQ polypropylene cap with PTFE/silicone septa. This cap and septa combination was purposely designed for use with mass spectrometry. It shows little to no background contamination when compared to other cap and septa products in the marketplace.

MSQ

light blue polypropylene cap

septum thickness ..... 1.0 mm  
O.D. x H x I.D. .... 11.5 mm x 6 mm x 9 mm

MSQ Polypropylene Cap with PTFE/silicone septa

Description	Cat. No.	Qty
9 mm, natural PTFE/silicone septa	29665-U	100 ea
9 mm, natural PTFE/silicone septa (with slit)	29666-U	100 ea

**Certified Autosampler Vials****Certified screw thread vials, 9 mm thread, 12 x 32 mm, Amber****Autosampler compatibility:**

Agilent

Agilent 1050/1090A

Agilent 1100/1200

Agilent 7673A, 7683

Agilent 5890/7985A/6890

Hitachi

AS-1000, AS-2000, AS-4000

L7200/L7250

LEAP Technologies

CTC LC PAL, GC PAL

CombiPAL

HTC PAL/HTS PAL

PerkinElmer

Autosystem/AS-2000/XL

Clarus 500/600

ISS-100, 200

Shimadzu LC Autosamplers

SIL-HTa/SIL-HTc

SIL-10ADV

SIL-10A/SIL-10Ai/SIL-10Ap

Varian

CP-8410

8100/8200

9100/90950/9095

Waters

Alliance 2690

Acquity

Breeze

717Plus

9 mm

The inside diameter of vials vary with the manufacture. The following insert part numbers are compatible with these large opening vials.

- 29435-U PK100, Certified 200 µL glass inserts, mandrel precision point, 6 X 29mm, with bottom spring
- 29436-U PK100, Certified 250 µL glass insert, conical bottom, 6 x 31 mm
- 29437-U PK100, Certified 300 µL glass inserts, conical bottom, 6 x 30 mm
- 29441-U PK100, Certified 350 µL glass inserts, flat bottom, 6 x 31mm

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

**2 mL, amber glass vial**

Vial, 2 mL

29373-U

100 ea

**2 mL, amber glass vial (with graduated marking spot)**

29376-U

100 ea

Our new certified vial, cap and septa products eliminate "fit" and septa contamination concerns associated with other brands. By taking these extra manufacturing and testing steps, we can ensure the following:

- Caps will thread properly onto vials, providing an air-tight seal
- Syringe needles are not damaged by irregular vial bottom thickness
- Minimal contamination for septa impurities

**Quality is built into each component of the Supelco certified vial system.** Our certified glass and polypropylene vials are manufactured to the tightest physical specifications possible. Each lot of vials is examined to ensure there are not inconsistencies in the vial height, bottom thickness and neck thread. Glass vials are produced from Type 1 borosilicate glass tubing (clear glass from 33 expansion glass, amber glass from 51 expansion glass), while our polypropylene vials are manufactured from virgin resins to eliminate the possibility of sample contamination.

**Septa**

The PTFE/silicone and modified PTFE/silicone septa are manufactured, conditioned and then tested by GC/MS to ensure they have the lowest level of extractable in the industry.

**Closures/Caps**

Plastic components are manufactured using virgin resins to eliminate the possibility of sample contamination. Caps are molded to ensure consistency in fit, thread specification and overall dimensions.

## Vials

Vials for Mass Spectrometry: *Certified Autosampler Vials***Certified Kits, screw thread vials, 12 x 32 mm, 9 mm thread, unassembled****Autosampler compatibility:**

Agilent  
 Agilent 1050/1090A  
 Agilent 1100/1200  
 Agilent 7673A, 7683  
 Agilent 5890/7985A/6890  
 Hitachi  
 AS-1000, AS-2000, AS-4000  
 L7200/L7250  
 LEAP Technologies  
 CTC LC PAL, GC PAL  
 CombiPAL  
 HTC PAL/HTS PAL  
 PerkinElmer  
 Autosystem/AS-2000/XL  
 Clarus 500/600  
 ISS-100, 200  
 Shimadzu LC Autosamplers  
 SIL-HTa/SIL-HTc  
 SIL-10ADV  
 SIL-10A/SIL-10Ai/SIL-10Ap  
 Varian  
 CP-8410  
 8100/8200  
 9100/90950/9095  
 Waters  
 Alliance 2690  
 Acquity  
 Breeze  
 717Plus  
 blue polypropylene cap  
 O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



Certified Vial Kit

Description	Cat. No.	Qty
<b>Certified Kit, clear glass</b>		
2 mL, clear glass vial, PTFE/silicone septum (bonded to cap)	29378-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum (with slit), septa bonded to cap	29379-U	100 ea
<b>Certified Kit, clear glass with marking spot</b>		
2 mL, clear glass vial (with graduated marking spot), PTFE/silicone septum (bonded to cap)	29381-U	100 ea
2 mL, clear glass vial (with graduated marking spot), PTFE/silicone septum (with slit), (septas bonded to cap)	29384-U	100 ea

Description	Cat. No.	Qty
<b>Certified Kit, amber glass</b>		
2 mL, amber glass vial, PTFE/silicone septum (bonded to cap)	29385-U	100 ea
<b>Certified Kit, amber glass with marking spot</b>		
2 mL, amber glass vial (with graduated marking spot), PTFE/silicone septum (bonded to cap)	29386-U	100 ea
2 mL, amber glass vial (with graduated marking spot), PTFE/silicone septum (with slit), (septas bonded to cap)	29387-U	100 ea
<b>Certified Kit, polypropylene</b>		
300 µL, polypropylene vial, PTFE/silicone septum (bonded to cap)	29388-U	100 ea
300 µL, polypropylene vial, PTFE/silicone septum (with slit), (septas bonded to cap)	29389-U	100 ea

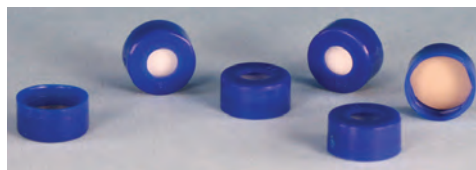
**Certified screw thread vials, 9 mm thread, 12 x 32 mm**

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
<b>Certified 9 mm vials</b>		
2 mL, clear glass vial	29371-U	100 ea
2 mL, clear glass vial (with graduated marking spot)	29372-U	100 ea
300 µL, polypropylene vial	29377-U	100 ea

**Certified polypropylene bonded caps with septa**

9 mm  
 septum thickness ..... 1.5 mm  
 O.D. x H x I.D. .... 11.5 mm x 6 mm x 9 mm



Certified caps for Snap Ring vials

Description	Cat. No.	Qty
9 mm cap, PTFE/red rubber septum, dark blue polypropylene cap	29315-U	100 ea
9 mm cap, PTFE/silicone septum, dark blue polypropylene cap	29319-U	100 ea
9 mm cap, PTFE/silicone septum (with slit), dark blue polypropylene cap	29320-U	100 ea
9 mm cap, PTFE/silicone/PTFE septum, dark blue polypropylene cap	29321-U	100 ea



## Vials

### Vials for Mass Spectrometry: *Certified Autosampler Vials*



Pico Pure Plus+ caps

#### Certified Screw Top Vial Kits with Pico Pure Plus+™ caps

The Pico Pure Plus+ closure was developed for the LC/MS market. It is a one-piece septumless closure system. This closure system does not have the contamination issues that is found in other closures. The impurities of this cap is well below the picogram range of purity for extractables.

- Sealing: This closure seals as well as a vial and cap with a PTFE/silicone septa.
- Puncture ability: This product will puncture with far less force than what is needed to puncture a PTFE/silicone septa.

9 mm

The inside diameter of vials vary with the manufacture. The following insert part numbers are compatible with these large opening vials.

- 29435-U PK100, Certified 200 µL glass inserts, mandrel precision point, 6 X 29mm, with bottom spring
- 29436-U PK100, Certified 250 µL glass insert, conical bottom, 6 x 31 mm
- 29437-U PK100, Certified 300 µL glass inserts, conical bottom, 6 x 30 mm
- 29441-U PK100, Certified 350 µL glass inserts, flat bottom, 6 x 31mm

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
2 mL, clear glass vial, 9 mm thread, polyethylene cap	29422-U	100 ea
2 mL, clear glass vial (with graduated marking spot), 9 mm thread, polyethylene cap	29423-U	100 ea
2 mL, amber glass vial, 9 mm thread, polyethylene cap	29424-U	100 ea
2 mL, amber glass vial (with graduated marking spot), 9 mm thread, polyethylene cap	29425-U	100 ea

#### Certified screw thread vials, 10-425 thread, 12 x 32 mm

The inside diameter of vials vary with the manufacture. The following insert part numbers are compatible with these large opening vials.

- 29435-U PK100, Certified 200 µL glass inserts, mandrel precision point, 6 X 29mm, with bottom spring
- 29436-U PK100, Certified 250 µL glass insert, conical bottom, 6 x 31 mm
- 29437-U PK100, Certified 300 µL glass inserts, conical bottom, 6 x 30 mm
- 29441-U PK100, Certified 350 µL glass inserts, flat bottom, 6 x 31mm

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



Clear Glass

Description	Cat. No.	Qty
2 mL, clear glass vial (vial only)	29430-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum, (convenience kit)	29432-U	100 ea



Certified Glass Insert with bottom spring, 200 µL



Certified Glass Insert, 250 µL



Certified Glass Insert, 300 µL

#### Certified glass inserts for 12 x 32 mm, large opening vials

insert, for large opening vials (6.0 mm I.D.)

Description	Cat. No.	Qty
200 µL, clear glass insert (with plastic bottom spring), O.D. 6 mm x H 29 mm	29435-U	100 ea
250 µL, clear glass insert (no spring required), conical point, O.D. 6 mm x H 31 mm	29436-U	100 ea
300 µL, clear glass insert, conical point, O.D. 6 mm x H 31 mm	29437-U	100 ea
350 µL, clear glass insert (flat bottom), O.D. 6 mm x H 31 mm	29441-U	100 ea

#### Certified QSertVial™ (vial with fused-in insert) kit, screw thread, 12 x 32 mm, 300 µL

The QSertVial™ is the ultimate microsampling device. It contains a 300 µL glass insert that is fused to the vial to form one precise integral unit. The rim of the insert is positioned slightly above the top of the vial so the septum can make a secure seal with the closure, eliminating evaporation and cross contamination. The insert is centered into the vial, 2 mm from the bottom, allowing for consistent sample recovery and eliminating problems caused by variation in insert depth. It is compatible with the majority of autosamplers in the market. It is available in a variety of kit configurations.

- Evaporation and cross contamination between insert and vial is eliminated
- Higher sample recovery with either bottom loading or side loading needles (point style #2 and #5). Residual dead volume can be as low as 4 µL, depending on precision adjustment of the instrument.
- Consistent sample recovery from vial to vial because the insert is always at the same precise depth within the vial.

## Vials

Vials for Mass Spectrometry: *Certified Autosampler Vials*

**Certified QSertVial™ (vial with fused-in insert) kit, screw thread, 12 x 32 mm, 300 µL** (*continued*)

- Wide mouth opening has larger target area reducing the possibility of bent needles.
- Easy sample identification of white mat finish marking panel.
- Available in clear or amber glass.

blue polypropylene cap

O.D. × H × I.D. .... 12 mm × 32 mm × 6.0 mm



QSertVials with 0.3 mL fused-in inserts

Description	Cat. No.	Qty
300 µL, clear glass vial, PTFE/silicone septum (bonded), thread, 9 mm	29391-U	100 ea
300 µL, clear glass vial, PTFE/silicone septum (bonded with slit), thread, 9 mm	29392-U	100 ea
300 µL, amber glass vial, PTFE/silicone septum (bonded), thread, 9 mm	29398-U	100 ea
300 µL, amber glass vial, PTFE/silicone septum (bonded with slit), thread, 9 mm	29401-U	100 ea

### Certified QSertVial™ kit with cap and septa, snap top vial, 12 x 32 mm

#### Autosampler compatibility:

Agilent  
Agilent 1050/1090A  
Agilent 1100/1200  
Agilent 7673A, 7683  
Agilent 5890/7985A/6850/6890  
LEAP Technologies  
CTC LC PAL, GC PAL  
CombiPAL  
HTC PAL/HTS PAL  
Shimadzu LC Autosamplers  
SIL-HTa/SIL-HTc  
SIL-10ADvp  
SIL-10A/SIL-10Ai/SIL-10AP  
Varian  
CP-9010  
8000/8035/8100/8200  
9100/9090/9095  
Vista  
Waters  
Alliance 2690/2695  
Alliance 2790/2795  
Acquity  
Snap top/crimp top  
for 11 mm snap ring

O.D. × H × I.D. .... 12 mm × 32 mm × 6 mm

Description	Cat. No.	Qty
300 µL, clear glass vial (with fused insert), PTFE/silicone septum	29428-U	100 ea
300 µL, clear glass vial (with fused insert), PTFE/silicone septum (with slit)	29429-U	100 ea

### Certified crimp top vials, 12 x 32 mm

#### Autosampler compatibility:

Agilent  
Agilent 1050/1090A  
Agilent 1100/1200  
Agilent 7673A, 7683  
Agilent 5890/7985A/6890  
Hitachi  
AS-1000, AS-2000, AS-4000  
L7200/L7250  
LEAP Technologies  
CTC LC PAL, GC PAL  
CombiPAL  
HTC PAL/HTS PAL  
PerkinElmer  
Autosystem/AS-2000/XL  
Clarus 500/600  
ISS-100, 200  
Varian  
CP-8410  
8100/8200  
9100/90950/9095

crimp top  
for 11 mm crimp

The inside diameter of vials vary with the manufacture. The following insert part numbers are compatible with these large opening vials.

- 29435-U PK100, Certified 200 µL glass inserts, mandrel precision point, 6 X 29mm, with bottom spring
- 29436-U PK100, Certified 250 µL glass insert, conical bottom, 6 x 31 mm
- 29437-U PK100, Certified 300 µL glass inserts, conical bottom, 6 x 30 mm
- 29441-U PK100, Certified 350 µL glass inserts, flat bottom, 6 x 31mm

O.D. × H × I.D. .... 12 mm × 32 mm × 6.0 mm



Certified Vial, Crimp Top, 2 mL

Description	Cat. No.	Qty
2 mL, clear glass vial	29403-U	100 ea
2 mL, clear glass vial (with graduated marking spot)	29404-U	100 ea
2 mL, amber glass vial	29407-U	100 ea
2 mL, amber glass vial (with graduated marking spot)	29408-U	100 ea

## Vials

Vials for Mass Spectrometry: *Certified Autosampler Vials*

### Certified Kit, snap ring vials, 12 x 32 mm, 6.0 mm I.D.

for 11 mm snap ring

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



Description	Cat. No.	Qty
2 mL, Snap top/crimp top, clear glass vial, PTFE/silicone septum, clear polyethylene cap	29421-U	100 ea
300 µL, polypropylene vial, snap ring, PTFE/silicone septum (bonded)	29412-U	100 ea
300 µL, polypropylene vial, snap ring, PTFE/silicone septum (bonded with slit)	29413-U	100 ea

### Certified snap ring vials, 12 x 32 mm, 6.0 mm I.D.

for 11 mm snap ring

Description	Cat. No.	Qty
2 mL, clear glass vial	29417-U	100 ea
2 mL, clear glass vial (with graduated marking spot)	29418-U	100 ea
2 mL, amber glass vial	29419-U	100 ea
2 mL, amber glass vial (with graduated marking spot)	29420-U	100 ea
300 µL, polypropylene vial	29409-U	100 ea

### Certified polypropylene caps with septa

for 11 mm snap ring

blue polypropylene cap

O.D. x H x I.D. .... 11.5 mm x 6 mm x 9 mm



Certified caps for Snap Ring vials

Description	Cat. No.	Qty
snap cap, PTFE septum	29304-U	100 ea
snap cap, PTFE/silicone septum	29305-U	100 ea
snap cap, PTFE/silicone septum (with slit)	29306-U	100 ea

### Certified glass inserts for 12 x 32 mm, large opening vials

insert, for large opening vials (6.0 mm I.D.)

Description	Cat. No.	Qty
200 µL, clear glass insert (with plastic bottom spring), O.D. 6 mm x H 29 mm	29435-U	100 ea
250 µL, clear glass insert (no spring required), conical point, O.D. 6 mm x H 31 mm	29436-U	100 ea

Description	Cat. No.	Qty
300 µL, clear glass insert, conical point, O.D. 6 mm x H 31 mm	29437-U	100 ea
350 µL, clear glass insert (flat bottom), O.D. 6 mm x H 31 mm	29441-U	100 ea

### Certified CD™ (Center Drain) Vials



Center Drain (CD) Vial

### Certified CD™ Vial (Center Draining) Kit with 9 mm thread with cap/septa, unassembled

9 mm

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm  
feature ..... cap is bonded to septa to prevent fallout

Description	Cat. No.	Qty
1.5 mL, clear glass, 9 mm thread, PTFE/silicone	29307-U	100 ea
1.5 mL, clear glass, 9 mm, PTFE/silicone (with slit)	29309-U	100 ea
1.5 mL, clear glass, 9 mm, PTFE/silicone/PTFE	29308-U	100 ea
1.5 mL, amber glass, 9 mm, PTFE/silicone	29313-U	100 ea
1.5 mL, amber glass, 9 mm, PTFE/silicone (with slit)	29314-U	100 ea

### Certified CD™ vial kit, with Pico Pure Plus+™ cap, unassembled

Description	Cat. No.	Qty
1.5 mL, clear glass, 9 mm thread, white polyethylene cap, for use with LC/MS applications	29322-U	100 ea



MRQ30 CD Vial, 0.2 µL

### MRQ30 Clear CD Vial™, Blue cap, Pre-slit TEF/Silicone septa

Certified CD™ Vial (Center Draining) Kit with 9 mm thread with cap/septa, unassembled

Description	Cat. No.	Qty
1.2 mL, clear glass, 9 mm, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, dead volume 2 mL	23187-U	100 ea

## Vials

Vials for Mass Spectrometry: *Certified CD™ (Center Drain) Vials*

### Certified CD™ vials (Center Drain), 12 x 32mm (vial only)



Center Drain (CD) Vials

Description	Cat. No.	Qty
<b>Certified Crimp top</b>		
1.5 mL, crimp top, clear glass	29298-U	100 ea
<b>Certified Snap top</b>		
1.5 mL, snap ring, clear glass	29299-U	100 ea

### Certified Snap Ring CD™ vial kit with cap/septa, unassembled

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
1.5 mL, clear glass, snap top, PTFE septa (0.010" thick)	29301-U	100 ea
1.5 mL, clear glass, snap top, PTFE/silicone	29302-U	100 ea
1.5 mL, clear glass, snap top, PTFE/silicone (with slit)	29303-U	100 ea

## Autosampler Vials with 9 mm Thread

### ABC Vial™ (9 mm thread), Large Opening, Pre-Assembled

#### ABC Vials™, 2 mL, polypropylene cap, PTFE/silicone septum

clear polypropylene hole cap  
O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



Description	Cat. No.	Qty
2 mL, clear glass, 9 mm thread, PTFE/silicone septum	27487-U 27542	100 ea 1000 ea
2 mL, clear glass (with marking spot), 9 mm thread, PTFE/silicone septum	27490-U 27548-U	100 ea 1000 ea
2 mL, amber glass, 9 mm thread, PTFE/silicone septum	27493	100 ea
2 mL, amber glass (with marking spot), 9 mm thread, PTFE/silicone septum	27496 27549-U	100 ea 1000 ea

#### ABC Vial™, 2 mL, polypropylene cap, PTFE/rubber septum

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
clear glass, PTFE/rubber septum	27488-U 27544-U	100 ea 1000 ea
clear glass (with marking spot), PTFE/red rubber septum	27491-U 27550-U	100 ea 1000 ea
amber glass, PTFE/rubber septum	27494	100 ea
amber glass (with marking spot), PTFE/rubber septum	27497-U 27551	100 ea 1000 ea

#### ABC Vial™, 2 mL, polypropylene cap, PTFE/silicone/PTFE septum

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
clear glass, PTFE/silicone/PTFE septum	27489 27546-U	100 ea 1000 ea
clear glass (with marking spot), PTFE/silicone/PTFE septum	27492-U 27552	100 ea 1000 ea
amber glass, PTFE/silicone/PTFE septum	27495	100 ea
amber glass (with marking spot), PTFE/silicone/PTFE septum	27498	100 ea

#### ABC Vial™, 2 mL (vial only)

These vials have a 9mm thread that allows them to be used with robotic systems. Use with autosamplers that require 12 x 32 mm screw top or crimp top vials.

- 40% wider opening than standard screw cap vials
- Superior thread design ensures a secure seal
- Compatible with most GC autosamplers that accept crimp top vials

Caps and septa are not included. Please order separately.

9 mm

The diameter of inserts varies between manufacturers. Only the following insert part numbers are compatible with these large opening vials.

- 24719, 24720 Glass insert, conical bottom, 6 x 29mm
- 24721 Glass insert with bottom spring, 6 x 29mm
- 24722 Polypropylene insert with bottom spring, 6 x 29mm
- 24717, 24718 Glass insert, conical bottom, 6 x 31mm
- 24715, 24716 Glass insert, flat bottom, 6 x 31mm

volume ..... 2 mL  
O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm  
large opening, (6 mm) .....



9mm vials, clear glass

Description	Cat. No.	Qty
clear glass	27329 27554	100 ea 1000 ea
clear glass (with marking spot)	27330 27556	100 ea 1000 ea
amber glass	27331 27555-U	100 ea 1000 ea
amber glass (with marking spot)	27332 27557	100 ea 1000 ea

## Vials

Autosampler Vials with 9 mm Thread: ABC Vial™ (9 mm thread), Large Opening, Pre-Assembled

**Screw cap (open-top), 9 mm thread, with liner**

Pre-assembled 9 mm polypropylene hole-cap, with septum.

9 mm

O.D. x H x I.D. .... 11.5 mm x 6 mm x 9 mm

Description	Cat. No.	Qty
<b>Clear cap</b>		
clear cap, PTFE/silicone septum	27326	100 ea
	27558	1000 ea
clear cap, PTFE/red rubber septum	27327	100 ea
	27559	1000 ea
clear cap, PTFE/silicone/PTFE septum	27328	100 ea
	27560-U	1000 ea
<b>Black cap</b>		
black cap, red PTFE/silicone septum	507393	100 ea
black cap, PTFE/silicone/PTFE septum	507407	100 ea
<b>Red cap</b>		
red cap, red PTFE/silicone septum	507423	100 ea
red cap, tan PTFE/silicone septum	507415	100 ea
<b>Yellow cap</b>		
yellow cap, tan PTFE/silicone septum	507458	100 ea

**Inserts for 2 mL large opening vials, 6.0 mm I.D.**

Description	Cat. No.	Qty
0.15 mL, glass conical (with top spring), O.D. 6 mm x H 29 mm	24719	100 ea
	24720	500 ea
0.20 mL, glass conical (with bottom spring), O.D. 6 mm x H 29 mm	24721	100 ea
0.20 mL, polypropylene conical (with bottom spring), O.D. 6 mm x H 29 mm	24722	100 ea
0.25 mL, pulled point precision point, glass conical, O.D. 6 mm x H 31 mm	24717	100 ea
	24718	1000 ea
0.25 mL, glass (with glass flange), for use with Step Vials	27407	100 ea
0.25 mL, polypropylene (with plastic flange), O.D. 6 mm x H 31 mm	27409	100 ea
0.35 mL, glass (shell style), O.D. 6 mm x H 31 mm	24715	100 ea
	24716	1000 ea

**Short thread vials (9 mm thread), large opening****Short thread autosampler vial, (9 mm thread), 11.6 x 32 mm**

These vials are designed to work on almost all autosamplers. They offer the convenience of screw thread vials for instruments that were originally designed for crimp top vials. They are made with a 6.0 mm opening. They are available in both clear and amber glass.

**Autosampler compatibility:**

Agilent  
 Agilent 1050/1090A  
 Agilent 1100/1200  
 Agilent 7673A, 7683  
 Agilent 5890/7985A/6890  
 Hitachi  
 AS-1000, AS-2000, AS-4000  
 L7200/L7250  
 LEAP Technologies  
 CTC LC PAL, GC PAL  
 CombiPAL  
 HTC PAL/HTS PAL  
 PerkinElmer  
 Autosystem/AS-2000/XL  
 Clarus 500/600  
 ISS-100, 200  
 Shimadzu LC Autosamplers  
 SIL-HTa/SIL-HTc  
 SIL-10ADVP  
 SIL-10A/SIL-10Ai/SIL-10Ap  
 Varian  
 CP-8410  
 8100/8200  
 9100/90950/9095  
 Waters  
 Alliance 2690  
 Acquity  
 Breeze  
 717Plus  
 9 mm

Description	Cat. No.	Qty
1.5 mL, clear glass, PTFE/silicone septum, unassembled	SU860009	1000 ea
1.5 mL, clear glass (with marking spot)	854165	100 ea
1.5 mL, amber glass (with marking spot)	SU860033	100 ea

**Caps with septa for short thread vials**

Description	Cat. No.	Qty
blue polypropylene cap, PTFE/red rubber septum, septum diam. 9 mm x thickness 1.0 mm	854161	100 ea
blue polypropylene cap (with 6mm center hole), red PTFE/white silicone septum, septum diam. 9 mm x thickness 1.0 mm	SU860092	100 ea
	SU860019	1000 ea
blue polypropylene cap, red PTFE/silicone/red PTFE septum, septum diam. 9 mm x thickness 1.0 mm	SU860079	100 ea
	SU860020	1000 ea

## Vials

Autosampler Vials with 9 mm Thread: R.A.M.™ vials (9 mm thread), large opening, 12 x 32 mm

### R.A.M.™ vials (9 mm thread), large opening, 12 x 32 mm

#### Vials, screw top, R.A.M.™ (9 mm thread), large opening, 12 x 32 mm

- Compatible with robotic arm autosamplers
- Replaces crimp top autosampler vials
- Large target area for needle
- Utilizes Step Vial design to center insert

The R.A.M.™ (robotic arm machine) vial is specifically designed to work with a robotic arm autosampler. This 12 x 32 mm vial has a shortened screw thread area (9 mm), providing a larger space between the edge of the cap and the shoulder of the vial to be grasped by the robotic arm. This feature makes the vial an excellent alternative to crimp cap autosampler vials. The R.A.M.vial incorporates a Step Vial design inside the vial neck that allows precise centering of limited volume inserts in the vial, another plus for automated system use. The wide mouth opening is 40% larger than standard crimp style vials. This larger opening provides a larger target area for needle penetration and helps prevent bent needles.

These vials function similarly to the Kimble ROBO Vial, National's Target DP, Sun 1, and Wheaton's ABC vial.

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



R.A.M. Vial, clear glass, 2 mL

Description	Cat. No.	Qty
2 mL, clear glass	29000-U 29001-U	100 ea 1000 ea
2 mL, clear glass (with graduated marking spot)	29007-U 29009-U	100 ea 1000 ea
2 mL, amber glass (with graduated marking spot)	29010-U 29011-U	100 ea 1000 ea

#### Vials, screw top, polypropylene

with molded conical insert



Polypropylene Vial

Description	Cat. No.	Qty
0.1 mL, natural polypropylene, 9 mm, diam. 12 mm x H 32 mm	29016-U	100 ea
0.5 mL, natural polypropylene, 9 mm, diam. 12 mm x H 32 mm	29018-U	100 ea

#### Vials, 2 mL, open-top screw cap, R.A.M.™ (9 mm) convenience kit with closures with septa, unassembled

black cap

polypropylene cap

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



Description	Cat. No.	Qty
<b>Screw thread, clear glass</b>		
2 mL, clear glass vial, PTFE/rubber septum	29056-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum	29057-U	100 ea
2 mL, clear glass vial, PTFE/silicone/PTFE septum	29058-U	100 ea
<b>Screw thread, clear glass with marking spot</b>		
2 mL, clear glass vial (with graduated marking spot), PTFE/red rubber septum	29064-U	100 ea
2 mL, clear glass vial (with graduated marking spot), PTFE/silicone septum	29065-U	100 ea
<b>Screw thread, amber glass</b>		
2 mL, amber glass vial, PTFE/red rubber septum	29061-U	100 ea
2 mL, amber glass vial, PTFE/silicone septum	29062-U	100 ea
2 mL, amber glass vial, PTFE/silicone/PTFE septum	29063-U	100 ea
<b>Screw thread, amber glass with marking spot</b>		
2 mL, amber glass vial (with graduated marking spot), PTFE/red rubber septum	29067-U	100 ea
2 mL, amber glass vial (with graduated marking spot), PTFE/silicone septum	29068-U	100 ea



## Vials

Autosampler Vials with 9 mm Thread: R.A.M.™ vials (9 mm thread), large opening, 12 x 32 mm

## Caps with septa for R.A.M.™ vials



Description	Cat. No.	Qty
<b>PTFE/red rubber</b>		
black polypropylene cap, red rubber/PTFE septum	29043-U	100 ea
blue polypropylene cap, red rubber/PTFE septum	29044-U	100 ea
<b>PTFE/silicone</b>		
black polypropylene cap, PTFE/silicone septum	29046-U	100 ea
blue polypropylene cap, PTFE/silicone septum	29047-U	100 ea
natural polypropylene cap, PTFE/silicone septum	29048-U	100 ea
<b>PTFE/silicone with slit</b>		
black polypropylene cap, PTFE/silicone septum (with slit)	29049-U	100 ea
blue polypropylene cap, PTFE/silicone septum (with slit)	29051-U	100 ea
natural polypropylene cap, PTFE/silicone septum (with slit)	29052-U	100 ea
<b>PTFE/silicone/PTFE</b>		
black polypropylene cap, PTFE/silicone/PTFE septum	29053-U	100 ea
blue polypropylene cap, PTFE/silicone/PTFE septum	29054-U	100 ea

## Septa for 9 mm caps

Description	Cat. No.	Qty
PTFE/red rubber, diam. 9 mm × thickness 1.0 mm	29038-U	100 ea
red PTFE/silicone, diam. 9 mm × thickness 1.0 mm	29039-U	100 ea
red PTFE/silicone/red PTFE, diam. 9 mm × thickness 1.0 mm	29041-U	100 ea

## Vials to fit Waters Alliance

## Vials (12 x 32 mm), closures, and septa to use with Waters Alliance

Description	Cat. No.	Qty
<b>Crimp top, silanized</b>		
2 mL, silanized, clear glass, crimp top, O.D. 12 mm × H 32 mm × I.D. 6.0 mm, vial only	27060-U 27061	100 ea 1000 ea
2 mL, silanized, amber glass, crimp top, O.D. 12 mm × H 32 mm × I.D. 6.0 mm, vial only	27225-U 27216	100 ea 1000 ea
<b>Crimp top</b>		
2 mL, clear glass vial, PTFE/red rubber septum	29124-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum	29125-U	100 ea
2 mL, amber glass vial, PTFE/rubber septum	29127-U	100 ea
2 mL, amber glass vial, PTFE/silicone septum	29128-U	100 ea
<b>Screw thread, ABC vial</b>		
2 mL, clear glass, 9 mm thread, PTFE/silicone septum	27487-U 27542	100 ea 1000 ea
2 mL, clear glass (with marking spot), 9 mm thread, PTFE/silicone septum	27490-U 27548-U	100 ea 1000 ea
2 mL, amber glass, 9 mm thread, PTFE/silicone septum	27493	100 ea
2 mL, amber glass (with marking spot), 9 mm thread, PTFE/silicone septum	27496 27549-U	100 ea 1000 ea
<b>Screw thread, clear glass</b>		
2 mL, clear glass vial, PTFE/rubber septum	29056-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum	29057-U	100 ea
<b>Screw thread, amber glass</b>		
2 mL, amber glass vial, PTFE/red rubber septum	29061-U	100 ea
2 mL, amber glass vial, PTFE/silicone septum	29062-U	100 ea
<b>Screw thread, 10-425</b>		
2 mL, clear glass, thread, 10-425, polypropylene cap, PTFE/rubber septa, unassembled	29116-U	100 ea
2 mL, clear glass, thread, 10-425, polypropylene cap, PTFE/silicone septa, unassembled	29118-U	100 ea
2 mL, amber glass, thread, 10-425, polypropylene cap, PTFE/rubber septa, unassembled	29117-U	100 ea
2 mL, amber glass, thread, 10-425, polypropylene cap, PTFE/silicone septa, unassembled	29119-U	100 ea
<b>Snap Seal</b>		
2 mL, clear glass, PTFE/rubber septum	29141-U	100 ea
2 mL, clear glass, PTFE/silicone septum	29142-U	100 ea
2 mL, amber glass, PTFE/rubber septum	29144-U	100 ea
2 mL, amber glass, PTFE/silicone septum	29145-U	100 ea

## Vials

Autosampler Vials with fused-in 0.3 mL Insert: *Certified QSertVial™ kits (with fused-in insert)*

### Autosampler Vials with fused-in 0.3 mL Insert

#### *Certified QSertVial™ kits (with fused-in insert)*

##### **Certified QSertVial™ (vial with fused-in insert) kit, screw thread, 12 x 32 mm, 300 µL**

The QSertVial™ is the ultimate microsampling device. It contains a 300 µL glass insert that is fused to the vial to form one precise integral unit. The rim of the insert is positioned slightly above the top of the vial so the septum can make a secure seal with the closure, eliminating evaporation and cross contamination. The insert is centered into the vial, 2 mm from the bottom, allowing for consistent sample recovery and eliminating problems caused by variation in insert depth. It is compatible with the majority of autosamplers in the market. It is available in a variety of kit configurations.

- Evaporation and cross contamination between insert and vial is eliminated
- Higher sample recovery with either bottom loading or side loading needles (point style #2 and #5). Residual dead volume can be as low as 4 µL, depending on precision adjustment of the instrument.
- Consistent sample recovery from vial to vial because the insert is always at the same precise depth within the vial.
- Wide mouth opening has larger target area reducing the possibility of bent needles.
- Easy sample identification of white mat finish marking panel.
- Available in clear or amber glass.

blue polypropylene cap

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



QsertVials with 0.3 mL fused-in inserts

Description	Cat. No.	Qty
<b>Certified Qsert Kits, 300 µL</b>		
300 µL, clear glass vial, PTFE/silicone septum (bonded), thread, 9 mm	<a href="#">29391-U</a>	100 ea
300 µL, clear glass vial, PTFE/silicone septum (bonded with slit), thread, 9 mm	<a href="#">29392-U</a>	100 ea
300 µL, amber glass vial, PTFE/silicone septum (bonded), thread, 9 mm	<a href="#">29398-U</a>	100 ea
300 µL, amber glass vial, PTFE/silicone septum (bonded with slit), thread, 9 mm	<a href="#">29401-U</a>	100 ea

##### **Certified QSertVial™ kit with cap and septa, snap top vial, 12 x 32 mm**

###### Autosampler compatibility:

Agilent  
 Agilent 1050/1090A  
 Agilent 1100/1200  
 Agilent 7673A, 7683  
 Agilent 5890/7985A/6850/6890  
 LEAP Technologies  
 CTC LC PAL, GC PAL  
 CombiPAL  
 HTC PAL/HTS PAL  
 Shimadzu LC Autosamplers  
 SIL-HTa/SIL-HTc  
 SIL-10ADvp  
 SIL-10A/SIL-10Ai/SIL-10AP  
 Varian  
 CP-9010  
 8000/8035/8100/8200  
 9100/9090/9095  
 Vista  
 Waters  
 Alliance 2690/2695  
 Alliance 2790/2795  
 Acquity  
 Snap top/crimp top  
 for 11 mm snap ring

O.D. x H x I.D. .... 12 mm x 32 mm x 6 mm

Description	Cat. No.	Qty
300 µL, clear glass vial (with fused insert), PTFE/silicone septum	<a href="#">29428-U</a>	100 ea
300 µL, clear glass vial (with fused insert), PTFE/silicone septum (with slit)	<a href="#">29429-U</a>	100 ea

##### **ABC Vial™, 0.3 mL LVI™**

These ABC Vials contain a Low Volume Insert; can be used either as crimp seal or with screw cap.

O.D. x H x I.D. .... 12 mm x 32 mm x 6 mm

Description	Cat. No.	Qty
<b>Vial only</b>		
clear glass (vial only), thread, 9 mm	<a href="#">27562-U</a>	100 ea
amber glass (vial only), thread, 9 mm	<a href="#">27563-U</a>	100 ea
<b>Vial Kit</b>		
clear glass, PTFE/red rubber septum, clear polypropylene cap, thread, 9 mm	<a href="#">27564-U</a>	100 ea
clear glass, natural PTFE/silicone septum, clear polypropylene cap, thread, 9 mm	<a href="#">27565-U</a>	100 ea
clear glass, PTFE/silicone/PTFE septum, clear polypropylene cap, thread, 9 mm	<a href="#">27566-U</a>	100 ea
clear glass, PTFE liner (no septum), clear polypropylene cap, thread, 9 mm	<a href="#">27567-U</a>	100 ea

## Vials

Autosampler Vials with fused-in 0.3 mL Insert: *Certified QSertVial™ kits (with fused-in insert)***Certified Vials, crimp top with fused glass liner, 12 x 32 mm**

for 11 mm crimp



LVI Crimp Top Vial, 300 µL

Description	Cat. No.	Qty
300 µL, clear glass (with fused-in insert), crimp top, O.D. 12 mm × H 32 mm × I.D. 6.0 mm, large opening	24714	100 ea
300 µL, amber glass (with fused-in insert), crimp top, O.D. 12 mm × H 32 mm × I.D. 6 mm, large opening	27561-U	100 ea

*Interlocked™ Vials, 300 µL, 12 x 32 mm, 6.0 mm I.D.***Interlocked™ Vials, 300 µL**

The new Interlock Vial/Insert limited volume vial is a 300 µL flange top glass insert permanently fused into 12 x 32 mm glass vials. This product provides the user with the convenience and performance of a one piece microvial at a fraction of the cost.

- The flange top centers the inserts into the vial
- Glass to glass fusion eliminates concerns about contaminants
- Vials are made of borosilicate, Type 1 glass with a choice of clear or amber glass



Interlock Vial, 9mm thread



Interlock Vial, crimp style

Description	Cat. No.	Qty
<b>8-425 thread, 300 µL</b>		
300 µL, clear glass, Interlocked vial (with fused-in insert), thread, 8-425	29109-U	100 ea
300 µL, amber glass, Interlocked vial (with fused-in insert), thread, 8-425	29111-U	100 ea

Description	Cat. No.	Qty
<b>9 mm thread</b>		
300 µL, clear glass, Interlocked vial (with fused-in insert), thread, 9 mm	29081-U	100 ea
300 µL, amber glass, Interlocked vial (with fused-in insert), thread, 9 mm	29082-U	100 ea
<b>10-425 thread</b>		
300 µL, clear glass, Interlocked vial (with fused-in insert), thread, 10-425	29122-U	100 ea
300 µL, amber glass, Interlocked vial (with fused-in insert), thread, 10-425	29123-U	100 ea
<b>Snap Seal</b>		
300 µL, clear glass, interlocked vial (with fused-in insert), Snap Seal, 11 mm	29147-U	100 ea
<b>Crimp top</b>		
300 µL, clear glass, Interlocked vial (with fused-in insert), crimp top	29130-U	100 ea
300 µL, amber glass, Interlocked vial (with fused-in insert), crimp top, 11 mm	29131-U	100 ea

**Crimp top vials taking 8 mm seals****Vials, 6 x 32 mm**

Use with: Waters 96-Position Autosampler



27283 (vial only, order crimp seals separately)

Description	Cat. No.	Qty
0.2 mL, clear glass (tapered bottom), vial O.D. 6 mm × H 32 mm	27283	200 ea
0.2 mL, clear glass (tapered bottom), O.D. 6 mm × H 32 mm	27284	1000 ea
0.3 mL, clear glass (round bottom), O.D. 5.5 mm × H 31.5 mm	SU860056	100 ea

## Vials

Crimp top vials taking 8 mm seals

### Vials, 7 x 30 mm, 7 x 32 mm

**Use with:**

Agilent/HP (not 1090A)  
 Autometric 4100  
 Beckman 501/502/507  
 Dani ALS 86.80  
 LDC Marathon, Promis  
 PerkinElmer Integral 4000  
 PU 4247  
 Shimadzu AOC-14/1400  
 SIL 68/9A/LC-1  
 Spark Promis  
 Spectra-Physics



27314



From left to right: 27312, 27312 inside 27316 (sleeve)

Description	Cat. No.	Qty
0.6 mL, amber glass (conical), O.D. 7 mm x H 30 mm	27312 27313	200 ea 1000 ea
0.8 mL, amber glass (round bottom), O.D. 7 mm x H 32 mm	27314	100 ea
PTFE (non-disposable sleeve), O.D. 12 mm x H 32 mm	27316	40 ea

### Vials, 7 x 40 mm

**Use with:**

Beckman 504  
 Carlo Erba AS200S, A200S  
 Du Pont  
 Finnigan A200S  
 Gilson 231-401, 232-401 (Rack 9) (not ASPEC)  
 ICI LC1600  
 Phillips 54, 58, 4700LC/GC  
 SGE LS-3200



From left to right: 24738-U, 24742, and 24744

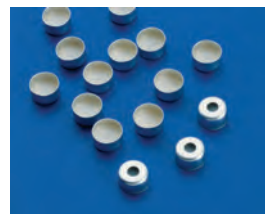
Description	Cat. No.	Qty
0.7 mL, clear glass (conical), O.D. 7 mm x H 40 mm	24742 24743	200 ea 1000 ea
0.7 mL, amber glass (conical), O.D. 7 mm x H 40 mm	24744	200 ea
0.7 mL, amber glass (flat bottom), O.D. 7 mm x H 40 mm	SU860061	100 ea
0.8 mL, clear glass (flat bottom), O.D. 7 mm x H 40 mm	24738-U 24739	200 ea 2000 ea

### Crimp seals, 8 mm diameter x 1 mm thickness

Description	Cat. No.	Qty
silver aluminum seal, PTFE/red rubber septum (polybutyl isoprene)	33135-U 33136	200 ea 1000 ea
silver aluminum seal, red PTFE/silicone septum, diam. 8 mm x thickness 1.0 mm, opening 3.2 mm	27359 27372	100 ea 1000 ea
diam. 8 mm x thickness 1.0 mm, silver aluminum seal, PTFE/silicone, hardness (Durometer: shore A) 30	508748	100 ea
diam. 8 mm x thickness 1.0 mm, silver aluminum seal, red PTFE/silicone, hardness (Durometer: shore A) 57	508829	100 ea
diam. 8 mm, silver aluminum seal, PTFE septum	508764	100 ea
polyethylene, Snap-Cap, diam. 8 mm x thickness 1.0 mm	508845	100 ea

### Wheaton open-top seals

With PTFE-faced septum.



