

VIALS

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Siltek® Coated Vials

For a highly inert surface, we recommend Siltek® deactivation for your vials:

- Maximizes inertness, minimizes sample breakdown—ideal for difficult matrices and reactive compounds.
- Inert over a wide sample pH range.
- Low bleed.
- Thermally stable.

Siltek® deactivation produces a highly inert glass surface that features high temperature stability, extreme durability, and low bleed. Try Siltek® deactivated vials for better recovery of sample analytes.

For Siltek® vials, add the corresponding suffix number to the vial catalog number.

Qty.	Siltek Deactivation
100-pk.	-222 addl. cost
1000-pk.	-223 addl. cost



Septum Selection Guide

Materials	Compatibility	Incompatibility	Resealability	Max. Temp.
Red Rubber (synthetic)	acetone, alcohols, DMF, DMSO, ether	ACN, benzene, chloroform, heptane, hexane, pyridine, THF, toluene	very good	90 °C
PTFE/ Natural Rubber	PTFE: resistance until punctured Rubber: acetone, ACN, alcohols, diethylamine, DMF, DMSO, phenol	aromatics, carbon disulfide, chlorinated solvents, hydrocarbon solvents	very good	90 °C
PTFE/Silicone PTFE/Silicone/PTFE	PTFE: resistance until punctured Silicone: acetone, alcohols, DMF, DMSO, ether	ACN, benzene, chloroform, heptane, hexane, pyridine, THF, toluene	very good	205 °C
Polyethylene	Good resistance to solvents and weak acids or bases. Unreactive with most chemicals, but some solvents cause softening or swelling.	hydrocarbon solvents	one-time use	175 °C
Gray Chlorobutyl	acids or bases, water solutions, buffer solutions, oxygenated solvents, vegetable oils	aliphatic or aromatic hydrocarbons, halogenated solvents, mineral oils, strong acids	very good	100 °C

Abbreviations: ACN = acetonitrile, DMF = dimethylformamide, DMSO = dimethylsulfoxide, THF = tetrahydrofuran

NOTE: This chemical resistance chart is intended only as a guideline. It does not cover all compounds or all solvents. Tests were done at room temperature on pure, single solvents, and there is no data on solvent combinations. Always confirm the compatibility of your vial, closure, and chemical combination prior to sample preparations.

instrument reference

For 2.0 mL, 11 mm Crimp-Top Vials

The following instruments are compatible with 2.0 mL, 11 mm crimp-top vials. For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #
A.I.M.	CPS -100, 200	Gilson	231 XL, 232 XL, 233 XL, Asted	Sedere	
A.I.	42 vial tray		XL, Aspec XL	Shimadzu	SIL-10A, 10Ai, 10AxL, AOC 20i
Agilent	1042, 1050, 1080, 1082, 1084, 1090, 1100, 5890, 6850, 6890, 7670A, 7671A, 7672, 7673A/B, 7683, 7890, 8042	Gynkotec	Gina, others	Siemens	AS 32, AS 200
Alcott	738	Hitachi	AS-2000, AS-6000	Spark Holland	SPH 125, Marathon, Promis, Triathlon, Midas
Alltech	570, 580 (standard tray)	IBM		Spectra-Physics	8875, 8880
Altex		ICI	other than LC 1600	Talbot	
AMS	42	Infochroma		Thermo Scientific	TRACE GC 2000, AS2000
Antek	736 Unisampler, 738	Jasco	851-AS, AS-950	TosoHaas	TSK-6080, AS-8010, AS-8020
ASC		Kipp		Tosca 1	
Carlo Erba/	42 vial tray	Kontron	360	Tracor	770, 771, 772
Fisons	AS 800	LDC	Marathon, Promis, other than 713	TSP	8875, 8880, AS 100/1000, AS 300/3000
Carnegie	CMA-250/200	L.E.A.P Technologies	CTC A200S, CTC A105S	Unicam	4710, LC-XP, 4247
Chrompack	CP 9000 GC Series	Magnus Scientific		United Technologies	
CTC	CTC A105S	PerkinElmer	Autosystem GC, AI-1, Integral 4000, ISS 100, ISS 200, LC 600 42 vial tray, 420/B, 4900	Varian/Rainin	Dynamax AI-IA, AI-200, Dynamax AI-3
Dani	ALS 39.80, 86.80	Pharmacia LKB	2157-010	Varian	8100/8200, 9100/9090/9095, Marathon
Delsi		Precision Sampling	GC111, GC 311, LC 241-60	Waters	Alliance 2690
Dynatech	42 vial tray	Phillips	LC-XP, 4247, 4710		
Fisons	42 vial tray, AS800	Polymer-Labs	GPC 110/210		
GBC		Pye	LCXP		
Gerstel		S.G.E.	M280D		

All vials pictured are actual size, with description, Restek catalog number, and page number for quick reference.

WISP Vials

4.0 mL Screw-Thread Step Vial



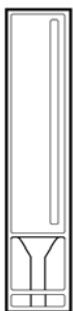
24654, 24655
24656, 24657
Page 362

4.0 mL Clear Crimp-Top



24658, 24659
Page 361

700 µL Limited Volume



24680,
24681
Page 362

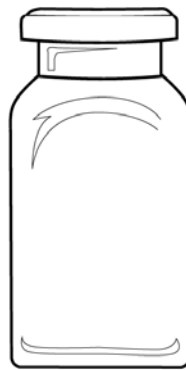
96 Style



24662, 24663,
24664, 24665,
24678, 24679
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Headspace Vials

