


An iceberg floating in the ocean. The tip of the iceberg is above the water line, while the vast majority of the iceberg is submerged below the surface. This visual metaphor represents the concept that reliable data is just the tip of a much larger, hidden problem.

RSATM

REDUCED SURFACE ACTIVITY GLASS

More Reliable Data is the Tip of the Iceberg

Detect Low Abundance Analytes,
Prevents pH Changes and Sample
Hydrolysis in Vials, Eliminates Meniscus
with Water, Not Coated or Silanized,
Detect Low Abundance Analytes,
Prevents pH Changes and Sample
Hydrolysis in Vials, Eliminates Meniscus
with Water, Not Coated or Silanized,
Detect Low Abundance Analytes,
Prevents pH Changes and Sample
Hydrolysis in Vials, Eliminates M
with Water, Not Coated or Si

A close-up of a hand wearing a clear nitrile glove holding a small glass vial. The vial has a blue cap and contains a blue liquid. The vial is held vertically, showing the liquid level.

RSATM vials are the only vials that are quality controlled for virtually no adsorption of basic compounds, pH stability in water, and sodium content — making them the most consistent vials available today. Great for low dosage forms, LCMS, and any lab aiming to protect their samples.

Available for Autosampler Vials and Inserts.



AUTOSAMPLER
VIALS • CAPS • INSERTS

EXCLUSIVELY BY:

MICROSOLV TECHNOLOGY CORPORATION

www.rsa-glass.com

RSA™

REDUCED SURFACE ACTIVITY GLASS

NOT ALL GLASS VIALS ARE CREATED EQUAL AND THEY ARE NOT INERT. The glass surface is covered with highly reactive silanols that can interact with your samples by changing pH, hydrolyzing or adsorbing it and lowering your quantitation results with a poor RSD.

Vials, especially those that are low cost, are made at very high speeds with uneven heating and rapid cooling that creates the metals and silanols to surface. This process also requires the use of additives such as borax that deposits on the glass surface creating a silicate that can interact with your analytes, break off and cause sodium adducts that can interfere with your MS ion source. These interactions can be especially critical in LCMS or



with samples that are pH sensitive, biological, basic or in low abundance.

RSA™ vials are manufactured with precision heating that virtually eliminates all surface silanols and common metals that can interact with basic, biologic and low abundance compounds.

The RSA glass surface is quality controlled to ensure all specifications are met to producing a pristine surface with lot to lot consistency; not just for outer “fit and form” like historical vials.

RSA vials are made for “the chemistry” and indicated for LCMS, LCMS/MS, Basic and Low Abundance Analytes and are available with ultra-pure septa caps and contaminate free packaging.

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9158 Industrial Blvd NE
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www.mtc-usa.com

Vials with Inserts

Pre-assembled and Fused-in for Safety



9532S-WCV-WT-RS
Wide Tip

LOW VOLUME VIALS WITH CONTROLLED BOTTOM

- Wide Tip Fast Filling
- Precision Tip Maximum Recovery
- RSA Glass™ for Sample Safety
- Inserts are fused in the vials with a process that doesn't contaminate the glass



9532S-OCV-RS
Precision Tip

Streamline your work processes and save time and money with Fused-Insert Vials instead of using separate "drop-in the vial" inserts. Fused inserts are very economical as there is no breakage or tedious filling of "hand-held" single inserts that must be carefully placed into a vial. Fused inserts are stationary, enabling you to hold the vial without damaging the insert and your sample.

Fused inserts seal directly against the septa in the cap for minimal leaking or evaporation. Wide tip inserts make it easy for rapid filling without air bubbles being formed especially when using robotics.

RSA™ glass vials and inserts will give you further confidence that your samples will not be affected by changes in pH, hydrolyze or be lost and adsorbed to the glass wall, as occurs with ordinary vials. The RSA™ glass surface is not only the cleanest in the industry, it also has the lowest metal content ever produced for non-coated autosampler vials.

Meets or exceeds all instrument manufacturer's autosampler specifications for dimensional fit and height. Special packaging does not out-gas or add any extractables to the vials and the vials are not touched by human hands for further sample integrity.

Cat. No.

Description

For more information visit www.mtc-usa.com

9532S-WCV-WT-RS	Vials, 300ul clear fused insert (12 x 32 mm) screw top vials with write on patch made with RSA™ glass, wide tip. RSA™ Brand. 100/pack.
9532S-OCV-RS	Vials, 300ul clear fused insert (12 x 32 mm) screw top vials with write on patch made with RSA™ glass. RSA™ Brand. 100/pack.

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www.Cogent-HPLC.com

Inserts for Autosampler Vials

Best In Class – Reduced Surface Activity

PRECISION POINT FOR RELIABILITY • VIRTUALLY NO ADSORPTION OR pH EFFECTS • CONVENIENT & EASY TO USE



These inserts are the very best available today for chromatography. Starting with the highest quality TYPE 1, 33 Expansion Pharmaceutical Grade Glass, these inserts are made with the exclusive RSA process. The result is borosilicate glass with lowest surface metals, virtually zero silanols and no potential pH effects due to the glass.

These inserts are the very best choice when using low volumes of biological or basic compounds that might interact or adsorb to borosilicate glass. Also available in silanized, deactivated for critical biological applications. When RSA glass is silanized using our process, a virtually complete bio-compatible vial is produced.