Description	Cat. No.	Qty
size 8 mm, aluminum cap, PTFE/silicone septum	Z114170-20EA Z114170-200EA	20 ea 200 ea

## Vials

Vials to fit Waters® 96 Autosampler

## Vials to fit Waters® 96 Autosampler

## Certified vials, 8 x 40 mm (caps included)

for 8 mm crimp



Certified: Clear glass (29433-U), Amber glass (29434-U)  
 Non-Certified: Clear glass, 33321-U (Pk/200), 33326 (Pk/1000)

Description	Cat. No.	Qty
1 mL, clear glass vial, clear polyethylene cap (with starburst interior)	29433-U	250 ea
1 mL, amber glass vial, clear polyethylene cap (with starburst interior)	29434-U	250 ea

## Certified glass inserts for 8 x 40 mm shell vials

Description	Cat. No.	Qty
100 µL, clear glass insert (with plastic bottom spring), O.D. 5 mm x H 30 mm	29445-U	100 ea
200 µL, clear glass insert (requires metal spring 24735), O.D. 6 mm x H 29 mm, Mandrel precision point	29442-U	100 ea
200 µL, clear glass insert (with plastic bottom spring), O.D. 6 mm x H 29 mm	29443-U	100 ea
200 µL, clear glass insert (with plastic bottom spring), O.D. 5 mm x H 36 mm	29444-U	100 ea

## Vials, 8 x 40 mm

## Use with:

Shimadzu 10A Autosampler  
 Waters 96-Position Autosampler



27537

Description	Cat. No.	Qty
0.7 mL, polypropylene vial (with polyethylene closure), vial O.D. 8 mm x H 40 mm, recessed starburst conical snap plug included	27537	100 ea

Description	Cat. No.	Qty
1 mL, clear glass (without closure), O.D. 8 mm x H 40 mm	33320-U 33325-U	200 ea 1000 ea
1 mL, clear glass vial (with polyethylene starburst closure)	33321-U 33326	200 ea 1000 ea
1 mL, amber glass (with starburst closure)	27290 27291	250 ea 1000 ea
1 mL, clear glass (with LDPE closure)	Z291994-1PAK	250 ea

## Snap plug closures, 8 mm for shell vials

Description	Cat. No.	Qty
natural polyethylene (starburst design)	33322-U 33327	200 ea 1000 ea

## Vials for Waters® 96-position carousel, 8 x 40 mm

Description	Cat. No.	Qty
1 mL, clear glass, conical bottom, crimp top	508896	125 ea

## Clear glass 1.2 mL crimp top vial, flat bottom, 8 x 40 mm

Vials for Waters® 96-position carousel, 8 x 40 mm

Description	Cat. No.	Qty
1.2 mL, clear glass, crimp top	508888	125 ea

## Crimp Top Vials, 11 mm, standard opening, 12 x 32 mm, 4.6 mm opening



Clear Glass Vial, Crimp finish

## Use with:

Agilent/HP 7673 series I/II, 7670A, 7671A, 1042, 1090, 8042, 1050, 1082, 1080, 1084, 7683, AIM C x PS-200, A.I. (42 vial tray), Alcott 738, Altex, AMS 42, Antek 736, ASC, Beckman 501, 507, Carlo Erba AS V42, AS 105, Carnegie CMA 230/200, Chrompack, Dani 39.80, ALS 39.80, Dynatech 42, Finnigan 2005, Gilson (Rack 30P), Gynkotek, Hitachi AS-2000, AS-4000, IBM, Infochroma, Kipp, Kontron 360, Packard, PerkinElmer Autosystem, ISS 100, 200, 400, LC600 (42), 4900, 420B, Phillips LC-XP, Precision Sampling GC111, GC311, LC241, Shimadzu AOC-14/1400, SIL-68/9A, Spark, Spectra-Physics 7110, 8110, Talbot, TosoH TSK-6080, United Technologies, Varian 8100, 8200, Marathon, LC 9100/9095

## Vials, 2 mL crimp top, clear glass, 12 x 32 mm

Description	Cat. No.	Qty
clear glass, standard opening	27068-U 27069	100 ea 1000 ea

## Vials

Crimp Top Vials, 11 mm, standard opening, 12 x 32 mm, 4.6 mm opening

## Vials, 2 mL crimp top, amber glass, 12 x 32 mm



Amber Glass Vial

Description	Cat. No.	Qty
amber glass, standard opening	27070-U	100 ea
	27071-U	1000 ea

## Autosampler vials 12 x 32mm standard opening

for for 11mm crimp

O.D. .... 12 mm  
volume ..... 2 mL

Description	Cat. No.	Qty
clear glass vial	Z291579-1PAK	100 ea
amber glass vial	Z291587-1PAK	100 ea

## Insert for 2 mL standard opening vial, 4.6 mm I.D.

Description	Cat. No.	Qty
0.05 mL, clear glass conical, bottom spring, O.D. 4 mm x H 25 mm	27400-U	100 ea
0.10 mL, clear glass conical, O.D. 5 mm x H 31 mm, spring required	24703	200 ea
0.15 mL, bottom spring, O.D. 5 mm x H 30 mm	24707	1000 ea
0.15 mL, polypropylene conical (with bottom spring), O.D. 5 mm x H 30 mm	24708	100 ea
0.20 mL, glass (conical with polyspring), O.D. 5 mm x H 30 mm	Z291730-1PAK	100 ea
0.25 mL, clear glass (shell style), O.D. 5 mm x H 31 mm	24701	200 ea
	24702	1000 ea

## Wheaton PP autosampler vials

0.1mL vol., 12 x 32mm. Lightweight, nonbreakable, high chemical resistance. Compatible with Beckman®, Agilent®, PerkinElmer®, Spectra-Physics® autosamplers.

1PAK = 1,000 vials

0.1PAK = 100 vials

Description	Cat. No.	Qty
5 x 11 serum finish, for 11 mm Snap Ring	Z162515-1PAK	100 ea
	Z162515-1PAK	1000 ea
	Z162515-0.1PAK	0.1 pkg

## Crimp top vials, special varieties, 12 x 32 mm, standard opening



Vial with Conical Bottom, 27333

Description	Cat. No.	Qty
0.1 mL, clear glass, vial type one-piece glass conical insert, O.D. 12 mm x H 32 mm x I.D. 4.6 mm	33208	12 ea
	33232	144 ea
0.1 mL, plastic (with glass inner cone), vial type conical, Snap Ring/Crimp top, for 11 mm crimp	27074-U	100 ea
0.9 mL, conical bottom, O.D. 10 mm x H 32 mm	27333	125 ea
1.1 mL, clear glass, vial type tapered bottom, O.D. 12 mm x H 32 mm	27310	100 ea

## Crimp top vials, 11 mm, large opening, 12 x 32 mm, 6.0 mm opening

Certified 11 mm Crimp Top Vials, 12 x 32 mm, large opening (6.0 mm I.D.)



Certified Vial, Crimp Top, 2 mL

Description	Cat. No.	Qty
<b>Certified Crimp top vials</b>		
2 mL, clear glass vial	29403-U	100 ea
2 mL, clear glass vial (with graduated marking spot)	29404-U	100 ea
2 mL, amber glass vial	29407-U	100 ea
2 mL, amber glass vial (with graduated marking spot)	29408-U	100 ea

## 2 mL, 12 x 32 mm, crimp top vials, large opening (6.0 mm)

Crimp top

Description	Cat. No.	Qty
2 mL, clear glass	27058	100 ea
	27059	1000 ea
2 mL, clear glass (with graduated marking spot)	27062-U	100 ea
	27063	1000 ea
2 mL, amber glass	27064	100 ea
	27065	1000 ea
2 mL, amber glass (with graduated marking spot)	27066-U	100 ea
	27067-U	1000 ea



## Vials

Crimp top vials, 11 mm, large opening, 12 x 32 mm, 6.0 mm opening: *Certified 11 mm Crimp Top Vials, 12 x 32 mm, large opening (6.0 mm I.D.)*

## Vials, crimp top, silane-treated

Description	Cat. No.	Qty
2 mL, silanized, clear glass, crimp top, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, vial only	27060-U 27061	100 ea 1000 ea
2 mL, silanized, amber glass, crimp top, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, vial only	27225-U 27216	100 ea 1000 ea

## Vials, crimp top, convenience pack, 12 x 32 mm, large opening

unassembled  
for 11 mm crimp  
aluminum seal

The diameter of inserts varies between manufacturers. Only the following insert part numbers are compatible with these large opening vials.

- 24719, 24720 Glass insert, conical bottom, 6 x 29mm
- 24721 Glass insert with bottom spring, 6 x 29mm
- 24722 Polypropylene insert with bottom spring, 6 x 29mm
- 24717, 24718 Glass insert, conical bottom, 6 x 31mm
- 24715, 24716 Glass insert, flat bottom, 6 x 31mm

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm  
volume ..... 2 mL



Description	Cat. No.	Qty
2 mL, clear glass vial, PTFE/red rubber septum	29124-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum	29125-U	100 ea
2 mL, clear glass vial, PTFE/silicone/PTFE septum	29126-U	100 ea
2 mL, amber glass vial, PTFE/rubber septum	29127-U	100 ea
2 mL, amber glass vial, PTFE/silicone septum	29128-U	100 ea
2 mL, amber glass vial, PTFE/silicone/PTFE septum	29129-U	100 ea

## Crimp top vial convenience kit with PTFE/red rubber septa

for 11 mm crimp  
silver aluminum seal  
seal diam. .... 11 mm

Description	Cat. No.	Qty
2 mL, clear glass, vial O.D. 12 mm x H 32 mm x I.D. 6.0 mm, PTFE/red rubber aluminum seal	27239 27240-U	100 ea 1000 ea
2 mL, amber glass, PTFE/red rubber aluminum seal, vial O.D. 12 mm x H 32 mm x I.D. 6.0 mm	27241 27242-U	100 ea 1000 ea



Clear Glass Vial with Conical Insert

## Certified glass inserts for 12 x 32 mm, large opening vials

insert, for large opening vials (6.0 mm I.D.)

Description	Cat. No.	Qty
200 µL, clear glass insert (with plastic bottom spring), O.D. 6 mm x H 29 mm	29435-U	100 ea
250 µL, clear glass insert (no spring required), conical point, O.D. 6 mm x H 31 mm	29436-U	100 ea
300 µL, clear glass insert, conical point, O.D. 6 mm x H 31 mm	29437-U	100 ea
350 µL, clear glass insert (flat bottom), O.D. 6 mm x H 31 mm	29441-U	100 ea

## Inserts for 2 mL large opening vials, 6.0 mm I.D.

Description	Cat. No.	Qty
0.15 mL, glass conical (with top spring), O.D. 6 mm x H 29 mm	24719 24720	100 ea 500 ea
0.20 mL, glass conical (with bottom spring), O.D. 6 mm x H 29 mm	24721	100 ea
0.20 mL, polypropylene conical (with bottom spring), O.D. 6 mm x H 29 mm	24722	100 ea
0.25 mL, pulled point precision point, glass conical, O.D. 6 mm x H 31 mm	24717 24718	100 ea 1000 ea
0.25 mL, glass (with glass flange), for use with Step Vials	27407	100 ea
0.25 mL, polypropylene (with plastic flange), O.D. 6 mm x H 31 mm	27409	100 ea
0.30 mL, glass (conical with polyspring), O.D. 6 mm x H 30 mm	Z291803-1PAK	100 ea
0.35 mL, glass (shell style), O.D. 6 mm x H 31 mm	24715 24716	100 ea 1000 ea

## Vials

Crimp top vials, 11 mm, large opening, 12 x 32 mm, 6.0 mm opening: *Certified 11 mm Crimp Top Vials, 12 x 32 mm, large opening (6.0 mm I.D.)*

### Crimp top vials, large opening, with 300 µL insert

The 300 µL glass vial is a one-piece glass design with a conical bottom for complete sample recovery. This vial can be used to perform reactions and concentrations directly. This will eliminate the need for sample transfer to another vial or container. The vials are large opening (6.0mm) for 11 mm crimp



LVI Crimp Top Vial, 300 µL

Description	Cat. No.	Qty
300 µL, clear glass (with fused-in insert), crimp top, O.D. 12 mm × H 32 mm × I.D. 6.0 mm, large opening	24714	100 ea
300 µL, amber glass (with fused-in insert), crimp top, O.D. 12 mm × H 32 mm × I.D. 6 mm, large opening	27561-U	100 ea

### Vials, crimp top, 1.5 mL, large opening (6 mm), 11.6 x 32 mm

#### Autosampler compatibility:

Agilent  
Agilent 1050/1090A  
Agilent 1100/1200  
Agilent 7673A, 7683  
Agilent 5890/7985A/6890  
Hitachi  
AS-1000, AS-2000, AS-4000  
L7200/L7250  
LEAP Technologies  
CTC LC PAL, GC PAL  
CombiPAL  
HTC PAL/HTS PAL  
PerkinElmer  
Autosystem/AS-2000/XL  
Clarus 500/600  
ISS-100, 200  
Varian  
CP-8410  
8100/8200  
9100/90950/9095



Clear Glass Vial, Crimp finish

Description	Cat. No.	Qty
1.5 mL, clear glass	SU860055 854964	100 ea 1000 ea
1.5 mL, amber glass	854981	1000 ea
1.5 mL, amber glass (with marking spot)	854998	100 ea

### Inserts for 1.5 mL large opening vials

Description	Cat. No.	Qty
0.10 mL, glass conical, O.D. 6 mm × H 31 mm	SU860067 854988	100 ea 1000 ea
0.10 mL, vial insert, glass conical (with bottom spring), O.D. 6 mm × H 29 mm	SU860066 854110	100 ea 1000 ea

### Crimp seals, 11 mm (for 12 x 32 mm vials)

#### Crimp seals, 11 mm, with PTFE/rubber septa



11 mm Crimp Seals, red/rubber septa

Description	Cat. No.	Qty
<b>Crimp seal with PTFE/red rubber</b>		
silver aluminum seal, 11 mm × thickness 1.0 mm, opening 4.8 mm	27102-U 33233-U	100 ea 1000 ea
red aluminum seal, 11 mm × thickness 1.0 mm	27103 27473	100 ea 1000 ea
gold aluminum seal, 11 mm × thickness 1.0 mm	27105 27474	100 ea 1000 ea
blue aluminum seal, 11 mm × thickness 1.0 mm	27104 27381	100 ea 1000 ea
<b>Crimp seals with TFE/butyl/red rubber</b>		
silver aluminum seal, 11 mm × thickness 1.0 mm, septum (TFE/butyl/red rubber), opening 5.5 mm	854140 854980-U	100 ea 1000 ea
gold aluminum seal, 11 mm × thickness 1.0 mm, septum (TFE/butyl/red rubber)	854188	100 ea
green aluminum seal, 11 mm × thickness 1.0 mm, septum (TFE/butyl/red rubber)	854142	1000 ea
red aluminum seal, 11 mm × thickness 1.0 mm, septum (TFE/butyl/red rubber)	854144	1000 ea

#### Crimp seals with PTFE/silicone septa

Description	Cat. No.	Qty
silver aluminum seal, 11 mm × thickness 1.0 mm, red PTFE/silicone septum	27360-U 27373	100 ea 1000 ea
silver aluminum seal, 11 mm × thickness 1.0 mm, white PTFE/silicone septum	27214-U 27215	100 ea 1000 ea
silver aluminum seal, diam. 11 mm × thickness 1.0 mm, Seal 2000, PTFE/silicone	29149-U 29151-U	100 ea 1000 ea

### Aluminum cap and red PTFE/silicone septum, for autosampler vials 12 x 32 mm standard opening

#### Crimp seals with PTFE/silicone septa

Description	Cat. No.	Qty
silver aluminum seal, O.D. 11 mm, red PTFE/silicone septa	Z291595-1PAK	100 ea

#### Vial crimp seals with PTFE/silicone/PTFE septa

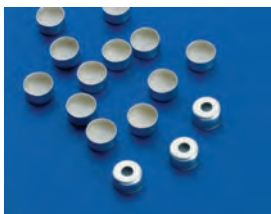
Description	Cat. No.	Qty
silver aluminum seal, seal diam. 11 mm × thickness 1.0 mm, red PTFE/silicone/red PTFE septum	27108 27109-U	100 ea 1000 ea

## Vials

Crimp top vials, 11 mm, large opening, 12 x 32 mm, 6.0 mm opening: *Crimp seals, 11 mm (for 12 x 32 mm vials)*

### Wheaton open-top seals

With PTFE-faced septum.



Description	Cat. No.	Qty
size 11 mm, PTFE/silicone septum	Z114189-10EA	10 ea
	Z114189-100EA	100 ea
size 11 mm, PTFE/red rubber septum	Z114154-100EA	100 ea

### Vial crimp seals for SPME, 11 mm

Description	Cat. No.	Qty
silver aluminum seal (with 5.6mm center hole), red PTFE/white silicone septum, septum diam. 11 mm x thickness 1.3 mm	SU860094 SU860016	100 ea 1000 ea
gold seal, magnetic (with 5mm center hole), red PTFE/silicone/red PTFE septum, septum diam. 11 mm x thickness 1.0 mm, for use with CTC PAL and TriPlus autosamplers	SU860095	100 ea
gold seal, magnetic (with 5mm center hole), red PTFE/white silicone septum, septum diam. 11 mm x thickness 1.3 mm, for use with CTC PAL and TriPlus autosamplers	SU860096	100 ea

### Aluminum crimp seal (without septum)

Description	Cat. No.	Qty
seal diam. 11 mm, open center	27099-U	100 ea

### Crimp seals with Viton® septa



Description	Cat. No.	Qty
silver aluminum seal, seal diam. 11 mm, black Viton® septum, septum thickness 30 mil	27107	100 ea

### Stoppers



Description	Cat. No.	Qty
seal diam. 11 mm, butyl rubber septum, for use with 2mL-2.5mL standard opening crimp top vials	27100-U	100 ea

## Snap Ring Vials

### Certified Snap Ring Vials, 12 x 32 mm

#### Certified Kit, snap ring vials, 12 x 32 mm, 6.0 mm I.D.

for 11 mm snap ring  
O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm



Description	Cat. No.	Qty
2 mL, Snap top/crimp top, clear glass vial, PTFE/silicone septum, clear polyethylene cap	29421-U	100 ea
300 µL, polypropylene vial, snap ring, PTFE/silicone septum (bonded)	29412-U	100 ea
300 µL, polypropylene vial, snap ring, PTFE/silicone septum (bonded with slit)	29413-U	100 ea

#### Certified snap ring vials, 12 x 32 mm, 6.0 mm I.D.

for 11 mm snap ring

Description	Cat. No.	Qty
2 mL, clear glass vial	29417-U	100 ea
2 mL, clear glass vial (with graduated marking spot)	29418-U	100 ea
2 mL, amber glass vial	29419-U	100 ea
2 mL, amber glass vial (with graduated marking spot)	29420-U	100 ea
300 µL, polypropylene vial	29409-U	100 ea

#### Certified polypropylene caps with septa

for 11 mm snap ring  
blue polypropylene cap

O.D. x H x I.D. .... 11.5 mm x 6 mm x 9 mm



Certified caps for Snap Ring vials

Description	Cat. No.	Qty
snap cap, PTFE septum	29304-U	100 ea
snap cap, PTFE/silicone septum	29305-U	100 ea
snap cap, PTFE/silicone septum (with slit)	29306-U	100 ea

## Vials

Snap Ring Vials: *Certified Snap Ring Vials, 12 x 32 mm***Snap Ring vial, 2 mL, 12 x 32 mm, large opening (6.0 mm)**

Snap-Ring vials have two glass rings at the neck of the vial that allows the use of a plastic snap cap or aluminum seal. While aluminum seals can be used, a polyethylene Snap Ring cap eliminates the need for crimping which saves time in the lab. When using volatile liquids, we suggest the use of polypropylene GC Snap Top caps to provide an airtight seal.

The diameter of inserts varies between manufacturers. Only the following insert part numbers are compatible with these large opening vials.

- 24719, 24720 Glass insert, conical bottom, 6 x 29mm
- 24721 Glass insert with bottom spring, 6 x 29mm
- 24722 Polypropylene insert with bottom spring, 6 x 29mm
- 24717, 24718 Glass insert, conical bottom, 6 x 31mm
- 24715, 24716 Glass insert, flat bottom, 6 x 31mm

Description	Cat. No.	Qty
2 mL, clear glass	24750-U	100 ea
	24751	2000 ea
2 mL, amber glass	24752	100 ea
	24753	2000 ea
2 mL, clear glass (with marking spot)	27249	100 ea
	27250-U	1000 ea
2 mL, amber glass (with marking spot)	27251	100 ea
	27252	1000 ea

**Inserts for 2 mL large opening vials, 6.0 mm I.D.**

Description	Cat. No.	Qty
0.15 mL, glass conical (with top spring), O.D. 6 mm x H 29 mm	24719	100 ea
	24720	500 ea
0.20 mL, glass conical (with bottom spring), O.D. 6 mm x H 29 mm	24721	100 ea
0.20 mL, polypropylene conical (with bottom spring), O.D. 6 mm x H 29 mm	24722	100 ea
0.25 mL, pulled point precision point, glass conical, O.D. 6 mm x H 31 mm	24717	100 ea
	24718	1000 ea
0.25 mL, glass (with glass flange), for use with Step Vials	27407	100 ea
0.25 mL, polypropylene (with plastic flange), O.D. 6 mm x H 31 mm	27409	100 ea
0.35 mL, glass (shell style), O.D. 6 mm x H 31 mm	24715	100 ea
	24716	1000 ea

**Snap Ring vials, 1.5 mL, 12 x 32 mm**

The inside diameter of vials vary with the manufacture. Only the following insert part numbers are compatible with these large opening vials.

- SU860067 Pk 100, 0.1mL Glass Conical Insert, 6 X 31 mm
- 854988 Pk 1000, 0.1mL Glass Conical Insert, 6 X 31mm
- SU860066 Pk 100, 0.1mL Glass Conical Insert with Bottom Spring, 6 X 28 mm
- 854110 Pk 1000, 0.1mL Glass Conical Insert with Bottom Spring, 6 X 28 mm

large opening, (6 mm) .....

Description	Cat. No.	Qty
1.5 mL, clear glass	854974	1000 ea
1.5 mL, clear glass (with marking spot)	SU860081	100 ea

**Inserts for 1.5 mL large opening vials**

Description	Cat. No.	Qty
0.10 mL, glass conical, O.D. 6 mm x H 31 mm	SU860067	100 ea
	854988	1000 ea
0.10 mL, vial insert, glass conical (with bottom spring), O.D. 6 mm x H 29 mm	SU860066 854110	100 ea 1000 ea

**Closures for Snap Ring vials**

for 11 mm snap ring

for use with Large Opening Crimp/Snap Seal Vials

Description	Cat. No.	Qty
snap cap, polyethylene seal, PTFE/red rubber	SU860090	100 ea
snap cap, polyethylene seal, red PTFE/silicone	SU860093	100 ea

**Snap Ring polypropylene autosampler microvial**

for 11 mm Snap Cap/Crimp seal

configured for 11 mm crimp cap or 11 mm snap top seal large opening, (6 mm) .....



27253

Description	Cat. No.	Qty
0.10 mL, polypropylene, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, Snap Ring	27423	100 ea
0.50 mL, polypropylene, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, Snap Ring	27422	100 ea
0.75 mL, polypropylene, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, Snap Ring	27253	100 ea
	27254	1000 ea

**Closures for Snap Ring vials**

for 11 mm snap ring

Description	Cat. No.	Qty
PTFE/red rubber, polypropylene seal	24756	100 ea
	24757	1000 ea
PTFE/silicone (with starburst), polypropylene seal	27427	100 ea
PTFE/silicone, polypropylene seal	24758	100 ea
	24759	1000 ea
PTFE/silicone (with slit), polypropylene seal	27426	100 ea
PTFE septum (liner), polypropylene seal	24754	100 ea
	24755	1000 ea
polyethylene (linerless), diam. 11 mm	508357	100 ea
PTFE/silicone/PTFE (with starburst), polypropylene seal	27428	100 ea
	24760-U	100 ea

**GC Snap Top caps, polypropylene, 11 mm**

These were developed to handle the most volatile samples, providing a liquid airtight seal to the vial.

for 11 mm snap ring

for use with Large Opening Crimp/Snap Seal Vials

Description	Cat. No.	Qty
polypropylene seal, PTFE/rubber septum	27430-U	100 ea
polypropylene seal, PTFE/silicone/PTFE septum	27432	100 ea

## Vials

Snap Seal™ Vials

### Snap Seal™ Vials

Snap Seal and Snap Ring vials can use either a plastic snap cap or a metal closure for sealing the contents of the vial. The choice is dependent upon the contents and the user preference.



Snap Seal vial, clear glass, 29132-U

#### Snap Seal™ vials (step), 12 x 32 mm, large opening, 11 mm seal

Autosampler compatibility:

- Agilent
- Agilent 1050/1090A
- Agilent 1100/1200
- Agilent 7673A, 7683
- Agilent 5890/7985A/6890
- Hitachi
- AS-1000, AS-2000, AS-4000
- L7200/L7250
- LEAP Technologies
- CTC LC PAL, GC PAL
- CombiPAL
- HTC PAL/HTS PAL
- PerkinElmer
- Autosystem/AS-2000/XL
- Clarus 500/600
- ISS-100, 200
- Varian
- CP-8410
- 8100/8200
- 9100/90950/9095

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
2 mL, clear glass, large opening, (6 mm)	29132-U	100 ea
2 mL, clear glass (with white graduation spot), large opening, (6 mm)	29134-U	100 ea
2 mL, amber glass, large opening, (6 mm)	29133-U	100 ea

#### Snap Seal™ vials, Convenience Pack, unassembled

polypropylene cap

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

large opening, (6 mm) .....



Description	Cat. No.	Qty
2 mL, clear glass, PTFE/rubber septum	29141-U	100 ea
2 mL, clear glass, PTFE/silicone septum	29142-U	100 ea
clear glass, PTFE/silicone/PTFE septum	29143-U	100 ea
2 mL, amber glass, PTFE/rubber septum	29144-U	100 ea
2 mL, amber glass, PTFE/silicone septum	29145-U	100 ea
2 mL, amber glass, PTFE/silicone/PTFE septum	29146-U	100 ea

### Closures for 11 mm Crimp top, Snap Ring, and Snap Seal™ vials

#### Crimp seals, 11 mm, with PTFE/rubber septa



11 mm Crimp Seals, red/rubber septa

Description	Cat. No.	Qty
silver aluminum seal, 11 mm x thickness 1.0 mm, opening 4.8 mm	27102-U 33233-U	100 ea 1000 ea
red aluminum seal, 11 mm x thickness 1.0 mm	27103 27473	100 ea 1000 ea
gold aluminum seal, 11 mm x thickness 1.0 mm	27105 27474	100 ea 1000 ea
blue aluminum seal, 11 mm x thickness 1.0 mm	27104 27381	100 ea 1000 ea

## Vials

Closures for 11 mm Crimp top, Snap Ring, and Snap Seal™ vials

### Crimp seals with PTFE/silicone septa

Description	Cat. No.	Qty
silver aluminum seal, 11 mm × thickness 1.0 mm, red PTFE/silicone septum	27360-U 27373	100 ea 1000 ea
silver aluminum seal, 11 mm × thickness 1.0 mm, white PTFE/silicone septum	27214-U 27215	100 ea 1000 ea

## Versa Vial™

### Versa Vial™

Compatible with most autosamplers

- Shell vial ease-of-use
- Sample security
- Increased safety when emptying

Versa Vials™ combine the ease-of-use associated with shell vials and the instrument compatibility of 12 × 32 mm screw-cap and crimp-seal autosampler vials. They can be used with most autosamplers, including those from Agilent, CTC, Finnegan, PerkinElmer, Varian, and the Waters Alliance instruments.

The elongated vase-like neck of the Versa Vial accommodates variations in robotic arm settings while providing an exceptionally wide, 9 mm opening. This wide opening provides the largest target area of any autosampler vial and makes it easy to add samples to the vials using pipette tips.

O.D. × H × I.D. .... 12 mm × 32 mm × 9.3 mm



VersaVial, clear glass, 29083-U



Description	Cat. No.	Qty
2 mL, clear glass	29083-U	100 ea
2 mL, clear glass, marking spot	29085-U	100 ea
2 mL, amber glass, marking spot	29086-U	100 ea
1.5 mL, polypropylene	29087-U	100 ea

### Versa Vial™ closures, 12 mm diameter

The new 12mm Polyethylene green plug (29088-U) is designed to work with the Versa Vial where a tight seal is required. The conical starburst design of this plug provides self-centering needle penetration, and an extended tab facilitates easy insertion and removal from the vial.

The soft plugs for the Versa Vial are designed to press-fit securely into the neck opening of the vial and are available in several materials to provide maximum sample compatibility when used for autosampler systems.

The chlorobutyl and PTFE/silicone plugs are autoclavable.

O.D. × H × I.D. .... 12 mm × 5.4 mm × 10 mm



Description	Cat. No.	Qty
gray plug (chlorobutyl/siliconized)	29089-U	100 ea
white PTFE/silicone plug	29091-U	100 ea
white PTFE/silicone plug (with slit)	29092-U	100 ea

## Polypropylene vials and inserts

Polypropylene vials are available in a wide range of volumes and configurations. Breakage is not an issue with plastic vials, and they are non-reactive with most sample chemistries.

- Compatible with many solvents
- Optimal choice when working with proteins
- Ideal for IC applications
- Suitable for insert-free microsampling
- An excellent choice for storing pH sensitive samples
- Economical to purchase



27537



27253



## Vials

Polypropylene vials and inserts



24722

## Polypropylene vials

Description	Cat. No.	Qty
<b>8 x 40 mm</b>		
0.7 mL, polypropylene vial (with polyethylene closure), vial O.D. 8 mm x H 40 mm, recessed starburst conical snap plug included	27537	100 ea
<b>Crimp top</b>		
0.1 mL, polypropylene, vial type conical, O.D. 12 mm x H 32 mm x I.D. 4.6 mm	27075-U 33217-U	100 ea 1000 ea
<b>8-425 thread, polypropylene</b>		
100 µL, natural polypropylene, thread, 8-425, O.D. 12 mm x H 32 mm x I.D. 4.6 mm	24712 24713	200 ea 1000 ea
750 µL, polypropylene, thread: 8-425, O.D. 12 mm x H 32 mm	24709 24710	100 ea 1000 ea
<b>9 mm threaded vial</b>		
0.1 mL, natural polypropylene, 9 mm, diam. 12 mm x H 32 mm	29016-U	100 ea
0.5 mL, natural polypropylene, 9 mm, diam. 12 mm x H 32 mm	29018-U	100 ea
<b>10-425 thread, large opening</b>		
0.5 mL, polypropylene, conical bottom, large opening, thread, 10-425, diam. 12 mm x H 32 mm x I.D. 6 mm	27410	100 ea
0.75 mL, O.D. 12 mm x H 32 mm x I.D. 6 mm, thread, 10-425	27411	100 ea
1 mL, O.D. 12 mm x H 32 mm, thread, 10-425	27269 27270-U	100 ea 1000 ea
<b>Snap Ring</b>		
0.10 mL, polypropylene, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, Snap Ring	27423	100 ea
0.50 mL, polypropylene, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, Snap Ring	27422	100 ea
0.75 mL, polypropylene, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, Snap Ring	27253 27254	100 ea 1000 ea
<b>13-425 thread, polypropylene</b>		
2.5 mL, polypropylene, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread: 13-425	27435	100 ea
<b>15 x 45 mm shell vial</b>		
3 mL, polypropylene vial, Starburst conical snap plug included, diam. 15 mm x H 45 mm	27538	100 ea
<b>Standard opening insert</b>		
0.15 mL, polypropylene conical (with bottom spring), O.D. 5 mm x H 30 mm	24708	100 ea
<b>Large opening insert</b>		
0.20 mL, polypropylene conical (with bottom spring), O.D. 6 mm x H 29 mm	24722	100 ea
0.25 mL, polypropylene (with plastic flange), O.D. 6 mm x H 31 mm	27409	100 ea

## Crimp Top Vials and Accessories, 13 mm

## Vials, crimp top, requiring a 13 mm seal

Description	Cat. No.	Qty
2.5 mL, clear glass, O.D. 17.5 mm x H 34.5 mm	33121	288 ea

## Crimp Seals, 13 mm

## Aluminum crimp seal (without septum)

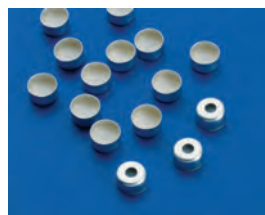
Description	Cat. No.	Qty
seal diam. 13 mm x opening 6.4 mm, removable center	27222-U	100 ea

## Crimp seals with PTFE/silicone septa

Description	Cat. No.	Qty
seal diam. 13 mm, silver aluminum seal (open center), PTFE/silicone septum	27452	100 ea

## Wheaton open-top seals

With PTFE-faced septum.



Description	Cat. No.	Qty
size 13 mm, rubber septum	Z166006-100EA Z166006-1000EA	100 ea 1000 ea

## Crimp seals with PTFE/rubber septa

Description	Cat. No.	Qty
seal diam. 13 mm, removable center	27223 27451	100 ea 1000 ea

## Wheaton closed-top seals (removable center)



Description	Cat. No.	Qty
size 13 mm, PTFE-faced rubber septa	Z114197-20EA Z114197-200EA	20 ea 200 ea
size 13 mm, Tear-off seals only	Z114138-100EA	100 ea

## Vials

Crimp Top Vials and Accessories, 13 mm: *Septa for 13 mm Crimp Seals*

### Septa for 13 mm Crimp Seals

#### Septa, PTFE/red rubber

temperature limit ..... 120 °C



PTFE/Rubber Septa

Description	Cat. No.	Qty
PTFE/red rubber, diam. 13 mm x thickness 0.050 in., for use with 7 mL vials	27156	100 ea

#### Septa for 13 mm Aluminum Seals

Description	Cat. No.	Qty
silicone septa	Z184934-1PAK	100 ea
size 13 mm, PTFE/silicone septa	Z114103-10EA	10 ea
	Z114103-100EA	100 ea

#### Stoppers

for use with 7 mL screw top vials



Description	Cat. No.	Qty
septum diam. 13 mm, butyl rubber	27224	100 ea
septum diam. 13 mm, red rubber	27226	100 ea

## 12 x 30 mm Autosampler Vials for PerkinElmer® Clarus 600

#### Vials, screw top, clear glass (vial only)

Description	Cat. No.	Qty
1.5 mL, clear glass, O.D. 12 mm x H 30 mm x I.D. 4.6 mm, 8-425, for PerkinElmer Clarus 600 GC Autosampler	507369	100 ea
	507377	1000 ea

#### Vials, caps and septa for 12 x 30 mm vials

Description	Cat. No.	Qty
Solid cap, green melamine resin, F217/PTFE liner		
green melamine resin cap solid, F217/PTFE liner, for use with 2 mL vial (standard opening with 8-425 thread)	27091-U	100 ea
Solid caps, 8-425 thread		
black phenolic cap solid, aluminum liner, for use with 2 mL vial (standard opening), thread: 8-425	27092-U	100 ea
Hole caps, 8-425 thread		
black polypropylene hole cap, large opening in top of cap, no septum, thread: 8-425	27401	100 ea

Description	Cat. No.	Qty
black polypropylene hole cap, PTFE/silicone, Top Hat (septum and closure designed to fit together tightly)	27261-U	100 ea
black polypropylene, PTFE/silicone, septum thickness 1.5 mm, thread: 8-425	27262	100 ea
Septa		
black Viton®, diam. 8 mm x thickness 0.060 in., for use with 2 mL vial, standard opening	27350-U	100 ea
white PTFE, diam. 9 mm x thickness 0.010 in., for use with 2 mL vial, standard opening	27133	100 ea
PTFE/red rubber, diam. 8 mm x thickness 0.050 in., for use with screw cap, 8-425	27132	100 ea

## 12 x 32mm Screw Top Vials, Standard Opening



*Screw top vials, 8-425 thread, 11.6 mm O.D. x 32 mm H x 4.6 mm I.D.*

#### Vials, screw top, clear glass, 1.5 mL

Description	Cat. No.	Qty
1.5 mL, clear glass (with marking spot), O.D. 11.6 mm x H 32 mm x I.D. 4.6 mm, thread, 8-425	854171	100 ea

#### Vials, screw top, amber glass, 1.5 mL, 8-425 thread

Description	Cat. No.	Qty
1.5 mL, amber glass, O.D. 11.6 mm x H 32 mm x I.D. 4.6 mm, thread, 8-425	SU860083	100 ea
	854983	1000 ea
1.5 mL, amber glass (with marking spot)	854172	100 ea

#### Assembled screw cap with hole and PTFE/silicone septum

for use with 2 mL vial (standard opening)

Description	Cat. No.	Qty
black polypropylene, PTFE/silicone (red PTFE/white silicone), septum thickness 1.3 mm, thread: 8-425	SU860076	100 ea
black polypropylene, PTFE/silicone (red PTFE/creme silicone), thread: 8-425, septum thickness 1.5 mm	854985	100 ea

## Vials

12 x 32mm Screw Top Vials, Standard Opening: *Screw top vials, 8-425 thread, 11.6 mm O.D. x 32 mm H x 4.6 mm I.D.*



### 2 mL Screw top vials, standard opening (4.6 mm), 8-425 thread

#### Vials, 2 mL standard opening, pre-assembled with cap/septa, 8-425 thread

Description	Cat. No.	Qty
<b>Phenolic hole cap, PTFE/silicone septa</b>		
2 mL, clear glass (standard opening - 4.6 mm), red PTFE/white silicone septum	<a href="#">27124-U</a>	100 ea
2 mL, amber glass (standard opening - 4.6 mm), red PTFE/silicone septum	<a href="#">27005</a>	100 ea
<b>Phenolic hole cap, PTFE/rubber septa</b>		
2 mL, clear glass (standard opening - 4.6 mm), PTFE/red rubber septum	<a href="#">27123-U</a>	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE/red rubber septum	<a href="#">27011</a>	100 ea
<b>Polypropylene hole cap, PTFE/silicone septa</b>		
2 mL, clear glass (standard opening - 4.6 mm), red PTFE/silicone septum	<a href="#">27208-U</a>	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE/silicone septum	<a href="#">27046-U</a>	100 ea
<b>Polypropylene hole cap, PTFE/rubber septa</b>		
2 mL, clear glass (standard opening - 4.6 mm), PTFE/red rubber septum	<a href="#">27202-U</a>	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE/red rubber septum	<a href="#">27040-U</a>	100 ea
<b>Solid Green Melamine cap, PTFE liner</b>		
2 mL, clear glass (standard opening - 4.6 mm), PTFE liner	<a href="#">27134</a>	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE liner	<a href="#">27000</a>	100 ea
<b>Solid cap, aluminum liner</b>		
2 mL, clear glass (standard opening - 4.6 mm), aluminum liner	<a href="#">27125-U</a>	100 ea
2 mL, amber glass (standard opening - 4.6 mm), aluminum liner	<a href="#">27468-U</a>	100 ea

#### Vials, open-top screw cap, 2 mL standard opening with closures, convenience pack, unassembled

##### Autosampler compatibility:

Agilent  
 Agilent 1050  
 Hitachi  
 AS-1000, AS-2000, AS-4000  
 L7200/L7250  
 LEAP Technologies  
 CTC LC PAL, GC PAL  
 CombiPAL  
 HTC PAL/HTS PAL  
 PerkinElmer  
 Autosystem/AS-2000/XL  
 Clarus 500/600  
 Varian  
 CP-8410  
 8100/8200  
 9100/9090/9095  
 8-425

O.D. x H x I.D. .... 12 mm x 32 mm x 4.6 mm



Description	Cat. No.	Qty
clear glass, polypropylene cap, PTFE/silicone	<a href="#">29104-U</a>	100 ea
clear glass, polypropylene cap, PTFE/silicone/PTFE	<a href="#">29107-U</a>	100 ea
amber glass, polypropylene cap, PTFE/silicone	<a href="#">29106-U</a>	100 ea
amber glass, polypropylene cap, PTFE/silicone/PTFE	<a href="#">29108-U</a>	100 ea

#### 12 x 32 mm standard autosampler vials with cap and septa, 8-425 thread

##### ► pre-assembled convenience pack, clear glass

Contains 2 mL clear glass vials, PTFE/silicone septa, and caps already assembled.

8-425

PTFE/silicone septa

polypropylene cap

O.D. x H x I.D. .... 12 mm x 32 mm x 4.6 mm  
 volume ..... 2 mL

[Z291706-1PAK](#) ..... 100 ea

## Vials

12 x 32mm Screw Top Vials, Standard Opening: 12 x 32 mm screw top vials, standard opening, 4.6 mm (vial only)

12 x 32 mm screw top vials, standard opening, 4.6 mm (vial only)

Description	Cat. No.	Qty
<b>Clear glass</b>		
2 mL, clear glass, O.D. 12 mm x H 32 mm x I.D. 4.6 mm, thread, 8-425	27078	100 ea
	27079	1000 ea
2 mL, clear glass, O.D. 12 mm x H 32 mm x I.D. 4.6 mm/ft, 8-425, product of Chromacol, 2-SV	507601	100 ea
2 mL, clear glass vial (standard opening), 8-425	Z291633-1PAK	100 ea
2 mL, clear glass (with graduated marking spot), 8-425	27080-U	100 ea
	27081-U	1000 ea
<b>Clear glass with graduations</b>		
2 mL, clear glass, graduated, O.D. 12 mm x H 32 mm x I.D. 4.6 mm, thread, 8-425	27023	100 ea
<b>Amber glass</b>		
2 mL, amber glass (standard opening), thread, 8-425	27083-U	100 ea
	27087-U	1000 ea
2 mL, amber glass (with graduated marking spot), 8-425	27084-U	100 ea
	27085-U	1000 ea
2 mL, amber glass vial (standard opening), thread: 8-425	Z291641-1PAK	100 ea
2 mL, amber glass, product of Chromacol, 2-SV (A), 8-425	507628	100 ea
<b>Pre-cleaned vials</b>		
2 mL, clear glass, pre-cleaned	27339	100 ea
2 mL, amber glass, pre-cleaned	27344	100 ea
<b>Silane-treated</b>		
2 mL, silanized, clear glass, thread, 8-425	27029-U	100 ea
	27030	1000 ea
2 mL, silanized, amber glass, thread, 8-425	27238	100 ea
	27219	1000 ea
<b>8-425 thread, 300 µL</b>		
300 µL, clear glass, Interlocked vial (with fused-in insert), thread, 8-425	29109-U	100 ea
300 µL, amber glass, Interlocked vial (with fused-in insert), thread, 8-425	29111-U	100 ea
<b>8-425 thread, polypropylene</b>		
100 µL, natural polypropylene, thread, 8-425, O.D. 12 mm x H 32 mm x I.D. 4.6 mm	24712	200 ea
	24713	1000 ea
<b>Polypropylene</b>		
300 µL, polypropylene, thread, 8-425, O.D. 12 mm x H 32 mm	Z162523-1PAK	100 ea
<b>8-425 thread, polypropylene</b>		
750 µL, polypropylene, thread: 8-425, O.D. 12 mm x H 32 mm	24709	100 ea
	24710	1000 ea
<b>Micro-Vials, 12 x 32 mm screw top (vials only), 8-425 thread</b>		
cap not included		
Description	Cat. No.	Qty
0.1 mL, clear glass (solid one-piece vial with interior glass cone), thread, 8-425	33206-U	12 ea
	33241	144 ea
1.1 mL, clear glass, conical, thread, 8-425	27317	100 ea
	27318	1000 ea

Closures for 2 mL vials, 12 x 32 mm, 8 x 425 thread



Solid cap with PTFE liner

Description	Cat. No.	Qty
green melamine resin cap solid, F217/PTFE liner, for use with 2 mL vial (standard opening with 8-425 thread)	27091-U	100 ea
black phenolic cap solid, aluminum liner, for use with 2 mL vial (standard opening), thread: 8-425	27092-U	100 ea

Black plastic caps

These autoclavable caps are designed to ensure the ultimate in product safety. The liners are white styrene-butadiene rubber faced with PTFE.