10 mL Clear Flat Bottom



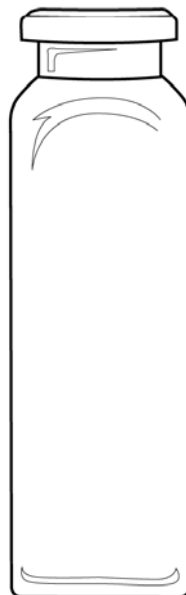
24683,
24684
Page 363

10 mL Clear Rounded Bottom



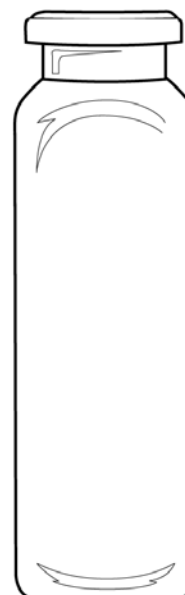
21164,
21165
Page 363

20 mL Clear Flat Bottom



24685,
24686
Page 363

20 mL Clear Rounded Bottom



21162,
21163
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All vials pictured are actual size, with description, Restek catalog number, and page number for quick reference.

Limited Volume Inserts

250 µL Big Mouth Insert



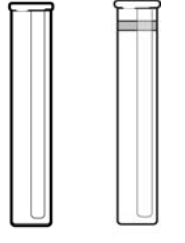
24516,
21779
Pages 356, 361

250 µL Glass Flat Bottom



24510
Page 360

350 µL Glass Flat Bottom Inserts w/ID Ring



21780,
24517
Pages 356, 361

24692,
24693
Pages 356, 361

500 µL Glass WISP Flat Bottom



21787, 21788
Page 362

100 µL Glass or Polypropylene w/ Polypropylene Bottom Spring



24508, 21775
24512
Page 360

250 µL Glass or Polypropylene w/ Bottom Spring



21776, 21777
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24518
Page 356

8 mm Screw-Thread Vials

2.0 mL Clear or Amber w/ White Graduated Marking Spot



24619, 24620,
24621, 24622
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9 mm Short-Cap Vials

2.0 mL Clear or Amber w/White Graduated Marking Spot



21154*, 21155*
*w/out white graduated marking spot
21140, 21141
21142, 21143
Page 358

10 mm Screw-Thread Vials

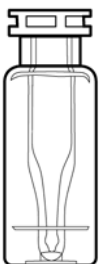
2.0 mL Big Mouth Step Clear or Amber



24626, 24627,
24628, 24629
Page 360

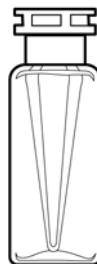
11 mm Crimp-Top Vials

Limited Volume 100 µL Glass Insert, Clear Plastic Vial



24653
Page 356

Limited Volume 100 µL Polypropylene



24651, 24652
Page 356

2.0 mL Snap Seal Style Clear or Amber Glass



21152, 21153, 24383, 24384, 24385, 24386
Page 356

VIALS & SYRINGES | VIALS

Crimp-Top Vials



24385



24383



21724

also **available**

See **page 366** for crimpers and decappers.



24673



21776



24518A



24692



24651

2.0 mL Crimp-Top Vials, 12 x 32 mm, 11 mm

White graduated marking spots are a standard feature unless otherwise noted.

2.0 mL Crimp-Top Vials, 12 x 32 mm, 11 mm

Description	Volume	Color	Material	100-pk.	1000-pk.
Vial w/White Graduated Marking Spot	2.0mL	Clear	Glass	24383	24384
Vial w/White Graduated Marking Spot	2.0mL	Amber	Glass	24385	24386
Vial without Graduated Marking Spot	2.0mL	Clear	Glass	21152	21153

2.0 mL, 11 mm Aluminum Crimp Seals with Septa

Seal Color	Septa Material	100-pk.	500-pk.	1000-pk.
Silver	PTFE/Natural Rubber	21174	—	21175
Blue	PTFE/Red Rubber	24351	—	24352
Green	PTFE/Red Rubber	24353	—	24354
Red	PTFE/Red Rubber	24355	—	24356
Yellow	PTFE/Red Rubber	24357	—	24358
Mixed	PTFE/Rubber	—	21724	—
Silver	PTFE/Silicone	24359	—	24360
Blue	PTFE/Silicone	24361	—	24362
Green	PTFE/Silicone	24363	—	24364
Red	PTFE/Silicone	24365	—	24366
Yellow	PTFE/Silicone	24367	—	24368
Mixed	PTFE/Silicone	—	21725	—
Silver	PTFE/Silicone/PTFE	24369	—	24370

2.0 mL Crimp Vial Convenience Kits (Vials, Caps, & Septa)

Vials packaged in a clear-lid tray. Caps with septa packaged in a plastic bag.

Description	100-pk.	1000-pk.
Clear 2.0mL Vial, Deactivated, Silver Seal, PTFE/Natural Rubber Septa	24671	24672
Amber 2.0mL Vial, Deactivated, Silver Seal, PTFE/Natural Rubber Septa	24673	24674
Clear 2.0mL Vial, Untreated, Silver Seal, PTFE/Natural Rubber Septa	21196	21197
Amber 2.0mL Vial, Untreated, Silver Seal, PTFE/Natural Rubber Septa	21198	21199
Clear 2.0mL Vial, Untreated, Silver Seal, PTFE/Silicone Septa	24646	24647
Amber 2.0mL Vial, Untreated, Silver Seal, PTFE/Silicone Septa	24648	24649

Inserts

for 2.0 mL, 11 mm Crimp-Top & 2.0 mL, 9 mm Short-Cap, Screw-Thread Vials

Description	Volume	Material	100-pk.	1000-pk.
Big Mouth Insert w/Bottom Spring	50µL	Glass	24513	21782
Big Mouth Insert w/Bottom Spring	250µL	Glass	21776	21777
Big Mouth Insert w/Glass Flange (Step Design)*	250µL	Glass	24516	21779
Insert, Flat Bottom	350µL	Glass	21780	24517
Insert, Flat Bottom w/ID Ring	350µL	Glass	24692	24693
Big Mouth Insert w/Bottom Spring	250µL	Polypropylene	24518	—
Big Mouth Insert w/Bottom Spring & Graduated Markings	250µL	Polypropylene	24518A	—
Big Mouth Insert, Top Flange	250µL	Polypropylene	24519	—
Big Mouth Insert, No Spring	250µL	Polypropylene	24520	—

*Not to be used with 9mm screw-thread vials.