Description	Cat. No.	Qty
Solid-top, white rubber liner, black phenolic cap, thread, 8-425	Z188808-1PAK	100 ea
	Z188808-10PAK	1000 ea

Hole caps for 2 mL vials, 8-425 thread, pre-assembled with septa



Description	Cat. No.	Qty
black phenolic, PTFE/silicone, septum thickness 1.5 mm, thread, 8-425	27093-U	100 ea
	33242	1000 ea
black polypropylene, PTFE/silicone, septum thickness 1.5 mm, thread: 8-425	27262	100 ea
black polypropylene hole cap, PTFE/silicone, Top Hat (septa and closure designed to fit together tightly)	27261-U	100 ea
black polypropylene, PTFE/silicone (red PTFE/white silicone), septum thickness 1.3 mm, thread: 8-425	SU860076	100 ea
black polypropylene, PTFE/silicone (red PTFE/creme silicone), thread: 8-425, septum thickness 1.5 mm	854985	100 ea
black polypropylene, septum (TEF/red rubber), septum thickness 1.3 mm, thread: 8-425	SU860091	100 ea
	854984	1000 ea

## Vials

12 x 32mm Screw Top Vials, Standard Opening: 12 x 32 mm screw top vials, standard opening, 4.6 mm (vial only)

## Hole caps, no septum, for 12 x 32 mm vials, 8 x 425 mm

Description	Cat. No.	Qty
black phenolic hole cap, thread: 8-425, no septum	27094-U	100 ea
black phenolic cap, cut-out top, without septum, thread, 8-425	Z162531-200EA	200 ea
black polypropylene hole cap, large opening in top of cap, no septum, thread: 8-425	27401	100 ea
black polypropylene hole cap, thread, 8-425	27052 24764	100 ea 1000 ea
black polypropylene, open-top, thread: 8-425	Z291668-1PAK	100 ea

## Septa for 2 mL Standard Opening Vial, 8 mm diameter

## Septa for 2 mL standard opening vial, 8 mm diameter

Description	Cat. No.	Qty
PTFE/red rubber, diam. 8 mm x thickness 0.050 in., for use with screw cap, 8-425	27132	100 ea
white tan PTFE/silicone, diam. 8 mm x thickness 0.060 in., for use with 2 mL vial, standard opening	27095-U 33213	100 ea 1000 ea
red PTFE/white silicone, red PTFE face, white silicone body, diam. 8 mm x thickness 0.060 in., for use with 2mL standard opening vial	27097-U 23243	100 ea 1000 ea
red PTFE/white silicone, with slit, diam. 8 mm x thickness 0.060 in., for use with 2 mL vial, standard opening	27098-U 24881	100 ea 1000 ea
red PTFE/silicone/red PTFE, diam. 8 mm x thickness 0.040 in., for use with 2 mL vial, standard opening	27096-U 23182-U	100 ea 1000 ea
black Viton®, diam. 8 mm x thickness 0.060 in., for use with 2 mL vial, standard opening	27350-U	100 ea
aluminum/silicone, diam. 8 mm x thickness 0.060 in., for use with 2 mL vial, standard opening	24882-U	100 ea
white PTFE, diam. 9 mm x thickness 0.010 in., for use with 2 mL vial, standard opening	27133	100 ea
white PTFE, diam. 8 mm, thickness 0.01 in.	Z291684-1PAK	1000 ea
red PTFE/white silicone, diam. 8 mm, thickness 0.065 in.	Z291676-1PAK	100 ea

## Insert for 2 mL standard opening vial, 4.6 mm I.D.

Description	Cat. No.	Qty
0.05 mL, clear glass conical, bottom spring, O.D. 4 mm x H 25 mm	27400-U	100 ea
0.10 mL, clear glass conical, O.D. 5 mm x H 31 mm, spring required	24703 24704	200 ea 1000 ea
0.15 mL, polypropylene conical (with bottom spring), O.D. 5 mm x H 30 mm	24708	100 ea
0.20 mL, glass (conical with polyspring), O.D. 5 mm x H 30 mm	Z291730-1PAK	100 ea
0.25 mL, clear glass (shell style), O.D. 5 mm x H 31 mm	24701 24702	200 ea 1000 ea

## Self-centering support for 5 x 31 mm inserts

► Self-centering support for 5 x 32 mm insert, for use with conical insert (Cat. No. 24703 and 24704)

product of Chromacol, MTS-1

27338 500 ea

## 12 x 32 mm Screw Top Vials, Large Opening

## Vials, screw top, clear glass, 1.5 mL

Description	Cat. No.	Qty
1.5 mL, clear glass, O.D. 11.6 mm x H 32 mm x I.D. 6.0 mm, thread, 10-425	854743	1000 ea

## Certified Screw Top Vials with 10/425 thread



Certified Vial, Large Opening, 10-425 thread

Description	Cat. No.	Qty
2 mL, clear glass vial (vial only)	29430-U	100 ea
2 mL, clear glass vial, PTFE/silicone septum, (convenience kit)	29432-U	100 ea

## 2 mL Screw Top Vials, large opening

## Vials, screw top, clear glass (vial only)

Description	Cat. No.	Qty
2 mL, clear glass (large opening), O. D. 12 mm x H 32 mm x I.D. 6.0 mm, thread, 10-425	27265 27266	100 ea 2000 ea

## Vials, screw top, amber glass (vial only)

Description	Cat. No.	Qty
2 mL, amber glass (large opening), O.D. 12 mm x H 32 mm x I.D. 6.0 mm, thread, 10-425	27267-U	100 ea

## Vials

12 x 32 mm Screw Top Vials, Large Opening: 2 mL Screw Top Vials, large opening

**Vials, screw top with black polypropylene hole cap (10-425 thread), large opening, pre-assembled**

The diameter of inserts between manufacturers. Only the following insert part numbers are compatible with these large opening vials.

- 24719, 24720 Glass insert, conical bottom, 6 x 29mm
- 24721 Glass insert with bottom spring, 6 x 29mm
- 24722 Polypropylene insert with bottom spring, 6 x 29mm
- 24717, 24718 Glass insert, conical bottom, 6 x 31mm
- 24715, 24716 Glass insert, flat bottom, 6 x 31mm

Description	Cat. No.	Qty
2 mL, clear glass, red PTFE/silicone, black polypropylene cap, thread: 10-425	27531	100 ea
2 mL, clear glass, PTFE/silicone (with slit)	27534	100 ea
2 mL, clear glass, PTFE/silicone/PTFE	27533	100 ea
2 mL, amber glass, red PTFE/silicone, black polypropylene cap, thread: 10-425	27532	100 ea
2 mL, amber glass, PTFE/silicone (with slit)	27536	100 ea
2 mL, amber glass, PTFE/silicone/PTFE	27535	100 ea

**Vials, open-top screw cap, 2 mL large opening with closures, unassembled convenience packs****Autosampler compatibility:**

PerkinElmer Autosystem  
PE ISS-100, 200, Integral 4000 and Series 200  
Shimadzu GC and LC Autosamplers  
Spark Marathon, Midas, Triathlon  
Thermo HPLC Spectra System  
Waters Alliance

O.D. x H x I.D. .... 12 mm x 32 mm x 6.0 mm

Description	Cat. No.	Qty
2 mL, clear glass, thread, 10-425, polypropylene cap, PTFE/rubber septa, unassembled	29116-U	100 ea
2 mL, clear glass, thread, 10-425, polypropylene cap, PTFE/silicone septa, unassembled	29118-U	100 ea
2 mL, clear glass, PTFE/silicone/PTFE septa, polypropylene cap, thread, 10-425	29120-U	100 ea
2 mL, amber glass, thread, 10-425, polypropylene cap, PTFE/rubber septa, unassembled	29117-U	100 ea
2 mL, amber glass, thread, 10-425, polypropylene cap, PTFE/silicone septa, unassembled	29119-U	100 ea
2 mL, amber glass, PTFE/silicone/PTFE septa, polypropylene cap, thread, 10-425	29121-U	100 ea

**12 x 32 mm Screw Top vials, limited volume step vial**

Vial incorporates the unique StepVial design that precisely centers a limited volume insert in the vial neck. The interior finish of the top of the vial is recessed to allow the top of the insert to rest correctly in the vial.

thread, for cap 10-425  
glass insert lips on vial



Clear Glass with insert

Description	Cat. No.	Qty
250 µL, clear glass, step vial, large opening (with glass insert)	27418	100 ea
250 µL, amber glass, step vial, large opening (with glass insert)	27419	100 ea



## Vials

12 x 32 mm Screw Top Vials, Large Opening: 2 mL Polypropylene screw top vials

## 2 mL Polypropylene screw top vials

## Vials, screw top, polypropylene



Polypropylene Vial

Description	Cat. No.	Qty
0.5 mL, polypropylene, conical bottom, large opening, thread, 10-425, diam. 12 mm x H 32 mm x I.D. 6 mm	27410	100 ea
0.75 mL, O.D. 12 mm x H 32 mm x I. D. 6 mm, thread, 10-425	27411	100 ea
1 mL, O.D. 12 mm x H 32 mm, thread, 10-425	27269 27270-U	100 ea 1000 ea

## Closures for 2 mL large opening vials, 10 x 425 mm

## Assembled screw cap with hole and PTFE/silicone septum

Description	Cat. No.	Qty
black polypropylene, thread: 10-425, PTFE/silicone, thickness 1.5 mm, for use with 2 mL vial (large opening)	27273	100 ea

## Inter-Seal™ bonded caps (inseparable caps and liner)

Inter-Seal™ bonded caps eliminate expensive and time consuming hand assembly while preventing liner fallout. They are made by a bonding process that bonds PTFE/silicone into polypropylene closures without using adhesives. The bonding properly seats and secures the septa within the vial opening. This integrated one piece system withstands multiple injections, making it very cost effective.

Benefits include:

- Significant bond strength
- Withstands multiple injections
- Resistant to coring
- Excellent resealability
- Broad chemical resistance



Description	Cat. No.	Qty
black cap, PTFE/silicone septa, thread, 10-425	29112-U	100 ea
black cap, PTFE/silicone septa (with slit), thread, 10-425	29113-U	100 ea

## Screw cap (open-top), polypropylene

These hole caps do not come with septa.

autoclavable .....  
temp. limit ..... 135 °C



Polypropylene hole cap

Description	Cat. No.	Qty
black polypropylene cap, for use with 2 mL large opening (6.0 mm) vial with 10-425 thread	27271 27272-U	100 ea 1000 ea
white polypropylene hole cap, thread, 10-425, for use with 2 mL large opening vial (6.0 mm)	27414	100 ea
yellow polypropylene hole cap, thread, 10-425, for use with 2 mL large opening vial (6.0 mm)	27413	100 ea

## Septa, 10 mm, for 2 mL large opening vials

Description	Cat. No.	Qty
red PTFE/white silicone, diam. 10 mm x thickness 0.040 in., for use with 2 mL large opening vials	27279 27280-U	100 ea 1000 ea
red PTFE/white silicone, diam. 10 mm x thickness 0.060 in., for use with 2 mL large opening vials	27277 27278	100 ea 1000 ea
red PTFE/silicone/red PTFE, diam. 10 mm x thickness 0.040 in., for use with 2 mL large opening vials	27275 27276	100 ea 1000 ea
white PTFE, diam. 11 mm x thickness 0.010 in., for use with 2 mL large opening vials	27281 27282	100 ea 1000 ea

## Inserts for 12 x 32 mm vials

## Insert for 2 mL standard opening vial, 4.6 mm I.D.

Description	Cat. No.	Qty
0.05 mL, clear glass conical, bottom spring, O.D. 4 mm x H 25 mm	27400-U	100 ea
0.10 mL, clear glass conical, O.D. 5 mm x H 31 mm, spring required	24703 24704	200 ea 1000 ea
0.15 mL, bottom spring, O.D. 5 mm x H 30 mm	24707	100 ea
0.15 mL, polypropylene conical (with bottom spring), O.D. 5 mm x H 30 mm	24708	100 ea
0.20 mL, glass (conical with polyspring), O.D. 5 mm x H 30 mm	Z291730-1PAK	100 ea
0.25 mL, clear glass (shell style), O.D. 5 mm x H 31 mm	24701 24702	200 ea 1000 ea

## Inserts for 1.5 mL large opening vials

Description	Cat. No.	Qty
0.10 mL, glass conical, O.D. 6 mm x H 31 mm	SU860067 854988	100 ea 1000 ea
0.10 mL, vial insert, glass conical (with bottom spring), O.D. 6 mm x H 29 mm	SU860066 854110	100 ea 1000 ea

## Vials

Inserts for 12 x 32 mm vials

### Inserts for 2 mL large opening vials, 6.0 mm I.D.

Description	Cat. No.	Qty
0.15 mL, glass conical (with top spring), O.D. 6 mm x H 29 mm	24719 24720	100 ea 500 ea
0.20 mL, glass conical (with bottom spring), O.D. 6 mm x H 29 mm	24721	100 ea
0.20 mL, polypropylene conical (with bottom spring), O.D. 6 mm x H 29 mm	24722	100 ea
0.25 mL, pulled point precision point, glass conical, O.D. 6 mm x H 31 mm	24717 24718	100 ea 1000 ea
0.25 mL, glass (with glass flange), for use with Step Vials	27407	100 ea
0.25 mL, polypropylene (with plastic flange), O.D. 6 mm x H 31 mm	27409	100 ea
0.35 mL, glass (shell style), O.D. 6 mm x H 31 mm	24715 24716	100 ea 1000 ea

## 4 mL Screw Top Vials



### 4 mL screw top vials, 15 X 45 mm, 13-425 thread

Description	Cat. No.	Qty
<b>Screw thread, clear glass</b>		
4 mL, clear glass, graduated, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27024	100 ea
4 mL, clear glass vial, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27111 27031	100 ea 1000 ea
4 mL, clear glass vial, O.D. 14.75 mm x H 45 mm x I.D. 8 mm, thread, 13-425	854190	100 ea
4 mL, clear glass vial, marking spot, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27113	1000 ea
4 mL, clear glass, precleaned	27340	100 ea
4 mL, silanized, clear glass vial, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27114 27220-U	100 ea 1000 ea
<b>Screw thread, amber glass</b>		
4 mL, amber glass vial, O.D. 15 mm x H 45 mm ( ) x I.D. 8 mm, thread, 13-425	27115-U 27032	100 ea 1000 ea
4 mL, amber glass vial, marking spot, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27116-U 27117-U	100 ea 1000 ea
4 mL, amber glass vial, O.D. 14.75 mm x H 45 mm x I.D. 8 mm, thread, 13-425	854986	100 ea
4 mL, amber glass, precleaned	27345	100 ea

Description	Cat. No.	Qty
4 mL, silanized, amber glass vial, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27217	100 ea
<b>13-425 thread, polypropylene</b>		
2.5 mL, polypropylene, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread: 13-425	27435	100 ea

## Closures for 4 mL vials, 13 x 425

### Closures for 4 mL vials, 13 x 425 mm



Polypropylene hole cap

Description	Cat. No.	Qty
<b>Hole caps, 13-425 thread</b>		
black phenolic cap, for use with 4 mL vial with 13-425 thread	27120-U	100 ea
black polypropylene cap, for use with 4 mL vial with 13-425 thread	27053	100 ea
black polypropylene (Top Hat), PTFE/silicone, for use with 4 mL vial with 13-425 thread	27439	100 ea
black polypropylene, PTFE/silicone, septum thickness 1.5 mm, for use with 4 mL vial with 13-425 thread	27018	100 ea
black polypropylene, red PTFE/silicone, thickness 1.5 mm, for use with 4 mL vial with 13-425 thread	SU860078	100 ea
black polypropylene, septum thickness 1.3 mm, for use with 4 mL vials with 13-425 thread	854987	100 ea
<b>Solid cap, green melamine resin, F217/PTFE liner</b>		
green melamine resin cap solid, F217/PTFE liner, for use with 4 mL vial with 13-425 thread	27141	100 ea
<b>Solid top caps, 13-425 thread</b>		
black phenolic cap, aluminum liner, for use with 4 mL vial with 13-425 thread	27142	100 ea
<b>Black Phenolic, PTFE/styrene-butadiene</b>		
Solid-top, PTFE-faced rubber liner, thread, 13-425	Z106429-200EA	200 ea
<b>Black Phenolic with 14B white rubber liner</b>		
Solid-top, white rubber liner, thread, 13-425	Z106402-200EA	200 ea

### Inserts for 15 x 45 mm vials

Description	Cat. No.	Qty
0.15 mL, glass insert (with bottom spring), O.D. 6 mm x H 38 mm	24748	100 ea
0.15 mL, polypropylene conical (with bottom spring), O.D. 6 mm x H 38 mm	24749	100 ea
0.25 mL, glass, insert style conical (spring required), O.D. 6 mm x H 39 mm	27118-U 27076	100 ea 1000 ea
spring for 0.25mL conical insert (27118-U, 27076)	27086-U	100 ea

## Vials

4 mL Screw Top Vials: Closures for 4 mL vials, 13 x 425

### Springs for vial inserts

Description	Cat. No.	Qty
spring for 0.25mL conical insert (27118-U, 27076)	27086-U	100 ea

### Septa for 4 mL vials, 11 mm diameter

Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 11 mm x thickness 0.060 in., for use with 4 mL vial	27144	100 ea
white PTFE/silicone, diam. 11 mm x thickness 0.075 in., for use with 4 mL vial	27356 27369-U	100 ea 1000 ea
red PTFE/silicone/red PTFE, septum diam. 11 mm x thickness 0.040 in., for use with 4mL vial	27122-U	100 ea
PTFE/red rubber, diam. 11 mm x thickness 0.050 in., for use with 4 mL vial	27145	100 ea
white PTFE, diam. 13 mm x thickness 0.010 in., for use with 4 mL vial	27146	100 ea
black Viton®, diam. 11 mm x thickness 0.060 in., for use with 4 mL vial	27351	100 ea

## Vials to fit Waters® 48, 717. 717 Plus



27538

### Polypropylene Limited Volume Shell Vials With Starburst Conical Snap Plugs

These polypropylene limited volume shell vials, with uniquely designed conical interior, eliminate the need for glass vials and inserts. No tedious laboratory assembly is required. These vials work in 48-position autosamplers. Precise conical design permits maximum sample evacuation. They are more effective and cost efficient than standard glass vials and inserts. The starburst design in the snap plug allows easy penetration.

### Shell vial for Waters Wisp 48 Position Carousel

#### Autosampler compatibility:

Agilent 7673A, Series I, II  
Shimadzu LC Autosamplers  
Waters 48, 717, 717 Plus

Description	Cat. No.	Qty
3 mL, polypropylene vial, Starburst conical snap plug included, diam. 15 mm x H 45 mm	27538	100 ea
4 mL, glass vial (with polyethylene closure), O.D. 14.65 mm x H 44.6 mm	854189	100 ea

### 2.5 mL polypropylene limited volume vial

#### Limited Volume Screw Thread Vials

Description	Cat. No.	Qty
2.5 mL, polypropylene, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread: 13-425	27435	100 ea



### WISP™ 48-position autosampler vials

Constructed of borosilicate glass. Screw-thread vials use 11 mm septa and 13-425 threaded screw-caps.

#### Autosampler compatibility:

Agilent 7673A, Series I, II  
Shimadzu LC Autosamplers  
Waters 48, 717, 717 Plus

volume ..... 4 mL  
size ..... 15 mm x 45 mm

Description	Cat. No.	Qty
clear screw-thread vials	Z291811-1PAK	200 ea
Polypropylene cap convenience pack, PTFE liner	Z291927-1PAK	200 ea
PP caps preassembled pack, PTFE liner	Z291935-1PAK	100 ea

### Vials, screw top vial & insert kit

#### Pre-Assembled Vials Kit

4 mL clear glass vials with 0.30 mL inserts  
Includes each of the following:

- screw top vials, 15 x 45 mm, 4 mL (27111)
- glass inserts, 0.30 mL clear glass, conical (27118-U)
- bottom springs for inserts (27086-U)
- closures, open top, phenolic, black (27120-U)
- septa, red PTFE/red rubber (27101)



27110

Description	Cat. No.	Qty
clear glass vial	27110	100 ea

## Vials

Snap-Ring vials, 15 x 45 mm

### Snap-Ring vials, 15 x 45 mm

#### Snap Seal™ vial, 4 mL

Description	Cat. No.	Qty
clear glass, O.D. 15 mm x H 45 mm x I.D. 8 mm	27440-U	100 ea

#### Closures for Snap Ring vials

Description	Cat. No.	Qty
polypropylene seal, PTFE/silicone septa, diam. 13 mm, starburst cap	27449	100 ea

### Pre-assembled Sampling Vials



From left to right: Phenolic Cap, PTFE/Silicone septum; Phenolic Cap, PTFE/red rubber septum; Polypropylene Cap, PTFE/Silicone septum; Polypropylene Cap, PTFE/Red rubber septum.

#### Vials with phenolic open-top screw cap, PTFE/silicone septum

Description	Cat. No.	Qty
2 mL, clear glass (standard opening - 4.6 mm), red PTFE/white silicone septum	27124-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 45 mm, tan PTFE/silicone septum	27136	100 ea
7 mL, clear glass, O.D. 17 mm x H 60 mm, tan PTFE/silicone septum	27148	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, tan PTFE/silicone septum	27159	100 ea
22 mL, clear glass, O.D. 23 mm x H 85 mm, tan PTFE/silicone septum	27170	100 ea
40 mL, clear glass, O.D. 29 mm x H 82 mm, tan PTFE/silicone septum	27180	100 ea
40 mL, clear glass, O.D. 27.5 mm x H 95 mm, tan PTFE/silicone septum	27089-U	100 ea
2 mL, amber glass (standard opening - 4.6 mm), red PTFE/silicone septum	27005	100 ea
4 mL, amber glass, O.D. 15 mm x H 45 mm, tan PTFE/silicone septum	27006	100 ea
7 mL, amber glass, O.D. 17 mm x H 60 mm, tan PTFE/silicone septum	27007	100 ea
15 mL, amber glass, O.D. 21 mm x H 70 mm, tan PTFE/silicone septum	27008	100 ea
22 mL, amber glass, O.D. 23 mm x H 85 mm, tan PTFE/silicone septum	27009-U	100 ea
40 mL, amber glass, O.D. 29 mm x H 82 mm, tan PTFE/silicone septum	27010-U	100 ea
40 mL, amber glass, O.D. 27.5 mm x H 95 mm, tan PTFE/silicone septum	27121-U	100 ea

#### Vials with phenolic open-top screw cap, PTFE/red rubber septum

Description	Cat. No.	Qty
2 mL, clear glass (standard opening - 4.6 mm), PTFE/red rubber septum	27123-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 45 mm, PTFE/red rubber septum	27135	100 ea
7 mL, clear glass, O.D. 17 mm x H 60 mm, PTFE/red rubber septum	27147	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, PTFE/red rubber septum	27158	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE/red rubber septum	27011	100 ea
4 mL, amber glass, O.D. 15 mm x H 45 mm, PTFE/red rubber septum	27012	100 ea
7 mL, amber glass, O.D. 17 mm x H 60 mm, PTFE/red rubber septum	27013	100 ea
15 mL, amber glass, O.D. 21 mm x H 70 mm, PTFE/red rubber septum	27014-U	100 ea
22 mL, amber glass, O.D. 23 mm x H 85 mm, PTFE/red rubber septum	27015	100 ea

#### Vials with polypropylene open-top screw cap, PTFE/silicone septum

Description	Cat. No.	Qty
2 mL, clear glass (standard opening - 4.6 mm), red PTFE/silicone septum	27208-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 45 mm, tan PTFE/silicone septum	27209-U	100 ea
7 mL, clear glass, O.D. 17 mm x H 60 mm, tan PTFE/silicone septum	27210	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, tan PTFE/silicone septum	27211	100 ea
22 mL, clear glass, H 85 mm x W 23 mm, tan PTFE/silicone septum	27212	100 ea
40 mL, clear glass, O.D. 29 mm x H 82 mm, tan PTFE/silicone septum	27213	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE/silicone septum	27046-U	100 ea
4 mL, amber glass, O.D. 15 mm x H 45 mm, tan PTFE/silicone septum	27047	100 ea
7 mL, amber glass, O.D. 17 mm x H 60 mm, PTFE/silicone septum	27048-U	100 ea
15 mL, amber glass, O.D. 21 mm x H 70 mm, PTFE/silicone septum	27049	100 ea
22 mL, amber glass, H 85 mm x W 23 mm, PTFE/silicone septum	27050-U	100 ea
40 mL, amber glass, O.D. 29 mm x H 82 mm, tan PTFE/silicone septum	27051	100 ea

#### Vials with polypropylene open-top screw cap, PTFE/red rubber septum

Description	Cat. No.	Qty
2 mL, clear glass (standard opening - 4.6 mm), PTFE/red rubber septum	27202-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 45 mm, PTFE/red rubber septum	27203-U	100 ea
7 mL, clear glass, O.D. 17 mm x H 60 mm, PTFE/red rubber septum	27204	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, PTFE/red rubber septum	27205	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE/red rubber septum	27040-U	100 ea

## Vials

## Pre-assembled Sampling Vials

Description	Cat. No.	Qty
4 mL, amber glass, O.D. 15 mm x H 45 mm, PTFE/red rubber septum	27041	100 ea
7 mL, amber glass, O.D. 17 mm x H 60 mm, PTFE/red rubber septum	27042-U	100 ea
22 mL, amber glass, O.D. 23 mm x H 85 mm, PTFE/red rubber septum	27044-U	100 ea

### Vials, screw top with solid green Melamine cap with PTFE liner, preassembled

F217/PTFE cap liner



Description	Cat. No.	Qty
2 mL, clear glass (standard opening - 4.6 mm), PTFE liner	27134	100 ea
4 mL, clear glass, O.D. 15 mm x H 45 mm, PTFE liner	27138	100 ea
7 mL, clear glass, O.D. 17 mm x H 60 mm, PTFE liner	27150-U	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, PTFE liner	27161	100 ea
22 mL, clear glass, O.D. 23 mm x H 85 mm, PTFE liner	27172-U	100 ea
40 mL, clear glass, O.D. 29 mm x H 82 mm, PTFE liner	27181	100 ea
2 mL, amber glass (standard opening - 4.6 mm), PTFE liner	27000	100 ea
4 mL, amber glass, O.D. 15 mm x H 45 mm, PTFE liner	27001-U	100 ea
7 mL, amber glass, O.D. 17 mm x H 60 mm, PTFE liner	27002-U	100 ea
15 mL, amber glass, H 70 mm x W 21 mm, PTFE liner	27003	100 ea
22 mL, amber glass, O.D. 23 mm x H 85 mm, PTFE liner	27004	100 ea
40 mL, amber glass, O.D. 29 mm x H 82 mm, PTFE liner	27182	100 ea

### Vials with phenolic solid-top screw cap, aluminum liner

Description	Cat. No.	Qty
2 mL, clear glass (standard opening - 4.6 mm), aluminum liner	27125-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 45 mm, aluminum liner	27137	100 ea
7 mL, clear glass, O.D. 17 mm x H 60 mm, aluminum liner	27149	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, aluminum liner	27160-U	100 ea

Description	Cat. No.	Qty
22 mL, clear glass, O.D. 23 mm x H 85 mm, aluminum liner	27171	100 ea
2 mL, amber glass (standard opening - 4.6 mm), aluminum liner	27468-U	100 ea
7 mL, amber glass, O.D. 17 mm x H 60 mm, aluminum liner	27470-U	100 ea
22 mL, amber glass, O.D. 23 mm x H 85 mm, aluminum liner	27472	100 ea

### Sample Vials in Lab-File®

Sample vials in Lab-File® are packaged in corrugated trays with partitions. Black phenolic screw caps are attached to vials with rubber lined caps. Vials and caps are autoclavable.

#### Wheaton sample vials with rubber lined caps

Caps have white styrene-butadiene rubber liner and are packed in Lab-File® cases. Clear Wheaton-33, low extractable borosilicate glass or amber Wheaton-320 glass. Can be sterilized and stored at low temperatures.



Description	Cat. No.	Qty
clear glass, volume 2 mL, cap: 8-425	Z256056-1PAK	288 ea
clear glass, volume 4 mL, cap, 13-425	Z256064-1PAK	144 ea
clear glass (white marking area), volume 4 mL, cap, 13-425	Z256250-1PAK	144 ea
clear glass, volume 8 mL, cap, 15-425	Z256161-1PAK	144 ea
clear glass (white marking area), volume 8 mL, cap, 15-425	Z256269-1PAK	144 ea
clear glass, volume 12 mL, cap, 15-425	Z256188-1PAK	144 ea
clear glass, volume 16 mL, cap, 18-400	Z256196-1PAK	144 ea
clear glass, volume 20 mL, cap, 24-400	Z256218-1PAK	72 ea
clear glass, volume 24 mL, cap, 20-400	Z256226-1PAK	144 ea
clear glass, volume 25 mL, cap, 24-400	Z256234-1PAK	72 ea
clear glass, volume 40 mL, cap, 24-400	Z256242-1PAK	72 ea
amber glass, volume 2 mL, cap: 8-425	Z256277-1PAK	288 ea
amber glass, volume 4 mL, cap, 13-425	Z256285-1PAK	144 ea
amber glass, volume 8 mL, cap, 15-425	Z256293-1PAK	144 ea

## Vials

Pre-assembled Vials with Graduations

### Pre-assembled Vials with Graduations

#### Graduated vials with open-top cap & PTFE/silicone septum

Hole caps are black phenolic.  
Septa are blue PTFE on white silicone.



Description	Cat. No.	Qty
2 mL, clear glass (standard opening), PTFE/silicone septum	27516	100 ea
4 mL, clear glass, PTFE/silicone septum	27517	100 ea
7 mL, clear glass, PTFE/silicone septum	27518	100 ea
15 mL, clear glass, PTFE/silicone septum	27519	100 ea
22 mL, clear glass, PTFE/silicone septum	27520-U	100 ea
40 mL, clear glass, O.D. 29 mm × H 82 mm, PTFE/silicone septum	27521	100 ea

#### Graduated vials with open-top cap & ThermoSeal® septum

Description	Cat. No.	Qty
4 mL, clear glass, THERMOSEAL® septum	27500-U	100 ea

#### Graduated vials with solid cap and PTFE liner

Description	Cat. No.	Qty
2 mL, clear glass (standard opening), PTFE liner	27505-U	100 ea
4 mL, clear glass, PTFE liner	27506-U	100 ea
7 mL, clear glass, PTFE liner	27507	100 ea
15 mL, clear glass, PTFE liner	27508	100 ea
22 mL, clear glass, PTFE liner	27509	100 ea

#### Graduated vials with open-top cap & barrier septum

Hole cap is black phenolic.  
Septum is silicone bonded to aluminum.

Description	Cat. No.	Qty
7 mL, clear glass, barrier septum	27524	100 ea
22 mL, clear glass, barrier septum	27526	100 ea
40 mL, clear glass, O.D. 29 mm × H 82 mm, barrier septum	27527	100 ea

### Vials Only



#### Vials, screw top, clear glass, 1.5 mL

Description	Cat. No.	Qty
1.5 mL, clear glass (with marking spot), O.D. 11.6 mm × H 32 mm × I.D. 4.6 mm, thread, 8-425	854171	100 ea
1.5 mL, clear glass, O.D. 11.6 mm × H 32 mm × I.D. 6.0 mm, thread, 10-425	854743	1000 ea

#### Vials, screw top, amber glass, 1.5 mL, 8-425 thread

Description	Cat. No.	Qty
1.5 mL, amber glass, O.D. 11.6 mm × H 32 mm × I.D. 4.6 mm, thread, 8-425	SU860083	100 ea
	854983	1000 ea

#### Vials, screw top, clear glass (vial only)

Description	Cat. No.	Qty
1.5 mL, clear glass, O.D. 12 mm × H 30 mm × I.D. 4.6 mm, 8-425, for PerkinElmer Clarus 600 GC Autosampler	507369	100 ea
	507377	1000 ea
2 mL, clear glass, O.D. 12 mm × H 32 mm × I.D. 4.6 mm, thread, 8-425	27078	100 ea
	27079	1000 ea
2 mL, clear glass (large opening), O.D. 12 mm × H 32 mm × I.D. 6.0 mm, thread, 10-425	27265	100 ea
	27266	2000 ea
4 mL, clear glass vial, O.D. 15 mm × H 45 mm × I.D. 8 mm, thread, 13-425	27111	100 ea
	27031	1000 ea
4 mL, clear glass vial, O.D. 14.75 mm × H 45 mm × I.D. 8 mm, thread, 13-425	854190	100 ea
7 mL, clear glass, O.D. 17 mm × H 60 mm × I.D. 9.5 mm, thread, 15-425	27151	100 ea
15 mL, clear glass, O.D. 21 mm × H 70 mm × I.D. 12 mm, thread, 18-400	27162	100 ea
22 mL, clear glass, O.D. 23 mm × H 85 mm × I.D. 18 mm, thread, 20-400	27173	100 ea
40 mL, clear glass, O.D. 29 mm × H 82 mm × I.D. 17 mm, thread, 24-400	27184	100 ea
40 mL, clear glass, O.D. 27.5 mm × H 95 mm, thread, 24-400	27379	100 ea
40 mL, clear glass, O.D. 27.5 mm × H 95 mm, thread, 24-400	SU860001	100 ea



## Vials

Vials Only

## Screw top vials, amber glass (vial only)

Description	Cat. No.	Qty
2 mL, amber glass (standard opening), thread, 8-425	27083-U 27087-U	100 ea 1000 ea
2 mL, amber glass (with graduated marking spot), 8-425	27084-U 27085-U	100 ea 1000 ea
2 mL, amber glass (large opening), O.D. 12 mm × H 32 mm × I.D. 6.0 mm, thread, 10-425	27267-U	100 ea
4 mL, amber glass vial, O.D. 15 mm × H 45 mm ( ) × I.D. 8 mm, thread, 13-425	27115-U 27032	100 ea 1000 ea
4 mL, amber glass vial, O.D. 14.75 mm × H 45 mm × I.D. 8 mm, thread, 13-425	854986	100 ea
7 mL, amber glass, O.D. 17 mm × H 60 mm × I.D. 9.5 mm, thread, 15-425	27072-U	100 ea
15 mL, amber glass, O.D. 21 mm × H 70 mm × I.D. 12 mm, thread, 18-400	27088-U	100 ea
20 mL, amber glass, O.D. 27.5 mm × H 57 mm, thread, 24-400	854991	1000 ea
22 mL, amber glass, O.D. 23 mm × H 85 mm × I.D. 18 mm, thread, 20-400	27073-U	100 ea
40 mL, amber glass, O.D. 29 mm × H 82 mm × I.D. 17 mm, thread, 24-400	27185-U	100 ea
40 mL, amber glass, O.D. 27.5 mm × H 95 mm × I.D. 17 mm, thread, 24-400	27382	100 ea
40 mL, amber glass, O.D. 27.5 mm × H 95 mm × I.D. 17 mm, thread: 24-400	23702-U	100 ea

## Sample vials in Lab-File® without caps

## Wheaton sample vials

Vials are packaged in corrugated trays with partitions then shrink-wrapped to reduce particulate contamination.

Autoclavable borosilicate USP Type 1 glass. Order caps separately.



Description	Cat. No.	Qty
clear, volume 2 mL, screw-cap size: 8-425, diam. 12 mm × H 36 mm	Z188697-1PAK	200 ea
clear, volume 4 mL, screw-cap size: 13-425, diam. 15 mm × H 46 mm	Z188700-1PAK	200 ea
clear, volume 8 mL, screw-cap size: 15-425, diam. 17 mm × H 61 mm	Z188719-1PAK	200 ea
clear, volume 12 mL, screw-cap size: 15-425, diam. 19 mm × H 66 mm	Z188727-1PAK	200 ea
clear, volume 16 mL, screw-cap size: 18-400, diam. 21 mm × H 71 mm	Z188735-1PAK	200 ea
clear, volume 24 mL, screw-cap size: 20-400, diam. 23 mm × H 86 mm	Z188743-1PAK	200 ea
amber, volume 2 mL, screw-cap size: 8-425, diam. 12 mm × H 36 mm	Z188778-1PAK	200 ea
amber, volume 4 mL, screw-cap size: 13-425, diam. 15 mm × H 46 mm	Z188786-1PAK	200 ea
amber, volume 8 mL, screw-cap size: 15-425, diam. 17 mm × H 61 mm	Z188794-1PAK	200 ea

## Vials, clear glass, screw top, graduated (vial only)

cap not included



Description	Cat. No.	Qty
2 mL, clear glass, graduated, O.D. 12 mm × H 32 mm × I.D. 4.6 mm, thread, 8-425	27023	100 ea
4 mL, clear glass, graduated, O.D. 15 mm × H 45 mm × I.D. 8 mm, thread, 13-425	27024	100 ea
7 mL, clear glass, graduated, O.D. 17 mm × H 60 mm, thread, 15-425	27025	100 ea
15 mL, clear glass, graduated, O.D. 21 mm × H 70 mm, thread, 18-400	27026	100 ea
22 mL, clear glass, graduated, O.D. 23 mm × H 85 mm, thread, 20-400	27027-U	100 ea
40 mL, clear glass, graduated, O.D. 29 mm × H 82 mm, thread, 24-400	27028-U	100 ea

## Screw Top Glass, Caps, and Septa for large volume vials (7-60 mL)



## 7 mL (17 x 60 mm) Screw Top Vials

## 7 mL screw top vials

Description	Cat. No.	Qty
7 mL, clear glass, O.D. 17 mm × H 60 mm × I.D. 9.5 mm, thread, 15-425	27151	100 ea
7 mL, clear glass, graduated, O.D. 17 mm × H 60 mm, thread, 15-425	27025	100 ea
7 mL, amber glass, O.D. 17 mm × H 60 mm × I.D. 9.5 mm, thread, 15-425	27072-U	100 ea

## Vials

Screw Top Glass, Caps, and Septa for large volume vials (7-60 mL): 7 mL (17 x 60 mm) Screw Top Vials

Septa for 7mL vials		
Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 13 mm x thickness 0.060 in., for use with 7 mL vial	27155	100 ea
blue PTFE/white silicone, diam. 13 mm x thickness 0.060 in., for use with 7 mL vial	27512	100 ea
High temperature PTFE/silicone, diam. 13 mm x thickness 0.060 in., for use with 7mL vial	27193	100 ea
PTFE/red rubber, diam. 13 mm x thickness 0.050 in., for use with 7 mL vials	27156	100 ea
white PTFE, diam. 15 mm x thickness 0.010 in., for use with 7 mL vial	27157	100 ea
aluminum/silicone, diam. 13 mm x thickness 0.060 in., for use with 7 mL vial	24884	100 ea
black Viton®, diam. 13 mm x thickness 0.060 in., for use with 7 mL vial	27352	100 ea

Caps for 7 mL vials		
Description	Cat. No.	Qty
black phenolic hole cap, for use with 7 mL vial with 15-425 thread	27154	100 ea
black polypropylene hole cap, for use with 7 mL vial with 15-425 thread	27054	100 ea
green melamine resin solid cap, F217/PTFE liner, for use with 7 mL vial with 15-425 thread	27152	100 ea
black phenolic solid cap, aluminum liner, for use with 7 mL vial with 15-425 thread, thread: 15-425	27153	100 ea

## 15 mL (21 x 70 mm) Screw Top Vials

15 mL screw top vials		
Description	Cat. No.	Qty
15 mL, clear glass, O.D. 21 mm x H 70 mm x I.D. 12 mm, thread, 18-400	27162	100 ea
15 mL, clear glass, graduated, O.D. 21 mm x H 70 mm, thread, 18-400	27026	100 ea
15 mL, amber glass, O.D. 21 mm x H 70 mm x I.D. 12 mm, thread, 18-400	27088-U	100 ea

Septa for 15mL vials		
Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 16 mm x thickness 0.090 in., for use with 15 mL vial	27166	100 ea
blue PTFE/white silicone, diam. 16 mm x thickness 0.060 in., for use with 15 mL vial	27513	100 ea
High temperature PTFE/silicone, diam. 16 mm x thickness 0.100 in., for use with 15mL vial	27194	100 ea
PTFE/red rubber, diam. 16 mm x thickness 0.060 in., for use with 15 mL vial	27167	100 ea

Description	Cat. No.	Qty
white PTFE liner, diam. 18 mm x thickness 0.010 in., for use with 15 mL vial	27168	100 ea
aluminum/silicone, diam. 16 mm x thickness 0.060 in., for use with 15 mL vial	24885-U	100 ea

**Septa, tan PTFE/silicone**  
temp. limit ..... 250 °C

Description	Cat. No.	Qty
tan PTFE/silicone, diam. 16 mm x thickness 0.060 in., for use with 15 mL vial	27380-U	100 ea

Caps for 15 mL vials		
Description	Cat. No.	Qty
black phenolic hole cap, for use with 15 mL vial with 18-400 thread	27165	100 ea
green melamine resin solid cap, F217/PTFE liner, for use with 15 mL vial with 18 mm thread	27163	100 ea
black phenolic solid cap, aluminum liner, thread: 18-400, for use with 15 mL vial	27164	100 ea

## 20 mL (27.5 x 57 mm) Screw Top Vials

20 mL screw top vials		
Description	Cat. No.	Qty
20 mL, clear glass, vials only, O.D. 28 mm x H 57.5 mm, thread, 22-400	Z253081-1PAK	500 ea
20 mL, amber glass, O.D. 27.5 mm x H 57 mm, thread, 24-400	854991	1000 ea

**Septa for 20 mL vials**  
temp. limit ..... 250 °C

Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 22 mm x thickness 0.100 in., for use with 20, 40 or 60 mL vial	27188-U	100 ea
white tan PTFE/silicone, diam. 22 mm x thickness 0.125 in., for use with 20, 40 or 60 mL vial	23193-U	100 ea
tan PTFE/silicone, diam. 22 mm x thickness 3.2 mm, for use with 20, 40, 60mL vial	SU860007	100 ea
blue PTFE/white silicone, diam. 22 mm x thickness 0.060 in., for use with 20, 40, 60 mL vial	27515	100 ea
High temperature PTFE/silicone, diam. 22 mm x thickness 0.100 in., for use with 20, 40, or 60 mL vial	27196	100 ea
aluminum/silicone, diam. 22 mm x thickness 0.100 in., for use with 20, 40, or 60 mL vial	27190-U	100 ea
black Viton®, diam. 22 mm x thickness 0.060 in., for use with 20, 40, or 60 mL vial	27355	100 ea

## Vials

Screw Top Glass, Caps, and Septa for large volume vials (7-60 mL): 20 mL (27.5 x 57 mm) Screw Top Vials

## Caps for 20 mL vials

Description	Cat. No.	Qty
black phenolic hole cap, for use with 20 or 40 mL vial with 24-400 thread	27187	100 ea
black polypropylene hole cap, for use with 20, 40, or 60 mL vial with 24-400 thread	27057	100 ea
green melamine resin solid cap, F217/PTFE liner, for use with 20 or 40 mL vial with 24-400 thread	27186	100 ea
white polypropylene cap (solid), tan PTFE/silicone (EPA Quality), thickness 3.2 mm, thread: 24-400, for use with 20 or 40mL vial	SU860006	100 ea

## 22 mL (23 x 85 mm) Screw Top Vials

## 22 mL screw top vials

Description	Cat. No.	Qty
22 mL, clear glass, O.D. 23 mm x H 85 mm x I.D. 18 mm, thread, 20-400	27173	100 ea
22 mL, clear glass, graduated, O.D. 23 mm x H 85 mm, thread, 20-400	27027-U	100 ea
22 mL, amber glass, O.D. 23 mm x H 85 mm x I.D. 18 mm, thread, 20-400	27073-U	100 ea

## Septa for 22 mL vials

Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 18 mm x total thickness 0.060 in. x PTFE thickness 5 mil, for use with 22 mL vial	27177	100 ea
blue PTFE/white silicone, diam. 18 mm x thickness 0.060 in., for use with 22 mL vial	27514	100 ea
High temperature PTFE/silicone, diam. 18 mm x thickness 0.060 in., for use with 22mL vial	27195	100 ea
PTFE/red rubber, diam. 18 mm x thickness 0.050 in., for use with 22 mL vial	27178	100 ea
white PTFE, diam. 21 mm x thickness 0.010 in., for use with 22 mL vial	27179	100 ea
aluminum/silicone, diam. 18 mm x thickness 0.060 in., for use with 22 mL vial	24886-U	100 ea
black Viton®, diam. 18 mm x thickness 0.060 in., for use with 22 mL vial	27354	100 ea

## Caps for 22 mL vials

Description	Cat. No.	Qty
black phenolic hole cap, for use with 22 mL vial with 20-400 thread	27176	100 ea
black polypropylene hole cap, for use with 22 mL vial with 20-400 thread	27056	100 ea
green melamine resin solid cap, F217/PTFE liner, for use with 22 mL vial with 20 mm thread	27174-U	100 ea
black phenolic solid cap, aluminum liner, for use with 22 mL vial (with 20 mm thread), thread: 20-400	27175-U	100 ea

## 40 mL Screw Top Vials

## 40 mL screw top vials

Description	Cat. No.	Qty
40 mL, clear glass, O.D. 29 mm x H 82 mm x I.D. 17 mm, thread, 24-400	27184	100 ea
40 mL, clear glass, O.D. 27.5 mm x H 95 mm, thread, 24-400	27379	100 ea
40 mL, clear glass, O.D. 27.5 mm x H 95 mm, thread, 24-400	SU860001	100 ea
40 mL, clear glass, graduated, O.D. 29 mm x H 82 mm, thread, 24-400	27028-U	100 ea
40 mL, amber glass, O.D. 29 mm x H 82 mm x I.D. 17 mm, thread, 24-400	27185-U	100 ea
40 mL, amber glass, O.D. 27.5 mm x H 95 mm x I.D. 17 mm, thread, 24-400	27382	100 ea
40 mL, amber glass, O.D. 27.5 mm x H 95 mm x I.D. 17 mm, thread: 24-400	23702-U	100 ea

## Septa for 40 mL vials

Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 22 mm x thickness 0.100 in., for use with 20, 40 or 60 mL vial	27188-U	100 ea
white tan PTFE/silicone, diam. 22 mm x thickness 0.125 in., for use with 20, 40 or 60 mL vial	23193-U	100 ea
tan PTFE/silicone, diam. 22 mm x thickness 3.2 mm, for use with 20, 40, 60mL vial	SU860007	100 ea
blue PTFE/white silicone, diam. 22 mm x thickness 0.060 in., for use with 20, 40, 60 mL vial	27515	100 ea
High temperature PTFE/silicone, diam. 22 mm x thickness 0.100 in., for use with 20, 40, or 60 mL vial	27196	100 ea
aluminum/silicone, diam. 22 mm x thickness 0.100 in., for use with 20, 40, or 60 mL vial	27190-U	100 ea
black Viton®, diam. 22 mm x thickness 0.060 in., for use with 20, 40, or 60 mL vial	27355	100 ea
PTFE/silicone, septum diam. 22 mm x thickness 0.100 in.	23245-U	144 ea

## Caps for 40 mL vials

Description	Cat. No.	Qty
black phenolic hole cap, for use with 20 or 40 mL vial with 24-400 thread	27187	100 ea
black polypropylene hole cap, for use with 20, 40, or 60 mL vial with 24-400 thread	27057	100 ea
green melamine resin solid cap, F217/PTFE liner, for use with 20 or 40 mL vial with 24-400 thread	27186	100 ea
white polypropylene cap (solid), tan PTFE/silicone (EPA Quality), thickness 3.2 mm, thread: 24-400, for use with 20 or 40mL vial	SU860006	100 ea

## Vials

Septa for Screw Top Vials

### Septa for Screw Top Vials

#### Compatibility/Incompatibility of Septa

##### Barrier (maximum temp. 350 °C)

Silicone bonded to aluminum. Use in sealing applications where non-permeability and low volatility are required at temperatures above 177 °C. Affected by many organic solvents (see examples under Silicone).

##### Butyl (maximum temp. 200 °C)

Use with many organic solvents: acetic acid (<50%), acetonitrile, acetone, alcohols, DMSO, phenol. Not compatible with alkanes, benzene, carbon disulfide, chlorinated solvents, cyclohexane.

##### Red rubber (maximum temp. 100 °C)

Use with many hydrocarbons, acetonitrile, alcohols, cyclohexane. Not compatible with chlorinated solvents.

##### Silicone (maximum temp. 250 °C)

Use with acetone, alcohols, DMSO, ether, aqueous samples. Affected by many organic solvents: acetonitrile, benzene, chloroform, hexane, pyridine, tetrahydrofuran, toluene.

##### Teflon/Rubber (maximum temp. 100 °C)

Use with most organics (until pierced). Resistant to chlorosilanes.

##### PTFE/Silicone (maximum temp. 250 °C)

Use with most organics (until pierced). Not recommended for use with chlorosilanes.

##### PTFE/Thermoseal (maximum temp. 300 °C)

An improved grade of silicone septa that can be used at higher temperatures. Affected by many organic solvents (see examples under Silicone).

##### Viton (maximum temp. 260 °C)

Resists mineral oil, aliphatic and aromatic hydrocarbons, high concentrations of acids, high temperatures. Not compatible with strong bases, ketones, low molecular weight ester

#### Septa, Blue PTFE/white silicone

temp. limit ..... 250 °C



Description	Cat. No.	Qty
diam. 8 mm × thickness 0.060 in., for use with 2 mL vial - standard opening	27510-U	100 ea
for use with 2 mL vial - standard opening, diam. 8 mm	507768	100 ea
for use with 2 mL vial - standard opening, diam. 8 mm, durometer: 30	507741	100 ea
diam. 11 mm × thickness 0.060 in., for use with 4 mL vial	27511	100 ea
blue PTFE/white silicone, diam. 13 mm × thickness 0.060 in., for use with 7 mL vial	27512	100 ea
blue PTFE/white silicone, diam. 16 mm × thickness 0.060 in., for use with 15 mL vial	27513	100 ea
blue PTFE/white silicone, diam. 18 mm × thickness 0.060 in., for use with 22 mL vial	27514	100 ea
blue PTFE/white silicone, diam. 22 mm × thickness 0.060 in., for use with 20, 40, 60 mL vial	27515	100 ea

#### Septa, tan PTFE/white silicone

Septa are sized to fit screw top vials.

temp. limit ..... 250 °C



Tan PTFE/white silicone

Description	Cat. No.	Qty
white tan PTFE/silicone, diam. 8 mm × thickness 0.060 in., for use with 2 mL vial, standard opening	27095-U 33213	100 ea 1000 ea
white tan PTFE/silicone, diam. 11 mm × thickness 0.060 in., for use with 4 mL vial	27144	100 ea
white tan PTFE/silicone, diam. 13 mm × thickness 0.060 in., for use with 7 mL vial	27155	100 ea
tan PTFE/silicone, diam. 16 mm × thickness 0.060 in., for use with 15 mL vial	27380-U	100 ea
white tan PTFE/silicone, diam. 16 mm × thickness 0.090 in., for use with 15 mL vial	27166	100 ea
white tan PTFE/silicone, diam. 18 mm × total thickness 0.060 in. × PTFE thickness 5 mil, for use with 22 mL vial	27177	100 ea
tan PTFE/silicone, diam. 22 mm × thickness 3.2 mm, for use with 20, 40, 60 mL vial	SU860007	100 ea
white tan PTFE/silicone, diam. 22 mm × thickness 0.100 in., for use with 20, 40 or 60 mL vial	27188-U	100 ea
white tan PTFE/silicone, diam. 22 mm × thickness 0.125 in., for use with 20, 40 or 60 mL vial	23193-U	100 ea

#### Septa, red PTFE/Silicone

temp. limit ..... 250 °C



Description	Cat. No.	Qty
red PTFE/white silicone, red PTFE face, white silicone body, diam. 8 mm × thickness 0.060 in., for use with 2mL standard opening vial	27097-U 23243	100 ea 1000 ea
red PTFE/white silicone, diam. 10 mm × thickness 0.060 in., for use with 2 mL large opening vials	27277 27278	100 ea 1000 ea

#### Septa, white PTFE/silicone

temp. limit ..... 250 °C

Description	Cat. No.	Qty
PTFE/silicone, diam. 8 mm × thickness 0.060 in., durometer 20, for use with 2 mL vial - standard opening	507784	100 ea

## Vials

### Septa for Screw Top Vials

Description	Cat. No.	Qty
white PTFE/silicone, diam. 11 mm × thickness 0.075 in., for use with 4 mL vial	27356 27369-U	100 ea 1000 ea
white PTFE/silicone, diam. 20 mm × thickness 0.125 in. × PTFE thickness 0.005 in.	27361 27374	100 ea 1000 ea

#### Septa, PTFE/silicone with slit

temp. limit ..... 250 °C



Description	Cat. No.	Qty
red PTFE/white silicone, with slit, diam. 8 mm × thickness 0.060 in., for use with 2 mL vial, standard opening	27098-U 24881	100 ea 1000 ea
red PTFE/white silicone, diam. 10 mm × thickness 0.040 in., for use with 2 mL large opening vials	27279 27280-U	100 ea 1000 ea

#### Septa, PTFE/silicone/PTFE



Description	Cat. No.	Qty
red PTFE/silicone/red PTFE, diam. 9 mm × thickness 1.0 mm	29041-U	100 ea
red PTFE/silicone/red PTFE, septum diam. 11 mm × thickness 0.040 in., for use with 4mL vial	27122-U	100 ea
red PTFE/silicone/red PTFE, diam. 10 mm × thickness 0.040 in., for use with 2 mL large opening vials	27275 27276	100 ea 1000 ea

#### Septa, Barrier

aluminum/silicone

septum type ..... Barrier

temperature limit ..... 250 °C



Description	Cat. No.	Qty
aluminum/silicone, diam. 8 mm × thickness 0.060 in., for use with 2 mL vial, standard opening	24882-U	100 ea
aluminum/silicone, diam. 11 mm × thickness 0.060 in., for use with 4 mL vial	24883	100 ea
aluminum/silicone, diam. 13 mm × thickness 0.060 in., for use with 7 mL vial	24884	100 ea
aluminum/silicone, diam. 16 mm × thickness 0.060 in., for use with 15 mL vial	24885-U	100 ea
aluminum/silicone, diam. 18 mm × thickness 0.060 in., for use with 22 mL vial	24886-U	100 ea

Description	Cat. No.	Qty
barrier (aluminum faced silicone), diam. 20 mm × thickness 0.100 in.	27189	100 ea
aluminum/silicone, diam. 22 mm × thickness 0.100 in., for use with 20, 40, or 60 mL vial	27190-U	100 ea

#### Septa, Thermoseal®

temperature limit ..... 260 °C



Description	Cat. No.	Qty
High temperature PTFE/silicone, diam. 8 mm × thickness 0.060 in., for use with 2mL standard opening vial	27191	100 ea
High temperature PTFE/silicone, diam. 11 mm × thickness 0.060 in., for use with 4mL vial	27192	100 ea
High temperature PTFE/silicone, diam. 13 mm × thickness 0.060 in., for use with 7mL vial	27193	100 ea
High temperature PTFE/silicone, diam. 16 mm × thickness 0.100 in., for use with 15mL vial	27194	100 ea
High temperature PTFE/silicone, diam. 18 mm × thickness 0.060 in., for use with 22mL vial	27195	100 ea
High temperature PTFE/silicone, diam. 20 mm × thickness 0.060 in.	27540-U	100 ea
High temperature PTFE/silicone, diam. 22 mm × thickness 0.100 in., for use with 20, 40, or 60 mL vial	27196	100 ea

#### Septa, PTFE/red rubber

temperature limit ..... 120 °C



PTFE/Rubber Septa

Description	Cat. No.	Qty
PTFE/red rubber, diam. 8 mm × thickness 0.050 in., for use with screw cap, 8-425	27132	100 ea
PTFE/red rubber, diam. 9 mm × thickness 1.0 mm	29038-U	100 ea
PTFE/red rubber, diam. 11 mm × thickness 0.050 in., for use with 4 mL vial	27145	100 ea
PTFE/red rubber, diam. 13 mm × thickness 0.050 in., for use with 7 mL vials	27156	100 ea
PTFE/red rubber, diam. 16 mm × thickness 0.060 in., for use with 15 mL vial	27167	100 ea
PTFE/red rubber, diam. 18 mm × thickness 0.050 in., for use with 22 mL vial	27178	100 ea
PTFE/red rubber, diam. 20 mm × thickness 0.125 in., for use with 20 mm crimp seal, 22 mm screw cap	27233	100 ea

## Vials

### Septa for Screw Top Vials

#### Cap liner, PTFE

Oversized for better sealing ability.

temp. limit ..... 225 °C



Description	Cat. No.	Qty
white PTFE, diam. 8 mm, for use with 2 mL vial - standard opening	507806	100 ea
white PTFE, diam. 9 mm × thickness 0.010 in., for use with 2 mL vial, standard opening	27133	100 ea
white PTFE, diam. 13 mm × thickness 0.010 in., for use with 4 mL vial	27146	100 ea
white PTFE, diam. 15 mm × thickness 0.010 in., for use with 7 mL vial	27157	100 ea
white PTFE liner, diam. 18 mm × thickness 0.010 in., for use with 15 mL vial	27168	100 ea
white PTFE, diam. 21 mm × thickness 0.010 in., for use with 22 mL vial	27179	100 ea

#### Septa, Viton®

temperature limit ..... 260 °C



Description	Cat. No.	Qty
black Viton®, diam. 8 mm × thickness 0.060 in., for use with 2 mL vial, standard opening	27350-U	100 ea
black Viton®, diam. 11 mm × thickness 0.060 in., for use with 4 mL vial	27351	100 ea
black Viton®, diam. 13 mm × thickness 0.060 in., for use with 7 mL vial	27352	100 ea
black Viton®, diam. 18 mm × thickness 0.060 in., for use with 22 mL vial	27354	100 ea
black Viton®, diam. 22 mm × thickness 0.060 in., for use with 20, 40, or 60 mL vial	27355	100 ea

#### Septum, PTFE/Butyl

Septa, PTFE faced butyl



PTFE faced butyl

Description	Cat. No.	Qty
PTFE/rubber (butyl (Pharma-Fix)), diam. 20 mm × thickness 0.135 in.	27201	100 ea

#### Septa for open top caps

For use with cut-out top caps and Wheaton vials.



Description	Cat. No.	Qty
for cap size: 8 mm, red PTFE/silicone	Z162558-100EA	100 ea
for cap size: 8 mm, tan PTFE/silicone	Z162566-100EA	100 ea
for cap size: 13 mm, PTFE/silicone	Z106496-100EA	100 ea
for cap size: 13 mm, PTFE-faced styrene-butadiene rubber	Z106526-100EA	100 ea
for cap size: 15 mm, PTFE/silicone	Z106518-100EA	100 ea
for cap size: 15 mm, PTFE/red rubber	Z106534-100EA	100 ea
for cap size: 18 mm, PTFE/silicone	Z188859-1PAK	100 ea
for cap size: 20 mm, PTFE/silicone	Z127302-100EA	100 ea
for cap size: 20 mm, PTFE/red rubber	Z127310-100EA	100 ea
for cap size: 22 mm, PTFE/silicone, for Wheaton vial	Z253111-1PAK	100 ea

## Screw Caps

#### Screw cap, phenolic, with open center

autoclavable .....  
temp. limit ..... 149 °C



Phenolic hole cap

Description	Cat. No.	Qty
black phenolic hole cap, thread: 8-425, no septum	27094-U	100 ea
black phenolic cap, for use with 4 mL vial with 13-425 thread	27120-U	100 ea
black phenolic hole cap, for use with 7 mL vial with 15-425 thread	27154	100 ea
black phenolic hole cap, for use with 15 mL vial with 18-400 thread	27165	100 ea
black phenolic hole cap, for use with 22 mL vial with 20-400 thread	27176	100 ea
black phenolic cap, configured for 10 mL SPME vial with 22-400 thread	23236	144 ea
black phenolic hole cap, for use with 20 or 40 mL vial with 24-400 thread	27187	100 ea



## Vials

### Screw Caps

#### Screw cap (open-top), polypropylene

These hole caps do not come with septa.

autoclavable .....  
temp. limit ..... 135 °C



Polypropylene hole cap

Description	Cat. No.	Qty
black polypropylene hole cap, thread, 8-425	27052 24764	100 ea 1000 ea
black polypropylene cap, for use with 2 mL large opening (6.0 mm) vial with 10-425 thread	27271 27272-U	100 ea 1000 ea
black polypropylene cap, for use with 4 mL vial with 13-425 thread	27053	100 ea
black polypropylene hole cap, for use with 7 mL vial with 15-425 thread	27054	100 ea
black polypropylene hole cap, for use with 22 mL vial with 20-400 thread	27056	100 ea
black polypropylene hole cap, for use with 20, 40, or 60 mL vial with 24-400 thread	27057	100 ea
black polypropylene, open-top, thread: 8-425	Z291668-1PAK	100 ea

#### Wheaton black phenolic open top screw cap (without septa)

Description	Cat. No.	Qty
black phenolic cap, cut-out top, without septum, thread, 8-425	Z162531-200EA	200 ea
Cut-out top, without septum, thread, 13-425	Z106445-200EA	200 ea
Cut-out top, without septum, thread, 15-425	Z106453-200EA	200 ea
Cut-out top, without septum, thread, 18-400	Z188840-1PAK	200 ea
Cut-out top, without septum, thread, 20-400	Z127299-200EA	200 ea
Cut-out top, without septum, thread, 22-400	Z253103-1PAK	200 ea

#### Screw cap, solid top with PTFE liner

Solid caps with F217/PTFE liner. F217 is a triple layer liner that consists of a foamed polyethylene core between two layers of virgin low-density polyethylene. This liner is faced with another layer of PTFE (polytetrafluoroethylene).

temp. limit ..... 49 °C



Solid cap with PTFE liner

For Use With	Cat. No.	Qty
green melamine resin cap solid liner F217/PTFE		
2 mL vial (standard opening with 8-425 thread)	27091-U	100 ea
4 mL vial with 13-425 thread	27141	100 ea
green melamine resin solid cap liner F217/PTFE		
7 mL vial with 15-425 thread	27152	100 ea
15 mL vial with 18 mm thread	27163	100 ea
22 mL vial with 20 mm thread	27174-U	100 ea
20 or 40 mL vial with 24-400 thread	27186	100 ea

#### Screw cap, solid top with aluminum liner

temp. limit ..... 135 °C



Solid cap with aluminum liner

Description	Cat. No.	Qty
black phenolic cap solid, aluminum liner, for use with 2 mL vial (standard opening), thread: 8-425	27092-U	100 ea
black phenolic cap, aluminum liner, for use with 4 mL vial with 13-425 thread	27142	100 ea
black phenolic solid cap, aluminum liner, for use with 7 mL vial with 15-425 thread, thread: 15-425	27153	100 ea
black phenolic solid cap, aluminum liner, thread: 18-400, for use with 15 mL vial	27164	100 ea
black phenolic solid cap, aluminum liner, for use with 22 mL vial (with 20 mm thread), thread: 20-400	27175-U	100 ea

#### Wheaton phenolic solid top screw cap

#### Black plastic caps

These autoclavable caps are designed to ensure the ultimate in product safety. The liners are white styrene-butadiene rubber faced with PTFE.

Description	Cat. No.	Qty
Solid-top, white rubber liner, black phenolic cap, thread, 8-425	Z188808-1PAK Z188808-10PAK	100 ea 1000 ea
Solid-top, white rubber liner, thread, 13-425	Z106402-200EA	200 ea
Solid-top, white rubber liner, thread, 15-425	Z106410-200EA	200 ea
Solid-top, white rubber liner, thread, 18-400	Z188816-1PAK	500 ea
Solid-top, white rubber liner, thread, 20-400	Z188824-1PAK	500 ea
Solid-top, PTFE-faced rubber liner, thread, 13-425	Z106429-200EA	200 ea
Solid-top, PTFE-faced rubber liner, thread, 15-415	Z203610-200EA	200 ea
Solid-top, PTFE-faced rubber liner, thread, 15-425	Z106437-200EA	200 ea
Solid-top, PTFE-faced rubber liner, thread, 18-400	Z188832-1PAK	200 ea
Solid-top, PTFE-faced rubber liner, thread, 20-400	Z164313-100EA	100 ea

## Vials

Screw Caps: *Wheaton phenolic solid top screw cap*

### Inter-Seal™ bonded caps (inseparable caps and liner)

Inter-Seal™ bonded caps eliminate expensive and time consuming hand assembly while preventing liner fallout. They are made by a bonding process that bonds PTFE/silicone into polypropylene closures without using adhesives. The bonding properly seats and secures the septa within the vial opening. This integrated one piece system withstands multiple injections, making it very cost effective.

Benefits include:

- Significant bond strength
- Withstands multiple injections
- Resistant to coring
- Excellent resealability
- Broad chemical resistance

Description	Cat. No.	Qty
<b>Interseal cap, 8-425 thread</b>		
white cap, PTFE/silicone, thread, 8-425	29099-U	100 ea
black cap, PTFE/silicone, thread, 8-425	29102-U	100 ea
black cap, PTFE/silicone (with slit), thread, 8-425	29103-U	100 ea
<b>Interseal cap, 10-425 thread</b>		
black cap, PTFE/silicone septa, thread, 10-425	29112-U	100 ea
black cap, PTFE/silicone septa (with slit), thread, 10-425	29113-U	100 ea
white cap, PTFE/silicone septa, thread, 10-425	29114-U	100 ea
<b>Interseal cap, 13-425 thread</b>		
black cap, PTFE/silicone, thread, 13-425	29153-U	100 ea
white cap, PTFE/silicone, thread, 13-425	29157-U	100 ea
<b>Interseal cap, 24-400 thread</b>		
white polypropylene cap (15mm center hole), tan PTFE/silicone, thickness 3.2 mm, thread: 24-400, for use with 20 or 40 mL vial	SU860005	1000 ea
white polypropylene cap (solid), tan PTFE/silicone (EPA Quality), thickness 3.2 mm, thread: 24-400, for use with 20 or 40mL vial	SU860006	100 ea



### Assembled screw cap with hole and PTFE/silicone septum

Description	Cat. No.	Qty
<b>Hole caps, 8-425 thread</b>		
black phenolic, PTFE/silicone, septum thickness 1.5 mm, thread, 8-425	27093-U 33242	100 ea 1000 ea
black polypropylene hole cap, PTFE/silicone, Top Hat (septum and closure designed to fit together tightly)	27261-U	100 ea
black polypropylene, PTFE/silicone, septum thickness 1.5 mm, thread: 8-425	27262	100 ea
black polypropylene, PTFE/silicone (red PTFE/white silicone), septum thickness 1.3 mm, thread: 8-425	SU860076	100 ea

Description	Cat. No.	Qty
black polypropylene, PTFE/silicone (red PTFE/creme silicone), thread: 8-425, septum thickness 1.5 mm	854985	100 ea
<b>Hole caps, 10-425 thread</b>		
black polypropylene, thread: 10-425, PTFE/silicone, thickness 1.5 mm, for use with 2 mL vial (large opening)	27273	100 ea
<b>Hole caps, 13-425 thread</b>		
black polypropylene, PTFE/silicone, septum thickness 1.5 mm, for use with 4 mL vial with 13-425 thread	27018	100 ea
black polypropylene, red PTFE/silicone, thickness 1.5 mm, for use with 4 mL vial with 13-425 thread	SU860078	100 ea
<b>Hole caps, 15-425 thread</b>		
black polypropylene, thread: 15-425, septum thickness 1.5 mm, for use with 7 mL vial	27019	100 ea
<b>Hole caps, 18-400 thread</b>		
black polypropylene, thread: 18-400, septum thickness 1.5 mm, for use with 15 mL vial	27020	100 ea
<b>Hole caps, 20-400 thread</b>		
black polypropylene, thread: 20-400, septum thickness 1.9 mm, for use with 22 mL vial	27021	100 ea
<b>Hole caps, 24-400 thread</b>		
black polypropylene, thread: 24-400, septum thickness 1.5 mm, for use with 20, 40, or 60 mL vial	27022	100 ea

### Assembled screw cap with hole and TFE/rubber septum

hardness (Durometer: shore A) 60

Description	Cat. No.	Qty
black polypropylene, septum (TEF/red rubber), septum thickness 1.3 mm, thread: 8-425	SU860091 854984	100 ea 1000 ea
black polypropylene, septum thickness 1.3 mm, for use with 4 mL vials with 13-425 thread	854987	100 ea

## Closures with Pre-Cut Septa for HPLC Applications

### Closures with pre-cut septa

**Pre-cut septa:** The silicone material is cut through in Y-form while the PTFE layer remains uncut. The silicone layer represents 95% of the total septa thickness while the PTFE layer is only 5% or less.

The Y-form shape of the cut was chosen for several reasons. Since the PTFE layer is uncut, this product provides protection against contamination until the needle pierces through it. The needle can easily penetrate through the Y-slit of the septa material (only the thickness of the PTFE layer needs to be penetrated by the needle). Less pressure is required for the autosampler needle to penetrate the pre-cut septa, resulting in fewer bent and/or broken needles.

## Vials

Closures with Pre-Cut Septa for HPLC Applications

The uncut PTFE layer provides a better seal than other commercially solid slitted septa until the needle punctures the septa. The Y-shaped cut allows air to enter the vial eliminating vacuum formation. The design provides the needle with a larger target area for penetration even when the needle doesn't come down in the center of the septa.



9 mm blue polypropylene hole cap with pre-cut septa

Description	Cat. No.	Qty
<b>Snap cap</b>		
11 mm, Snap cap, soft version, blue polyethylene, red PTFE/silicone, thickness 1.0 mm	29491-U	100 ea
11 mm, Snap cap, soft version, transparent polyethylene, red PTFE/silicone, thickness 1.0 mm	29492-U	100 ea
11 mm, Snap cap, blue polyethylene, red PTFE/silicone, thickness 1.0 mm	29493-U	100 ea
11 mm, Snap cap, transparent polyethylene, red PTFE/silicone, thickness 1.0 mm	29494-U	100 ea
<b>Magnetic cap</b>		
20 mm, Magnetic cap, UltraClean, transparent PTFE/silicone, thickness 3.0 mm	29495-U	100 ea
20 mm, Magnetic cap, UltraClean, red PTFE/silicone, thickness 1.5 mm	29496-U	100 ea
18 mm, Magnetic screw thread cap, UltraClean, red PTFE/silicone, thickness 1.5 mm	29497-U	100 ea
<b>9 mm thread</b>		
9 mm, blue polypropylene, red PTFE/silicone, x thickness 1.0 mm	29498-U	100 ea
9 mm, transparent polypropylene, red PTFE/silicone, thickness 1.0 mm	29499-U	100 ea

## Silane-Treated Vials and Accessories

## Vials, screw top, silane-treated

Cap not included.

## Features and Benefits

- Proprietary silane treatment shields active silanol groups on untreated glass surfaces.
- Improved recovery of submicrogram polar compounds.
- Save time and money.

Description	Cat. No.	Qty
2 mL, silanized, clear glass, thread, 8-425	27029-U 27030	100 ea 1000 ea
2 mL, silanized, amber glass, thread, 8-425	27238 27219	100 ea 1000 ea
2 mL, silanized, amber glass, thread size 9 mm	28304-U	100 ea
4 mL, silanized, clear glass vial, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27114 27220-U	100 ea 1000 ea
4 mL, silanized, amber glass vial, O.D. 15 mm x H 45 mm x I.D. 8 mm, thread, 13-425	27217	100 ea

## Vials, crimp top, silane-treated

Description	Cat. No.	Qty
2 mL, silanized, clear glass, crimp top, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, vial only	27060-U 27061	100 ea 1000 ea
2 mL, silanized, amber glass, crimp top, O.D. 12 mm x H 32 mm x I.D. 6.0 mm, vial only	27225-U 27216	100 ea 1000 ea

Please note: To obtain a quote on silane treatment for other glassware, please contact your Sigma-Aldrich Technical Service representative at [techservice@sial.com](mailto:techservice@sial.com).

## Precleaned Sampling Containers

## Features and Benefits

Cleaned for water sampling according to US EPA 40 CFR 136, *Guidelines for Establishing Test Procedures for the Analysis of Pollutants*. These vials are assembled with open-top screw caps and specially designed septa.

## EPA Vials, white polypropylene screw top with hole cap, pre-cleaned and assembled

Each of the vials is cleaned according to US EPA Protocol B: The cleaning procedure is as follows:

1. Wash containers in hot water using laboratory grade non-phosphate detergent.
2. Rinse three times with copious amounts of tap water to remove detergent.
3. Rinse three times with ASTM Type I organic-free water.
4. Oven-dry containers.
5. Allow containers to cool to room temperature in an enclosed contaminant-free environment.
6. Cap the containers.

After being cleaned these vials are assembled with the following materials: Type 1 borosilicate glass, PTFE/silicone septa, and a polypropylene cap. The vials are available in either clear or amber glass. All of the vials are packaged with an open top cap and a tan/white PTFE/silicone septa.

The 40 mL EPA vials are supplied with a Certificate of Analysis and a package of labels to use to identify the contents of your sample. The package of vials is shrink wrapped after cleaning to make sure that the vials arrive to you as clean as possible.

PTFE/silicone septa (Thickness: 0.125")

white polypropylene cap

closure type ..... Hole cap



Precleaned Vials, 40 mL

Description	Cat. No.	Qty
40 mL, clear glass	23188	72 ea
40 mL, amber glass	23189	72 ea

## Vials

### Pre-cleaned Sampling Containers

#### Vials, black polypropylene screw top with hole cap, pre-cleaned and assembled

The 2-22 mL vials are supplied with a Certificate of Conformity and a package of 100 labels.

Description	Cat. No.	Qty
2 mL, clear glass, precleaned	27339	100 ea
4 mL, clear glass, precleaned	27340	100 ea
7 mL, clear glass, precleaned	27341	100 ea
15 mL, clear glass, precleaned	27342	100 ea
22 mL, clear glass, precleaned	27343	100 ea
2 mL, amber glass, precleaned	27344	100 ea
4 mL, amber glass, precleaned	27345	100 ea
7 mL, amber glass, precleaned	27346	100 ea
15 mL, amber glass, precleaned	27347	100 ea
22 mL, amber glass, precleaned	27348	100 ea

#### Containers, precleaned

The following containers are cleaned according to US EPA protocol B. Black polypropylene cap with 0.030" PTFE liner.

Description	Cat. No.	Qty
4 oz, clear glass vial, tall, wide mouth, cap: 48-400	24551-U	24 ea
4 oz, amber glass vial, short, wide mouth, cap: 38-400	24555	12 ea
8 oz, clear glass vial, tall, wide mouth, cap: 58-400	24552	24 ea
8 oz, amber glass vial, short, wide mouth, cap: 45-400	24556	12 ea

## Wheaton Shorty vials

### Shorty Vials®

Vial only. Autoclavable borosilicate USP Type 1 glass. Select caps and septa according to application.



Description	Cat. No.	Qty
capacity 2 mL, neck thread: 13-425, diam. 15 mm x H 28 mm	Z106372-200EA	200 ea
capacity 4 mL, neck thread: 15-425, diam. 17 mm x H 38 mm	Z106380-200EA	200 ea
capacity 6 mL, neck thread: 15-425, diam. 19 mm x H 40 mm	Z106399-200EA	200 ea

## Scintillation vials

### Liquid scintillation vials (with screw cap attached)

Reliable Wheaton "180" brand low-potassium glass. White 22 mm caps have tops suitable for writing. Vials with caps attached are packed in individual cells in trays of 100.

thread, 22-400

glass vial

size ..... 28 mm x 61 mm  
volume ..... 20 mL



Description	Cat. No.	Qty
polypropylene cap, foamed PE liner	Z190527-1PAK	500 ea
polypropylene cap, metal foil liner	Z190535-1PAK	500 ea
urethane foam-filled high-density polyethylene cap, metal foil liner	Z190519-1PAK	500 ea
urethane foam-filled high-density polyethylene cap, liner (Poly-Seal cone)	Z190543-1PAK	500 ea

### Liquid scintillation vials, glass

Wheaton 180 brand low-potassium glass yielding consistent low backgrounds and high UV transmission. White caps fit tightly and can be written on.

glass



Description	Cat. No.	Qty
volume 6 mL, Minivial, Cap: 13mm urea with metal foil liner.	M1152-1000EA	1000 ea
volume 6 mL, Minivial, Cap: 15mm urea with metal foil liner.	M1901-1000EA	1000 ea
volume 20 mL, Cap: 22mm urea with Poly-Seal cone liner. (caps packed separately)	V7005-500EA	500 ea
volume 20 mL, Cap: 22mm urea with metal foil liner. (caps packed separately)	V8255-500EA	500 ea
volume 20 mL, Cap: 22mm urea with Poly-Seal liner.	V7130-500EA	500 ea

### Liquid scintillation vials

▶ 20 mL, clear glass, vials only, O.D. 28 mm x H 57.5 mm, thread, 22-400

Z253081-1PAK 500 ea

## Vials

Scintillation vials

## Liquid scintillation vials, plastic

Polyethylene with light-weight walls for increased counting efficiency.



Description	Cat. No.	Qty
volume 6 mL, Minivial, cap 18 mm, polyethylene without liner	M2026-1000EA	1000 ea
volume 20 mL, cap 22 mm, polypropylene with metal foil liner	V6880-500EA	500 ea
volume 20 mL, cap 24 mm, polyethylene without liner	V6755-1000EA	1000 ea

## SPME Vials



The extraction of organic compounds from a sample matrix usually consists of purge-and-trap or headspace methods for concentrating volatiles; and liquid-liquid extraction, solid phase extraction, or supercritical fluid extraction for semivolatiles and nonvolatiles. These methods have various drawbacks, including high cost and excessive preparation time. A unique sample preparation technique, SPME<sup>1</sup>, eliminates most drawbacks to extracting organics.

SPME requires no solvents or complicated apparatus. It can concentrate volatile and nonvolatile compounds, in both liquid and gaseous samples, for analysis by GC, GC-MS, or HPLC.

## SPME offers some important advantages:

- Fast – reduces sample preparation time by 70%
- Solvent reduction – minimizes the use of solvents, and their disposal
- Economical and reusable – more than 50 extractions per fiber on average
- Versatile – adapts to any GC or HPLC system, can be automated

An SPME unit consists of a length of fused silica fiber coated with a polymer material, in some cases mixed with a solid adsorbent (e.g., a divinylbenzene polymer or porous carbon). The fiber is attached to a stainless steel plunger sheathed by a protective needle.

For more information on SPME, go to the Solid Phase Microextraction section in the catalog.

## 2 mL crimp top vials (12 x 32 mm, 6.0 mm opening) for SPME

Description	Cat. No.	Qty
2 mL, clear glass	27058	100 ea
	27059	1000 ea

## Vial crimp seals for SPME, 11 mm

hardness (Durometer: shore A) 45

Description	Cat. No.	Qty
silver aluminum seal (with 5.6mm center hole), red PTFE/white silicone septum, septum diam. 11 mm x thickness 1.3 mm	SU860094 SU860016	100 ea 1000 ea
gold seal, magnetic (5mm center hole), red PTFE/silicone/red PTFE septa, diam. 11 mm x thickness 1.0 mm	SU860095	100 ea
gold seal, magnetic (with 5mm center hole), red PTFE/white silicone septum, septum diam. 11 mm x thickness 1.3 mm, for use with CTC PAL and TriPlus autosamplers	SU860096	100 ea

## Headspace vials, screw top for SPME

Description	Cat. No.	Qty
round bottom		
10 mL, clear glass, thread: 18, O.D. 22.5 mm x H 46 mm	SU860099	100 ea
10 mL, amber glass, thread: 18, O.D. 22.5 mm x H 46 mm	SU860100	100 ea
20 mL, clear glass, thread: 18, O.D. 22.5 mm x H 75.5 mm	SU860097	100 ea
20 mL, amber glass, thread: 18, O.D. 22.5 mm x H 75.5 mm	SU860098	100 ea

## Caps, septa, and vial rack for SPME screw cap vials

The magnetic screw cap has been developed for the CTC instrument. The vial has a precision thread with numerous threads to force the septa against the vial to seal it to be gas tight. The center hole is designed to be used for SPME as well as standard Headspace Analysis, but still offers enough surface for the magnet to transport a completely filled vial.



Magnetic Caps (stainless steel), 18 mm thread

Description	Cat. No.	Qty
stainless steel screw cap (magnetic, open-top (8 mm center hole)), thread, 18, PTFE/silicone septum (white PTFE/transparent blue silicone), septum thickness 1.3 mm	SU860101	100 ea
stainless steel screw cap (magnetic, open-top (8 mm center hole)), thread, 18, PTFE/silicone septum (white PTFE/blue silicone), septum thickness 1.5 mm	SU860103	100 ea
stainless steel screw cap (magnetic, open-top (8 mm center hole)), thread, 18, PTFE-faced butyl septum (grey PTFE/red Butyl), septum thickness 1.6 mm	SU860102	100 ea
Acrylic Vial Rack for SPME Vial, L 160 mm x W 160 mm x H 30 mm, 25 cavities, cavity diam. 24 mm	SU860107	1 ea

## Vials

## SPME Vials

## Vials, caps, and septa for Varian® 8200 autosampler



Description	Cat. No.	Qty
<b>Screw thread - 2 mL</b>		
2 mL, clear glass, red PTFE/silicone, black polypropylene cap, thread: 10-425	27531	100 ea
2 mL, amber glass, red PTFE/silicone, black polypropylene cap, thread: 10-425	27532	100 ea
<b>Screw thread - 10 mL</b>		
10 mL, clear glass, pre-assembled, PTFE/silicone septum, O.D. 24.5 mm x H 52 mm, closure type hole cap, phenolic, thread 22-400	27529	100 ea
10 mL, amber glass, pre-assembled, PTFE/silicone septum, O.D. 24.5 mm x H 52 mm, closure type hole cap, phenolic, thread 22-400	27530	100 ea
10 mL, clear glass, O.D. 24.5 mm x H 52 mm, thread, 22-400	27388	144 ea
<b>Screw caps</b>		
black phenolic cap, configured for 10 mL SPME vial with 22-400 thread	23236	144 ea
black phenolic solid cap (with polyseal liner), thread, 22-400	23240-U	144 ea
<b>PTFE/silicone</b>		
tan PTFE/silicone septa, diam. 20 mm x total thickness 0.125 in. x PTFE thickness 2 mil	27236	100 ea
blue PTFE/white silicone, O.D. 20 mm x thickness 0.75 mm	27539	100 ea
<b>Crimp top - 10 mL</b>		
volume 10 mL, clear glass (Thin seal vial for thin septa), O.D. 24.5 mm x H 50 mm x I.D. 12.7 mm, crimp top (0.125 in. thick) for thin septa	27385 27386	36 ea 144 ea
<b>Aluminum crimp seal</b>		
silver aluminum seal, open center (8 mm center hole), diam. 20 mm x thickness 0.76 mm, black Viton® septum, septum thickness 0.75 mm	33146-U 27245 28298-U 27246	36 ea 100 ea 288 ea 1000 ea

## Vials, crimp top, for Thin Seal

Thin Seal vials are specialty vials made with a thicker lip. The lip of the vial is larger to accommodate thinner septa required in SPME applications. This vial allows you to use 20 mm thin septa (<0.030 in.) and still make a good seal. For our selection of closures, see the SPME vial section: *Closures for Thin Seal Crimp Top Vials*.



Thin Seal vials

Description	Cat. No.	Qty
20 mL, clear glass (flat top), crimp top (0.125 in. thick) for thin septa, O.D. 22.5 mm x H 75.5 mm	SU860104	100 ea

## Seals and septa for Thin Seal vials

Description	Cat. No.	Qty
silver aluminum seal, open center (8 mm center hole), diam. 20 mm x thickness 0.76 mm, black Viton® septum, septum thickness 0.75 mm	33146-U 27245 28298-U 27246	36 ea 100 ea 288 ea 1000 ea
gold seal (magnetic with 8 mm center hole), black Viton® septum, diam. 20 mm x thickness 1.0 mm	SU860106	100 ea
gold seal (magnetic, with 8 mm center hole), PTFE/silicone (blue PTFE/white silicone), diam. 20 mm x thickness 1.5 mm, open center	SU860053	100 ea
blue PTFE/white silicone, O.D. 20 mm x thickness 0.75 mm	27539	100 ea

## Vials, screw top with phenolic open-top cap, pre-assembled

black phenolic cap (open-top)



Description	Cat. No.	Qty
4 mL, clear glass, O.D. 15 mm x H 45 mm, tan PTFE/silicone septum	27136	100 ea
15 mL, clear glass, O.D. 21 mm x H 70 mm, tan PTFE/silicone septum	27159	100 ea
40 mL, clear glass, O.D. 29 mm x H 82 mm, tan PTFE/silicone septum	27180	100 ea
4 mL, amber glass, O.D. 15 mm x H 45 mm, tan PTFE/silicone septum	27006	100 ea
15 mL, amber glass, O.D. 21 mm x H 70 mm, tan PTFE/silicone septum	27008	100 ea
40 mL, amber glass, O.D. 29 mm x H 82 mm, tan PTFE/silicone septum	27010-U	100 ea



Vials

SPME Accessories

SPME Accessories



Hand crimper, adjustable

The adjustable hand crimper is ideal if you use varying thickness of septa in your analysis. This product has the ability to be adjusted for changes in septa thickness.

This product is very useful in SPME applications recommending the use of a thinner septa (1.0-1.5mm thickness).

Description	Cat. No.	Qty
Hand crimper, adjustable, for use with 20 mm crimp seals	22316-U	1 ea

Crimp seals (magnetic) with PTFE/silicone septa



Magnetic Crimp Seal, 20 mm

Description	Cat. No.	Qty
gold seal (magnetic with 8 mm center hole), (Silicone blue transparent/PTFE transparent), diam. 20 mm x thickness 3.0 mm, open center	SU860105	100 ea
gold seal (magnetic, with 5 mm center hole), (silicone blue transparent/PTFE transparent), diam. 20 mm x thickness 3.0 mm, open center	854179-U	100 ea

Crimp seal with PTFE/butyl septum (Pharma-Fix)

for 20 mm crimp seal  
hardness (Durometer: shore A) 50

Description	Cat. No.	Qty
aluminum seal (with 10 mm center hole), PTFE-faced butyl septum, diam. 20 mm x thickness 3.0 mm	SU860011	100 ea
gold seal (magnetic with 5 mm center hole), PTFE-faced butyl septum, diam. 20 mm x thickness 3.0 mm	854178-U	100 ea

Heater block for 28 mm diameter vials

Heater block  
L x W x H ..... 3.75 in. x 2.9 in. x 2.0 in.

Description	Cat. No.	Qty
for use with 28 mm diameter vials	33313-U	1 ea

Headspace Vials

Headspace vial, screw top, rounded bottom (vial only)

Headspace vial, screw top, rounded bottom (vial only)

These vials require a special cap with an 18 mm thread. The standard 18-400 threaded caps will not fit this vial. The part numbers for caps that are available for these vials are SU860101 (with PTFE/silicone, 1.3 mm thick), SU860102 (with PTFE/butyl, 1.6 mm thick), and SU860103 (with PTFE/silicone, 1.5 mm thick). These caps are made from stainless steel and are magnetic.

round bottom ..... 18 mm x 11 mm



Description	Cat. No.	Qty
10 mL, clear glass, thread: 18, O.D. 22.5 mm x H 46 mm	SU860099	100 ea
10 mL, amber glass, thread: 18, O.D. 22.5 mm x H 46 mm	SU860100	100 ea
20 mL, clear glass, thread: 18, O.D. 22.5 mm x H 75.5 mm	SU860097	100 ea
20 mL, amber glass, thread: 18, O.D. 22.5 mm x H 75.5 mm	SU860098	100 ea

Magnetic Screw Cap for Headspace Vials

This magnetic screw cap has been developed for the CTC instrument. The vial has a precision thread with numerous threads to force the septa against the vial to seal it to be gas tight. The center hole is designed to be used for SPME as well as standard Headspace analysis, but still offers enough surface for the magnet to transport a completely filled vial.