2.0 mL Crimp-Top Vial with 100 µL Insert

- Plastic vial.
- Choice of glass or polypropylene insert.

Description	100-pk.	1000-pk.
Clear Plastic Vial w/100µL Polypropylene Insert	24651	24652
Clear Plastic Vial w/100µL Glass Insert	24653	—



2.0 mL, 11 mm Poly Crimp Seal Caps: Snap-on or Crimp

The patented Poly Crimp Seal is versatile, working as either a snap-on or crimp-top cap. Simply use a standard crimping tool to secure the Poly Crimp Seal onto any crimp-top vial. It's that easy!

- Works on any crimp style vial.
- Crimps smoothly and easily—no more sharp edges from an aluminum crimp cap.
- Easily decaps using standard decapping tools.
- Eliminates inconsistent sealing that results from improper crimping.
- Unique design holds the septum firmly in place.
- Provides better seal than snap caps.*
- Meets CONEG standards. The Poly Crimp Seal is free of heavy metals and is easily disposed of or incinerated.



Seal Color	Liner Material	100-pk.	400-pk.	1000-pk.
Clear	PTFE/Butyl Rubber	24433	—	24434
Clear	PTFE/Silicone	24443	—	24444
Blue	PTFE/Silicone	24445	—	24446
Clear	PTFE/Silicone/PTFE	24453	—	24454
Blue	PTFE/Silicone/PTFE	24455	—	24456
Mixed	PTFE/Silicone/PTFE	—	21728	—

*Based on continual use for 3–4 days.

tech tip

Compatibility concerns?

Refer to the Septum Selection Guide on page 353.

2.0 mL, 11 mm GC Snap Ring Cap with Septum

- Snaps on any crimp-style vial.
- Clear polypropylene cap provides a tighter seal than standard Snap Ring Cap.
- Good for pressurized injection systems.
- Save money! Use this snap cap when you don't need to crimp.

Description	Liner/Septa Material	100-pk.	1000-pk.
Polypropylene Snap-Top Cap w/Liner	PTFE, 10mil	21729	21730
Polypropylene Snap-Top Cap w/Septum	PTFE/Butyl Rubber	21731	21732
Polypropylene Snap-Top Cap w/Septum	PTFE/Silicone	21733	21734



21731

Certified Autosampler Vial Kits

Certified Vials, 2.0 mL Screw-Thread Vials

National Scientific's certified vial kits provide the extra assurance that time after time the vial you use conforms to the rigorous manufacturing standards of National Scientific. These certified vial kits include your choice of vials and closures, conveniently packaged in benchtop storage compartments.

- Certificates enclosed with each kit.
- Vials of clear or amber borosilicate glass, with ID marking spots.
- Closures with pre-inserted septa.
- Each kit sealed for integrity.

Certification Parameters Include:

Vial Dimensions:	height, diameter, bottom thickness, neck length, thread profile, and annealing
Cap/Septum:	diameter, height, thread integrity, center flash, septa insertion, sealing/resealing test, residue by headspace GC, and extractables
Chemical Test:	HPLC Test: nonvolatile residue GC Test: volatile residue



22788



22792

Description	100-pk.
Assembled Clear 2.0mL Vial w/Marking Spot, Cap, Bonded PTFE/Silicone Slit Septa	22789
Assembled Amber 2.0mL Vial w/Marking Spot, Cap, Bonded PTFE/Silicone Slit Septa	22788
Unassembled Clear 2.0mL Vial w/Marking Spot, Cap, Bonded PTFE/Silicone Septa	22792
Unassembled Amber 2.0mL Vial w/Marking Spot, Cap, Bonded PTFE/Silicone Septa	22790
Unassembled Clear 2.0mL High Recovery Vial w/Marking Spot, Cap, Bonded PTFE/Silicone Slit Septa	22793
Unassembled Amber 2.0mL Vial w/Marking Spot, Cap, Bonded PTFE/Silicone Slit Septa	22791



Agilent Compatible!



21140

Ideal for Agilent 7673 & other autosamplers that process 12 x 32 mm crimp-top vials.

2.0 mL, 9 mm Short-Cap, Screw-Thread Vials, 12 x 32 mm

- Fit all 2.0 mL, 12 x 32 mm, crimp-top vial based autosamplers.
- Shorter screw cap allows the robotic autosampler to function properly.
- Wider opening prevents syringe problems.
- Dimensions are effectively identical to the crimp-top vial.
- Variety of colors and liner material.

Are you tired of dealing with crimp-top vials, but worried about using screw-thread vials with your autosampler? If you want the performance of a crimp-top vial with the convenience of a screw-thread vial, these vials are the answer for you.