O.D. x H ..... 18 mm x 11 mm



Magnetic Caps (stainless steel), 18 mm thread

Description	Cat. No.	Qty
stainless steel screw cap (magnetic, open-top (8 mm center hole)), thread, 18, PTFE/silicone septum (white PTFE/transparent blue silicone), septum thickness 1.3 mm	SU860101	100 ea
stainless steel screw cap (magnetic, open-top (8 mm center hole)), thread, 18, PTFE-faced butyl septum (grey PTFE/red Butyl), septum thickness 1.6 mm	SU860102	100 ea
stainless steel screw cap (magnetic, open-top (8 mm center hole)), thread, 18, PTFE/silicone septum (white PTFE/blue silicone), septum thickness 1.5 mm	SU860103	100 ea

## Vials

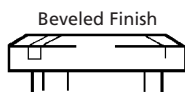
Headspace Vials: *Headspace vial, screw top, rounded bottom (vial only)*



### Headspace vial, beveled top, flat bottom

Description	Cat. No.	Qty
6 mL, O.D. 22 mm × H 38 mm	27292	100 ea
	27293	1000 ea
6 mL, clear glass beveled finish, flat bottom, O.D. 23 mm × H 38 mm	27197	100 ea
10 mL, clear glass beveled finish, flat bottom, O.D. 23 mm × H 46 mm × I.D. 12.5 mm	27198	100 ea
20 mL, clear glass beveled finish, flat bottom, O.D. 23 mm × H 75 mm × I.D. 12.5 mm	27199	100 ea
27 mL, clear glass beveled finish, flat bottom, O.D. 30 mm × H 60 mm	27298	100 ea
	27299	1000 ea
20 mL, clear glass beveled finish, flat bottom, O.D. 23 mm × H 75 mm × I.D. 12.5 mm	854977	100 ea
6 mL, O.D. 22 mm × L 38 mm, for use with PerkinElmer®	Z292001-1PAK	100 ea
20 mL, O.D. 23 mm × L 75 mm × I.D. 12.5 mm, for use with A.I., Dani Headspace, Dani Purge and Trap, Hewlett-Packard™, PerkinElmer®, Tekmar®, Varian® Genesis	Z292036-1PAK	100 ea

### Headspace vial, beveled top, rounded bottom (requires 20 mm crimp seal)



Description	Cat. No.	Qty
10 mL, clear glass beveled finish, round bottom, O.D. 22.6 mm × H 46 mm	27294	100 ea
	27295	1000 ea
10 mL, clear glass, O.D. 22 mm × H 45 mm × I.D. 12.5 mm	508438	100 ea
12 mL, clear glass, O.D. 18 mm × H 65 mm	508446	100 ea
20 mL, clear glass beveled finish, round bottom, O.D. 22.6 mm × H 75 mm	27296	100 ea
	27297	1000 ea
20 mL, clear glass, O.D. 23 mm × H 75.5 mm × I.D. 12.5 mm, for use with PerkinElmer	SU860049	100 ea
20 mL, clear glass beveled finish, round bottom, O.D. 22.6 mm × H 75 mm × I.D. 12.5 mm	854978	100 ea
20 mL, clear glass, round bottom, O.D. 22.7 mm × H 75 mm × I.D. 12.5 mm	508454	100 ea

### Headspace Vials Convenience Kit, bevel top, round bottom, pressure release aluminum seals

Description	Cat. No.	Qty
10 mL, clear glass, PTFE/silicone, vial O.D. 23 mm × H 46 mm × I.D. 12.5 mm	27303-U	100 ea
10 mL, clear glass, PTFE/butyl rubber septum, vial O.D. 23 mm × H 46 mm × I.D. 12.5 mm	27304-U	100 ea
20 mL, septum (PTFE/grey butyl molded rubber), clear glass, vial O.D. 23 mm × H 75 mm	27305-U	100 ea
20 mL, clear glass, PTFE/silicone septum, vial O.D. 23 mm × H 75 mm	27306	100 ea
20 mL, clear glass, PTFE/butyl rubber septum, silver aluminum seal (pressure release), O.D. 23 mm × H 75 mm	27307	100 ea

### Headspace Vials, flat top, rounded bottom

Description	Cat. No.	Qty
10 mL, clear glass, O.D. 22.5 mm × H 46 mm	854180-U	100 ea
20 mL, clear glass, O.D. 22.5 mm × H 75.5 mm, long neck	854181-U	100 ea

### Headspace Vial, flat top, flat bottom

Description	Cat. No.	Qty
10 mL, clear glass (flat top), flat bottom, O.D. 22.5 mm × H 46 mm × I.D. 12.5 mm, long neck	SU860029	100 ea
10 mL, clear glass (flat top), flat bottom, O.D. 20 mm × H 54.5 mm × I.D. 12.5 mm, for Varian	854151	100 ea
20 mL, clear glass, O.D. 22.5 mm × H 75.5 mm × I.D. 12.5 mm, long neck	SU860030	100 ea

### Vials, crimp top, for Thin Seal

Thin Seal vials are speciality vials made with a thicker lip. The lip of the vial is larger to accommodate thinner septa required in SPME applications. This vial allows you to use 20 mm thin septa (<0.030 in.) and still make a good seal. For our selection of closures, see the SPME vial section: *Closures for Thin Seal Crimp Top Vials*.



Thin Seal vials

Description	Cat. No.	Qty
20 mL, clear glass (flat top), crimp top (0.125 in. thick) for thin septa, O.D. 22.5 mm × H 75.5 mm	SU860104	100 ea

## Vials

Headspace Vials: *Headspace Vial, flat top, flat bottom*

### Seals and septa for Thin Seal vials

Description	Cat. No.	Qty
silver aluminum seal, open center (8 mm center hole), diam. 20 mm x thickness 0.76 mm, black Viton® septum, septum thickness 0.75 mm	33146-U 27245 28298-U 27246	36 ea 100 ea 288 ea 1000 ea
gold seal (magnetic with 8 mm center hole), black Viton® septum, diam. 20 mm x thickness 1.0 mm	SU860106	100 ea
gold seal (magnetic, with 8 mm center hole), PTFE/silicone (blue PTFE/white silicone), diam. 20 mm x thickness 1.5 mm, open center	SU860053	100 ea
blue PTFE/white silicone, O.D. 20 mm x thickness 0.75 mm	27539	100 ea

### Headspace vials for CTC autosampler (Combi PAL), clear glass, beveled top, flat bottom

for 20 mm crimp



Description	Cat. No.	Qty
10 mL, clear glass beveled finish, flat bottom, O.D. 23 mm x H 46 mm x l. D. 12.5 mm	27198	100 ea
20 mL, clear glass beveled finish, flat bottom, O.D. 23 mm x H 75 mm x l. D. 12.5 mm	27199	100 ea

### Headspace vials, for CTC autosampler (Combi PAL), rounded bottom



Description	Cat. No.	Qty
<b>Screw thread</b>		
10 mL, clear glass, thread: 18, O.D. 22.5 mm x H 46 mm	SU860099	100 ea
10 mL, amber glass, thread: 18, O.D. 22.5 mm x H 46 mm	SU860100	100 ea
20 mL, clear glass, thread: 18, O.D. 22.5 mm x H 75.5 mm	SU860097	100 ea
20 mL, amber glass, thread: 18, O.D. 22.5 mm x H 75.5 mm	SU860098	100 ea

Description	Cat. No.	Qty
<b>Crimp top</b>		
10 mL, clear glass, O.D. 22.5 mm x H 46 mm	854180-U	100 ea
20 mL, clear glass, O.D. 22.5 mm x H 75.5 mm, long neck	854181-U	100 ea
10 mL, clear glass beveled finish, round bottom, O.D. 22.6 mm x H 46 mm	27294 27295	100 ea 1000 ea
20 mL, clear glass beveled finish, round bottom, O.D. 22.6 mm x H 75 mm	27296 27297	100 ea 1000 ea
20 mL, clear glass, O.D. 23 mm x H 75.5 mm x l.D. 12.5 mm, for use with PerkinElmer	SU860049	100 ea
20 mL, clear glass beveled finish, round bottom, O.D. 22.6 mm x H 75 mm x l.D. 12.5 mm	854978	100 ea

### Headspace vials for PerkinElmer®

round bottom

Description	Cat. No.	Qty
20 mL, clear glass, O.D. 23 mm x H 75.5 mm x l.D. 12.5 mm, for use with PerkinElmer	SU860049	100 ea
20 mL, clear glass (flat top), crimp top (0.125 in. thick) for thin septa, O. D. 22.5 mm x H 75.5 mm	SU860104	100 ea

## Serum Bottles

### Supelco glass serum bottles, 5 - 100 mL

#### Vials, crimp top, serum bottle

These vials are constructed of clear, borosilicate glass; closure not included. autoclavable



Description	Cat. No.	Qty
5 mL, clear glass, O.D. 25 mm x H 40 mm	33102-U 33103	36 ea 288 ea
10 mL, clear glass, O.D. 25 mm x H 50 mm	33104 33105-U	36 ea 288 ea
10 mL, amber glass, O.D. 25 mm x H 50 mm	33143 33144	36 ea 288 ea
30 mL, clear glass, O.D. 36.6 mm x H 62.8 mm	33106 33107	36 ea 288 ea
50 mL, clear glass, O.D. 43 mm x H 73 mm	33108-U 33109-U	36 ea 272 ea
100 mL, clear glass, O.D. 51.7 mm x H 94.5 mm	33110-U 33111-U	36 ea 144 ea

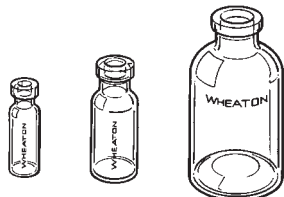
## Vials

Serum Bottles: *Wheaton glass serum bottles*

### Wheaton glass serum bottles

#### Wheaton glass serum bottle

USP Type I  
borosilicate glass  
autoclavable



Description	Cat. No.	Qty
<b>Clear glass</b>		
capacity 1.5 mL, clear, O.D. 11 mm, diam. 12 mm x H 32 mm	Z113948-100EA Z113948-1000EA	100 ea 1000 ea
capacity 5 mL, clear, O.D. 20 mm, diam. 23 mm x H 47 mm	Z113964-24EA Z113964-288EA	24 ea 288 ea
capacity 10 mL, clear, O.D. 20 mm, diam. 25 mm x H 54 mm	Z113972-24EA Z113972-288EA	24 ea 288 ea
capacity 30 mL, clear, O.D. 20 mm, diam. 37 mm x H 63 mm	Z113980-12EA Z113980-288EA	12 ea 288 ea
capacity 50 mL, clear, O.D. 20 mm, diam. 43 mm x H 73 mm	Z113999-12EA Z113999-288EA	12 ea 288 ea
capacity 100 mL, clear, O.D. 20 mm, diam. 52 mm x H 95 mm	Z114006-12EA Z114006-144EA	12 ea 144 ea
capacity 125 mL, clear, O.D. 20 mm, diam. 54 mm x H 107 mm	Z114014-12EA Z114014-144EA	12 ea 144 ea
<b>Amber glass</b>		
capacity 5 mL, amber, O.D. 20 mm, diam. 23 mm x H 47 mm	Z114022-288EA	288 ea
capacity 10 mL, amber, O.D. 20 mm, diam. 23 mm x H 47 mm	Z114030-12EA Z114030-288EA	12 ea 288 ea
capacity 30 mL, amber, O.D. 20 mm, diam. 37 mm x H 63 mm	Z114049-12EA Z114049-288EA	12 ea 288 ea
capacity 50 mL, amber, O.D. 20 mm, diam. 43 mm x H 73 mm	Z114057-12EA Z114057-288EA	12 ea 288 ea
capacity 100 mL, amber, O.D. 20 mm, diam. 52 mm x H 95 mm	Z114065-12EA Z114065-144EA	12 ea 144 ea

## Closures, Septa, and Crimpers for 20 mm Crimp Top Vials



Removable Center



Open Center



Tear Away



Pressure Release - Open Center

### 20 mm crimp seals

#### Crimp seals, 20 mm, without septum

Description	Cat. No.	Qty
<b>Open center</b>		
open center 9.5 mm opening, silver aluminum seal, diam. 20 mm x	27230-U	100 ea
<b>Removable center</b>		
removable center, silver aluminum seal, diam. 20 mm	27227-U	100 ea
<b>Tear-away</b>		
tear-away, silver aluminum seal, diam. 20 mm	27016	100 ea
<b>Open center</b>		
open center, aluminum seal, product of Chromacol, 20-ACB	508500	100 ea
open center 9.5 mm opening, silver aluminum, For autosampler headspace analysis	Z292044-1PAK	1000 ea
<b>Tear-off</b>		
Tear-off seals only, diam. 20 mm, (no septa)	Z114146-100EA	100 ea
<b>Pressure release</b>		
pressure release 8 mm opening, silver aluminum seal, diam. 20 mm	27200	100 ea

## Vials

Closures, Septa, and Crimpers for 20 mm Crimp Top Vials: *Crimp Seals with Septa**Crimp Seals with Septa*

Crimp Seal with PTFE/silicone septa, 20 mm

**Crimp seals with PTFE/silicone septa**

Description	Cat. No.	Qty
silver aluminum seal (10mm opening), diam. 20 mm × total thickness 3 mm × PTFE thickness 5 mil, open center, (silicone blue transparent/PTFE transparent)	SU860010	1000 ea
silver aluminum seal, open center (10 mm opening), diam. 20 mm × thickness 3.25 mm, tan PTFE/silicone	854996	100 ea
silver aluminum seal, open center, diam. 20 mm × total thickness 3.2 mm × PTFE thickness 5 mil, white PTFE/silicone	27362 27375	100 ea 1000 ea
silver aluminum seal, open center, diam. 20 mm × total thickness 3.2 mm × PTFE thickness 2 mil, white PTFE/silicone	27229	100 ea
silver aluminum seal, pressure release (open center), PTFE/silicone, diam. 20 mm × total thickness 2.5 mm × PTFE thickness 5 mil	27455-U	100 ea

**Crimp seals and septa, PTFE/butyl (Pharma-Fix)**

for 20 mm crimp seal  
hardness (Durometer: shore A) 20



PTFE faced butyl

Description	Cat. No.	Qty
aluminum seal (with 10 mm center hole), PTFE-faced butyl septum, diam. 20 mm × thickness 3.0 mm	SU860011	100 ea
gold seal (magnetic with 5 mm center hole), PTFE-faced butyl septum, diam. 20 mm × thickness 3.0 mm	854178-U	100 ea

**Crimp seals with PTFE/rubber septa**

for use with 20mm crimp top vial  
for use with 6mL, 10mL, 20mL headspace vials  
silver aluminum seal

Description	Cat. No.	Qty
seal diam. 20 mm × thickness 3.0 mm, pressure release (open center), PTFE/rubber septum	27454-U	100 ea
seal diam. 20 mm × thickness 3.2 mm, removable center, PTFE/red rubber septum	27228	100 ea

**Crimp seal with PTFE/butyl septa**

Description	Cat. No.	Qty
aluminum seal, open center (10mm opening), gray PTFE/butyl rubber, diam. 20 mm × thickness 0.118 in.	854979	100 ea
silver steel seal (magnetic), open center (8mm opening), diam. 20 mm × thickness 3 mm, PTFE/butyl rubber septum	27301-U	100 ea

**Crimp seals with Viton® septa**

for 20 mm crimp seal



Description	Cat. No.	Qty
silver aluminum seal, open center (8 mm center hole), diam. 20 mm × thickness 0.76 mm, black Viton® septum, septum thickness 0.75 mm	33146-U 27245 28298-U 27246	36 ea 100 ea 288 ea 1000 ea
gold seal (magnetic with 8 mm center hole), black Viton® septum, diam. 20 mm × thickness 1.0 mm	SU860106	100 ea

**Push-On Caps for 20 mm headspace vials**

These caps can be used for washer bottles with a 20 mm crimp seal. They can also be used as a intermediate closure if a metallic crimp seal is not available.

Description	Cat. No.	Qty
Snap-cap, diam. 20 mm, polyethylene, product of Chromacol, 20-PEPC5	508624	100 ea

*Magnetic crimp seals***Vial crimp seals, BiMetal (magnetic), 20 mm, with PTFE/silicone septa**

The BiMetal caps are made of both tin and aluminum and are easier to crimp than tin 20mm seals. The sealing surface is aluminum and the inner diameter is made of tin to add the magnetic surface. These caps are available in a variety of colors.

for use with 20mm crimp seal vial

We recommend using the plier-type decapper (part number 33283) to remove the bi-metal crimp seal. Due to the mechanics of the decapper, the plier-type decapper is less expensive and works better than the Hand Decapper (p/n 33183) for this application.



BiMetal crimp seals

## Vials

Closures, Septa, and Crimpers for 20 mm Crimp Top Vials: *Magnetic crimp seals*

Vial crimp seals, BiMetal (magnetic), 20 mm, with PTFE/silicone septa (continued)

Description	Cat. No.	Qty
red seal, PTFE/silicone septa, diam. 20 mm × thickness 3 mm	29169-U	100 ea
red seal, septa (blue PTFE/white silicone), diam. 20 mm × thickness 3 mm	29171-U	100 ea
gold seal, PTFE/silicone septa, diam. 20 mm × thickness 3 mm	29175-U	100 ea
blue seal, PTFE/silicone septa, diam. 20 mm × thickness 3 mm	29176-U	100 ea
green seal, PTFE/silicone septa, diam. 20 mm × thickness 3 mm	29178-U	100 ea

## Crimp seals (magnetic) with PTFE/silicone septa



Magnetic Crimp Seal, 20 mm

Description	Cat. No.	Qty
<b>For use with CTC CombiPAL</b>		
gold seal (magnetic, with 8 mm center hole), PTFE/silicone (blue PTFE/white silicone), diam. 20 mm × thickness 1.5 mm, open center	SU860053	100 ea
gold seal (magnetic, with 8 mm center hole), (silicone blue transparent/PTFE transparent), open center (8 mm opening), diam. 20 mm × thickness 3.0 mm	SU860015	100 ea
gold seal (magnetic with 8 mm center hole), (Silicone blue transparent/PTFE transparent), diam. 20 mm × thickness 3.0 mm, open center	SU860105	100 ea
<b>For use with CE HS500, HS800</b>		
silver steel (magnetic), open center (5 mm opening), PTFE/silicone, seal diam. 20 mm × total thickness 3 mm	27300	100 ea
gold seal (magnetic, with 5 mm center hole), (silicone blue transparent/PTFE transparent), diam. 20 mm × thickness 3.0 mm, open center	854179-U	100 ea

## Stoppers

## Stoppers



Description	Cat. No.	Qty
gray butyl rubber, diam. 20 mm	27232	100 ea
red rubber (Isoprene rubber), diam. 20 mm	27234	100 ea
silicone, diam. 20 mm	27235-U	100 ea

## Rubber stoppers



Description	Cat. No.	Qty
gray butyl rubber, 20 mm	Z166065-100EA	100 ea
clear silicone, 20 mm	Z166081-100EA	100 ea

## Septa for 20 mm crimp seals

## Septa, 20 mm



PTFE faced butyl

Description	Cat. No.	Qty
<b>PTFE/silicone</b>		
blue PTFE/silicone, diam. 20 mm × thickness 0.045 in., hardness (Durometer: shore A) 30	508616	100 ea
blue PTFE/white silicone, O.D. 20 mm × thickness 0.75 mm	27539	100 ea
blue PTFE/silicone, diam. 20 mm × thickness 0.105 in., hardness (Durometer: shore A) 45	508608	100 ea
gray PTFE/silicone, diam. 20 mm × total thickness 0.060 in. × PTFE thickness 0.010 in.	27541	100 ea
transparent PTFE/silicone, diam. 20 mm × total thickness 0.100 in. × PTFE thickness 10 mil	27237-U	100 ea
tan PTFE/silicone septa, diam. 20 mm × total thickness 0.125 in. × PTFE thickness 2 mil	27236	100 ea
white PTFE/silicone, diam. 20 mm × thickness 0.125 in. × PTFE thickness 0.005 in.	27361 27374	100 ea 1000 ea
High temperature PTFE/silicone, diam. 20 mm × thickness 0.060 in.	27540-U	100 ea
tan PTFE/silicone septa, size 20 mm × total thickness 0.130 in. × PTFE thickness 0.005 in., for use with tear-off seals	Z114111-10EA Z114111-100EA	10 ea 100 ea
<b>Silicone</b>		
silicone, diam. 20 mm	Z184942-1PAK	100 ea
<b>Aluminum/silicone</b>		
barrier (aluminum faced silicone), diam. 20 mm × thickness 0.100 in.	27189	100 ea
<b>PTFE/rubber</b>		
PTFE/red rubber, diam. 20 mm × thickness 0.125 in., for use with 20 mm crimp seal, 22 mm screw cap	27233	100 ea
<b>PTFE/butyl</b>		
PTFE/rubber (butyl (Pharma-Fix)), diam. 20 mm × thickness 0.135 in.	27201	100 ea
PTFE/butyl rubber septa	Z292052-1PAK	100 ea



## Vials

Closures, Septa, and Crimpers for 20 mm Crimp Top Vials: *Septa for 20 mm crimp seals*

Description	Cat. No.	Qty
<b>PTFE/chlorobutyl</b>		
PTFE/rubber (chlorobutyl), diam. 20 mm x thickness 0.150 in., hardness (Durometer: shore A) 52	508578	100 ea
<b>Viton</b>		
black Viton®, diam. 20 mm x thickness 0.030 in.	27247	100 ea

## Mininert® Valves

These valves are very easy to use.

1. Push the green button to open the valve
2. Insert the needle through the septum and take sample
3. Remove the needle and push to close

Benefits include:

- PTFE construction for inertness. PTFE is useful when working with acids and organic solvents.
- Good sealing ability for containing most volatile liquids and gases at low pressures
- Mininert valves can be used at temperatures up to 105 °F.
- 0.036 in. (0.9 mm) opening accepts up to 20-gauge needle



Description	Cat. No.	Qty
for use with 13/425 mm thread	33300	12 ea
for use with 15/425 mm thread	33301	12 ea
for use with 18/400 mm thread	33302	12 ea
for use with 20/400 mm thread	33303	12 ea
for use with 24/400 mm thread	33304	12 ea
for use with 20 mm crimp seal	33305	12 ea
Replacement Mininert Septa, L 0.308 in. x O.D. 0.125 in.	33310-U	50 ea
Tool for inserting septa	33311	1 ea

## Center Drain (CD) Vials, 3.8 to 60 mL

## Center Drain (CD) screw thread vials with hole caps and PTFE/silicone septa

- Library sample storage
- Lyophilize
- Centrifugation
- Micro mixing
- Extraction
- Concentrations
- Derivatization
- Small scale reactions

The CD™ Vial (Center Draining) has a unique conical interior bottom that promotes draining of the contents into the center bottom of the vial, where virtually all of it can be extracted. Maximum extraction of the contents can be done utilizing either a micropipette or syringe.

The sturdy CD Vial with the patented design is ideal for many micro applications. The conical well, located in the exact center of the vial bottom, features a smooth transition from sidewall into the well, and the bottom thickness dimension is the same in each vial.

The vials are manufactured from Borosilicate Type 1 glass to safeguard against a change in the pH of the contents.

Description	Cat. No.	Qty
3.8 mL, clear glass, O.D. 14.75 mm x H 45 mm, PTFE/silicone septa (bonded)	29327-U	100 ea
3.8 mL, clear glass, O.D. 14.75 mm x H 45 mm, PTFE/silicone (with slit (bonded))	29328-U	100 ea
3.8 mL, amber glass, O.D. 14.75 mm x H 45 mm, PTFE/silicone (bonded)	29330-U	100 ea
3.8 mL, amber glass, O.D. 14.75 mm x H 45 mm, PTFE/silicone (with slit (bonded))	29331-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 51 mm, PTFE/silicone	29332-U	100 ea
5 mL, clear glass, O.D. 15 mm x H 51 mm, PTFE/silicone	29335-U	100 ea
10 mL, clear glass, O.D. 20.75 mm x H 61 mm, PTFE/silicone	29339-U	100 ea
20 mL, clear glass, O.D. 27.75 mm x H 67 mm, PTFE/silicone	29341-U	50 ea
40 mL, clear glass, O.D. 27.75 mm x H 103 mm, PTFE/silicone	29343-U	50 ea
60 mL, clear glass, O.D. 27.75 mm x H 143 mm, PTFE/silicone	29354-U	50 ea

## Center Drain (CD) screw thread vials, vial only

The larger volume CD vials (3.8 to 60 mL) have a conical bottom finish. We recommend that a storage rack be used to support the vials. Three different size racks are available.

Description	Cat. No.	Qty
3.8 mL, clear glass, O.D. 14.75 mm x H 45 mm, 13-425	29326-U	100 ea
3.8 mL, amber glass, O.D. 14.75 mm x H 45 mm, 13-425	29329-U	100 ea
4 mL, clear glass, O.D. 15 mm x H 51 mm, 13-425	29334-U	100 ea
5 mL, clear glass, O.D. 15 mm x H 51 mm, 15-425	29336-U	100 ea
10 mL, clear glass, O.D. 20.75 mm x H 61 mm, 18-400	29340-U	100 ea
20 mL, clear glass, O.D. 27.75 mm x H 67 mm, 24-414	29342-U	50 ea
40 mL, clear glass, O.D. 27.75 mm x H 103 mm, 24-414	29344-U	50 ea
60 mL, clear glass, O.D. 27.75 mm x H 143 mm, 24-414	29355-U	50 ea

## Vials

Center Drain (CD) Vials, 3.8 to 60 mL

### Space Saver storage racks

Economical and convenient storage for samples in your screw cap and crimp seal vials. Can be stacked when empty or full. Autoclavable, 120°C. Each case contains 5 racks.



Description	Cat. No.	Qty
for use with 15-16 mm diameter vial (48 vials per rack), well opening 15.5 mm	23205-U	5 ea
for use with 21-23 mm diameter vial (36 vials per rack), well opening 23.1 mm	23201	5 ea
for use with 29 mm diameter vial (50 vials per rack), well opening 30.0 mm	23206	5 ea

## Clear Heavy Wall CD Vials

**NEW PRODUCTS**

The heavy wall CD vials are supplied with a black cap and PTFE/silicone septa. The cap and septa is assembled unto the vial. The amount of sample that is not removable is less than 4 µL.

### Clear Heavy Wall CD vials with graduations

#### Center Drain (CD) screw thread vials, heavy wall, with caps and PTFE/silicone septa

- Library sample storage
- Lyophilize
- Centrifugation
- Micro mixing
- Extraction
- Concentrations
- Derivatization
- Small scale reactions

The CD™ Vial (Center Draining) has a unique conical interior bottom that allows the contents to completely drain to the center bottom of the vial. Maximum extraction of the contents can be done utilizing either a micropipette or syringe. The heavy wall Center Drain vials are an excellent choice of vials for analysts seeking to increase sample recovery. These vials are manufactured from 2.5 mm wall borosilicate glass tubing that provides a more durable vessel than standard wall vials for lyophilization, derivatization and other small-scale reactions. The sturdy CD Vial with the patented unique conical interior bottom is ideal for many micro applications.

#### Benefits:

- Greater sample recovery
- Economically priced
- Autoclaveable
- Temperature range of -70° C to 160° C
- Vial, cap and septa are pre-assembled

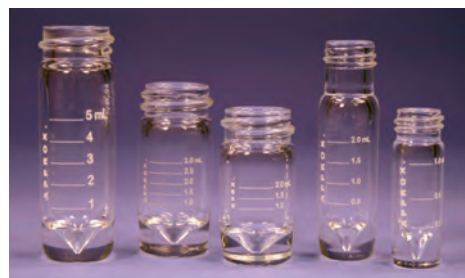
Note: The vials are manufactured from Borosilicate Type 1 glass to safeguard against a change in the pH of the contents.

with graduations

PTFE/silicone septum

black polypropylene hole cap

wall thickness ..... 2.5 mm



Heavy Wall CD Vials

Description	Cat. No.	Qty
1 mL, clear glass, O.D. 13 mm × H 41 mm	29362-U	12 ea
2 mL, clear glass, O.D. 16 mm × H 58 mm	29363-U	12 ea
2 mL, clear glass, O.D. 20 mm × H 40 mm	29364-U	12 ea
3 mL, clear glass, O.D. 20 mm × H 46 mm	29365-U	12 ea
5 mL, clear glass, O.D. 20 mm × H 61 mm	29366-U	12 ea

### Heavy Wall CD vials without graduations

Description	Cat. No.	Qty
1 mL, clear glass, without graduations, O.D. 13 mm × H 41 mm	29356-U	12 ea
2 mL, clear glass, without graduations, O.D. 16 mm × H 58 mm	29357-U	12 ea
2 mL, clear glass, without graduations, O.D. 20 mm × H 40 mm	29358-U	12 ea
3 mL, clear glass, without graduations, O.D. 20 mm × H 46 mm	29359-U	12 ea
5 mL, clear glass, without graduations, O.D. 20 mm × H 61 mm	29361-U	12 ea
1 mL, amber glass, O.D. 13 mm × H 41 mm	29367-U	12 ea
2 mL, amber glass, O.D. 20 mm × H 40 mm	29368-U	12 ea
3 mL, amber glass, O.D. 20 mm × H 46 mm	29369-U	12 ea
5 mL, amber glass, O.D. 20 mm × H 61 mm	29370-U	12 ea

## Vials

Micro Reaction Vessels: *Supelco Micro Reaction Vessels*

## Micro Reaction Vessels

*Supelco Micro Reaction Vessels***Micro Reaction vessel, clear glass, hole cap**

Micro Reaction Vessels are cone shaped inside for easy removal of small samples. They are made of heavy-wall borosilicate glass and are supplied with PTFE-faced red rubber septum and cap. This glassware can be autoclaved or centrifuged. The septa material can not be autoclaved. The maximum temperature of the septa is less than 121°C.

**Clear Micro Reaction Vessels:** Height with cap; depth from septum to bottom of cone.

**Amber Micro Reaction Vessels:** The height measurement is without the cap. The amber version is not graduated.

**Depth from septum to bottom of cone:**

Size . . . . .	Depth
0.3 mL . . . . .	29 mm
1.0 mL . . . . .	37 mm
2.0 mL . . . . .	53 mm
3.0 mL . . . . .	43 mm
5.0 mL . . . . .	58 mm

Replacement caps and septa for the Micro Reaction Vessel (clear glass):

- 0.3-2.0mL: Caps 27154, Septa 27156
- 3-5mL: Caps 27176, Septa 27178

Replacement caps and septa for the Micro Reaction Vessel (amber glass)

- 1mL: Caps 27120-U, Septa 27145
- 2-5mL: Caps 27176, Septa 27178



From left to right: 33297, 33295, 33291, 33289

Description	Cat. No.	Qty
0.3 mL, clear glass, closure type hole cap, PTFE/red rubber septum, O.D. 16 mm x H 32 mm, 15-425	33291	12 ea
1 mL, clear glass, closure type hole cap, PTFE/red rubber septum, O.D. 16 mm x H 40 mm, 15-425	33293	12 ea
2 mL, clear glass, closure type hole cap, PTFE/red rubber septa, O.D. 16 mm x H 56 mm, 15-425	33295	12 ea
3 mL, clear glass, closure type hole cap, PTFE/red rubber septum, O.D. 20 mm x H 47 mm, 20-400	33297	12 ea
5 mL, clear glass, closure type hole cap, PTFE/red rubber septum, O.D. 20 mm x H 62 mm, 20-400	33299	12 ea
10 mL, clear glass, O.D. 26 mm x H 72 mm, 24-400, graduations No	27479	12 ea

**Micro Reaction vessel, clear glass, solid cap**

Description	Cat. No.	Qty
0.3 mL, clear glass, closure type solid cap, styrene-butadiene septum, O.D. 16 mm x H 32 mm, 15-425	27035	12 ea

Description	Cat. No.	Qty
1 mL, clear glass, closure type solid top cap, styrene-butadiene septum, O.D. 16 mm x H 40 mm, 15-425	27036	12 ea
2 mL, clear glass, closure type solid top cap, styrene-butadiene septum, O.D. 16 mm x H 56 mm, 15-425	27037	12 ea
3 mL, clear glass, closure type solid top cap, styrene-butadiene septum, O.D. 20 mm x H 47 mm, 20-400	27038-U	12 ea
5 mL, clear glass, closure type solid top cap, styrene-butadiene septum, O.D. 20 mm x H 62 mm, 20-400	27039	12 ea

*Wheaton V-Vials®***Vials, screw top V-Vials® with open-top cap**

Graduated. Autoclavable borosilicate USP Type 1 glass. PTFE faced rubber septum.



Description	Cat. No.	Qty
capacity 0.3 mL, screw-cap size: 13-425, diam. 13 mm x H 35 mm	Z115126-12EA	12 ea
capacity 1.0 mL, screw-cap size: 13-425, diam. 13 mm x H 44 mm	Z115134-12EA	12 ea
capacity 3.0 mL, screw-cap size: 20-400, diam. 20 mm x H 50 mm	Z115142-12EA	12 ea
capacity 5.0 mL, screw-cap size: 20-400, diam. 20 mm x H 65 mm	Z115150-12EA	12 ea

**Vials, screw-top V-Vials® with solid-top cap**

Graduated. Autoclavable borosilicate USP Type 1 glass. Styrene-butadiene rubber liner. PTFE-coated



Description	Cat. No.	Qty
capacity 0.3 mL, screw-cap size: 13-425, diam. 13 mm x H 35 mm	Z115053-12EA	12 ea
capacity 1.0 mL, screw-cap size: 13-425, diam. 13 mm x H 44 mm	Z115061-12EA	12 ea
capacity 2.0 mL, screw-cap size: 15-415, diam. 17 mm x H 61 mm	Z115088-12EA	12 ea
capacity 3.0 mL, screw-cap size: 20-400, diam. 20 mm x H 50 mm	Z115096-12EA	12 ea
capacity 5.0 mL, screw-cap size: 20-400, diam. 20 mm x H 65 mm	Z115118-12EA	12 ea

## Vials

Micro Reaction Vessels: *Wheaton V-Vials®*

### Micro Reaction vessel, clear glass, crimp top

Description	Cat. No.	Qty
capacity 0.1 mL, mouth O.D. 11 mm, diam. 12 mm × H 32 mm	<a href="#">Z115029-12EA</a>	12 ea
capacity 1.0 mL, mouth O.D. 13 mm, diam. 13 mm × H 41 mm	<a href="#">Z115045-12EA</a>	12 ea
capacity 2.0 mL, mouth O.D. 20 mm, O.D. 20 mm × H 40 mm	<a href="#">27377</a>	12 ea
capacity 3.0 mL, mouth O.D. 20 mm, diam. 20 mm × H 46 mm	<a href="#">Z183016-12EA</a>	12 ea
capacity 5.0 mL, mouth O.D. 20 mm, O.D. 20 mm × H 61 mm	<a href="#">27378</a>	12 ea

### Micro Reaction vessel, amber glass, (vial only)

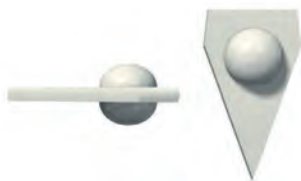
closure type ..... screw cap



Micro Reaction Vessel, amber glass

Description	Cat. No.	Qty
1 mL, O.D. 13 mm × H 41 mm, 13-425	<a href="#">27475-U</a>	12 ea
2 mL, O.D. 20 mm × H 41 mm, 20-400	<a href="#">27476</a>	12 ea
3 mL, O.D. 20 mm × H 47 mm, 20-400	<a href="#">27477-U</a>	12 ea
5 mL, O.D. 20 mm × H 62 mm, 20-400	<a href="#">27478-U</a>	12 ea

### Magnetic Stir Bar



Description	Cat. No.	Qty
Magnetic Stir Bar, for use with For 0.1-2.0mL vessels, PTFE	<a href="#">23226</a>	6 ea
Magnetic Stir Bar, for use with For 3.0-5.0mL vessels, PTFE	<a href="#">23227</a>	6 ea

## Crimpers and Decappers

### Crimpers

The Supelco hand held crimper provides a consistent and dependable seal that allows secure vial closure each and every time. The high quality construction is engineered for durability and long life to provide a smooth and simple operation.



Description	Cat. No.	Qty
Hand crimper, for use with 8mm seals	<a href="#">33272-U</a>	1 ea
Hand crimper, for use with 11mm crimp seals	<a href="#">33195</a>	1 ea
Hand crimper, for use with 13mm seals	<a href="#">33279-U</a>	1 ea
Hand crimper, for use with 20mm seals	<a href="#">33280-U</a>	1 ea

### Hand crimper, adjustable

The adjustable hand crimper is ideal if you use varying thickness of septa in your analysis. This product has the ability to be adjusted for changes in septa thickness.

This product is very useful in SPME applications recommending the use of a thinner septa (1.0-1.5mm thickness).

Description	Cat. No.	Qty
Hand crimper, adjustable, for use with 11mm crimp top vials	<a href="#">22313-U</a>	1 ea
Hand crimper, adjustable, for use with 20 mm crimp seals	<a href="#">22316-U</a>	1 ea

### Hand-operated aluminum cap crimper

Attaches aluminum seals to serum bottles and vials.

Description	Cat. No.	Qty
O.D. 8 mm	<a href="#">Z114219-1EA</a>	1 ea
O.D. 11 mm	<a href="#">Z114227-1EA</a>	1 ea
O.D. 13 mm	<a href="#">Z114235-1EA</a>	1 ea
O.D. 20 mm	<a href="#">Z114243-1EA</a>	1 ea

### Hand Decapper

Description	Cat. No.	Qty
for use with 8mm crimp seals	<a href="#">33180-U</a>	1 ea
for use with 11 mm crimp seals	<a href="#">33181-U</a>	1 ea
for use with 13mm crimp seals	<a href="#">33182-U</a>	1 ea
for use with 20mm crimp seals	<a href="#">33183</a>	1 ea

### Decapper

For aluminum seal vials



## Vials

## Crimpers and Decappers

Description	Cat. No.	Qty
O.D. 8 mm	Z292117-1EA	1 ea
O.D. 11 mm	Z292133-1EA	1 ea
O.D. 20 mm	Z292168-1EA	1 ea

## Vial Decapper, pliers-type

Decapper, pliers style



Description	Cat. No.	Qty
for use with 8mm crimp seals	33284	1 ea
for use with 11 mm crimp seals	33281	1 ea
for use with 13mm crimp seals	33282	1 ea
for use with 20mm crimp seals	33283	1 ea

## Plier-type decapper

Removes aluminum seals from serum bottles and vials.

Description	Cat. No.	Qty
O.D. 8 mm	Z225355-1EA	1 ea
O.D. 13 mm	Z114251-1EA	1 ea
O.D. 20 mm	Z114278-1EA	1 ea

## Sampling and Storage Containers

## Large amber screw top septum bottle, 30 mL

Large Amber Screw Top Septum Bottles  
Protect your sample from sunlight. Only glass and PTFE contact

Description	Cat. No.	Qty
<b>Assembled bottle kit</b>		
30 mL, amber glass, PTFE/silicone septum, O.D. 32 mm x H 80 mm, thread: 20-400	23228	12 ea
<b>Bottle only</b>		
30 mL, amber glass, O.D. 32 mm x H 80 mm, thread, 20-400	23232	12 ea
<b>Screw caps</b>		
black phenolic (with polyseal liner), thread, 20-400	23238	144 ea
black phenolic hole cap, for use with 22 mL vial with 20-400 thread	27176	100 ea
<b>Septa</b>		
tan PTFE/silicone septum, septum diam. 18 mm x total thickness 0.060 in. x PTFE thickness 2 mil	23242-U	144 ea

## Large amber screw top septum bottle, 60 mL

Description	Cat. No.	Qty
<b>Assembled bottle kit</b>		
60 mL, amber glass, PTFE/silicone septum, O.D. 38 mm x H 95 mm, thread: 20-400	23229	12 ea
<b>Bottle only</b>		
60 mL, amber glass, O.D. 38 mm x H 95 mm, thread, 20-400	23233	12 ea
<b>Screw caps</b>		
black phenolic (with polyseal liner), thread, 20-400	23238	144 ea
black phenolic hole cap, for use with 22 mL vial with 20-400 thread	27176	100 ea
<b>Septa</b>		
white tan PTFE/silicone, diam. 18 mm x total thickness 0.060 in. x PTFE thickness 5 mil, for use with 22 mL vial	27177	100 ea
tan PTFE/silicone septum, septum diam. 18 mm x total thickness 0.060 in. x PTFE thickness 2 mil	23242-U	144 ea

## Large amber screw top septum bottle, 120 mL

Description	Cat. No.	Qty
<b>Assembled bottle kit</b>		
120 mL, amber glass, PTFE/silicone septum, O.D. 49 mm x H 114 mm, thread: 22-400	23230-U	12 ea
<b>Bottle only</b>		
120 mL, amber glass, O.D. 49 mm x H 114 mm, thread, 22-400	23234	12 ea
<b>Screw caps</b>		
black phenolic solid cap (with polyseal liner), thread, 22-400	23240-U	144 ea
black phenolic cap, configured for 10 mL SPME vial with 22-400 thread	23236	144 ea
<b>PTFE/silicone</b>		
tan PTFE/silicone septa, diam. 20 mm x total thickness 0.125 in. x PTFE thickness 2 mil	27236	100 ea
transparent PTFE/silicone, diam. 20 mm x total thickness 0.100 in. x PTFE thickness 10 mil	27237-U	100 ea

## Large amber screw top septum bottle, 240 mL

Description	Cat. No.	Qty
<b>Assembled bottle kit</b>		
240 mL, amber glass, PTFE/silicone septum, O.D. 61 mm x H 143 mm, thread: 24-400	23231	12 ea
<b>Bottle only</b>		
240 mL, amber glass, O.D. 61 mm x H 143 mm, thread, 24-400	23235	12 ea
<b>Screw cap</b>		
black phenolic (no septum), thread: 24-400	23237	144 ea
<b>Septa</b>		
PTFE/silicone, septum diam. 22 mm x thickness 0.100 in.	23245-U	144 ea

## Vials

Sampling and Storage Containers

### Screw Top Mini Flask with Hole Cap and Septum

#### Features and Benefits

Heat resistant borosilicate glass flasks provide an inert seal when used with a hole cap and PTFE silicone septum (included) or a Mininert valve. Excellent for liquid-liquid extraction of trihalomethanes from drinking water. Also useful for sample collection, solution preparations, derivatization reactions, extractions, and many other applications.

Replacement cap for the Mini Flask is part number 27176, the replacement septa is part number 27177.



Left to right: 64715, 64716-U

Description	Cat. No.	Qty
10 mL	64715	12 ea
25 mL	64716-U	12 ea

## Vial Accessories

### Space Saver storage racks

Economical and convenient storage for samples in your screw cap and crimp seal vials. Can be stacked when empty or full. Autoclavable, 120°C. Each case contains 5 racks.



For Use With	Cat. No.	Qty
6-8 mm diameter vial (96 vials per rack)	23204-U	5 ea
11-12 mm diameter vial (50 vials per rack)	23207	5 ea
15-16 mm diameter vial (48 vials per rack)	23205-U	5 ea
17 mm diameter vial (90 vials per rack)	23202	5 ea
21-23 mm diameter vial (36 vials per rack)	23201	5 ea
29 mm diameter vial (50 vials per rack)	23206	5 ea

### CERTAN® capillary bottle

#### Capillary bottle CERTAN®

**HINT:** To extract a solution from CERTAN® capillary vials use a syringe with a needle diameter of 0.8 mm or smaller and a minimum 70 mm length.

These vials provide the advantage of a sealed ampule with the flexibility of a screw cap bottle or a septum vial. These unique, screw-cap sample containers with a 1.2 × 28mm height capillary opening are designed for the storage of volatile samples and reference standards.

#### Advantages:

- No appreciable change in concentration -even when open
- Secure storage, minimal evaporation
- Minimizes contamination risk
- Sample filling and removal using a standard GC syringe
- Essentially spillproof
- PTFE-lined screw-cap

#### Applications:

- Storage of liquids removed from conventional glass ampules
- Storage of stock and standard solutions
- Storage of difficult samples such as volatile halogen compounds or BTEX aromatics
- Archiving of production or QC samples and extracts



Description	Cat. No.	Qty
1.5 mL bottle	44419-1EA 44419-10EA	1 ea 10 ea
4.5 ml bottle	44420-1EA 44420-5EA	1 ea 5 ea
10 ml bottle	44421-1EA 44421-5EA	1 ea 5 ea



Vials

Vial Accessories: Block Heater

Block Heater



Talboys block heater

- Each block has a thermometer well for measuring block temperature
- Heats from ambient to 150°C with two temperature adjustments, low range ambient to 100°C/high range 75°C to 150°C.
- Heating blocks are sold sperately

Features and Benefits

- Compact design takes up little bench space
- Interchangeable heating blocks for maximum versatility

product of Troemner, 94951X

Description	Cat. No.	Qty
110 V, US 2-pin plug	Z673641-1EA	1 ea
230 V, UK plug	Z673404-1EA	1 ea
230 V, Schuko plug	Z673668-1EA	1 ea

Heater block for 28 mm diameter vials

Heater block  
L x W x H ..... 3.75 in. x 2.9 in. x 2.0 in.

Description	Cat. No.	Qty
for use with 28 mm diameter vials	33313-U	1 ea

Block #1

Heater block  
L x W x H ..... 3.75 in. x 2.9 in. x 2.0 in.

Description	Cat. No.	Qty
number of holes: 8, for use with Supelco 3 and 5 mL reaction vessels	33316	1 ea

Block #2

Heater block  
L x W x H ..... 3.75 in. x 2.9 in. x 2.0 in.

Description	Cat. No.	Qty
number of holes: 12, for use with 16 mm tubes and 0.1 to 2.0 mL reaction vessels	33317-U	1 ea

Glass Magnet™

Our Glass Magnet Sheet prevents your glass apparatus from being knocked over accidentally. This 2' x 2' sheet (61 cm x 61 cm), with its tacky surface, effectively secures the vessels in place. It can be cut with a razor blade or utility knife to fit strategically on counter tops or in drawers containing fragile glassware. Add it to carts when transporting glass to another lab or into the field. The Glass Magnet Vial Holder keeps individual vials, ampuls, and other vessels in place.



Mat (in.)	Cat. No.	Qty
W x L x thickness 24 x 24 x 3/16	57269	1 ea
diam. x thickness 4 x 3/16	57270	2 ea

Adjustable Single Port Mini-Vap Evaporator/Concentrator

- ▶ Mini-Vap 1mv ea  
Mini-Vap 1½ in. x 8½ in., adjustable, single unit

The Mini-Vap includes a needle valve for fine metering of air or nitrogen drying gas. Ideal for a wide variety of needs in evaporation or concentration.

The adjustable Mini-Vap (22970) is a versatile concentrator/evaporator that can be used with a single container. The unique design allows for any size container, from the smallest vial to a 250 mL beaker.



22970	1 ea
-------	------

## Vials

Vial Accessories: *Block Heater*

### Six Port Mini-Vap Evaporator/Concentrator

The Mini-Vap includes a needle valve for fine metering of air or nitrogen drying gas. Ideal for a wide variety of needs in evaporation or concentration.

The **6-Port Mini-Vap** (22971) concentrator/evaporator processes six miniature vials or containers at one time. Comes with six stainless steel needles, fine control needle valve, and three feet (0.9m) of plastic tubing.

The **adjustable Mini-Vap** (22970) is a versatile concentrator/evaporator that can be used with a single container. The unique design allows for any size container, from the smallest vial to a 250 mL beaker.

▶ **Mini Vap 6mv ea**  
**Mini-Vap L** 7½ in. (19 cm) × W 1½ in. (4 cm), for use with 1-250mL containers

The Mini-Vap includes a needle valve for fine metering of air or nitrogen drying gas. Ideal for a wide variety of needs in evaporation or concentration.

The **6-Port Mini-Vap** (22971) concentrator/evaporator processes six miniature vials or containers at one time. Comes with six stainless steel needles, fine control needle valve, and three feet (0.9m) of plastic tubing.  
 base H ..... ¾ in. (2 cm)



22971

1 ea

### Replacement needles for 6 port Mini-Vap

23029-U

6 ea

## Syringes



From Left to Right. KH, TLL, N or LTN, LT, RN, WG, and CH.

## Syringe Selection

**If you want reproducible injections at an economical price:** Choose a fixed needle syringe (N or LTN suffix). N denotes an epoxy cemented 304 stainless steel needle inserted in the syringe barrel to a depth corresponding exactly to the zero graduation. LTN denotes a cemented Luer tip needle. Fixed needle syringes should not be heated above 50 °C.

**If you like the simplicity of a fixed-needle syringe, but want to replace damaged needles, or change gauges to suit your applications:** Select a syringe with a removable needle (RN). RN syringes allow easy replacement of damaged needles in the field. The needle seats to the zero graduation mark, providing the same characteristics as cemented needles. RN syringes should not be heated above 115 °C.

**If you need a knurled hub:** A knurled hub (KH) syringe creates a leak-tight seal between barrel and needle and may be retightened to compensate for wear. The male Luer accommodates a spacer for defined depth insertions. Exclusive to Series 7000 syringes.

**If you want an autoclavable syringe with easy, fast needle replacement:** Choose a syringe with a Luer tip (LT). LT denotes a ground glass Luer tip suitable for mounting chromatographic needles. Order needles separately. Metal hubbed needles are not recommended. LT syringes can be autoclaved at 121 °C. Remove the plunger during sterilization.

**If you like the Luer needle attachment, but need the security of a locked needle attachment:** It is available with PTFE Luer lock syringes (TLL). PTFE Luer lock has a screwable PTFE center male Luer to hold your needle tightly in place. TLL used with 1000 Series provides an essentially inert syringe. Order needles separately. Metal or PCTFE hubbed needles can be used. Syringes with TLL connections should not be heated above 50°C.

**If you have problems with bent plungers:** Plunger guides (WG suffix) reduce the expense of replacing or repairing syringes with bent plungers. Especially useful on syringes with small diameter plungers.

**If you require precise control of sample size:** Chaney adapters (CH suffix) ensure consistent sample delivery. You will know the sample size is right every time.

## Syringes

### Syringe Selection

**Note:** Hamilton uses the most chemically resistant adhesive available to cement the needles into these syringes. Prolonged contact with some solvents, however, can cause the adhesive to deteriorate. After making your injections, thoroughly rinse the syringe with distilled water and allow it to air dry. Do not soak your syringe with any solvent for more than three minutes. In cases where prolonged use of strong solvents is necessary, you may wish to use an RN syringe.

## Syringe Care

### Proper Syringe Care Ensures Consistent Injections and Long Syringe Life

Syringes are precision instruments. The care you take in using, handling, and storing them is key to consistent injections, quality chromatograms, and long syringe life.

- Generally, for consistently accurate injections, the sample size should not be less than 10% or more than 80% of the syringe capacity.
- Temperatures above 50 °C can damage most fixed-needle syringes, due to expansion of the metallic needle.
- Routinely inspect your syringe for damage. Look for hairline cracks, and discard any syringe with a potentially unsafe barrel. The needle tip must be free of barbs. Barbs will tear the septum, creating particles that can clog the needle or deposit in your chromatographic system.
- Never store a syringe without cleaning it. Use caution when cleaning syringes containing epoxy glue or PTFE materials. Epoxy glue is not completely resistive to every solvent. A solvent such as methanol, methylene chloride, acetonitrile, acetone, or butyl amine (and others) can result in a contaminated plunger, adherence of the plunger into the barrel, a loose needle, or a clogged needle.
- If your syringe contains a PTFE tip, be sure to replace the plunger and tip assembly immediately if metal is exposed. The exposed metal plunger scrapes the glass of the syringe barrel, producing glass fragments that cut grooves in the PTFE tip. These grooves allow sample to leak past the tip. Caustic samples or cleaning solutions that seep under the PTFE tip destroy the sharp barb that holds the PTFE tip on the plunger. The tip, when loosened, could slip off during sample aspiration.

Guiding the selection of syringe parameters are three user-related areas:

#### Type of Sample

- Syringes suitable for both gas and liquid applications typically have a PTFE plunger tip that forms a gas tight fit with the syringe barrel. The PTFE tip scrapes sample from the barrel.
- Syringes for liquid samples only are manufactured using a hand-fitted plunger and a barrel with tight tolerances for inside diameter.
- For viscous or heterogenous samples, Hamilton GASTIGHT® and SGE Gas Tight syringes are recommended to avoid seizing a fitted plunger.

#### Sample Volume

- Although syringe designs differ, it is recommended that the smallest injectable volume from a syringe be no less than 20% of its total volume. The smallest dispensing volume should be no less than 10% of the total volume.
- Refer to the sections in this catalog that describe the analytical syringes carried by Hamilton, SGE, and Valco VICI. these sections list volume ranges for each syringe model.

**Application:** It is impossible to recommend syringes for all analytical applications. Some general guidelines follow:

- Headspace sampling for Environmental sample collection and storage. Use SampleLock or are ideal
- Extremely small samples (<1µL). Choose from Hamilton's Series 7000 or SGE Plunger-in-Needle syringes.
- Teaching laboratories or new users. Use economical syringes with ruggedness as a design feature. SGE design has a flexible plunger.
- Multiple, rapid manual injections. Select syringes with guides or reinforced plungers. SGE guided plunger or plunger protection syringes are recommended.

The termination is the interface, or connection, between the syringe barrel and the needle. The choice depends on the application.

**Fixed (cemented needle).** Economical, reproducible injections, for autosamplers, one syringe-one method. Do not heat above 50 °C.

**Removable needle.** One syringe-many methods, simplicity of fixed needle, but needle can be replaced if damaged or clogged. Do not heat about 115 °C.

**Knurled hub.** Creates a leak tight seal that can be retightened to compensate for wear.

**Luer tip.** Easy, fast needle replacement, syringe filter or pump priming. Luer tip is ground glass suitable for mounting chromatographic or PTFE needles. Syringes can be autoclaved (without plunger or needle).

**Luer-Lok.** Security of a locked needle, syringe filter or pump priming. PTFE/male Luer taper with nickel-plated brass locking hub for use with KEL-F or metal hub needles and universal connectors.

**Syringe Valves.** Syringe with on-off valves provide the ability to collect and store volatile samples for headspace applications. Examples are SampleLock (Hamilton) or Pressure-Lok (VICI).

#### Description of Gauge Sizes

Gauge	O.D. × I.D.	Length	Dead/Volume
26s	0.019 × 0.005 in.	2 in.	0.52 µL
26	0.018 × 0.010 in.	2 in.	2.5 µL
25s	0.020 × 0.006 in.	1.97 in.	1.26 µL
22s	0.028 × 0.006 in.	2 in.	0.9 µL
22	0.028 × 0.016 in.	2 in.	6.7 µL



#### Point Style #1: Cone Tip

Recommended for use with pre-drilled septa. The shape of this needle has been developed for multi-injections on the Agilent/HP 7673A autosampler.



#### Point Style #2: Bevel Tip

The bevel tip (22° on Hamilton syringes, 20° on SGE syringes) is designed for optimum septum penetration and to prevent septum coring.



#### Point Style #3: Blunt Tip

The 90° blunt tip has chamfered and polished edges that eliminate damage to the valve's rotor seal and stator face. This style also can be used for pipetting of liquids.



#### Point Style #5: Cone Tip, Side-port hole

Liquid samples can be filled and dispensed through the side hole, and septum damage is minimized by the solid domed tip.

## Syringes

Sample Injectors: *eVol® Hand-Held Automated Analytical Syringe*

### Sample Injectors

#### *eVol® Hand-Held Automated Analytical Syringe*

**NEW PRODUCTS**

The eVol® Analytical Syringe combines a digitally controlled electronic drive with precision analytical syringes using the patent pending XCHANGE® interface. The result is a positive-displacement dispensing system that is easily programmed to perform a variety of liquid handling procedures both accurately and reproducibly.

#### Key Benefits

- User-independent precision and accuracy
- Intuitive user interface
- Dedicated syringes prevent cross contamination
- Gravimetric calibration by user

The ease of use and programmability of the eVol Hand-held Automated Analytical Syringe makes anyone using it an expert in fluid handling. All aspects of volumetric fluid transfer, including aspiration rate, dispensing rate and sample volume are controlled by the digital drive. This decreases the possibility of variation from one user to another and eliminates concern over pipetting technique when making dilutions. Workflow scheduling issues related to operator expertise are eliminated. Additionally, fewer errors in sample processing reduce the number of samples that must be re-analyzed.

Compliance with laboratory standards such as GLP, GMP, and FDA requires regular calibration of liquid measuring devices. Calibration is typically done outside the laboratory, resulting in additional cost and a loss in productivity. The eVol Analytical Syringe can be calibrated using only a liquid of known density and an analytical balance. Microsoft® Excel worksheets provide a mechanism for calculating the required calibration factor and recording calibration records to document compliance. Calibration factors can be stored for up to 10 XCHANGE syringes and can be quickly loaded when the syringe is changed.



eVol Analytical Syringe Kit

#### eVol® Analytical Electronic Syringe

Description	Cat. No.	Qty
eVol Kit (includes digital drive, stand, charger with adapters, and three syringes (5, 50 and 500 $\mu$ L).	29841-U	1 ea



eVol Analytical Syringe

#### eVol® Components

	Cat. No.	Qty
<b>eVol Electronic syringe</b>		
Electronic Syringe with programmable digital drive	29842-U	1 ea
<b>eVol Charger with adapters</b>		
Universal charger for worldwide use	29844-U	1 ea
<b>eVol Stand</b>		
Support stand	29843-U	1 ea
<b>eVol Single Changing Stand with adapters</b>		
Single charging stand with adapters	29845-U	1 ea
<b>Battery for eVol</b>		
Replacement battery for eVol electronic syringe	29846-U	1 ea

#### Syringes for eVol®



eVol Syringes

Description	Cat. No.	Qty
<b>Syringe, 0.2-5 <math>\mu</math>L, Pk/1</b>		
volume 0.2-5 $\mu$ L, size 25 ga (bevel tip), needle L 50 mm $\times$ O.D. 0.5 mm $\times$ I.D. 0.2 mm, stainless steel bevel tip	29847-U	1 ea
<b>Syringe, 0.2-5 <math>\mu</math>L, Pk/3</b>		
volume 0.2-5.0 $\mu$ L, size 25 ga (bevel tip), needle L 50 mm $\times$ O.D. 0.5 mm $\times$ I.D. 0.2 mm, stainless steel, pack of 3	29853-U	3 ea
<b>Syringe, 2-50 <math>\mu</math>L, Pk/1</b>		
volume 2-50 $\mu$ L, size 25 ga (bevel tip), L 50 mm $\times$ O.D. 0.5 mm $\times$ I.D. 0.2 mm, stainless steel bevel tip	29849-U	1 ea
<b>Syringe, 2-50 <math>\mu</math>L, Pk/3</b>		
volume 2-50 $\mu$ L, size 25 ga (bevel tip), L 50 mm $\times$ O.D. 0.5 mm $\times$ I.D. 0.2 mm, stainless steel, pack of 3	29854-U	3 ea
<b>Syringe, 20-500 <math>\mu</math>L, Pk/1</b>		
volume 20-500 $\mu$ L, size 23 ga (bevel tip), L 50 mm $\times$ O.D. 0.63 mm $\times$ I.D. 0.32 mm, stainless steel bevel tip	29851-U	1 ea
<b>Syringe, 20-500 <math>\mu</math>L, Pk/3</b>		
volume 20-500 $\mu$ L, size 23 ga (bevel tip), L 50 mm $\times$ O.D. 0.63 mm $\times$ I.D. 0.32 mm, stainless steel, pack of 3	29855-U	3 ea

## Syringes

Sample Injectors: *Syringes for eVol®*

Description	Cat. No.	Qty
<b>Syringe, without needle</b>		
volume 0.2-5 µL, (syringe supplied without needle)	29848-U	1 ea
volume 2-50 µL, (syringe supplied without needle)	29850-U	1 ea
volume 20-500 µL, (syringe supplied without needle)	29852-U	1 ea

## Needles for 5 µL eVol® Syringe

Description	Cat. No.	Qty
volume 5 µL, needle size 25 ga (bevel tip), needle L 50 mm × O.D. 0.5 mm × I.D. 0.2 mm	29859-U	5 ea
volume 5 µL, needle size 22 ga (blunt tip), needle L 51 mm × O.D. 0.71 mm × I.D. 0.17 mm	29860-U	5 ea
volume 5 µL, needle size 23 ga (cone tip), needle L 50 mm × O.D. 0.63 mm × I.D. 0.11 mm	29861-U	5 ea
volume 5 µL, needle size 25 ga (bevel tip), needle L 70 mm × O.D. 0.5 mm × I.D. 0.11 mm	29862-U	5 ea
volume 5 µL, needle size 26 ga (cone tip), needle L 70 mm × O.D. 0.47 mm × I.D. 0.11 mm	29863-U	5 ea

## Needles for 50 µL eVol® Syringe

Description	Cat. No.	Qty
volume 25-500 µL, needle size 25 ga (bevel tip), needle L 50 mm × O.D. 0.50 mm	24447	5 ea

## Needles for 500 µL eVol® Syringe

Description	Cat. No.	Qty
volume 500 µL, needle size 23 ga (bevel tip), needle L 50 mm × O.D. 0.63 mm × I.D. 0.32 mm	29864-U	5 ea

## Plungers for eVol® Syringes

Description	Cat. No.	Qty
for use with SGE 5 µL eVol syringe	29856-U	1 ea
for use with SGE 50 µL eVol syringe	29857-U	1 ea
for use with SGE 500 µL eVol syringe	29858-U	1 ea

## Merlin MicroShot™

**NEW PRODUCTS**

The Merlin MicroShot Injector delivers fast and reproducible manual syringe injections for gas chromatography. Using a ball-end gas chromatography autosampler syringe, the unique trigger mechanism of the Merlin MicroShot makes each injection automatic when the needle is inserted into the injection port. The plunger displacement is fixed for precise volume delivery, confirming reproducibility with each and every injection, and reducing dwell time in the injection port that will minimize sample discrimination. Each MicroShot Injector is calibrated to deliver a stroke of the plunger slide within +/- 0.0025 mm on nominal.

The syringe is not included with the Merlin MicroShot. Please order the syringe separately.

**Benefits:**

- Convenient to use.
- Plunger support eliminates bent plungers.
- Simple motion triggers injection.
- Improved injection reproducibility.
- Short needle residence time in injection port.

**Merlin MicroShot™ Injector**

Improve your manual syringe technique instantly. The Merlin MicroShot Injector makes manual syringe injections convenient and reproducible using readily available chromatography syringes. The unique trigger mechanism makes each injection automatic when the needle is inserted into the injection port. The plunger displacement is fixed for precise volume delivery confirming reproducibility.

**Features and Benefits**

- Fixed volume to eliminate sampling error
- Five injection volumes available from 0.1µL to 2.0µL
- Calibrated to NIST reference standards for traceable displacement accuracy
- Quick and easy syringe replacement
- One year warranty



Description	Cat. No.	Qty
volume 0.1 µL	29464-U	1 ea
volume 0.2 µL	29466-U	1 ea
volume 0.5 µL	29468-U	1 ea
volume 1.0 µL	29471-U	1 ea
volume 2.0 µL	29472-U	1 ea



## Syringes

Autosampler Syringes

### Autosampler Syringes



Autosampler Syringe for Agilent 7673/7683

Hamilton autosampler syringes are available in three different needle gauge styles to suit your particular application. The needles are constructed of narrow-bore stainless steel to minimize liquid dead volume, and have a special conical point that reduces the pressure needed to penetrate the autosampler septum.

- 23s gauge needles – for standard injections.
- 26s gauge needles – for on-column and split/splitless injections.
- 23s-26s dual gauge needles – allow you to perform all your applications without the need to change syringes.

Microliter syringes and GASTIGHT® syringes are available in both Autosampler Needle (ASN) or Autosampler Removable needle (ASRN) styles. Dual gauge (23s-26s gauge, 1.7 inch length, point style #1) syringes combine the durability of a 23s-gauge needle with the performance capability of a 26s-gauge needle in split/splitless and on-column injection.

Available in two styles, the GASTIGHT® syringes are made with PTFE-tipped plungers.

SGE syringes are designed and tested to meet critical autosampler specifications. These syringes are designed with a unique plunger to eliminate bending and seizing. The needle point style withstands multiple and fast septum injections, making it one of the most trouble-free autosampler syringes available.

### Hamilton Syringes for Agilent/HP 7673 & 7683

#### Hamilton® 700 Series Microliter™ Syringe, Fixed Needle

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	75 ASN	23s ga (cone tip)	43 (1.71 in.)	87987	21311	1 ea
5	75 ASN	23s ga (cone tip)	43 (1.71 in.)	87990	21315	6 ea
5	75 ASN	26s ga (cone tip)	43 (1.71 in.)	87989	21314	6 ea
5	75 ASN	23s-26s ga (cone tip)	43 (1.71 in.)	87993	24570-U	1 ea
5	75 ASN	23s-26s ga (cone tip)	43 (1.71 in.)	87994	24571	6 ea
10	701 ASN	23s ga (cone tip)	43 (1.71 in.)	80387	21313	1 ea
10	701 ASN	23s ga (cone tip)	43 (1.71 in.)	80390	21317	6 ea
10	701 ASN	26s ga (cone tip)	43 (1.71 in.)	80388	21312	1 ea
10	701 ASN	26s ga (cone tip)	43 (1.71 in.)	80389	21316	6 ea
10	701 ASN	23s-26s ga (cone tip)	43 (1.71 in.)	80393	24573	1 ea
10	701 ASN	23s-26s ga (cone tip)	43 (1.71 in.)	80391	24574	6 ea

#### Hamilton® 700 Series Microliter™ Syringe, Removable Needle

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	75 ASRN	23s ga (cone tip)	43 (1.71 in.)	87957	21321	1 ea
10	701 ASRN	23s ga (cone tip)	43 (1.71 in.)	80357	21323-U	1 ea
10	701 ASRN	26s ga (cone tip)	43 (1.71 in.)	80358	21322-U	1 ea
10	701 ASRN	23s-26s ga (cone tip)	43 (1.71 in.)	80359	24575	1 ea

#### Hamilton® 700 Series Microliter™ Syringe, 22° bevel

stainless steel needle bevel tip (point style 2)

needle type ..... ASN (fixed)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	75 ASN	23s ga (bevel tip)	43 (1.71 in.)	87991	26714	1 ea
5	75 ASN	26s ga (bevel tip)	43 (1.71 in.)	87992	26721	1 ea
10	701 ASN	23s ga (bevel tip)	43 (1.71 in.)	80398	26715	1 ea
10	701 ASN	26s ga (bevel tip)	43 (1.71 in.)	80399	26722	1 ea

#### Hamilton® 7000 Series Modified Microliter™ Syringe

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
0.5	7000.5 ASRN	23s ga (cone tip)	43 (1.71 in.)	86276	26214	1 ea
0.5	7000.5 ASRN	26s ga (cone tip)	43 (1.71 in.)	86274	26215	1 ea



## Syringes

Autosampler Syringes: Hamilton Syringes for Agilent/HP 7673 &amp; 7683

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1	7001 ASRN	23s ga (cone tip)	43 (1.71 in.)	80176	26216	1 ea
1	7001 ASRN	26s ga (cone tip)	43 (1.71 in.)	80175	26217	1 ea

## Hamilton® 1700 Series GASTIGHT® Syringe, Fixed Needle

stainless steel needle cone tip (point style 1)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701 ASN	23s ga (cone tip)	43 (1.71 in.)	80080	26719	1 ea
10	1701 ASN	23s ga (cone tip)	43 (1.71 in.)	80094	26701	6 ea
10	1701 ASN	23s-26s ga (cone tip)	43 (1.71 in.)	80079	24579	1 ea
10	1701 ASN	23s-26s ga (cone tip)	43 (1.71 in.)	80096	24580	6 ea

## Hamilton® 1700 Series GASTIGHT® Syringe, Removable Needle

stainless steel needle cone tip (point style 1)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701 ASRN	23s ga (cone tip)	43 (1.71 in.)	80087	21325-U	1 ea
10	1701 ASRN	26s ga (cone tip)	43 (1.71 in.)	80088	21324	1 ea
10	1701 ASRN	23s-26s ga (cone tip)	43 (1.71 in.)	80089	24581	1 ea

## Hamilton Syringe Needles for Agilent/HP 7673 &amp; 7683

## Needles for Hamilton® RN Syringes, Point Style #1 (Cone Tip)

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	Hamilton No.	Cat. No.	Qty
5-10	ASRN	23s ga (cone tip)	43 × 0.64	7786-01	21327-U	6 ea
5-10	ASRN	26s ga (cone tip)	43 × 0.47	7786-02	21326	6 ea
5-10	ASRN	23s-26s ga (cone tip)	43 × 0.47-0.63	7785-01	24582	6 ea

## SGE Syringes



SGE Syringe for Agilent

SGE Gas Tight syringe

## Color-Coded Syringes

SGE has implemented significant changes to their chromatographic syringe line to make it easier to distinguish between the different volumes of syringes while experiencing improved technical performance. The glass barrels of SGE autosampler syringes are now according to volume to make it easier and faster for an analyst to select the proper volume of syringe for different applications. This color-coding also makes it easier for quick volume identification of syringes already installed in an autosampler.

## Tighter Specifications

Newly introduced tighter physical specifications and design changes have greatly reduced or eliminated common problems including syringe adhesive contamination of the sample, sample carryover, and mechanical problems with the needle, plunger and barrel. These improvements provide superior technical performance for the analysts and have the added benefit of extending the life of the syringe.

## Longer Life

Modifications to the inner surface finish of the syringe glass barrel and the design of the syringe components provide greater solvent resistance, a wider working-temperature range and improved operational smoothness. As a result of these modifications, the lifetime of the syringe can be as much as ten times greater when compared to SGE's current syringes.

## Superior Performance

Elimination of syringe adhesive from the fluid path removes the possibility of the sample being contaminated by adhesive, sampler carryover, or the possibility of the sample matrix dissolving the adhesive that holds syringe components together. This is accomplished by the addition of a press fit PTFE seal that fits tightly against the inner walls of the syringe and is flush to the end of the needle leaving no gaps and preventing contact of the sample with the syringe adhesive.

Additionally, the use of a new adhesive chemistry in the manufacturing of SGE syringes allows the syringe to be operated over a wider temperature range. Improvements have also been made to the needle design. The needle and hub are permanently fused together, increasing the strength of the parts.

## Reduced Carryover

Design improvements in the PTFE plunger tips and the PTFE seal inserts mentioned previously create a much tighter fit between the plunger tip of the barrel and the PTFE seal. A smoother glass surface ensures that the fluid is flushed out and no carryover occurs.

## Superior Plunger Tip

Significant changes have also been made to the SGE plunger tip so that it sits flush against the syringe insert, minimizing any potential carryover.

## Syringes

Autosampler Syringes: SGE Syringes for Agilent/HP 7673 &amp; 7683

## SGE Syringes for Agilent/HP 7673 &amp; 7683

## SGE Standard Syringe, Fixed Needle

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
5	SK-5F-HP-0.47	26 ga (cone tip)	42	001804	21910	6 ea
5	5F-HP-0.63 color (lime)	23 ga (cone tip)	42	001810 001814	21542 21911	1 ea 6 ea
5	5F-HP-0.63/0.47	23-26 ga (cone tip)	42	001822	26887-U	6 ea
10	10F-HP-0.47 color (dark orange)	26 ga (cone tip)	42	002804 002800	21541 21912	1 ea 6 ea
10	10F-HP-0.63 color (dark orange)	23 ga (cone tip)	42	002810 002814	21543 21544	1 ea 6 ea
10	10F-HP-0.63/0.47 color (dark orange)	23-26 ga (cone tip)	42	002821	29616-U	1 ea
10	10F-HP-0.63/0.47	23-26 ga (cone tip)	42	002822	26889-U	6 ea

## SGE Standard Syringe, Removable Needle

stainless steel needle cone tip (point style 1)

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
0.5	0.5BR-HP-0.63 color (light orange)	23 ga (cone tip)	42	000410	24403	1 ea
10	10R-HP-0.47 color (dark orange)	26 ga (cone tip)	42	002805	24417	1 ea
10	10R-HP-0.63 color (dark orange)	23 ga (cone tip)	42	002815	24416	1 ea
25	25R-HP-0.63 color (green)	23 ga (cone tip)	42	003665	509701	1 ea

## SGE Needles for Removable Needle Syringes

stainless steel needle cone tip (point style 1)

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
10	10R-HP-0.47	26 ga (cone tip)	42 × 0.47	037715	24440-U	2 ea
10	10R-HP-0.63	23 ga (cone tip)	42 × 0.63	037717	24439	2 ea
25	25R-HP-0.63	23 ga (cone tip)	42 × 0.63	038717	509728	2 ea

## SGE Gas Tight Syringe, Fixed Needle, Dual Gauge

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
10	10F-HP-GT-0.63/0.47 color (dark orange)	23-26 ga (cone tip)	42	002826 002827	26890-U 26891-U	1 ea 6 ea
25	25F-HP-GT-0.63/0.47 color (green)	23-26 ga (cone tip)	42	003668	26892-U	1 ea
50	50F-HP-GT-0.63/0.47 color (purple)	23-26 ga (cone tip)	42	004668	26893-U	1 ea
100	100F-HP-GT-0.63/ 0.47 color (purple)	23-26 ga (cone tip)	42	005668	26894-U	1 ea

## SGE SuperfleX™ Syringe, Fixed Needle

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
5	5FX-C	26 ga (cone tip)	50 × 0.47	001105	26242	1 ea
10	10FX-FC	26 ga (cone tip)	50 × 0.47	002105	26243	1 ea
10	10FX-5/0.63C	23 ga (cone tip)	50 × 0.63	002108 002135	26244 26247	1 ea 6 ea

## Syringes

Autosampler Syringes: SGE Syringes for Agilent/HP 7673 &amp; 7683

## SGE SuperfleX™ Syringe, Removable Needle

Volume (µL)	Description	Size	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
5	5RX-HP-0.47 color (lime)	26 ga (cone tip)	42 × 0.47	001805	23963	1 ea
5	5RX-HP-0.63 color (lime)	23 ga (cone tip)	42 × 0.63	001815	23962	1 ea

## Hamilton Syringes for Agilent/HP 7670, 7671, &amp; 7672



700 Series Six Pack

## Hamilton® syringe, 700 series, fixed needle

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701N	26s ga (bevel tip)	51 (2 in.)	80300	20734	1 ea
10	701N	26s ga (bevel tip)	51 (2 in.)	80366	20779	6 ea

## Hamilton® syringes, 700 series, removable needle

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701RN	26s ga (bevel tip)	51 (2 in.)	80338	21357	1 ea

## Hamilton® GASTIGHT® Syringe, 1700 series

PTFE plunger tip

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701N	26s ga (bevel tip)	51 (2 in.)	80000	20972	1 ea

## Hamilton® Syringe, 7000 Series, Knurled Hub

- Rapid injection of minute volumes
- Eliminates dead volume by placing the sample in the needle
- Leak-proof at injection pressures up to 6000psi

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1.0	7001KH	25s ga (bevel tip)	70 (2.75 in.)	80135	20750	1 ea

## Hamilton® needles for RN syringes

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	bevel tip (stainless steel)	26s ga	51 (2 in.)	7758-02	19131-U	6 ea

## Syringes

Autosampler Syringes: Hamilton Syringes for CTC/LEAP Technologies

### Hamilton Syringes for CTC/LEAP Technologies



Hamilton CTC syringe

#### GC Sampling Syringes (cemented needle), PAL Instruments

C-Line: The NEW generation of Hamilton syringes for CTC Analytics includes the following improvements:

- Zero carry over
- An innovative, cemented needle design that eliminates all interaction between the sample and the glued surface.
- Adjustable plunger protects plunger tip from squeezing
- A unique flange design that aligns the syringe in the proper position every time
- A more chemically resistant and temperature tolerant PTFE/polymer sealant for the plunger tip.

Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1.2	7701.2	26s ga (cone tip)	51 (2 in.)	203185	<a href="#">28617-U</a>	1 ea
5	75N	26s ga (cone tip)	51 (2 in.)	203189	<a href="#">28613-U</a>	1 ea
10	701N	23s ga (cone tip)	51 (2 in.)	203361	<a href="#">29603-U</a>	1 ea
10	701N	23s ga (bevel tip)	51 (2 in.)	203363	<a href="#">29606-U</a>	1 ea
10	701N	26s ga (cone tip)	51 (2 in.)	203205	<a href="#">28615-U</a>	1 ea
10	Slim Line	26s ga (bevel tip)	51 (2 in.)	203072	<a href="#">28614-U</a>	1 ea
10	701N	23s-26s ga (cone tip)	51 (2 in.)	203362	<a href="#">29604-U</a>	1 ea
25	1702N	26s ga (cone tip)	51 (2 in.)	203043	<a href="#">28649-U</a>	1 ea
25	1702CTC Slim Line	26s ga (cone tip)	51 (2 in.)	203074	<a href="#">29608-U</a>	1 ea
100	1710N Slim Line	26s ga (cone tip)	51 (2 in.)	203076	<a href="#">28651-U</a>	1 ea
250	1725N	26s ga (cone tip)	51 (2 in.)	203078	<a href="#">28652-U</a>	1 ea
500	1750N	26s ga (cone tip)	51 (2 in.)	203080	<a href="#">28653-U</a>	1 ea

#### GC Headspace Sampling: Combi PAL/GC PAL

feature ..... GASTIGHT® Syringe, Fixed Needle

Volume (mL)	Description	Needle	Needle L (mm)	Hamilton® No.	Cat. No.	Qty
1	1000LTN	23 ga (cone tip, side port)	51 (2 in.)	203082	<a href="#">28621-U</a>	1 ea
1	1001LTN	26 ga (cone tip, side port)	51 (2 in.)	203141	<a href="#">28622-U</a>	1 ea
2.5	1002LTN	23 ga (cone tip, side port)	51 (2 in.)	203084	<a href="#">28626-U</a>	1 ea
2.5	1002LTN	26 ga (cone tip, side port)	51 (2 in.)	203181	<a href="#">28627-U</a>	1 ea
5	1005LTN	23 ga (cone tip, side port)	51 (2 in.)	203086	<a href="#">28628-U</a>	1 ea

#### HPLC Sampling: CTC LC Autosamplers

Volume	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10 μL	701N	22s ga (blunt tip)	51 (2 in.)	203073	<a href="#">28618-U</a>	1 ea
10 μL	1701N Slim Line	22s ga (blunt tip)	51 (2 in.)	203194	<a href="#">28632-U</a>	1 ea
25 μL	1702N Slim Line	22s ga (blunt tip)	51 (2 in.)	203075	<a href="#">28633-U</a>	1 ea
100 μL	1710N Slim Line	22 ga (blunt tip)	51 (2 in.)	203235	<a href="#">28635-U</a>	1 ea
100 μL	1710N Slim Line	22s ga (blunt tip)	51 (2 in.)	203077	<a href="#">28634-U</a>	1 ea
250 μL	1725N	22 ga (blunt tip)	51 (2 in.)	203079	<a href="#">28636-U</a>	1 ea
500 μL	1750N	22 ga (blunt tip)	51 (2 in.)	203349	<a href="#">29609-U</a>	1 ea
1 mL	1001LTN	22 ga (blunt tip)	51 (2 in.)	203081	<a href="#">28637-U</a>	1 ea
2.5 mL	1002LTN	22 ga (blunt tip)	51 (2 in.)	203083	<a href="#">28638-U</a>	1 ea
5 mL	1005LTN	22 ga (blunt tip)	51 (2 in.)	203085	<a href="#">28639-U</a>	1 ea

## Syringes

Autosampler Syringes: Hamilton Syringe Plungers for CTC/Leap Technologies

## Hamilton Syringe Plungers for CTC/Leap Technologies

## Replacement Plungers for CTC GC PAL and Headspace Syringes

Volume	Description	Hamilton® No.	Cat. No.	Qty
10 µL	1701CTC	203239	<a href="#">28641-U</a>	10 ea
25 µL	1702CTC	203245	<a href="#">28642-U</a>	10 ea
100 µL	1710CTC	203246	<a href="#">28643-U</a>	10 ea
1.0 mL	1001CTC	203255	<a href="#">28646-U</a>	1 ea
2.5 mL	1002CTC	203256	<a href="#">28647-U</a>	1 ea
5.0 mL	1005CTC	203066	<a href="#">28648-U</a>	1 ea

## Hamilton Syringes for CTC A200S

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701	22s ga (blunt tip)	51 (2 in.)	203560	<a href="#">29612-U</a>	1 ea
25	1702	22s ga (blunt tip)	51 (2 in.)	203563	<a href="#">29613-U</a>	1 ea
100	1710	22s ga (blunt tip)	51 (2 in.)	203566	<a href="#">29614-U</a>	1 ea

## SGE Syringes for CTC Analytics

## SGE autosampler syringes, fixed needle, for CTC/LEAP

point style



SGE Gas Tight syringe

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
5	5F-C/F-5/0.63 Slim line, fixed needle color (lime)	23 ga (cone tip)	50	001981	<a href="#">29622-U</a>	1 ea
5	5F-C/F-5/0.47 Slim line, fixed needle color (lime)	26 ga (cone tip)	50	001982	<a href="#">29623-U</a>	1 ea
10	10F-C/F-0.63 Slim line, fixed needle color (dark orange)	23 ga (cone tip)	50	002981	<a href="#">29624-U</a>	1 ea
10	10F-C/F-5/0.47C Slim line, fixed needle color (dark orange)	26 ga (cone tip)	50	002980	<a href="#">29625-U</a>	1 ea
10	SK-10F-C/F-5/0.47C Slim line, fixed needle	26 ga (cone tip)	50	002986	<a href="#">29626-U</a>	6 ea
10	10F-C/F-GT-0.63 Slim line, Gas tight color (dark orange)	23 ga (cone tip)	50	002987	<a href="#">29627-U</a>	1 ea
25	25F-C/F-0.47C Slim line, fixed needle color (green)	26 ga (cone tip)	50	003980	<a href="#">29628-U</a>	1 ea
25	25F-C/F-GT-0.63 Slim line, Gas tight color (green)	23 ga (cone tip)	50	003987	<a href="#">29629-U</a>	1 ea
100	100F-C/F-GT-0.63 Slim line, Gas tight color (aqua)	23 ga (cone tip)	50	005335	<a href="#">29631-U</a>	1 ea

## Syringes

Autosampler Syringes: SGE Syringes for CTC Analytics

## SGE autosampler syringes, removable needle, for CTC Analytics

Volume (μL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
0.5	0.5BNR-C/F-0.63 Slim line, Removable needle color (light orange)	23 ga (cone tip)	50	000492	<a href="#">29633-U</a>	1 ea
10	10R-C/F-5/0.47C Slim line, Removable needle color (dark orange)	26 ga (cone tip)	50	002982	<a href="#">29634-U</a>	1 ea
10	10R-C/F-0.63 Slim line, Removable needle color (dark orange)	23 ga (cone tip)	50	002984	<a href="#">29635-U</a>	1 ea
10	10R-C/T-GT-5/0.47C Slim line, Removable needle color (dark orange)	26 ga (cone tip)	50	002985	<a href="#">29636-U</a>	1 ea
100	100R-C/F-GT-LC Slim line, Removable needle color (aqua)	22 ga (blunt tip)	51	005330	<a href="#">29637-U</a>	1 ea
100	100R-C/F-GT-0.47C Slim line, Gas tight color (aqua)	26 ga (cone tip)	50	005333	<a href="#">29632-U</a>	1 ea

## Hamilton Syringes for PerkinElmer®



Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
Hamilton® Syringes for PerkinElmer® GC Autosystem and Clarus 500						
5	75 ASN/PE GC	26s ga (blunt tip)	70	88040	<a href="#">24522</a>	1 ea
5	75 ASN/PE GC	23s ga (blunt tip)	70	88035	<a href="#">24523</a>	1 ea

## SGE Syringes for PerkinElmer® Autosystem

Volume (μL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
SGE Syringes for PerkinElmer® Autosystem						
0.5	0.5BR-PE-0.47 color (light orange)	26 ga (cone tip)	70	000475	<a href="#">24406</a>	1 ea
0.5	0.5BR-PE-0.63 color (light orange)	23 ga (cone tip)	70	000478	<a href="#">24407</a>	1 ea
5	5F-PE-0.47 color (lime)	26 ga (cone tip)	70	001953	<a href="#">509736</a>	1 ea
5	5F-PE-0.63 color (lime)	23 ga (cone tip)	70	001954	<a href="#">509744</a>	1 ea
5	5F-PE-GT-0.47 color (lime)	26 ga (cone tip)	70	001955	<a href="#">21930-U</a>	1 ea
5	5F-PE-GT-0.63 color (lime)	23 ga (cone tip)	70	001957	<a href="#">21929-U</a>	1 ea

## Syringes for Phillips/Unicam

## Syringe for Phillips/Unicam S8 and 4700 GC Autosystem

Volume (μL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
1	1BR-7	23 ga (cone tip)	70 × 0.63	000505	<a href="#">24408</a>	1 ea



## Syringes

Autosampler Syringes: Syringes for Shimadzu™ Instruments

## Syringes for Shimadzu™ Instruments

Syringes for Shimadzu™ AOC14, AOC17 and AOC20 GC Autosamplers						
Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
5	5F-S-0.47 color (lime)	26 ga (cone tip)	42	001987	29619-U	1 ea
5	5F-S-0.63 color (lime)	23 ga (cone tip)	42	001988	29618-U	1 ea
10	10R-S-0.63 color (dark orange)	23 ga (cone tip)	42	002898	24419	1 ea
10	10R-S-0.47 color (dark orange)	26 ga (cone tip)	42	002897	24418	1 ea
10	10R-S-GT-0.63 color (dark orange)	23 ga (cone tip)	42	002902	29621-U	1 ea

Syringes for Shimadzu™ AOC9 GC Autosamplers						
Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
10	10R-S(9)-0.47 color (dark orange)	26 ga (cone tip)	50	002885	509760	1 ea

## Hamilton Syringes for Thermo Finnigan

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
Hamilton® syringe, 700 series, fixed needle						
10	701N	26s ga (bevel tip)	51 (2 in.)	80300	20734	1 ea
10	701N	26s ga (bevel tip)	51 (2 in.)	80366	20779	6 ea
Hamilton® syringes, 700 series, removable needle						
10	701RN	26s ga (bevel tip)	51 (2 in.)	80338	21357	1 ea
Hamilton® syringe, 700 series, cemented needle, pt.#5						
10	701N	26s ga (cone tip, side-port)	51 (2 in.)	80339	24532	1 ea

## Syringes for Varian® 8400/8410, CP-9010/9050

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
10	10F-V-5/0.47A color (dark orange)	26 ga (bevel tip)	50 × 0.5	002950	29617-U	1 ea