2.0 mL, 9 mm Short-Cap, Screw-Thread Vials (vial only)

Description	Volume	Color	100-pk.	1000-pk.
Short-Cap Vial w/White Graduated Marking Spot	2.0mL	Clear	21140	21141
Short-Cap Vial w/White Graduated Marking Spot	2.0mL	Amber	21142	21143
Short-Cap Vial without Graduated Marking Spot	2.0mL	Clear	21154	21155

2.0 mL, 9 mm Short-Cap, Screw-Vial Closures (Polypropylene, preassembled)

Cap Color	Liner Material	100-pk.	500-pk.	1000-pk.
Blue	PTFE/Red Rubber	24473	—	24474
Mixed	PTFE/Red Rubber	—	24668	—
Blue	PTFE/Silicone	24485	—	24486
Green	PTFE/Silicone	24487	—	24488
Yellow	PTFE/Silicone	24493	—	24494
Mixed	PTFE/Silicone	—	24669	—
Blue	PTFE/Silicone/PTFE	24497	—	24498
Black	PTFE/Silicone/PTFE	24495	—	24496
Natural	PTFE/Silicone/PTFE	24501	—	24502
Red	PTFE/Silicone/PTFE	24503	—	24504
Yellow	PTFE/Silicone/PTFE	24505	—	24506
Mixed	PTFE/Silicone/PTFE	—	24670	—

also available

Limited Volume Inserts

for 2.0 mL, 9mm Short-Cap, Screw-Thread Vials
See page 356.



instrument reference

For 2.0 mL, 9 mm Short-Cap, Screw-Thread Vials

The following instruments are compatible with 2.0 mL, 9 mm short-cap, screw-thread vials. For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #
Carlo Erb/Fisons	AS 800	L.E.A.P. Technologies	CTC A200S
Dani	ALS 39.80, 86.80	PerkinElmer	AI-1, ISS 100, ISS 200, LC 600 42 vial tray
Dynatech	42 vial tray, LC2000	Shimadzu	SIL-10A, 10Ai, 10AxL
Gilson	231 XL, 232 XL, 233 XL, Aspec XL	Spark Holland	SPH 125, Marathon, Promis
Agilent	1042, 1050, 1080, 1082, 1084, 1090, 1100, 5890, 6890, 7670A, 7671A, 7672, 7673A/B, 7683, 7890, 8042	Spectra-Physics	8875, 8880
Hitachi	AS-2000, AS-6000	Thermo Scientific	TRACE GC 2000, AS2000
LDC	Marathon, Promis	Varian	8100/8200, Marathon
		Waters	Alliance 2690

2.0 mL Sample Vial Racks

- Racks feature alphanumeric indexing for easier vial identification.
- Racks can be stacked for efficient storage.
- Fits most 2.0 mL, 12 x 32 mm vials (vials sold separately).



Description	Capacity	qty.	cat.#	qty.	cat.#
Polypropylene Storage Rack for 12 x 32mm Vials	50 vials, 5 x 10	ea.	22856	5-pk.	22857

2.0 mL Screw-Thread Vials, 12 x 32 mm, 8 mm/425 Thread

- Fit all 2.0 mL, 12 x 32 mm, screw-thread 8 mm/425 vial-based autosamplers.
- Vaporization is minimized over shorter vials.

2.0 mL, 8 mm Screw-Thread Vials (vial only)

Description	Volume	Color	100-pk.	1000-pk.
Vial w/White Graduated Marking Spot	2.0mL	Clear	24619	24620
Vial w/White Graduated Marking Spot	2.0mL	Amber	24621	24622

2.0 mL, 8 mm Caps and Septa (preassembled)

Cap Color	Septa Material	100-pk.	1000-pk.
Black	Red PTFE/Silicone, 0.065"	21149	21720
Black Top Hat	PTFE/Silicone	21721	21722

Caps & Septa

for 2.0 mL, 8 mm Screw-Thread Vials

Description	Septa Material	100-pk.	1000-pk.
Black Polypropylene, Open-Hole Caps		21176	21177
Septa, 8mm x 0.045"	Red PTFE/Silicone	21178	21179
Septa, 8mm x 0.065"	Red PTFE/White Silicone	21795	21147

2.0 mL Autosampler Vial Convenience Kits

- Vials packaged in a clear-lid tray. Preassembled caps with septa packaged separately in a plastic bag.
- Black polypropylene open-hole caps and 8 mm red PTFE/silicone septa, 0.065".

Description	100-pk.	1000-pk.
Clear 2.0mL Vial, Silcote CL7-Deactivated, Black Cap, Red PTFE/Silicone Septa, 0.065"	24638	24639
Amber 2.0mL Vial, Silcote CL7-Deactivated, Black Cap, Red PTFE/Silicone Septa, 0.065"	24640	24641
Clear 2.0mL Vial, Untreated, Black Cap, Red PTFE/Silicone Septa, 0.065"	21192	21193
Amber 2.0mL Vial, Untreated, Black Cap, Red PTFE/Silicone Septa, 0.065"	21194	21195

2.0 mL Preassembled Vial Kits

8 mm/425 Screw-Thread, Unmarked Vials, Septa, and Caps

Caps attached to vials.

Description	100-pk.	1000-pk.
Clear 2.0mL Vial, Black Cap, Red PTFE/Silicone Septa, 0.045"*	24630	24631
Amber 2.0mL Vial, Black Cap, Red PTFE/Silicone Septa, 0.045"*	24632	24633
Clear 2.0mL Vial, Black Cap, Red PTFE/Silicone Septa, 0.065"**	24634	24635
Amber 2.0mL Vial, Black Cap, Red PTFE/Silicone Septa, 0.065"**	24636	24637

*Best fit for Shimadzu.