## Syringes for Varian® 8035, 8100 and 8200 Series

Syringe for Varian® 8035, 8100, and 8200 GC Autosamplers						
SGE Syringes for Other Autosamplers						
SYRINGE SGE 10R-VA8X-2						
▶ volume 10 µL, color (dark orange)						
10R-VA8X						
needle size 25 ga (side hole)						
for use with Varian 8035, 8100, and 8200 GC Autosamplers						
stainless steel needle cone tip, side port (point style 5)						
product of SGE, 002924						
needle L × O.D. ....						53 mm × 0.5 mm
24421						1 ea

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
Syringe for Varian® 8035, 8100, and 8200 GC Autosamplers						
10	10R-VA8X color (dark orange)	25 ga (side hole)	53 × 0.5	002924	24421	1 ea

## Syringes

Autosampler Syringes: *SGE Syringes for General Use*

### SGE Syringes for General Use

Syringes for General Use						
Volume (μL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
10	10FX	26 ga (bevel tip)	50 × 0.47	002130 002100	<a href="#">23944</a> <a href="#">23966</a>	1 ea 6 ea

### SGE Replacement Needles and Plungers

SGE Replacement Needles						
Volume (μL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
1	1B-7C	23 ga (cone tip)	70 × 0.63	034057	<a href="#">24432</a>	1 ea
10	10R-S-0.63	23 ga (cone tip)	42 × 0.63	037747	<a href="#">24442</a>	2 ea
10	N10-VA8X00H-II	25 ga (cone tip side-port)	53 × 0.50	037777	<a href="#">24445</a>	1 ea
10	for 10R-VA8X, 8035	25 ga (bevel tip)	50 × 0.50	037776	<a href="#">24444</a>	2 ea

### SGE Replacement Plunger - for Varian® 10μL syringe

Volume (μL)	Description	SGE No.	Cat. No.	Qty
10	for 10R-VA8	031218	<a href="#">21924</a>	1 ea

## HPLC Syringes

### Hamilton HPLC Syringes



From left to right; 58390-U, 20885, 58380-U

### Hamilton® HPLC Syringes, 800 Series (Removable needle) - For Waters U6K Loop Injector

Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	801RNW	25s ga (blunt tip)	50 (1.97 in.)	84815	<a href="#">58390-U</a>	1 ea
25	802RNW	25s ga (blunt tip)	50 (1.97 in.)	84816	<a href="#">58391</a>	1 ea
50	805RNW	25s ga (blunt tip)	50 (1.97 in.)	84817	<a href="#">58392</a>	1 ea
100	810RNW	25s ga (blunt tip)	50 (1.97 in.)	84818	<a href="#">58393</a>	1 ea
250	825RNW	25s ga (blunt tip)	50 (1.97 in.)	84819	<a href="#">58394</a>	1 ea

### Hamilton® HPLC Syringes, 700 Series (Fixed needle) - For Rheodyne®, Valco® VISF-2, Altex and SSI Injection Valves

Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	7015NR	22s ga (blunt tip)	51 (2 in.)	80365	<a href="#">58380-U</a>	1 ea
25	7025NR	22s ga (blunt tip)	51 (2 in.)	80465	<a href="#">58381</a>	1 ea
50	7055NR	22s ga (blunt tip)	51 (2 in.)	80565	<a href="#">58382</a>	1 ea
100	7105NR	22s ga (blunt tip)	51 (2 in.)	80665	<a href="#">58383</a>	1 ea
250	7255NR	22 ga (blunt tip)	51 (2 in.)	80765	<a href="#">58384</a>	1 ea
500	7505NR	22 ga (blunt tip)	51 (2 in.)	80865	<a href="#">26222-U</a>	1 ea

## Syringes

HPLC Syringes: Hamilton HPLC Syringes

## Hamilton® HPLC Syringes, 1700 Series (Removable needle) - For Rheodyne®, Valco® VISF-2, Altex and SSI Injection Valves

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701RNR	22s ga (blunt tip)	51 (2 in.)	80065	20885	1 ea
25	1702RNR	22s ga (blunt tip)	51 (2 in.)	80265	20886	1 ea
50	1705RNR	22s ga (blunt tip)	51 (2 in.)	80965	20887	1 ea
100	1710RNR	22s ga (blunt tip)	51 (2 in.)	81065	20888	1 ea
250	1725RNR	22 ga (blunt tip)	51 (2 in.)	81165	20889	1 ea
500	1750RNR	22 ga (blunt tip)	51 (2 in.)	81265	20890-U	1 ea

## Hamilton® HPLC syringes for Agilent® 1090 and 1100 LC autosamplers

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
25	1702RN	22s ga (bevel tip)	51 (2 in.)	80230	20781	1 ea
250	1725RN	22s ga (bevel tip)	51 (2 in.)	81130	20784	1 ea

## Hamilton® LC syringe for Waters WISP®

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
25	1702	(n/a)	n/a	80020	29601-U	1 ea
250	1725	(n/a)	n/a	80024	29602-U	1 ea

## Needles for RN Syringes

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8647-01	58398	6 ea
250-10000	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8648-01	58399	6 ea
250-10000	blunt tip (PEEK)	16 ga	51 (2 in.)	8650-01	26710-U	6 ea
250-10000	blunt tip (stainless steel)	22s ga	51 (2 in.)	7780-03	19142-U	6 ea
250-10000	blunt tip (stainless steel)	26s ga	51 (2 in.)	7780-01	19140-U	6 ea
250-10000	blunt tip (stainless steel)	26 ga	51 (2 in.)	7780-02	19141-U	6 ea

## SGE HPLC Syringes



## SGE Microvolume Syringes for HPLC Valves, Fixed Needle

Volume (µL)	Description	Needle	Needle L × O.D. (in.)	SGE No.	Cat. No.	Qty
5	5F-LC	22 ga (blunt tip)	2 × 0.028	001301	509779	1 ea
10	10F-LC	22 ga (blunt tip)	2 × 0.028	002301	509787	1 ea
25	25F-LC	22 ga (blunt tip)	2 × 0.028	003300	509795	1 ea
100	100F-LC	22 ga (blunt tip)	2 × 0.028	005300	509817	1 ea
250	250F-LC	22 ga (blunt tip)	2 × 0.028	006300	509825	1 ea
500	500F-LC	22 ga (blunt tip)	2 × 0.028	007300	509833	1 ea

## Syringes

HPLC Syringes: SGE HPLC Syringes

## SGE Microvolume Syringes for HPLC Valves, Removable Needle

Volume	Description	Needle	Needle L × O.D. (in.)	SGE No.	Cat. No.	Qty
10 µL	10R-LC	22 ga (blunt tip)	2 × 0.028	002310	509868	1 ea
25 µL	25R-GT-LC	22 ga (blunt tip)	2 × 0.028	003312	509876	1 ea
50 µL	50R-GT-LC	22 ga (blunt tip)	2 × 0.028	004312	509884	1 ea
100 µL	100R-GT-LC	22 ga (blunt tip)	2 × 0.028	005312	509892	1 ea
250 µL	250R-GT-LC	22 ga (blunt tip)	2 × 0.028	006312	509906	1 ea
500 µL	500R-GT-LC	22 ga (blunt tip)	2 × 0.028	007312	509914	1 ea
1 mL	1MR-LC-GT	22 ga (blunt tip)	2 × 0.028	008105	509922	1 ea
2.5 mL	2.5MDR-LC-GT	22 ga (blunt tip)	2 × 0.028	008505	509930	1 ea

## SGE SuperfleX™ Syringes for HPLC Valves

Volume (µL)	Description	Needle	Needle L × O.D. (in.)	SGE No.	Cat. No.	Qty
10	10FX-LC (Fixed needle)	22 ga (blunt tip)	2 × 0.028	002300	23946	1 ea

## SGE Needles for HPLC Valves

stainless steel needle blunt tip (point style 3)

Volume	Description	Size	Needle L × O.D. (in.)	SGE No.	Cat. No.	Qty
25-500 µL	N25/500-LC	22 ga (blunt tip)	2 × 0.028	038250	509949	5 ea
1-2.5 mL	NM1/2.5-LC	22 ga (blunt tip)	2 × 0.028	039250	509957	5 ea

## Hamilton MICROLITER™ Syringes (600, 700 Series)

## 600 Series Syringes, 2.5 to 5.0 mL

Volume (µL)	Description	Size	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5	62RNR	22s ga (blunt tip)	51 (2 in.)	87942	26702	1 ea
5.0	62RNR	22s ga (blunt tip)	51 (2 in.)	87943	26703	1 ea

## 700 Series Syringes, 5 µL to 500 µL

## 700 series six packs

The most popular syringes are available in convenient multi-unit packages, at considerable cost savings. Accurate to ± 1%. Temperature limit: 50°C for cemented needles, 115°C for revolvable needle.

10µL capacity, 26s gauge, 51mm length, point style #2, in packs of 6.  
stainless steel needle (point style 2)



700 Series Six Pack

## Syringes

Hamilton MICROLITER™ Syringes (600, 700 Series): 700 Series Syringes, 5 µL to 500 µL

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701N	26s ga (bevel tip)	51 (2 in.)	80366	<a href="#">20779</a>	6 ea
10	701RN	26 ga (bevel tip)	51 (2 in.)	80336	<a href="#">20793</a>	6 ea



Removable needle syringe, 700 series



Luer Tip syringe, 700 series

## 700 Series, N (Cemented Needle)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	75N	26s ga (bevel tip)	51 (2 in.)	87900	<a href="#">26200-U</a>	1 ea
10	701N	26s ga (bevel tip)	51 (2 in.)	80300	<a href="#">20734</a>	1 ea
25	702N	22s ga (bevel tip)	51 (2 in.)	80400	<a href="#">20735</a>	1 ea
50	705N	22s ga (bevel tip)	51 (2 in.)	80500	<a href="#">20736</a>	1 ea
100	710N	22s ga (bevel tip)	51 (2 in.)	80600	<a href="#">20737</a>	1 ea
250	725N	22s ga (bevel tip)	51 (2 in.)	80700	<a href="#">20738</a>	1 ea
500	750N	22 ga (bevel tip)	51 (2 in.)	80800	<a href="#">20739</a>	1 ea

## 700 Series, SN (Special Needle)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701SN	26s ga (blunt tip)	51 (2 in.)	80383	<a href="#">20682</a>	1 ea
10	701SN	26s ga (bevel tip)	76 (3 in.)	80384	<a href="#">21572</a>	1 ea
10	701SN	26s ga (bevel tip)	101 (4 in.)	80382	<a href="#">21573</a>	1 ea
10	701SN	26s ga (bevel tip)	152 (6 in.)	80385	<a href="#">21574</a>	1 ea

## 700 Series, SN (Special Needle) for Rheodyne® Injectors

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701SNR	22s ga (blunt tip)	51 (2 in.)	80365	<a href="#">58380-U</a>	1 ea
25	702SNR	22s ga (blunt tip)	51 (2 in.)	80465	<a href="#">58381</a>	1 ea
50	705SNR	22s ga (blunt tip)	51 (2 in.)	80565	<a href="#">58382</a>	1 ea
100	710SNR	22s ga (blunt tip)	51 (2 in.)	80665	<a href="#">58383</a>	1 ea
250	725SNR	22 ga (blunt tip)	51 (2 in.)	80765	<a href="#">58384</a>	1 ea
500	750SNR	22 ga (blunt tip)	51 (2 in.)	80865	<a href="#">26222-U</a>	1 ea

## 700 Series, NWG (Cemented Needle with Guide)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701NWG	26s ga (bevel tip)	51 (2 in.)	80307	<a href="#">20753</a>	1 ea
25	702NWG	22s ga (bevel tip)	51 (2 in.)	80407	<a href="#">20754</a>	1 ea

## 700 Series, NCH (Cemented Needle with Chaney Adapter)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701NCH	26s ga (bevel tip)	51 (2 in.)	80304	<a href="#">20747</a>	1 ea

## 700 Series, RN (Removable Needle)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	75RN	26s ga (bevel tip)	51 (2 in.)	87930	<a href="#">20919</a>	1 ea
10	701RN	26s ga (bevel tip)	51 (2 in.)	80330	<a href="#">20697</a>	1 ea
25	702RN	22s ga (bevel tip)	51 (2 in.)	80430	<a href="#">20787</a>	1 ea
50	705RN	22s ga (bevel tip)	51 (2 in.)	80530	<a href="#">20788</a>	1 ea
100	710RN	22s ga (bevel tip)	51 (2 in.)	80630	<a href="#">20790-U</a>	1 ea

## Syringes

Hamilton MICROLITER™ Syringes (600, 700 Series): 700 Series Syringes, 5 µL to 500 µL

## 700 Series, RN (Removable Needle) (continued)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
250	725RN	22s ga (bevel tip)	51 (2 in.)	80730	24538-U	1 ea
500	750RN	22 ga (bevel tip)	51 (2 in.)	80830	24539	1 ea

## 700 Series, RNWG (Removable Needle with Guide)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701RNWG	26s ga (bevel tip)	51 (2 in.)	80337	20698	1 ea

## 700 Series, RNCH (Removable Needle with Chaney Adapter)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701RNCH	26s ga (bevel tip)	51 (2 in.)	80334	20699	1 ea

## 700 Series, N (Cemented Needle), Pt Style #5

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701N	26s ga (cone tip, side-port)	51 (2 in.)	80339	24532	1 ea
25	702N	22s ga (cone tip, side-port)	51 (2 in.)	80439	24533-U	1 ea
50	705N	22s ga (cone tip, side-port)	51 (2 in.)	80539	24534-U	1 ea
100	710N	22s ga (cone tip, side-port)	51 (2 in.)	80639	24535	1 ea
250	725N	22s ga (cone tip, side-port)	51 (2 in.)	80739	24536	1 ea
500	750N	22 ga (cone tip, side-port)	51 (2 in.)	80839	24537	1 ea

## 700 Series, SN (Use with Merlin Microseal™, Manual Injection with Agilent® autosamplers)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	701SN	23s ga (cone tip)	43 (1.71 in.)	80395	26228	1 ea

## 700 Series, LT (Luer Tip)

Volume (µL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
10	701LT	(not included)	(n/a)	80301	24530	1 ea
25	702LT	(not included)	(n/a)	80401	24531	1 ea
50	705LT	(not included)	(n/a)	80501	20701	1 ea
100	710LT	(not included)	(n/a)	80601	20702	1 ea
250	725LT	(not included)	(n/a)	80701	20703	1 ea
500	750LT	(not included)	(n/a)	80801	20704	1 ea

## Needles for Hamilton® RN Syringes, Point Style #2 (Bevel Tip)



Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	bevel tip (stainless steel)	22s ga	51 (2 in.)	7758-03	19133-U	6 ea
2.5-100	bevel tip (stainless steel)	26s ga	51 (2 in.)	7758-02	19131-U	6 ea
250-10000	bevel tip (stainless steel)	22 ga	51 (2 in.)	7779-01	19137-U	6 ea
250-10000	bevel tip (stainless steel)	22s ga	51 (2 in.)	7779-03	19136-U	6 ea



## Syringes

SGE Plunger-protected Syringes

## SGE Plunger-protected Syringes

Extended protection tube from top of the flange helps prevent plunger bending during injection.



SGE Plunger Protection syringe

## SGE Plunger Protection Syringes, Fixed Needle

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
5	5F	26 ga (bevel tip)	50	001000	<a href="#">26235-U</a>	1 ea
10	10F	26 ga (bevel tip)	50	002000	<a href="#">21933-U</a>	1 ea
				002030	<a href="#">21934-U</a>	6 ea
				002033	<a href="#">26239</a>	10 ea

## SGE Plunger Protection Syringes, Removable Needle

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
5	5R	26 ga (bevel tip)	50	001050	<a href="#">26236</a>	1 ea
10	10R	26 ga (bevel tip)	50	002050	<a href="#">24413</a>	1 ea

## SGE syringes with SuperfleX™ flexible plunger

## SGE Autosampler Syringe, SuperfleX™ Syringe

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
10	SK-10FX-HP-0.63	23 ga (cone tip)	42	002838	<a href="#">23972</a>	6 ea

The plunger is rugged enough to withstand repeated injections without breaking. Made from a titanium/nickel alloy, it is nearly indestructible and ideal for novices.

## SGE SuperfleX™ Syringe

Made from elastic alloy plunger that will not bend or kink.

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
5	5FX	26 ga (bevel tip)	50 × 0.47	001100	<a href="#">23950-U</a>	1 ea
5	5FX-C	26 ga (cone tip)	50 × 0.47	001105	<a href="#">26242</a>	1 ea
10	10FX	26 ga (bevel tip)	50 × 0.47	002130	<a href="#">23944</a>	1 ea
				002100	<a href="#">23966</a>	6 ea
10	10FX-5/0.63C	23 ga (cone tip)	50 × 0.63	002135	<a href="#">26244</a>	1 ea
				002108	<a href="#">26247</a>	6 ea
10	10FX-FC	26 ga (cone tip)	50 × 0.47	002105	<a href="#">26243</a>	1 ea
5	5RX	26 ga (bevel tip)	50 × 0.47	001150	<a href="#">23953-U</a>	1 ea
10	10RX	26 ga (bevel tip)	50 × 0.47	002150	<a href="#">23947</a>	1 ea

## SGE MicroVolume syringes, standard plunger

## SGE MicroVolume syringes with standard plunger, fixed needle

stainless steel needle bevel tip (point style 2)



SGE Standard Syringe

Volume (µL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
25	25F	25 ga (bevel tip)	50	003000	<a href="#">26248</a>	1 ea
50	50F	25 ga (bevel tip)	50	004000	<a href="#">26249-U</a>	1 ea
100	100F	25 ga (bevel tip)	50	005000	<a href="#">26250-U</a>	1 ea
250	250F	25 ga (bevel tip)	50	006000	<a href="#">26251-U</a>	1 ea
500	500F	25 ga (bevel tip)	50	007000	<a href="#">26252</a>	1 ea

## Syringes

SGE MicroVolume syringes, standard plunger

### SGE MicroVolume syringes with standard plunger, removable needle

Volume (μL)	Description	Needle	Needle L (mm)	SGE No.	Cat. No.	Qty
100	100R	25 ga (bevel tip)	50	005050	<a href="#">24423</a>	1 ea

### SGE Needles for RN syringes

Volume (μL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
0.5	NP 0.5BN-5C	23 ga (cone tip)	50 × 0.63	033010	<a href="#">24424</a>	1 ea
0.5	NP 0.5B-7C	23 ga (cone tip)	70 × 0.63	033057	<a href="#">24425</a>	1 ea
1	1B-5C	23 ga (cone tip)	50 × 0.63	034055	<a href="#">509248</a>	1 ea
1	1B-7C	23 ga (cone tip)	70 × 0.63	034057	<a href="#">24432</a>	1 ea
5	N5-5	26 ga (bevel tip)	50 × 0.47	036110	<a href="#">24436</a>	5 ea
5	NP5B-7C	23 ga (cone tip)	70 × 0.63	035057	<a href="#">24435</a>	1 ea
10	10R-S-0.63	23 ga (cone tip)	42 × 0.63	037747	<a href="#">24442</a>	2 ea
10	N10-VA8X00H-II	25 ga (cone tip side-port)	53 × 0.50	037777	<a href="#">24445</a>	1 ea
10	N10-5	26 ga (bevel tip)	50 × 0.47	037110	<a href="#">24437</a>	5 ea
10	10R-HP-0.63	23 ga (cone tip)	42 × 0.63	037717	<a href="#">24439</a>	2 ea
10	for 10R-VA8X, 8035	25 ga (bevel tip)	50 × 0.50	037776	<a href="#">24444</a>	2 ea
25	25R-HP-0.63	23 ga (cone tip)	42 × 0.63	038717	<a href="#">509728</a>	2 ea
25-500	N25/500-5	25 ga (bevel tip)	50 × 0.50	038110	<a href="#">24447</a>	5 ea

## Hamilton MICROLITER™ Syringes (800, 900 Series)

### 800 Series Syringes



Fixed needle syringe, 800 series



Removable needle syringe, 800 series

- Same quality performance as 700 series, with additional benefits
- The extended metal handle is removable and field repairable
- The plunger stem resists bending
- Accurate to within ±1% of the total volume
- Temperature limit: 50 °C for cemented needles, 115 °C for removable needle

### Hamilton® Microliter™ Syringes, 800 Series, Fixed Needle

Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	85N	26s ga (bevel tip)	51 (2 in.)	84850	<a href="#">20835-U</a>	1 ea
10	801N	26s ga (bevel tip)	51 (2 in.)	84852	<a href="#">20795-U</a>	1 ea
25	802N	22s ga (bevel tip)	51 (2 in.)	84854	<a href="#">21492</a>	1 ea
50	805N	22s ga (bevel tip)	51 (2 in.)	84856	<a href="#">24544</a>	1 ea
100	810N	22s ga (bevel tip)	51 (2 in.)	84858	<a href="#">21497-U</a>	1 ea

### Hamilton® Microliter™ Syringes, 800 Series, Removable Needle for Waters

Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	801RNW	25s ga (blunt tip)	50 (1.97 in.)	84815	<a href="#">58390-U</a>	1 ea
25	802RNW	25s ga (blunt tip)	50 (1.97 in.)	84816	<a href="#">58391</a>	1 ea
50	805RNW	25s ga (blunt tip)	50 (1.97 in.)	84817	<a href="#">58392</a>	1 ea
100	810RNW	25s ga (blunt tip)	50 (1.97 in.)	84818	<a href="#">58393</a>	1 ea
250	825RNW	25s ga (blunt tip)	50 (1.97 in.)	84819	<a href="#">58394</a>	1 ea

## Syringes

Hamilton MICROLITER™ Syringes (800, 900 Series): 800 Series Syringes

## Hamilton® Microliter™ Syringes, 800 Series, Removable Needle

- Same quality performance as 700 series, with additional benefits
- The extended metal handle is removable and field repairable
- The plunger stem resists bending
- Accurate to within  $\pm 1\%$  of the total volume
- Temperature limit: 50°C for cemented needles, 115°C for removable needle

Volume ( $\mu\text{L}$ )	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	85RN	26s ga (bevel tip)	51 (2 in.)	84851	26201	1 ea
10	801RN	26s ga (bevel tip)	51 (2 in.)	84853	20797	1 ea
25	802RN	22s ga (bevel tip)	51 (2 in.)	84855	21493	1 ea
50	805RN	22s ga (bevel tip)	51 (2 in.)	84857	21496	1 ea
100	810RN	22s ga (bevel tip)	51 (2 in.)	84859	21498	1 ea
250	825RN	22s ga (bevel tip)	51 (2 in.)	84861	24546	1 ea

## Hamilton® needles for 800 series syringes

Volume ( $\mu\text{L}$ )	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8647-01	58398	6 ea
250-10000	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8648-01	58399	6 ea
2.5-100	bevel tip (stainless steel)	22s ga	51 (2 in.)	7758-03	19133-U	6 ea
2.5-100	bevel tip (stainless steel)	26s ga	51 (2 in.)	7758-02	19131-U	6 ea
250-10000	bevel tip (stainless steel)	22s ga	51 (2 in.)	7779-03	19136-U	6 ea

## 900 Series Syringes

Economical version of 800 series syringes.

Volume ( $\mu\text{L}$ )	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
5	95N	26s ga (bevel tip)	51 (2 in.)	87920	20906-U	1 ea
10	901N	26s ga (bevel tip)	51 (2 in.)	80360	20908-U	1 ea
5	95RN	26s ga (bevel tip)	51 (2 in.)	87925	20907-U	1 ea
10	901RN	26s ga (bevel tip)	51 (2 in.)	80370	20909-U	1 ea

## SGE Syringes with extended glass barrel

Extended barrel guides the plunger during injection and is suitable for training and student use.

## SGE Guided Plunger syringes

stainless steel needle bevel tip (point style 2)



From top to bottom: SGE Plunger Protection Syringe (21933-U), SGE Guided Plunger Syringe (24414)

Volume ( $\mu\text{L}$ )	Description	Needle	Needle L $\times$ O.D. (mm)	SGE No.	Cat. No.	Qty
5	5F-GP (fixed needle)	26 ga (bevel tip)	50 $\times$ 0.47	001400	21521	1 ea
10	10F-GP (fixed needle)	26 ga (bevel tip)	50 $\times$ 0.47	002400	26240-U	1 ea
5	5R-GP (removable needle)	26 ga (bevel tip)	50 $\times$ 0.47	001450	24412	1 ea
10	10R-GP (removable needle)	26 ga (bevel tip)	50 $\times$ 0.47	002450	24414	1 ea

## Syringes

SGE Syringes with extended glass barrel

## SGE Needles for RN syringes

Description	Cat. No.	Qty
volume 10 µL, needle L 50 mm x O.D. 0.47 mm, needle size 26 ga (bevel tip)	24437	5 ea

## 7000 Series Modified Microliter™ Syringes

- Rapid injection of minute volumes
- Eliminates dead volume by placing the sample in the needle
- Leak-proof at injection pressures up to 6000psi



Order Spacer Separately

## 7000 Series Needle Specifications

	Syringe Capacity and Model				
	0.5 µL 7000.5	1 µL 7001	1 µL 7101	2 µL 7002	5 µL 7105
Gauge:	25	25s	22s	25	24
Length (cm):	7	7	7	7	7
O.D. (in.):	0.020	0.019	0.028	0.020	0.022
I.D. (in.):	0.004	0.006	0.006	0.008	0.013
Taper (in.):	none	0.019	none	0.020	none

## 7000 Series, KH (Knurled Hub)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
0.5	7000.5	25 ga (bevel tip)	70 (2.75 in.)	86259	22185-U	1 ea
0.5	7000.5	25 ga (blunt tip)	70 (2.75 in.)	86250	22184-U	1 ea
1.0	7001KH	25s ga (bevel tip)	70 (2.75 in.)	80135	20750	1 ea
1.0	7001	25s ga (blunt tip)	70 (2.75 in.)	80100	20731	1 ea
1.0	7101	22s ga (bevel tip)	70 (2.75 in.)	86211	20979	1 ea
1.0	7101	22s ga (blunt tip)	70 (2.75 in.)	86200	20733	1 ea
2.0	7002	25 ga (bevel tip)	70 (2.75 in.)	88411	20751	1 ea
2.0	7002	25 ga (blunt tip)	70 (2.75 in.)	88400	20732	1 ea
2.0	7102	23 ga (bevel tip)	70 (2.75 in.)	88511	24592	1 ea
2.0	7102	23 ga (blunt tip)	70 (2.75 in.)	88500	24593	1 ea
5.0	7105	24 ga (bevel tip)	70 (2.75 in.)	88011	20980-U	1 ea
5.0	7105	24 ga (blunt tip)	70 (2.75 in.)	88000	20728	1 ea

## 7000 Series, KHWG (Knurled Hub with Guide)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
0.5	7000.5	25 ga (blunt tip)	70 (2.75 in.)	86254	24596	1 ea
1.0	7001	25s ga (blunt tip)	70 (2.75 in.)	80107	20944	1 ea
1.0	7101	22s ga (blunt tip)	70 (2.75 in.)	86207	20726	1 ea
2.0	7002	25 ga (blunt tip)	70 (2.75 in.)	88407	20744	1 ea
5.0	7105	24 ga (blunt tip)	70 (2.75 in.)	88007	24598	1 ea

## 7000 Series, KHCH (Knurled Hub with Chaney Adapter)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
0.5	7000.5	25 ga (blunt tip)	70 (2.75 in.)	86252	24594	1 ea
1.0	7001	25s ga (blunt tip)	70 (2.75 in.)	80104	20743	1 ea
5.0	7105	24 ga (blunt tip)	70 (2.75 in.)	88004	20755	1 ea

## Syringes

7000 Series Modified Microliter™ Syringes

## 7000 Series Repair Kits

Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1.0	7001KH	25s ga (bevel tip)	70 (2.75 in.)	17888	26733	1 ea
1.0	7101KH	22s ga (bevel tip)	70 (2.75 in.)	17890	26736	1 ea
1.0	7001KH	25s ga (blunt tip)	70 (2.75 in.)	17188	26732-U	1 ea
1.0	7101KH	22s ga (blunt tip)	70 (2.75 in.)	17190	26735-U	1 ea
2.0	7002KH	25 ga (bevel tip)	70 (2.75 in.)	17891	26739	1 ea
5.0	7105KH	24 ga (bevel tip)	70 (2.75 in.)	17893	26745-U	1 ea
5.0	7000,5KH	25 ga (blunt tip)	70 (2.75 in.)	17187	26729	1 ea

## SGE Microvolume Syringe (Plunger-in-needle), 0.5 μL- 5 μL

A sample as small as 0.1 μL is contained in the needle.



Volume (μL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
SGE Microvolume Syringe						
0.5	0.5BNR-5	23 ga (cone tip)	50 × 0.63	000300	24400	1 ea
0.5	0.5BR-7	23 ga (cone tip)	70 × 0.63	000310	24401	1 ea
0.5	0.5BNR-5BV	23 ga (bevel tip)	50 × 0.63	000301	509140	1 ea
0.5	0.5BNR-OC-5/0.47	26 ga (cone tip)	50 × 0.47	000303	509167	1 ea
1	1BR-7	23 ga (cone tip)	70 × 0.63	000505	24408	1 ea
1	1BR-5	23 ga (cone tip)	50 × 0.63	000500	509221	1 ea
1	1BR-5BV	23 ga (bevel tip)	50 × 0.63	000501	29639-U	1 ea
1	1BR-7BV	23 ga (bevel tip)	70 × 0.63	000506	509256	1 ea
1	1BNR-OC-7/0.47	26 ga (cone tip)	70 × 0.47	000570	509272	1 ea
5	5BR-7	23 ga (cone tip)	70 × 0.63	000802	24411	1 ea
5	5BR-7BV	23 ga (bevel tip)	70 × 0.63	000803	509310	1 ea

## Hamilton GASTIGHT® Syringes, 1000 Series

## 1000 Series GASTIGHT Syringes

Suitable for applications requiring corrosive fluid transfers, pipetting, and sample preparation. Glass and PTFE construction provide an inert flow path for demanding applications. Leaktight PTFE plunger tip. Point style 2 needles included with cemented and removable needle syringes. Order needles separately for Luer tip and PTFE Luer lock syringes.

- For larger volumes
- PTFE plunger tip gives an inert, leak-tight seal for corrosive gases and liquids, radioactive materials, and sterile solutions
- Accurate to within ±1% of the total volume
- Temperature limit 115 °C for removable needle



20723



20740-U



26210-U

## 1000 Series, LTN (Fixed Needle)

Volume (mL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1.0	1001LTN	22 ga (bevel tip)	51 (2 in.)	81317	20740-U	1 ea
1.25	1001.25LTN	22 ga (bevel tip)	51 (2 in.)	82017	24589	1 ea
2.5	1002LTN	22 ga (bevel tip)	51 (2 in.)	81417	20691	1 ea
5.0	1005LTN	22 ga (bevel tip)	51 (2 in.)	81517	20692	1 ea
10.0	1010LTN	22 ga (bevel tip)	51 (2 in.)	81617	20693	1 ea

## Syringes

Hamilton GASTIGHT® Syringes, 1000 Series: 1000 Series GASTIGHT Syringes

## 1000 Series, LTN (Fixed Needle), Pt. #5 (Side Port)

Volume (mL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1.0	1001LTN	22 ga (cone tip, side-port)	51 (2 in.)	81343	20709	1 ea
2.5	1002LTN	22 ga (cone tip, side-port)	51 (2 in.)	81443	20710-U	1 ea
5.0	1005LTN	22 ga (cone tip, side-port)	51 (2 in.)	81543	24590	1 ea
10.0	1010LTN	22 ga (cone tip, side-port)	51 (2 in.)	81643	24591	1 ea

## 1000 Series, RN (Removable Needle)

Volume (mL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
1	1001RN	22 ga (bevel tip)	51 (2 in.)	81330	22192-U	1 ea
2.5	1002RN	22 ga (bevel tip)	51 (2 in.)	81430	22193-U	1 ea
5.0	1005RN	22 ga (bevel tip)	51 (2 in.)	81530	22194-U	1 ea
10.0	1010RN	22 ga (bevel tip)	51 (2 in.)	81630	22195	1 ea

## 1000 Series, LT (Luer Tip)

Volume (mL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
1.0	1001LT	(not included)	(n/a)	81301	20720	1 ea
1.25	1001.25LT	(not included)	(n/a)	82001	24588	1 ea
2.5	1002LT	(not included)	(n/a)	81401	20721	1 ea
5.0	1005LT	(not included)	(n/a)	81501	20722	1 ea
10.0	1010LT	(not included)	(n/a)	81601	20723	1 ea

## 1000 Series, TLL (PTFE Luer Lock)



TLL (PTFE Luer Lock) - 25mL to 100mL



TLL (PTFE Luer Lock), 1mL to 10mL

Volume (mL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
1.0	1001TLL	(not included)	(n/a)	81320	20997	1 ea
2.5	1002TLL	(not included)	(n/a)	81420	20998	1 ea
5.0	1005TLL	(not included)	(n/a)	81520	20999	1 ea
10.0	1010TLL	(not included)	(n/a)	81620	21000-U	1 ea
25.0	1025TLL	(not included)	(n/a)	82520	20683	1 ea
50.0	1050TLL	(not included)	(n/a)	85020	20707	1 ea
100.0	1100TLL	(not included)	(n/a)	86020	21967	1 ea

## 1000 Series, TLL (PTFE Luer Lock) with slots

Volume (mL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
1.0	1001TLL	(not included)	(n/a)	81327	26208	1 ea
2.5	1002TLL	(not included)	(n/a)	81427	26209	1 ea
5.0	1005TLL	(not included)	(n/a)	81527	26210-U	1 ea
10.0	1010TLL	(not included)	(n/a)	81627	26211-U	1 ea
25.0	1025TLL	(not included)	(n/a)	82527	26212	1 ea
50.0	1050TLL	(not included)	(n/a)	85027	26213	1 ea



## Syringes

SGE Gas Tight Syringes, 1 mL to 100 mL

## SGE Gas Tight Syringes, 1 mL to 100 mL



From left to right; 21965-U, 21533

Gas Tight syringes are constructed of borosilicate glass, PTFE plunger tips, and KEL-F Luer cones where applicable. An interference fit between the plunger tip and the barrel enhances the gas sealing properties of the syringe. Plungers are interchangeable. Syringes can be autoclaved, but the plunger should be removed.

- Maximum inertness for liquid or gas samples
- Suitable for manual dispenser/diluter applications
- High accuracy of dispensed volume
- Wide variety of terminations

## SGE Gas Tight Syringe, Fixed Needle

Volume (mL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
1	1MDF-GT-1ML	22 ga	50 × 0.72	008102	<a href="#">29638-U</a>	1 ea

## SGE Gas Tight Syringes, Removable Needle

Volume (mL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
1	1MR-GT	23 ga (bevel tip)	50 × 0.63	008100	<a href="#">509388</a>	1 ea
2.5	2.5MDR-GT	23 ga (bevel tip)	50 × 0.63	008500	<a href="#">509396</a>	1 ea
5	5MDR-GT	23 ga (bevel tip)	50 × 0.63	008700	<a href="#">509418</a>	1 ea
10	10MDR-GT	23 ga (bevel tip)	50 × 0.63	008900	<a href="#">509426</a>	1 ea

## SGE Gas Tight Syringes, Luer Lock

These syringes are supplied without a needle.

Volume (mL)	Description	Needle	Needle L	SGE No.	Cat. No.	Qty
1	1MDF-LL-GT	(not included)	(n/a)	008025	<a href="#">21964</a>	1 ea
2.5	2.5MDF-LL-GT	(not included)	(n/a)	008425	<a href="#">509493</a>	1 ea
5	5MDR-LL-GT	(not included)	(n/a)	008760	<a href="#">21965-U</a>	1 ea
10	10MDR-LL-GT	(not included)	(n/a)	008960	<a href="#">509507</a>	1 ea
25	25MDR-LL-GT	(not included)	(n/a)	009462	<a href="#">509515</a>	1 ea
50	50MR-LL-GT	(not included)	(n/a)	009660	<a href="#">21532</a>	1 ea
100	100MR-LL-GT	(not included)	(n/a)	009760	<a href="#">21533</a>	1 ea

## SGE Syringes Fitted with Luer Lock Valve

Volume (mL)	Description	Needle	Needle L	SGE No.	Cat. No.	Qty
1	1MDR-VLL-GT	(not included)	(n/a)	008160	<a href="#">509590</a>	1 ea
5	5MDR-VLLMA-GT	(not included)	(n/a)	008770	<a href="#">509612</a>	1 ea
10	10MDR-VLLMA-GT	(not included)	(n/a)	008970	<a href="#">509620</a>	1 ea
25	25MDR-VLLMA-GT	(not included)	(n/a)	009472	<a href="#">509639</a>	1 ea
100	100MR-VLLMA-GT	(not included)	(n/a)	009770	<a href="#">509655</a>	1 ea

## Syringes

Hamilton GASTIGHT® Syringes, 1700 Series

### Hamilton GASTIGHT® Syringes, 1700 Series

#### Hamilton® SampleLock syringe

- Twist valve locks the sample in the syringe
- Positive rear plunger stop eliminates sample loss and plunger blowout at high pressures (not applicable to 1705 and 1710 models)
- Connects to either male or female Luer fittings by using an adapter. Male and female luer and male luer lock adapters thread onto the SampleLock valve making the syringe compatible with many connectors and fittings. All adapters have a Kel-F™ (CTFE) fluid path, with a port diameter of 0.039 in.
- Internal standards can be added through the valve port into the sample contained in the syringe

stainless steel needle bevel tip (point style 2)

We recommend Replacement Needle Cat. No. 19136-U (22s ga needle) for the 1705SL, 1710SL, & 1725SL syringes; Cat. No. 19137-U (22 ga needle) is recommended for the larger syringes. Both replacement needles will fit 250 µL to 10 mL syringes and will fit any SampleLock syringe.

Plunger Assemblies are available for the 1705SL (Cat. No. 26152-U) & 1710SL (Cat. No. 26154) syringes.



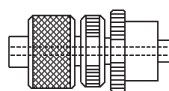
Volume	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
50 µL	1705SL	22s ga (bevel tip)	51 (2 in.)	80956	<a href="#">26280-U</a>	1 ea
100 µL	1710SL	22s ga (bevel tip)	51 (2 in.)	81056	<a href="#">26281</a>	1 ea
250 µL	1725SL	22s ga (bevel tip)	51 (2 in.)	81156	<a href="#">26282</a>	1 ea
500 µL	1750SL	22 ga (bevel tip)	51 (2 in.)	81256	<a href="#">26283</a>	1 ea
1.0 mL	1001SL	22 ga (bevel tip)	51 (2 in.)	81356	<a href="#">26284</a>	1 ea
2.5 mL	1002SL	22 ga (bevel tip)	51 (2 in.)	81456	<a href="#">26285</a>	1 ea
5.0 mL	1005SL	22 ga (bevel tip)	51 (2 in.)	81556	<a href="#">26286</a>	1 ea
10.0 mL	1010SL	22 ga (bevel tip)	51 (2 in.)	81656	<a href="#">26287</a>	1 ea
25.0 mL	1025SL	22 ga (bevel tip)	51 (2 in.)	86326	<a href="#">26288</a>	1 ea
50.0 mL	1050SL	22 ga (bevel tip)	51 (2 in.)	86336	<a href="#">26289</a>	1 ea
100.0 mL	1100SL	22 ga (bevel tip)	51 (2 in.)	86346	<a href="#">26290-U</a>	1 ea

#### Plunger Assemblies for Sample Lock syringes

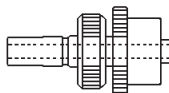
Syringe Volume (µL)	Description	Hamilton No.	Cat. No.	Qty
50	1705 LT, RN, or TLL	1162-01	<a href="#">26152-U</a>	1 ea
100	1710 C, LT, N, RN, or TLL	1162-02	<a href="#">26154</a>	1 ea

#### Hamilton® Hub Adapter

for use with Hamilton Sample Lock Syringes



26293 - Accepts female luer or female luer lock



26292 - Accepts female luer

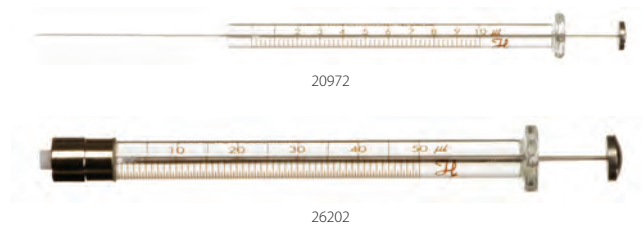
Volume (µL)	Description	Hamilton No.	Cat. No.	Qty
250	Male Luer/Removable needle hub converts large hub RN termination (250 µL or larger) to a Male luer connection.	35080	<a href="#">26292</a>	1 ea
250	Male Luer Lock/Removable needle hub converts large hub (250 µL or larger) to a Male Luer Lock connection	35083	<a href="#">26293</a>	1 ea

## Syringes

Hamilton GASTIGHT® Syringes, 1700 Series: 1700 Series GASTIGHT Syringes

## 1700 Series GASTIGHT Syringes

LTN style syringes supplied with a cemented needle. Luer tip and PTFE Luer Lock syringes are not supplied with a needle.



## 1700 Series, N (Cemented Needle)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701N	26s ga (bevel tip)	51 (2 in.)	80000	20972	1 ea
25	1702N	22s ga (bevel tip)	51 (2 in.)	80200	20973	1 ea
50	1705N	22s ga (bevel tip)	51 (2 in.)	80900	20687	1 ea
100	1710N	22s ga (bevel tip)	51 (2 in.)	81000	20688	1 ea
250	1725N	22s ga (bevel tip)	51 (2 in.)	81100	20689	1 ea

## 1700 Series, LTN (Luer Tip Cemented Needle)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
500	1750LTN	22 ga (bevel tip)	51 (2 in.)	81217	20690-U	1 ea

## 1700 Series, N (Cemented Needle) Cone Tip, Side-Port

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701N	26s ga (side-port)	51 (2 in.)	80039	24585	1 ea
25	1702N	22s ga (side-port)	51 (2 in.)	80239	24586	1 ea
250	1725	22s ga (side-port)	51 (2 in.)	81139	20705	1 ea
500	1750	22 ga (side-port)	51 (2 in.)	81243	20708	1 ea

## 1700 Series, NCH (Cemented Needle with Chaney Adapter)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701NCH	26s ga (bevel tip)	51 (2 in.)	80004	20974	1 ea

## 1700 Series, RN (Removable Needle)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1701RN	26s ga (bevel tip)	51 (2 in.)	80030	20780-U	1 ea
25	1702RN	22s ga (bevel tip)	51 (2 in.)	80230	20781	1 ea
50	1705RN	22s ga (bevel tip)	51 (2 in.)	80930	20782	1 ea
100	1710RN	22s ga (bevel tip)	51 (2 in.)	81030	20783	1 ea
250	1725RN	22s ga (bevel tip)	51 (2 in.)	81130	20784	1 ea
500	1750RN	22 ga (bevel tip)	51 (2 in.)	81230	20785-U	1 ea

## 1700 Series, LT (Luer Tip, no needle)



Volume (µL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
10	1701LT	(not included)	(n/a)	80001	20976	1 ea
25	1702LT	(not included)	(n/a)	80201	20977	1 ea
50	1705LT	(not included)	(n/a)	80901	20715	1 ea
100	1710LT	(not included)	(n/a)	81001	20716	1 ea

## Syringes

Hamilton GASTIGHT® Syringes, 1700 Series: 1700 Series GASTIGHT Syringes

1700 Series, LT (Luer Tip, no needle) (continued)

Volume (µL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
250	1725LT	(not included)	(n/a)	81101	20717	1 ea
500	1750LT	(not included)	(n/a)	81201	20714	1 ea

### 1700 Series, TLL (PTFE Luer Lock, no needle)

Volume (µL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
50	1705TLL	(not included)	(n/a)	80920	26202	1 ea
100	1710TLL	(not included)	(n/a)	81020	26203	1 ea
250	1725TLL	(not included)	(n/a)	81120	20915	1 ea
500	1750TLL	(not included)	(n/a)	81220	20916	1 ea

### 1700 Series, TLL (PTFE Luer Lock, no needle) with slots

needle size (not included)



26204

Volume (µL)	Description	Needle	Needle L	Hamilton No.	Cat. No.	Qty
50	1705TLL	(not included)	(n/a)	80927	26204	1 ea
100	1710TLL	(not included)	(n/a)	81027	26205	1 ea
250	1725TLL	(not included)	(n/a)	81127	26206	1 ea
500	1750TLL	(not included)	(n/a)	81227	26207	1 ea

## SGE Gas Tight Syringes, 10 µL to 10 mL



SGE Gas Tight syringe

Gas Tight syringes are constructed of borosilicate glass, PTFE plunger tips, and KEL-F Luer cones where applicable. An interference fit between the plunger tip and the barrel enhances the gas sealing properties of the syringe. Plungers are interchangeable. Syringes can be autoclaved, but the plunger should be removed.

- Maximum inertness for liquid or gas samples
- Suitable for manual dispenser/diluter applications
- High accuracy of dispensed volume
- Wide variety of terminations

### SGE Gas Tight Syringes, Fixed Needle

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
10	10F-GT	26 ga (bevel tip)	50 × 0.47	002200	26256	1 ea
25	25F-GT	25 ga (bevel tip)	50 × 0.50	003200	26257	1 ea
50	50F-GT	25 ga (bevel tip)	50 × 0.50	004200	26258-U	1 ea
100	100F-GT	25 ga (bevel tip)	50 × 0.50	005200	26259	1 ea
250	250F-GT	25 ga (bevel tip)	50 × 0.50	006200	26260-U	1 ea
500	500F-GT	25 ga (bevel tip)	50 × 0.50	007200	26261	1 ea

### SGE Gas Tight Syringes, Removable Needle

Volume	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
10 µL	10R-GT	26 ga (bevel tip)	50 × 0.47	002250	26237	1 ea
25 µL	25R-GT	25 ga (bevel tip)	50 × 0.50	003250	26262	1 ea
50 µL	50R-GT	25 ga (bevel tip)	50 × 0.50	004250	26263	1 ea
100 µL	100R-GT	25 ga (bevel tip)	50 × 0.50	005250	26264	1 ea
250 µL	250R-GT	25 ga (bevel tip)	50 × 0.50	006250	26265	1 ea

## Syringes

SGE Gas Tight Syringes, 10 µL to 10 mL

Volume	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
500 µL	500R-GT	25 ga (bevel tip)	50 × 0.50	007250	26266	1 ea
1 mL	1MR-GT	23 ga (bevel tip)	50 × 0.63	008100	509388	1 ea
2.5 mL	2.5MDR-GT	23 ga (bevel tip)	50 × 0.63	008500	509396	1 ea
5 mL	5MDR-GT	23 ga (bevel tip)	50 × 0.63	008700	509418	1 ea
10 mL	10MDR-GT	23 ga (bevel tip)	50 × 0.63	008900	509426	1 ea

## SGE Gas Tight Syringes, Luer Lock

These syringes are supplied without a needle.

Volume	Description	Needle	Needle L	SGE No.	Cat. No.	Qty
50 µL	50F-LL-GT	(not included)	(n/a)	004230	509450	1 ea
100 µL	100F-LL-GT	(not included)	(n/a)	005230	509469	1 ea
250 µL	250F-LL-GT	(not included)	(n/a)	006230	509477	1 ea
500 µL	500F-LL-GT	(not included)	(n/a)	007230	509485	1 ea
1 mL	1MDF-LL-GT	(not included)	(n/a)	008025	21964	1 ea
2.5 mL	2.5MDF-LL-GT	(not included)	(n/a)	008425	509493	1 ea
5 mL	5MDR-LL-GT	(not included)	(n/a)	008760	21965-U	1 ea
10 mL	10MDR-LL-GT	(not included)	(n/a)	008960	509507	1 ea
25 mL	25MDR-LL-GT	(not included)	(n/a)	009462	509515	1 ea
50 mL	50MR-LL-GT	(not included)	(n/a)	009660	21532	1 ea
100 mL	100MR-LL-GT	(not included)	(n/a)	009760	21533	1 ea

## SGE Syringes with Removable Needle Valve

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
100	100R-V-GT	23 ga	50 × 0.63	005279	509531	1 ea
250	250R-V-GT	23 ga	50 × 0.63	006279	509558	1 ea

## Hamilton GASTIGHT® Syringes, 1800 Series

- Ideal for corrosive, radioactive, or sterile materials
- Removable handle minimizes heat transfer from hand to sample, making the syringe easy to hold
- Accurate and reproducible to ±1%
- Field repairable

## 1800 series, N (cemented needle)



Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1801N	26s ga (bevel tip)	51 (2 in.)	84875	21390	1 ea
25	1802N	22s ga (bevel tip)	51 (2 in.)	84878	21391	1 ea
50	1805N	22s ga (bevel tip)	51 (2 in.)	84881	21392	1 ea
100	1810N	22s ga (bevel tip)	51 (2 in.)	84884	21393	1 ea
250	1825N	22s ga (bevel tip)	51 (2 in.)	84887	21394	1 ea

## Syringes

Hamilton GASTIGHT® Syringes, 1800 Series

### 1800 series, RN (removable needle)



Volume (μL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
10	1801RN	26s ga (bevel tip)	51 (2 in.)	84877	<a href="#">21395</a>	1 ea
25	1802RN	22s ga (bevel tip)	51 (2 in.)	84880	<a href="#">21396</a>	1 ea
50	1805RN	22s ga (bevel tip)	51 (2 in.)	84883	<a href="#">21397</a>	1 ea
100	1810RN	22s ga (bevel tip)	51 (2 in.)	84886	<a href="#">21398</a>	1 ea
250	1825RN	22s ga (bevel tip)	51 (2 in.)	84889	<a href="#">21399</a>	1 ea

### Hamilton On-Column Syringes

Use the 701RNFS syringes with liquid samples. A PTFE plunger tip makes the 1701RNFS syringes gas tight. Syringes come with a replaceable fused silica needle. Capacity 10 μL, 0.17 mm OD, 10 cm length, point style #3. Use with 0.20 mm I.D. or larger columns.

#### On-Column Injection, Fixed Needle Microliter™ Syringes

Volume (μL)	Description	Size	Needle L (cm)	Hamilton No.	Cat. No.	Qty
10	701SN	32 ga (blunt tip)	7.5	80351	<a href="#">21351</a>	1 ea
10	701SN	32 ga (blunt tip)	12.5	80308	<a href="#">21352</a>	1 ea

#### On-column Injection, Removable Needle, Fused Silica

Volume (μL)	Description	Needle	Needle L × O.D.	Hamilton No.	Cat. No.	Qty
10	701RNFS	(blunt tip)	10 cm × 0.17 mm	87402	<a href="#">21359</a>	1 ea
10	701RN	(bevel tip)	12.5 cm × 0.23 mm	80386	<a href="#">26724</a>	1 ea

#### Fused Silica Needles for RNFS Syringes (PTFE Syringe Tubing may be found with Syringe Accessories)

Volume (μL)	Description	Size	Needle L	Hamilton No.	Cat. No.	Qty
10	RNFS	(blunt tip)	11.5 ×	17076	<a href="#">26725</a>	1 ea

### Precision Sampling Syringes

#### Valco® Precision Sampling Syringe, Series A

Series A - Removable Needle: This Pressure-Lok syringe allows storage of sample within the syringe. Rotary valve in the needle hub allows for sample pre-pressurization prior to injection.

- Integral sample storage valve - actuated by turning the nose piece
- Positive rear flange plunger stop - prevents plunger from blowing out of barrel at elevated pressure
- Modular construction - all components may be quickly disassembled for easy cleaning or replacement
- Leak-tight to 250 psi - liquids and gases



Volume (mL)	Description	Needle	Needle L × O.D. × I.D. (in.)	VICI No.	Cat. No.	Qty
0.10	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010025	<a href="#">22261</a>	1 ea
0.25	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010031	<a href="#">22262</a>	1 ea
0.50	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010032	<a href="#">22263</a>	1 ea
1	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010033	<a href="#">22264</a>	1 ea
2	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010034	<a href="#">22265</a>	1 ea
5	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010035	<a href="#">22266</a>	1 ea
10	Series A	(bevel tip)	2.25 × 0.029 × 0.012	010036	<a href="#">22267</a>	1 ea



## Syringes

Precision Sampling Syringes

### Valco® Precision Sampling Syringe, Series A-2

Series A-2 - Removable Needle: An economically priced general purpose syringe, it is leak-tight to 250 psi for both gas and liquids.

- Push-button valve - allows instantaneous injection
- Smaller volumes - great for small volatile samples



Volume	Description	Needle	Needle L × O.D. × I.D. (in.)	VICI No.	Cat. No.	Qty
25 µL	Series A-2	(bevel tip)	2 × 0.028 × 0.005	050023	22268	1 ea
50 µL	Series A-2	(bevel tip)	2 × 0.028 × 0.005	050024	22269-U	1 ea
0.10 mL	Series A-2	(bevel tip)	2 × 0.028 × 0.005	050025	22270-U	1 ea
0.25 mL	Series A-2	(bevel tip)	2 × 0.029 × 0.012	050031	22271	1 ea
0.50 mL	Series A-2	(bevel tip)	2 × 0.029 × 0.012	050032	22272	1 ea
1 mL	Series A-2	(bevel tip)	2 × 0.029 × 0.012	050033	22273	1 ea
2 mL	Series A-2	(bevel tip)	2 × 0.029 × 0.012	050034	22274	1 ea
5 mL	Series A-2	(bevel tip)	2 × 0.029 × 0.012	050035	22275	1 ea
10 mL	Series A-2	(bevel tip)	2 × 0.029 × 0.012	050036	22276	1 ea

### Valco® Precision Sampling Syringe, Series C

Series C - Removable Needle: A heavy duty gas syringe, it features a positive rear plunger stop and a special low-dead volume, removable needle. No sample storage capacity.



Volume (mL)	Description	Needle	Needle L × O.D. × I.D. (in.)	VICI No.	Cat. No.	Qty
0.10	Series C	(bevel tip)	2 × 0.029 × 0.012	030025	22277	1 ea
1	Series C	(bevel tip)	2 × 0.029 × 0.012	030033	22280	1 ea
2	Series C	(bevel tip)	2 × 0.029 × 0.012	030034	22281	1 ea
5	Series C	(bevel tip)	2 × 0.029 × 0.012	030035	22282	1 ea

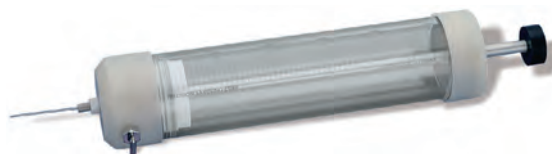
### Valco® Precision Sampling syringe, Magnum series

Magnum Series - Removable Needle: This Pressure-Lok series syringe allows sampling and storage of samples up to 500 mL. A low-dead volume, removable needle is used, and a rotary valve allows on-site sampling for later analysis. It is ideal for collection, trace analysis and sample concentration of environmental contaminants.

Magnum Series

needle size (bevel tip)

needle L × O.D. × I.D. .... 2 in. × 0.035 in. × 0.023 in.



Volume (mL)	Description	Needle	Needle L × O.D. × I.D. (in.)	VICI No.	Cat. No.	Qty
100	Magnum Series	(bevel tip)	2 × 0.035 × 0.023	060040	21736	1 ea
500	Magnum Series	(bevel tip)	2 × 0.035 × 0.023	060042	21738	1 ea

## Syringes

## Precision Sampling Syringes

**Valco® Precision Sampling syringe, series C-120**

C-120 – Fixed Needle: A general purpose chromatography syringe with a PTFE-tipped plunger. Leak-tight to 250 psi.



Volume (μL)	Description	Needle	Needle L (in.)	VICI No.	Cat. No.	Qty
10	C-120	(bevel tip)	2	120022	<a href="#">20961</a>	1 ea
25	C-120	(bevel tip)	2	120023	<a href="#">20962</a>	1 ea
100	C-120	(bevel tip)	2	120025	<a href="#">20964</a>	1 ea

**Valco® Precision Sampling syringe, series C-160**

C-160 – Fixed Needle: An economically priced general purpose syringe, it is leak-tight to 250 psi for both gas and liquids.



Volume (μL)	Description	Needle	Needle L (in.)	VICI No.	Cat. No.	Qty
100	C-160	(bevel tip)	2	160025	<a href="#">20953</a>	1 ea

**Valco® Precision Sampling syringe, series D**

Series D - Removable Needle: This standard gas sampling syringe is well-suited for routine laboratory applications. It is leak tight to 250 psi and comes with a special low-dead volume needle connector for gas samples.



Volume (mL)	Description	Needle	Needle L × O.D. × I.D. (in.)	VICI No.	Cat. No.	Qty
2	Series D	(bevel tip)	2 × 0.029 × 0.012	040034	<a href="#">22295</a>	1 ea

**Valco® Precision Sampling syringe, series CG-130**

CG-130: This model has a reinforced plunger syringe with an internal guide and special plunger that eliminates bending problems.

CG-130



Volume (μL)	Description	Needle	Needle L (in.)	VICI No.	Cat. No.	Qty
5	CG-130	(bevel point)	2	130021	<a href="#">20954</a>	1 ea
10	CG-130	(bevel point)	2	130022	<a href="#">20955-U</a>	1 ea

**Valco® Precision Sampling syringe, series D-140**

D-140 – Removable Needle: A plunger-in-needle design is featured in this GC sample injection syringe. A positive rear stop prevents plunger bending. It fills by retracting the plunger, and features easy maintenance and replaceable parts.



Volume (μL)	Description	Size	Needle L × O.D. × I.D. (in.)	VICI No.	Cat. No.	Qty
2	D-140	-	2½ × 0.019 × 0.008	140012	<a href="#">20985</a>	1 ea

## Syringes

Precision Sampling Syringes: Replacement Needles for VICI Precision Sampling Syringes

## Replacement Needles for VICI Precision Sampling Syringes

## Precision Sampling syringe needles



Volume (μL)	Description	Size	Needle L × O.D. × I. D. (in.)	VICI No.	Cat. No.	Qty
5-10	CG-130	-	2.25 × 0.019 × 0.005	123050	20949	3 ea
25-10000	A-2, C, D	-	2.0 × 0.028 × 0.005	943050	22298-U	3 ea
25-10000	A-2, C, D	-	2.0 × 0.029 × 0.012	943052	22289	3 ea
100-10000	Series A	-	2.25 × 0.029 × 0.012	913050	20996	3 ea
100-10000	Series A	-	2.25 × 0.029 × 0.012	913052	22288	3 ea
100-10000	A-2, C, D	-	2.0 × 0.029 × 0.012	943051	22299	3 ea
50000-500000	Magnum Series	-	2.0 × 0.035 × 0.023	953050	21740-U	3 ea

## Valco® Precision Sampling plunger tips

For series A, A-2, C, and D Pressure-Lok Gas syringes. For 25 μL to 250 μL syringes, factory repair only.

for use with Series A, A-2, C, &amp; D Precision Sampling Syringe

PTFE

Size	Description	VICI No.	Cat. No.	Qty
500 μL	plunger tip for 500μL syringe	013932	21950	2 ea
1 mL	plunger tip for 1mL syringe	013933	21951	2 ea
2 mL	plunger tip for 2mL syringe	013934	21952-U	2 ea
5 mL	plunger tip for 5mL syringe	013935	21953-U	2 ea

## Syringes

Hamilton Syringe Replacement Parts

## Hamilton Syringe Replacement Parts



Standard RN Needles

**Point Style #1: Cone Tip**

Recommended for use with pre-drilled septa. The shape of this needle has been developed for multi-injections on the Agilent/HP 7673A autosampler.

**Point Style #2: Bevel Tip**

The bevel tip (22° on Hamilton syringes, 20° on SGE syringes) is designed for optimum septum penetration and to prevent septum coring.

**Point Style #3: Blunt Tip**

The 90° blunt tip has chamfered and polished edges that eliminate damage to the valve's rotor seal and stator face. This style also can be used for pipetting of liquids.

**Point Style #5: Cone Tip, Side-port hole**

Liquid samples can be filled and dispensed through the side hole, and septum damage is minimized by the solid domed tip.

**Needles for Hamilton® RN Syringes, Point Style #1 (Cone Tip)**

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	Hamilton No.	Cat. No.	Qty
5-10	ASRN	23s ga (cone tip)	43 × 0.64	7786-01	<a href="#">21327-U</a>	6 ea
5-10	ASRN	26s ga (cone tip)	43 × 0.47	7786-02	<a href="#">21326</a>	6 ea
5-10	ASRN	23s-26s ga (cone tip)	43 × 0.47-0.63	7785-01	<a href="#">24582</a>	6 ea

**Needles for Hamilton® RN Syringes, Point Style #2 (Bevel Tip)**

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	bevel tip (stainless steel)	22 ga	51 (2 in.)	7758-01	<a href="#">Z288993-1PAK</a>	3 ea
2.5-100	bevel tip (stainless steel)	22 ga	76 (3 in.)	7804-01	<a href="#">Z118117-6EA</a>	6 ea
2.5-100	bevel tip (stainless steel)	22 ga	101.5 (4 in.)	7804-01	<a href="#">Z118125-3EA</a> <a href="#">Z118125-6EA</a>	3 ea 6 ea
2.5-100	bevel tip (stainless steel)	22s ga	51 (2 in.)	7758-03	<a href="#">19133-U</a>	6 ea
2.5-100	bevel tip (stainless steel)	26s ga	51 (2 in.)	7758-02	<a href="#">19131-U</a>	6 ea
2.5-100	bevel tip (stainless steel)	26s ga	101.5 (4 in.)	7804-04	<a href="#">Z121401-6EA</a>	6 ea
2.5-100	bevel tip (stainless steel)	26 ga	51 (2 in.)	7758-04	<a href="#">19132-U</a>	6 ea
250-10000	bevel tip (stainless steel)	22 ga	51 (2 in.)	7779-01	<a href="#">19137-U</a>	6 ea
250-10000	bevel tip (stainless steel)	22 ga	101.5 (4 in.)	7806-01	<a href="#">Z118109-6EA</a>	6 ea
250-10000	bevel tip (stainless steel)	22s ga	51 (2 in.)	7779-03	<a href="#">19136-U</a>	6 ea
250-10000	bevel tip (stainless steel)	26 ga	51 (2 in.)	7779-04	<a href="#">19135-U</a>	6 ea
250-10000	bevel tip (stainless steel)	26s ga	51 (2 in.)	7779-02	<a href="#">19134-U</a>	6 ea

## Syringes

Hamilton Syringe Replacement Parts

## Needles for Hamilton® RN Syringes, Point Style #3 (Blunt Tip)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	blunt tip (stainless steel)	22s ga	51 (2 in.)	7770-01	19139-U	6 ea
2.5-100	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8647-01	58398	6 ea
2.5-100	blunt tip (stainless steel)	26s ga	51 (2 in.)	7768-01	19138-U	6 ea
250-10000	blunt tip (PEEK)	16 ga	51 (2 in.)	8650-01	26710-U	6 ea
250-10000	blunt tip (stainless steel)	22s ga	51 (2 in.)	7780-03	19142-U	6 ea
250-10000	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8648-01	58399	6 ea
250-10000	blunt tip (stainless steel)	22 ga	51 (2 in.)	7780-04	19143-U	6 ea
250-10000	blunt tip (stainless steel)	26s ga	51 (2 in.)	7780-01	19140-U	6 ea
250-10000	blunt tip (stainless steel)	26 ga	51 (2 in.)	7780-02	19141-U	6 ea

## Needles for Hamilton® HPLC Syringes for Waters

for use with Waters U6K Loop Injector

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8647-01	58398	6 ea
250-10000	blunt tip (stainless steel)	25s ga (Waters)	50 (1.97 in.)	8648-01	58399	6 ea

## Needles for Hamilton® RN Syringes, Point Style #5 (Cone Tip, Side port Hole)

Volume (µL)	Description	Needle	Needle L (mm)	Hamilton No.	Cat. No.	Qty
2.5-100	cone tip, side port	26s ga	51 (2 in.)	7784-07	19144-U	6 ea
2.5-100	cone tip, side port	22s ga	51 (2 in.)	7784-05	19146-U	6 ea
250-10000	cone tip, side port	26s ga	51 (2 in.)	7784-03	19147-U	6 ea
250-10000	cone tip, side port	22s ga	51 (2 in.)	7784-01	19151-U	6 ea
250-10000	cone tip, side port	26 ga	51 (2 in.)	7784-04	19148-U	6 ea
250-10000	cone tip, side port	22 ga	51 (2 in.)	7784-02	19154-U	6 ea

## Needles for LT and TLL syringes

## Hamilton® Needles for LT and TLL Syringes

needle L ..... 51 mm (2 in.)



Metal Hub Needles



Kel-F Hub Needles

Volume	Description	Size	Needle L (mm)	Hamilton No.	Cat. No.	Qty
(n/a)	Metal hub	28 ga (bevel tip)	51 (2 in.)	90028	20757	6 ea
(n/a)	Metal hub	22 ga (bevel tip)	51 (2 in.)	90022	21746	6 ea
(n/a)	Metal hub	22s ga (bevel tip)	51 (2 in.)	90038	21748-U	6 ea
(n/a)	Metal hub	22 ga (blunt tip)	51 (2 in.)	91022	21741	6 ea
(n/a)	Metal hub	22 ga (cone tip, side-port)	51 (2 in.)	90222	20803	6 ea
(n/a)	KEL-F hub	28 ga (bevel tip)	51 (2 in.)	90128	20756	6 ea
(n/a)	KEL-F hub	22s ga (bevel tip)	51 (2 in.)	90138	21749	6 ea
(n/a)	KEL-F hub	22 ga (bevel tip)	51 (2 in.)	90122	21747	6 ea

## Syringes

Hamilton Syringe Replacement Parts: *Needles for LT and TLL syringes*

Hamilton® Needles for LT and TLL Syringes (continued)

Volume	Description	Size	Needle L (mm)	Hamilton No.	Cat. No.	Qty
(n/a)	KEL-F hub	22 ga (blunt tip)	51 (2 in.)	90134	<a href="#">21744</a>	6 ea
(n/a)	KEL-F hub	22s ga (blunt tip)	51 (2 in.)	90534	<a href="#">Z288977-1PAK</a>	6 ea
(n/a)	KEL-F hub	22s ga (cone tip, side-port)	51 (2 in.)	90438	<a href="#">21743</a>	6 ea
(n/a)	KEL-F hub	22 ga (cone tip, side-port)	51 (2 in.)	90422	<a href="#">21742-U</a>	6 ea

### Syringe barrels, plunger assemblies, and repair kits

#### Hamilton® syringe barrel



Replacement Barrel Assemblies for 800 Series Syringes

Volume (mL)	Description	Hamilton No.	Cat. No.	Qty
5.0	1005	10123	<a href="#">Z267368-1EA</a>	1 ea
10	1010	10124	<a href="#">Z267376-1EA</a>	1 ea

#### Hamilton® Plunger Assemblies with tips for series 1000, 1700, and 1800

For field repair of Hamilton Series 1000, 1700, and 1800 syringes.



Plunger Assemblies

Syringe Volume	Description	Hamilton No.	Cat. No.	Qty
1 mL	1001 LT-N-LTN-RN	1359-01	<a href="#">26159</a>	1 ea
2.5 mL	1002 LT-LTN-RN-TLL	1360-01	<a href="#">26161</a>	1 ea
5 mL	1005, all	13230	<a href="#">26162</a>	1 ea
10 mL	1010 LT-LTN-RN-TLL	13231	<a href="#">26163</a>	1 ea
10 µL	1701, all	13205	<a href="#">21343</a>	1 ea
25 µL	1702 C, LT, N, or RN	1122-01	<a href="#">26150</a>	1 ea
50 µL	1705 LT, RN, or TLL	1162-01	<a href="#">26152-U</a>	1 ea
100 µL	1710 C, LT, N, RN, or TLL	1162-02	<a href="#">26154</a>	1 ea
250 µL	1725 LT, N, RN, or TLL	1162-03	<a href="#">26156</a>	1 ea
500 µL	1750 LT, LTN, RN, or TLL	1169-01	<a href="#">26158-U</a>	1 ea
10 µL	1801 N, RN	32193	<a href="#">27383</a>	1 ea
25 µL	1802 N, RN	1160-01	<a href="#">26151</a>	1 ea
50 µL	1805 N, RN	1161-01	<a href="#">26153</a>	1 ea
100 µL	1810 N, RN	1161-02	<a href="#">26155-U</a>	1 ea



## Syringes

Hamilton Syringe Replacement Parts: *Syringe barrels, plunger assemblies, and repair kits*

## 7000 series repair kits

Kit includes needle, plunger wire, ferrule, and instructions.

Needle L (mm)	Description	Hamilton No.	Cat. No.	Qty
70 (2.75 in.)	7001KH	17888	26733	1 ea
70 (2.75 in.)	7101KH	17890	26736	1 ea
70 (2.75 in.)	7001KH	17188	26732-U	1 ea
70 (2.75 in.)	7101KH	17190	26735-U	1 ea
70 (2.75 in.)	7002KH	17891	26739	1 ea
70 (2.75 in.)	7105KH	17893	26745-U	1 ea
70 (2.75 in.)	7000.5KH	17187	26729	1 ea

## SGE Replacement Needles

## SGE Needles for RN syringes

Volume (µL)	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
0.5	NP 0.5BN-5C	23 ga (cone tip)	50 × 0.63	033010	24424	1 ea
1	1B-5C	23 ga (cone tip)	50 × 0.63	034055	509248	1 ea
1	1B-7C	23 ga (cone tip)	70 × 0.63	034057	24432	1 ea
5	N5-5	26 ga (bevel tip)	50 × 0.47	036110	24436	5 ea
5	NP5B-7C	23 ga (cone tip)	70 × 0.63	035057	24435	1 ea
10	10R-S-0.63	23 ga (cone tip)	42 × 0.63	037747	24442	2 ea
10	N10-VA8X00H-II	25 ga (cone tip side-port)	53 × 0.50	037777	24445	1 ea
10	N10-5	26 ga (bevel tip)	50 × 0.47	037110	24437	5 ea
10	10R-HP-0.63	23 ga (cone tip)	42 × 0.63	037717	24439	2 ea
10	for 10R-VA8X, 8035	25 ga (bevel tip)	50 × 0.50	037776	24444	2 ea
25	25R-HP-0.63	23 ga (cone tip)	42 × 0.63	038717	509728	2 ea
25-500	N25/500-5	25 ga (bevel tip)	50 × 0.50	038110	24447	5 ea

## SGE Needles for Luer Lock Syringes



26270-U

Volume	Description	Needle	Needle L × O.D. (mm)	SGE No.	Cat. No.	Qty
(n/a)	NLL-5/23	23 ga (bevel tip)	50 × 0.63	39802	26270-U	5 ea
(n/a)	NLL-5/23H	23 ga (side hole/dome)	50 × 0.63	39803	26271	2 ea
(n/a)	NLL-7/23	23 ga (bevel tip)	70 × 0.63	39807	26272	5 ea
(n/a)	NLL-11.5/23	23 ga (bevel tip)	115 × 0.63	39811	26273-U	5 ea
(n/a)	NLL-LC	22 ga (blunt tip)	51 × 0.71	39895	26274	2 ea

## Syringes

Syringe Accessories

### Syringe Accessories

#### Hamilton® Syringe Cleaner

▶ 14-824-50

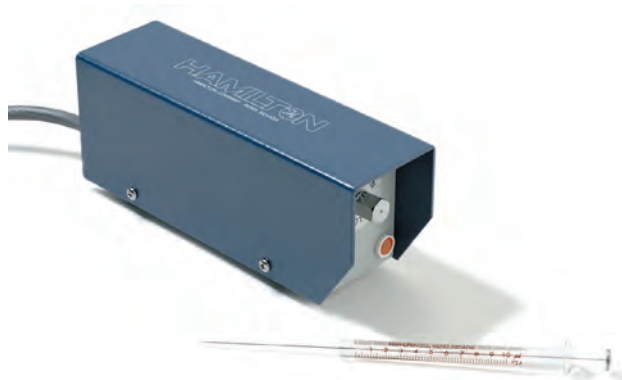
120 V, L 6.0 in. × W 1.8 in. × H 2.7 in.

Helps rid your chromatogram of ghosts.

Cleans Hamilton syringes and other syringes with needles up to 18 gauge (0.049 in. O.D.). Just connect the unit to your water aspirator or other vacuum source, insert the needle through the septum and, in 10-30 seconds, you're ready for a new sample. A combination of heat (250 °C) and vacuum vaporizes and removes contaminating volatiles in a single operation.

No liquids are required with Hamilton Series 7000 syringes. For Series 700 and other conventional syringes, use a rheostat to lower the temperature (to 50 °C or below) and maintain a flow of solvent through the barrel and needle.

Instructions are included.



20770-U

20770-U

1 ea

#### GR-2 Septa

These low cost gray silicone rubber septa are designed for routine, isothermal use. For use with 50 °C to 200 °C inlet temperature.



▶ diam. 5.0 mm ( $\frac{3}{16}$  in.)

20712

100 ea

#### Needle Cleaning Kit

Formulated specifically for GC syringes.

Perfect for cleaning small orifices such as FID jets and syringe needles. This kit includes one 70 mL bottle (makes 700 mL of cleaning solution), ten wires in each of five sizes (0.076 to 0.306 mm O.D.), and instructions.

Packaged in a reusable box that prevents wires from being damaged during storage.

#### Cleaning wires (O.D.) Use to clean needle gauges

0.089 mm 26s, 31-33

0.126 mm 22s, 25s, 28-30

0.167 mm 27

0.207 mm 24-26 mm

0.306 mm 22, 23 and larger

product of Hamilton, 76620



Needle Cleaning Kit

21578

1 ea

#### Syringe Cleaning Solution

▶ 70 mL

product of Hamilton, 18310

20742

1 ea

# Syringes

Syringe Accessories

## Hamilton® GASTIGHT® digital syringe

This N.I.S.T. traceable, calibrated syringe device provides constant injection rate. The LCD display shows syringe volume within ± 0.5% of volume dispensed. A fine adjustment thumbwheel sets syringe volumes and the plunger stop can be set for repetitive injections. The 701N is cemented needle, RN syringes have removable, 2 in. (51 mm) bevel tip needle. stainless steel needle bevel tip (point style 2)

needle L ..... 2 in.



Hamilton Digital Syringe

Needle L (in.)	Description	Needle	Hamilton No.	Cat. No.	Qty
2 10	701N	26s ga D-	S80300	<a href="#">24452</a>	1 ea
2 10	1701RN	26s ga D-	S80030	<a href="#">Z261173-1EA</a>	1 ea
2 25	1702RN	22s ga D-	S80230	<a href="#">Z261181-1EA</a>	1 ea
2 500	1750RN	22 ga D-	S81230	<a href="#">Z261246-1EA</a>	1 ea

## Hamilton® 800 Series MULTI-PAK

### ▶ volume 10-250 µL

Designed for Waters® U6K Injection Valve. Includes one each of 10, 25, 50, 100, & 250µL volume syringes:

- Contains one handle and a selection of syringe plunger/barrel combinations
- Removable needles (RNW), includes nine needles
- Reinforced plunger - plunger bending is eliminated due to the reinforced plunger stem.

Items included in the 800 series Multi-Pak (Hamilton part number 84890) include:

Hamilton part number Description

- 32135 Handle for barrel/plunger
- 32129 801RN barrel/plunger, 10 µL
- 32117 802RN barrel/plunger, 25 µL
- 32120 805RN barrel/plunger, 50 µL
- 32123 810RN barrel/plunger, 100 µL
- 32126 825RN barrel/plunger, 250 µL
- 30902 RN nut
- 7758-02 Removable needles (26s/2"/2), 6/pk for 10-100 µL syringes
- 7758-03 Removable needles (22s/2"/2), 6/pk for 10-100 µL syringes
- 7779-03 Removable needles (22s/2"/2), 6/pk for 250 µL syringes

800RNW

needle size 25s ga (blunt tip)

product of Hamilton, 84891

needle L ..... 51 mm (2 in.)

[Z109681-1SET](#) 5 ea

## Hamilton® TLC syringes

PTFE coats the final 3/4 in. of this 2 in. (51 mm) long cemented needle. This allows for more reproducible sample spotting on TLC plates.

needle L ..... 51 mm (2 in.)  
coated tip .....



Description	Cat. No.	Qty
volume 10 µL, needle size 26s ga, needle type fixed	<a href="#">Z264385-1EA</a>	1 ea
volume 25 µL, needle size 22s ga, needle type fixed	<a href="#">Z264393-1EA</a>	1 ea
volume 50 µL, size, needle size 22 ga, needle type fixed	<a href="#">Z264407-1EA</a>	1 ea
volume 100 µL, needle size 22 ga, needle type fixed	<a href="#">Z264415-1EA</a>	1 ea

## Purge and Trap Syringes

The Hamilton 1005SLPT is the purge and trap version of the SampleLock syringe is designed for analyzing drinking water samples according US EPA purge and trap concentration techniques (EPA methods 502.1, 502.2, 503.1, 524.1, and 524.2).

The Hamilton 1005TLL syringe does not have a valve attachment. Both syringes have a volume of 5.0 mL. Needles are not included.



From left to right; 20999, 26294

Description	Hamilton No.	Cat. No.	Qty
1005TLL	81520	<a href="#">20999</a>	1 ea
1005SLPT	81570	<a href="#">26294</a>	1 ea

## Constant Rate Syringe, 2-50 µL

### Features and Benefits

Eliminates injection variability. Spring-driven plunger delivers sample at the same injection rate, regardless of the operator. Micrometer dials the desired volume. Stainless steel plunger and PTFE sealing tip. Repeatable and resettable accuracy ±1%.

CR700-50

needle size 22 ga (blunt tip)

product of Hamilton, 84303



Constant Rate Syringe

[20713](#) 1 ea

## Syringes

## Syringe Accessories

## Repeating Dispenser

► for use with Hamilton all 10  $\mu\text{L}$ -2.5 mL Hamilton Syringes, for use with Hamilton PB600-1

Accurately divides samples. Discharges 1/50th of the syringe's capacity at each push of the button. Fits all 10  $\mu\text{L}$ -2.5 mL Hamilton syringes. Order syringe separately. product of Hamilton, 83700



20943 - The syringe is not included

20943

1 ea

## Headspace/Soil-Gas Syringe

- Fitted with valve and special Luer probe with side hole
- Needle valve in hub allows gas sample to be stored in syringe during transfer to lab
- Recommended for soil headspace extraction
- Probe is removable and replaced with needle during injection in GC

needle size 23 ga (bevel tip)

needle L x O.D. .... 50 mm x 0.63 mm



23986

Needle L x O.D. (mm)	Descripti- on	SGE No.	Cat. No.	Qty
50 x 0.63	5MDR-HS-V	008775	23984	1 ea
50 x 0.63	10MDR-HSV	008975	23986	1 ea
50 x 0.63	MAH-P, Luer Probe only	031571	23985	1 ea

## Hamilton® Chaney Adapter

Recommended for sample reproducibility.



From left to right; 20765, 21350-U

Description	Cat. No.	Qty
for use with Hamilton 700, 1700, 1000 series (except 10 $\mu\text{L}$ ), for use with Hamilton 7000 series ((0.5 - 5 $\mu\text{L}$ ))	21350-U	1 ea
for use with Hamilton 700,1000 series, 1700 series ((5-10 $\mu\text{L}$ ))	26704	1 ea
for use with Hamilton 800/1800 series ((5-500 $\mu\text{L}$ ))	26705	1 ea

## Hamilton® Plunger Guide

Plunger guides are recommended for consistent, reproducible injections.

- Prevents syringe plunger bending
- Adjustable stop prevents plunger damage
- Easily installed

Description	Cat. No.	Qty
for use with Hamilton 700, 1700 Series (25-500 $\mu\text{L}$ ), for use with Hamilton 7000 Series (0.5 to 5 $\mu\text{L}$ )	26707	1 ea
for use with Hamilton 75, 701,1701 Series (5-10 $\mu\text{L}$ only)	20765	1 ea

## Hamilton® Valves

These valves include wetted paths constructed of chemically inert PTFE and KEL-F materials (1000 psig or less). The HV models are for stand-alone use: HVP valves can stand alone; or can be mounted into panels to allow custom installation into control panels or instruments.

Description	Cat. No.	Qty
Hamilton® Valves, Hamilton (HV) plug valve, flow path "T", ports: 3	24786	1 ea
Hamilton® Valves, HV, flow path 90 Degree, ports: 3	24787	1 ea
Hamilton® Valves, HVP plug valve (can be panel mounted), flow path Distribution, ports: 4	24794	1 ea
Hamilton® Valves, HV, flow path Loop, ports: 4	24788	1 ea
Hamilton® Valves, HVP (can be panel mounted), flow path Distribution, ports: 3	24793	1 ea

# Syringes

Syringe Accessories

## Miniature Two-Way Valve

Meets requirements for US EPA Method 602 for purgeable aromatic compounds

This miniature two-way valve is durable, dependable, and easy to use. The inert plastic components (CTFE body and female Luer connectors, PTFE core) will not interact with ultrapure or corrosive fluids. Its small size (2 in.<sup>3</sup> / 33 cm<sup>3</sup>) and weight (1 oz. / 28 g) make it unobtrusive. A 0.059 in. internal passage minimizes sample hold-up.

When used with a Hamilton PTFE Luer Lock (TLL) syringe, the valve is particularly useful for transporting gaseous or liquid samples (e.g., environmental analyses of air or water). Use the valve with the Hamilton fittings included, or with any standard 1/4 × 28 threaded fittings (e.g. Cheminert® fittings) in flexible tubing systems.

Aluminum housing, stainless steel driver stem, operating range from 10 °C to 100 °C at pressures to 100 psi (7 kg/cm<sup>2</sup>).



20971, Sample Valve for Tekmar Concentrators



20940, Miniature Two-Way Inlet Valve

Description	Cat. No.	Qty
Hamilton Purge and Trap (HVP) plug valve, Distribution flow path, 2 ports, product of Tekmar, 14-0036-050	20971	1 ea
Female Luer connector, product of Hamilton Tekmar®, 14-0216-016, Kel-F™ (CTFE) fitting, thread, 1/4-28, port diam. 0.059 in.	20942-U	1 ea
Male Luer connector, product of Hamilton Tekmar®, 14-0122-016, Kel-F™ (CTFE) fitting, port diam. 0.059 in., thread, 1/4-28	20941	1 ea
Hamilton (HV) plug valve with male (2-0941) and female (20942-U) connectors included, number of positions: 2, 180° flow path	20940	1 ea

## HV Valve Connector/Fitting

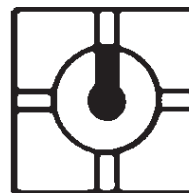
1/4-28 male thread.  
CTFE

Description	Cat. No.	Qty
Male Luer lock, bore 0.060 in.	2124524-1EA	1 ea

## Miniature Inert Valve

For building inert liquid or gas flow systems that will handle small volumes of ultrapure and corrosive fluids. Has universal housing with 1/4 × 28 in. female threaded ports that accept a wide variety of interchangeable fittings. Requires less than 2 in.<sup>3</sup> of space.

temperature ..... -10-100 °C (at 500 psi)



Description	Cat. No.	Qty
4 port, distribution plug, Hamilton (HV) plug valve	Z124486-1EA	1 ea

## PTFE Body Two-Way Valve

This miniature, two-way valve from Hamilton provides flexibility, inertness, and small size for collecting gas samples and transporting or storing them in the original sampling syringe.

Fluid path is made entirely of PTFE to ensure inertness. Can be autoclaved for applications requiring sterility. 100 psig maximum pressure. Fits Hamilton PTFE Luer lock (TLL) and other Luer lock syringes.

- Lever-actuated on/off valve for storing and transporting samples.
- KEL-F hub needles attach to the valve
- Bore ID 0.39"

▶ for use with Hamilton PTFE Luer Lock (TLL) and other Luer lock syringes.



PTFE Body Two-Way Valve

20926	1 ea
-------	------

## Push Button Valve

This Mininert valve will attach to your syringe and provide sample storing capability. It features push-button operation and an all-PTFE body with a stainless steel miniature valve stem.



Push Button Valve, Part number 22285 is designed for Luer-tip syringes.  
Part number 22284 is available for syringes without a Luer-tip.

Description	Cat. No.	Qty
for use with Hamilton TLL syringes	22285	1 ea
for use with VICI Series C and D Pressure-Lok syringes	22284	1 ea

## Syringes

### Syringe Accessories

#### SGE Syringe Valves

Syringe valves are ideal for sample storage and transportation or to pressurize samples prior to injection. SGE offers several types of manually-operated syringe valves: push-pull for smaller volumes (2.5 µL-2.5 mL) and push-button valves (50 µL-2 L). SGE Luer Tip, Luer Lock and removable needle syringes can be fitted with valves. The valve allows fluid to be stored in the syringe without contamination.

**Cat. No. 509337** is a push-pull valve with removable 0.63 mm O.D. × 5 cm cone tip needle. This valve will fit removable needle syringes, 25µL-2.5mL.

**Cat. No. 509345** is a push-pull with Kel-F male Luer lock termination to fit removable needle syringes, 25µL-2.5mL.

**Cat. No. 509353** is a push-button with Kel-F male Luer lock termination. This fits 5 mL to 2 liter syringes with removable Luer Lock or removable needle.

**Cat. No. 509361** is a Luer Lock valve for any Luer Lock and Luer Tip syringe (50µl to 2 liter).



From top to bottom; 509337, 509345, 509353, 509361

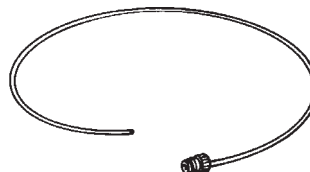
Description	Cat. No.	Qty
Push-pull with needle	<a href="#">509337</a>	1 ea
Push-pull with Luer Lock	<a href="#">509345</a>	1 ea
Push button with Luer Lock	<a href="#">509353</a>	1 ea
Luer Lock with Luer Tip	<a href="#">509361</a>	1 ea

#### PTFE Tubing Assemblies

- PTFE tubing with Kel-F hub on one end
- For use with LT or TLL Hamilton syringes or connectors

With Kel-F™ Luer hub.

A septum to be pierced with these PTFE needles must be punctured with a hollow SS needle. The PTFE needle is then threaded through. After threading, the SS needle is withdrawn, allowing the septum to seal around the PTFE needle. For 20ga PTFE use Z12,675-6 (14ga SS); 18ga PTFE use Z12,676-4 (13ga SS); 16ga PTFE use Z12,677-2 (12ga SS).



L (in.)	Size (gauge)	Cat. No.	Qty
12	20	<a href="#">Z117315-1EA</a>	1 ea
12	18	<a href="#">Z117323-1EA</a>	1 ea
12	16	<a href="#">Z117331-1EA</a>	1 ea
12	14	<a href="#">Z117358-1EA</a>	1 ea
12	12	<a href="#">Z117366-1EA</a>	1 ea
24	20	<a href="#">Z117374-1EA</a>	1 ea
24	18	<a href="#">Z117382-1EA</a>	1 ea
24	16	<a href="#">Z117390-1EA</a>	1 ea
24	14	<a href="#">Z117404-1EA</a>	1 ea
24	12	<a href="#">Z117412-1EA</a>	1 ea
36	20	<a href="#">Z203653-1EA</a>	1 ea
36	18	<a href="#">Z203688-1EA</a>	1 ea
36	16	<a href="#">Z203696-1EA</a>	1 ea
36	14	<a href="#">Z203718-1EA</a>	1 ea
36	12	<a href="#">Z203726-1EA</a>	1 ea