**Best fit for Varian.



also available
Limited Volume Inserts
for 2.0 mL, 8mm Screw-Thread Vials
See page 360.

instrument reference

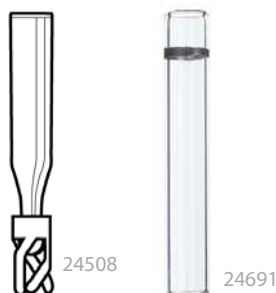
For 2.0 mL, 8 mm Screw-Thread Vials

The following instruments are compatible with 2.0 mL, 8 mm screw-thread vials. For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #
A.I.M.	CPS-100, 200	PerkinElmer	Autosystem GC, 420/B, 4900
Alcott	738	Pharmacia LKB	2157-010
Alltech	570	Precision Sampling	GC111, GC 311, LC241-60
ASC		Phillips	LC-XP, 4247, 4710
Beckman	501, 502, 507	S.G.E.	M2800
Carlo Erba/Fisons	AS 800, 8000	Sedere	
Dani	ALS 39.80, 86.80	Shimadzu	AOC-8B/9, SIL-6A, AOC14/1400, AOC-17, SIL-6B, -9A, -8A, SIL-10A, 10Ai, 10AxL
Dynatech	42 vial tray	Spark Holland	Marathon, Promis, Tiathalon, Midas
Gilson	231XL, 232XL, 233XL, Asted XL, Aspec XL	Spectra-Physics	8875, 8880
Gynkoteck	Gina, others	Talbot	
Hitachi	S6551, L-7200, L-7250	TOA	ICA5450
IBM		TosoHaas	TSK-6080, AS-8010, AS-8020
ICI	All except LC1600	TSP	8875, 8880, AS100/1000, AS300/3000
Infochroma		Unicam	4700LC, LC-XP, 4247
Jasco	851-AS, AS-950, LC800 & 900 series	United Technologies	
Kipp		Varian/Rainin	Dynamax AI-3AI-IA, AI-2W
Kontron	360, 460	Varian	8100/8200, 8035, 8000 Series, Marathon, 8055, 8085, 9100/9090/9095, 3800 GC
LDC	All except 713	Waters	Alliance 2690
L.E.A.P. Technologies	CTC A200S		
Magnus Scientific			

VIALS & SYRINGES | VIALS

Screw-Thread Vials



Inserts for 2.0 mL, 8 mm Screw-Thread Vials

Description	Volume	Material	100-pk.	1000-pk.
Insert w/Polypropylene Bottom Spring	100 μ L	Glass	24508	21775
Insert, Flat Bottom	250 μ L	Glass	—	24510
Insert, Flat Bottom w/ID Ring	250 μ L	Glass	—	24691
Insert, No Spring	100 μ L	Polypropylene	24511	—
Insert w/Bottom Spring	100 μ L	Polypropylene	24512	—



24623

2.0 mL, 8 mm Screw-Thread Vials with 100 μ L Insert

- Plastic vials.
- Choice of glass or polypropylene insert.

Description	100-pk.	1000-pk.
Plastic Vial w/100 μ L Polypropylene Insert	24623	24624
Plastic Vial w/100 μ L Glass Insert	24625	—

*Amber glass insert/clear plastic vial available on request (1,000-packs only).



24626

2.0 mL Big Mouth Step Design Screw-Thread Vials, 12 x 32 mm, 10 mm/425 Thread

- 40% larger opening than other vials.
- Step profile automatically centers glass flange limited volume inserts.
- Preassembled caps with septa, with or without vials.
- Designed for Waters Alliance[®] autosamplers.

The Big Mouth Step Vial System has a larger ID than conventional vials and incorporates a neck finish that is uniquely designed to allow the insert to be precisely aligned in the center of the vial. This precise alignment provides maximum sample withdrawal and eliminates any chance of missed injections.

2.0 mL Big Mouth Step Screw-Thread Vials (vial only)

Description	Volume	Color	100-pk.	1000-pk.
Big Mouth Step Vial w/White Graduated Marking Spot	2.0mL	Clear	24626	24627
Big Mouth Step Vial w/White Graduated Marking Spot	2.0mL	Amber	24628	24629

Caps and Septa for 2.0 mL Big Mouth Step Vials

Description	Septa Material	1000-pk.
Caps and Septa, Preassembled	PTFE/Silicone/PTFE, 0.040"	21723
Caps and Septa, Preassembled	Red PTFE/White Silicone, 0.060"	24677
Septa Only	Red PTFE/White Silicone, 0.060"	21148



24677

21148

also available

See [page 361](#) for preassembled vial kits and limited volume inserts.

tech tip

Compatibility concerns?

Refer to the Septum Selection Guide on [page 353](#).

instrument reference

For 2.0 mL, 10 mm Screw-Thread Vials

The following instruments are compatible with 2.0 mL, 10 mm screw-thread vials. For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #
Alcott	738
Alltech	570
Altex	
ASC	
Beckman	501, 502, 507
L.E.A.P. Technologies	CTC A200S
Shimadzu	SIL-10A, 10Ai, 10AxL, AOC-20i
Varian	8100/8200
Waters	Alliance 2690

Preassembled Vial Kits and Limited Volume Inserts for 2.0 mL Big Mouth Step Design Screw-Thread Vials, 12 x 32 mm, 10 mm/425 Thread

2.0 mL Big Mouth Step Vial Kits w/Black Caps (preassembled) Caps attached to vials.

Description	100-pk.	1000-pk.
Clear 2.0mL Vial, Black Cap, PTFE/Silicone/Red PTFE Septa, 0.040"	24675	24676
Clear 2.0mL Vial, Black Cap, Red PTFE/Silicone Septa, 0.065"	24642	24643
Amber 2.0mL Vial, Black Cap, Red PTFE/Silicone Septa, 0.065"	24644	24645

Inserts for 2.0 mL Big Mouth Step Design Screw-Thread Vials

Description	Volume	Material	100-pk.	1000-pk.
Big Mouth Insert w/Bottom Spring	250µL	Glass	21776	21777
Insert, Flat Bottom	350µL	Glass	21780	24517
Insert, Flat Bottom w/ID Ring	350µL	Glass	24692	24693
Big Mouth Insert w/Glass Flange (Step Design)*	250µL	Glass	24516	21779

Polypropylene inserts available on request (1,000-packs only).

*Not to be used with 9mm screw-thread vials.



WISP Vials

4.0 mL WISP 48 Crimp-Top 13 mm Vials, 15 x 45 mm, Snap Seal

4.0 mL WISP 48 Crimp-Top Vial (vial only)

Description	Volume	Color	100-pk.	1000-pk.
WISP 48 Snap Seal Vial w/White Graduated Marking Spot	4.0mL	Clear	24658	24659

Aluminum Seals w/Septa for 4.0 mL WISP Crimp-Top Vials

Seal Color	Septa Material	100-pk.	1000-pk.
Silver	PTFE/Natural Rubber	21753	21754
Silver	PTFE/Silicone	21755	21756



24658

instrument **reference**

For 4.0 mL WISP 48 Style Vials

The following instruments are compatible with 4.0 mL WISP 48 style vials. For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #
Bruker	LC 51	TosoHaas	TSK-6080, AS-8010, AS-8020
Hitachi	L-7200, L7250	Unicam	LC-XP
Phillips	LC-XP	Waters	48-pos. M700, 710, 717 +
Shimadzu	AOC-14/1400, AOC-17, SIL-2AS		



also **available**

See **page 362** for inserts.



24654

4.0 mL WISP 48 Screw-Thread Step Vials (15 x 45 mm, 13/425)

4.0 mL WISP 48 Screw-Thread Step Vials (vials only)

Description	Volume	Material	100-pk.	1000-pk.
WISP 48 Step Vial w/White Graduated Marking Spot	4.0mL	Clear	24654	24655
WISP 48 Step Vial w/White Graduated Marking Spot	4.0mL	Amber	24656	24657

4.0 mL WISP 48 Caps and Septa

Description	Septa Material	100-pk.	1000-pk.
WISP 48 Caps and Septa, Top Hat	PTFE/Silicone	21745	21746
WISP 48 Caps and Septa, Preassembled	Red PTFE/Silicone, 0.065"	21743	21744
WISP 48 Caps, Black Polypropylene, Open-Hole		21741	21742
Septa	Red PTFE/Silicone/PTFE, 0.040"	21751	21752
Septa	Red PTFE/Silicone, 0.060"	21749	21750

Inserts

for 4.0 mL WISP 48 Screw-Thread Step Vials

Description	Volume	Material	100-pk.	1000-pk.
Insert for WISP 48 Vials, Flat Bottom**	500 μ L	Glass	21787	21788

Polypropylene inserts available on request (1,000-packs only).

**Also fit 4.0mL Snap Seal Vials. See page 361.



24662

24664

24678

1.0 mL WISP 96 Style Shell Vials, 8 x 40 mm

Available in 3 styles.

1.0 mL WISP 96 Style, 8 x 40 mm Shell Vials

Description	Volume	Color	Material	200-pk.	1000-pk.
WISP 96 Style Vial	1.0mL	Clear	Glass	24662	24663
WISP 96 Style Vial	1.0mL	Amber	Glass	24664	24665
WISP 96 Style Vial	1.0mL	Clear	Polypropylene	24678	24679
WISP 96 Style Vial	700 μ L Limited Volume	Clear	Polypropylene	24680	24681

8mm Starburst Plugs sold separately.



21769

21773

8 mm Starburst Plugs

for Shell Vials, 1.0 mL, WISP 96 Style, 8 x 40 mm

Description	Color	Material	200-pk.	1000-pk.
Starburst Snap Plugs for Shell Vials	Clear	Polyethylene	21769	21770
Starburst Snap Plugs for Shell Vials, Conical	Clear	Polyethylene	21771	21772
Starburst Snap Plugs for Shell Vials, Silicone-Lined	Clear	Polyethylene	21773	21774



21776

Limited Volume Inserts

for Shell Vials, 1.0 mL, WISP 96 Style, 8 x 40 mm

Description	Volume	Material	100-pk.	1000-pk.
Big Mouth Insert w/Bottom Spring	250 μ L	Glass	21776	21777

did you know?

Siltek® coated vials create a highly inert surface for your testing purposes, making them inert to most organics. See **page 353** for more details.

instrument reference

For 1.0 mL WISP 96 Style Vials

The following instruments are compatible with 1.0 mL WISP 96 style vials. For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #
Hitachi	L-7200
Waters	96-position M-700, 710, 717+

Crimp-Top and Screw-Top Headspace Vials

- 6, 10, 20, and 27 mL vials available with 20 mm crimp-seal finish.
- 10 and 20 mL screw-top vials available with 18 mm screw-thread finish.
- Compatible with Gerstel and CTC/Leap Technologies headspace samplers when used with magnetic closures.

Screw-Thread Headspace Vials (18 mm)

Description	Volume	Color	Dimensions	100-pk.	1000-pk.
Headspace Vial	10mL	Clear	22 x 45mm	23084	23085
Headspace Vial	10mL	Amber	22 x 45mm	23088	23089
Headspace Vial	20mL	Clear	22 x 75mm	23082	23083
Headspace Vial	20mL	Amber	22 x 75mm	23086	23087

Caps not included.

Magnetic Screw-Thread Caps (18 mm)

Description	Septa Material	100-pk.	1000-pk.
Magnetic Caps and Septa	PTFE/Silicone	23090	23091
Magnetic Caps and Septa	PTFE/Silicone for SPME	23092	23093
Magnetic Caps and Septa	PTFE/Red Chlorobutyl	23094	23095



18 mm magnetic screw-thread caps

Headspace Crimp Vials (20 mm)

Description	Volume	Color	Dimensions	100-pk.	1000-pk.
a) Headspace Vial	6mL	Clear	22 x 38mm	21166	21167
b) Headspace Vial, Flat Bottom	10mL	Clear	23 x 48mm	24683	24684
c) Headspace Vial, Rounded Bottom	10mL	Clear	23 x 48mm	21164	21165
d) Headspace Vial, Flat Bottom	20mL	Clear	23 x 75mm	24685	24686
e) Headspace Vial, Rounded Bottom	20mL	Clear	23 x 75mm	21162	21163
f) Headspace Vial	27mL	Clear	30 x 60mm	21160	21161

Vial to instrument compatibility are designated in instrument reference chart. below.



Aluminum Seals w/Septa (20 mm, preassembled)

Description	Seal Color	Septa Material	100-pk.	1000-pk.
Seals w/Septa	Silver	PTFE/Gray Butyl Rubber	21761	21762
Seals w/Septa	Silver	PTFE/Silicone	21763	21764
Pressure Release Seals w/Septa	Silver	PTFE/Gray Butyl Rubber	21765	21766
Pressure Release Seals w/Septa	Silver	PTFE/Silicone	21767	21768
Magnetic Caps w/Septa, with 5mm Hole		Tan Teflon/White Silicone	22833	22832
Magnetic Caps w/Septa, with 8mm Hole		Tan Teflon/White Silicone	22831	22834
Magnetic Caps w/Septa, with 8mm Hole		PTFE/Butyl	22835	22836

5mm hole is compatible with the following systems: Carlo Erba HS500/HS800, CTC 500, Fisons HS500/HS800 and Varian/Chrompack 9020/25. 8mm hole is compatible with the Combi Pal.

tech tip

Compatibility concerns?

Refer to the Septum Selection Guide on page 353.



22835

21761

instrument reference

For Headspace Crimp Vials

The following instruments are compatible with the headspace vials listed above (as letter designated above). For further information or questions, please contact your Restek sales representative or technical service.

Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #	Manufacturer	Instrument/Model #
a) Carlo Erba	HS 500, HS 800	c) A.I.	Headspace	d) A.I.	Headspace	e) Dani	HSS 39.50, HSS 86.50, SPT 37.50
Agilent	Headspace	Cueni	Headspace	Carlo Erba	HS 500, HS 800	L.E.A.P. Technologies	HS 500
PerkinElmer	ISS 200	Dani	HSS 39.50, HSS 86.50	CTC	Headspace	PerkinElmer	Autosystem GC, F40, F45, HS 6, Integral 4000, HS 40
		L.E.A.P. Technologies	HS 500	Cueni	Headspace	Tekmar	7000, 7000/7050
b) A.I.	Headspace	PerkinElmer	Autosystem GC, F40, F45, HS 6, Integral 4000, HS 40	Dani	HSS 39.50, HSS 86.50, SPT 37.50	Varian	Genesis
Carlo Erba	HS500, HS 800	Tekmar	7000, 7000/7050	Agilent	Headspace		
Cueni	Headspace	Varian	Genesis	e) A.I.	Headspace	f) Shimadzu	HSS-2B
Dani	HSS 39.50, HSS 86.50			Cueni	Headspace		
Agilent	Headspace						



2.0 mL Versa Vials™, Glass, 12 x 32 mm

- Increased neck length for accommodating fluctuations in robotic arm settings.
- Eliminate cracked necks, breakage, and dangerous sharp edges, using soft Versa Vial PTFE/silicone plugs.
- Largest target area available, ideal for sampling and pipet use.
- Vials available with or without graduated marking spots.
- Patent pending.

Description	Volume	Color	Material	100-pk.	1000-pk.
Versa Vial	2.0mL	Clear	Glass	22701	22702
Versa Vial	2.0mL	Amber	Glass	22697	22704
Versa Vial w/Graduated Marking Spot	2.0mL	Clear	Glass	22703	22704



1.5 mL Versa Vials™, Polypropylene, 12 x 32 mm

Description	Volume	Color	Material	100-pk.	1000-pk.
Versa Vial	1.5mL	Clear	Polypropylene	22705	22706



Versa Vial™ Inserts

Description	Volume	Material	100-pk.	1000-pk.
Versa Vial Insert w/Glass Flange	250µL	Glass	22707	—
Versa Vial Insert w/Flange	250µL	Polypropylene	22709	22710
Versa Vial Insert, Flat Bottom	250µL	Glass	22711	22712



Versa Vial™ Plugs (12 mm)

Description	Color	Plug Material	100-pk.	1000-pk.
Versa Vial Plug	Green	Polyethylene	22713	22714
Versa Vial Plug	Grey	Chlorobutyl/Siliconized	22715	22716
Versa Vial Plug	White	PTFE/Silicone	22717	22718
Versa Vial Plug	White	PTFE/Silicone Plug w/Slit*	22719	22720

*Eliminates needle damage to plug.



Pre-Cleaned Volatile Organic Analyte (VOA) Sampling Vials

- Container, liner, and closure cleaned and assembled.
- Clear or amber.
- Open top caps.
- Teflon® faced 0.125" silicone septa.
- Each case lot numbered.

Description	Volume	Color	Material	Screw-Thread Size	qty.	cat.#
Precleaned VOA Vials	20mL	Clear	Glass	24mm/400	72-pk.	21798
Precleaned VOA Vials	20mL	Amber	Glass	24mm/400	72-pk.	21799
Precleaned VOA Vials	40mL	Clear	Glass	24mm/400	72-pk.	21796
Precleaned VOA Vials	40mL	Amber	Glass	24mm/400	72-pk.	21797
Collection Vials for ASE 200	60mL	Clear	Glass	24mm/400	72-pk.	26121
Collection Vials for ASE 200	60mL	Amber	Glass	24mm/400	72-pk.	26122
Replacement Septa for 20, 40 & 60mL Vials and 250mL Bottles, 24mm x 0.125"			Teflon-lined silicone		100-pk.	24694

Micro-Vials with Screw Threads

- Two sizes available.
- Tapered for high recovery of contents.
- Work with Mininert® sampling valves.

Description	Volume	Screw Thread Size	qty.	cat.#
Micro-Vial, Open Top Cap (attached), Borosilicate Glass, w/Graduated Marking Spot	1.0mL	13mm/425	12-pk.	21050
Micro-Vial, Open Top Cap (attached), Borosilicate Glass, w/Graduated Marking Spot	3.0mL	20mm/400	12-pk.	21051



Mininert® Precision Sampling Valves for Vials

Mininert® valves are very convenient for repetitive sampling and limit content exposure to the silicon septum. Models are available for screw-cap and crimp-top vials. The crimp-top valve for 20 mm ID glassware slides into the neck of the vial. Turn the threaded flange to secure a tight fit.

Description	Type	Thread Size	qty.	cat.#
Mininert Precision Sampling Valves	Screw-Thread	13mm/425	12-pk.	24900
Mininert Precision Sampling Valves	Screw-Thread	15mm/425	12-pk.	24901
Mininert Precision Sampling Valves	Screw-Thread	18mm/400	12-pk.	24902
Mininert Precision Sampling Valves	Screw-Thread	20mm/400	12-pk.	24903
Mininert Precision Sampling Valves	Screw-Thread	24mm/400	12-pk.	24904
Mininert Precision Sampling Valves	Crimp-Top	—	12-pk.	24905
Replacement Septa			50-pk.	24906
Septum Insertion Tool			ea.	24907



Interlock Vials

Interlock limited volume vials offer the performance and convenience of a one piece microvial for a fraction of the cost. A 300 µL insert is fused into a 12 x 32 mm clear or amber glass vial. This one piece design reduces the potential for contamination.

Description	Type	Volume	Color	Material	100-pk.	500-pk.
Interlock Vial	9mm Thread	300µL	Clear	Glass	22433	22434
Interlock Vial	9mm Thread	300µL	Amber	Glass	22435	22436
Interlock Vial	11mm Crimp or Snap Ring	300µL	Clear	Glass	22437	22438
Interlock Vial	11mm Crimp or Snap Ring	300µL	Amber	Glass	22439	22440



also **available**

See **pages 356-358** for caps.



Universal plug set for battery charger included in all kits.

Electronic Rechargeable Crimpers and Decappers

- Easy to use; comfortable grip.
- Hundreds of operations from one charge.
- Adjustable crimping force.
- New battery allows for faster charge cycle.
- All kits include a universal plug set for the battery charger.
- For 11 mm and 20 mm caps.
- One-year warranty.

The redesigned electronic crimpers and decappers have a 4.8 volt battery installed. The battery allows for quick, powerful operation and a faster charge cycle, minimizing downtime. Charging the battery takes thirty minutes to two hours. The universal plug set includes U.S., European, UK, and Australian plug clips. Each kit includes a tool, a 4.8 volt battery, which allows for a faster charge cycle, and a universal plug set for the battery charger.

Capping

Easily crimp caps on standard crimp vials.



Decapping has never been easier!

one. . .



two. . .



three!



Description	Size	qty.	cat.#
Electronic Crimper	11mm	kit	22338
Electronic Crimper	20mm	kit	22339
Electronic Decapper	11mm	kit	22340
Electronic Decapper	20mm	kit	22341
Replacement Battery for Electronic Crimpers and Decappers		ea.	22342

Safer than removing caps with pliers, knives, or screwdriver blades!



Crimper

Decapper

Easy Grip Manual Crimpers and Decappers

Our new Easy Grip Crimpers and Decappers feature tough, light glass-filled plastic bodies with curved handles, which improve hand comfort during use. The bottom-pull handle allows for a steadier hold than top-push handles. An easily viewed adjustment knob is located at the head of the product. The clearly shown + and - symbols, along with directional arrows, simplify adjusting the intensity of the crimp/decap needed. The knob is also designed to indicate when the crimp setting has been reached, when it fully contacts the body of the product.

Description	Size	qty.	cat.#
Crimper	11mm	ea.	23396
Decapper	11mm	ea.	23397
Crimper	20mm	ea.	23398
Decapper	20mm	ea.	23399

No more burned fingers!



The Claw and The Claw Holder Kit

- Easily removes hot liners from injection ports.
- 4 mL vials (not included) can be replaced when dirty.

Never again will you have to burn your fingers removing a hot injection port liner. The Claw safely and cleanly removes liners, O-rings, or other small objects from the injection port. You can then place the hot objects in a clean 4 mL vial situated in the Claw holder until ready for reuse.

Description	qty.	cat. #
The Claw	ea.	26261
The Claw Holder Kit (includes The Claw and holder)	kit	26262
WISP 48 Snap Seal Vial	100-pk.	24658

2.0 mL Sample Vial Racks

- Racks feature alphanumeric indexing for easier vial identification.
- Racks can be stacked for efficient storage.
- Fits most 2.0 mL, 12 x 32 mm vials (vials sold separately).

Description	Capacity	qty.	cat.#	qty.	cat.#
Polypropylene Storage Rack for 12 x 32mm Vials	50 vials, 5 x 10	ea.	22856	5-pk.	22857



Custom Standards

Restek is your #1 source for custom reference standards!

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