Supplied with attached plastic spring, these inserts are available in packs of 100. Use with 12 x 32, 9mm screw top or snap top vials. Total volume is approximately 300µl; useful volume is 200µl.



Cat. No.	Description	For more information visit www.mtc-usa.com
9502S-02N-RS	Inserts, 6 x 29mm, precision point made with a mandrel and RSA glass, 200µl useable volume, 300µl total volume w/attached plastic springs BEST IN CLASS. 100/pack.	
9502S-02ND-RS	Inserts, 6 x 29mm, precision point made with a mandrel, deactivated RSA-Pro surface treated, 200µl useable volume, 300µl total volume w/attached plastic springs, useful for proteins and peptides. 100/pack.	

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Know What You Didn't **KNOW**

BY USING BEST-IN-CLASS VIALS

RSATM

REDUCED SURFACE ACTIVITY GLASS



EXCLUSIVELY BY:

MICROSOLV TECHNOLOGY
CORPORATION

www.rsa-glass.com

RSA™

REDUCED SURFACE ACTIVITY GLASS



Prevent pH changes in the vial; beware of borosilicate glass.

Residual contaminants used as release agents for ordinary glass autosampler vial manufacturing process can cause the pH of water based diluents to increase by up to 1.5 pH unit in the vial over a four-hour period. RSA™ vials do not contain any of these common contaminants and gives you assurance that your chromatography will not change during this period due to invisible vial contamination.



Prevent hydrolysis in the vial — great for bio active compounds.

Hydroxyl groups found on the surface of all ordinary glass autosampler vials can be very acidic causing hydrolysis of bio active compounds. RSA™ vial surfaces have virtually no silanols making them mostly inert for these types of compounds that are susceptible to acidic functionality.



Insure quantitation precision run to run, minimize sample adsorption.

The hydroxyl groups found on the surface of ordinary glass autosampler vials will bind basic compounds. RSA™ vials have virtually no silanols and every batch is tested for low adsorption. Quantitation is very precise and eliminates increase in RSD vial to vial and lot to lot. Prevent investigations due to glass vials retaining your samples. This is especially noticeable in low sample concentration.



Prevent adducts seen in LCMS from the vials.

During the manufacturing process for all ordinary autosampler vials, if the process is not controlled properly, metals such as sodium can accumulate on the surface of the glass. Sodium and other metals can cause adducts in LCMS as well as “completes” and cause other problems. Every batch of RSA™ vials are tested for and have extremely low metal content, making them ideal for LCMS and LCMS/MS and GC/MS.



Cleanest vials on the market — prevent spurious peaks from glass.

The RSA™ autosampler vial manufacturing process is conducted in an ultra-clean glass conversion facility and does not use any release agents, grease or glass additives. The entire process is fully automated and vials are never touched by human hands for assurance of cleanest vials without a wash process which can introduce contamination to the finished vials.



Superior dimensional control, protect your sample needle and instruments.

RSA™ vials are manufactured with the same dimensional tolerances as the AQ™ Brand (Best-in-the-Industry) of vials to meet the most demanding needs of all autosamplers on the market. This includes bottom height control which is critical for Waters™ autosamplers. Compare to HPLC and LCMS certified products on the market.

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Not All Vials Are Created Equally



Prevent pH Changes in the Vial

Beware of borosilicate glass.



Great for Bio Active Compounds

Prevent hydrolysis in the vial.



Minimize Sample Adsorption

Insure quantitation precision run to run.



Prevent Adducts Seen in LCMS from the Vials



Cleanest Vials on the Market

Prevent spurious peaks from glass.










Superior Dimensional Control








Protect your sample needle and instruments.







SNAP TOP VIALS & CAPS

2mL	2mL	1.8mL	1.2mL	300ul	Silicone Rubber with PTFE Septa
					
9509C-WCV-RS	9509C-WAV-RS	9512C-OCV-RS	9512C-OCV-T-RS	9532C-OCV-RS	9509C-10CB
					
					9509C-30CB

SCREW TOP VIALS & CAPS

2mL	2mL	2mL	1.8mL	1.8mL	Silicone Rubber with PTFE Septa
					
9509S-WCV-RS	9509S-WAV-RS	9509S-OCV-RS	9512S-OCV-RS	9512S-OAV-RS	9509S-10C-B
					
					9509S-30C-B

1.2mL	300ul	300ul	300ul
			
9512S-OCV-T-RS	9532S-WCV-WT-RS	9532S-OCV-RS	9532S-OAV-RS

AUTOSAMPLER
VIALS • CAPS • INSERTS • RACKS

EASY PURCHASE PACKS: COMBINATION KITS



RSA™-Reduced Surface Activity Autosampler Vials

BEST-IN-CLASS

ORDERING INFORMATION: VIALS AND CAPS

SNAP TOP VIALS

ITEM CODE	DESCRIPTION
9509C-WCV-RS	Vials, 2ml, snap/crimp top, clear RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack
9509C-WAV-RS	Vials, 2ml, snap/crimp top, amber RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack
9512C-OCV-RS	Vials, 1.8ml, Maximum Recovery, snap top, clear RSA™ glass (12x32mm) RSA™ Brand. 100/pack
9512C-OCV-T-RS	Vials, 1.2ml, MRQ, snap top, clear RSA™ glass (12x32mm) RSA™ Brand. 100/Pack
9532C-OCV-RS	Vials, 300ul, fused insert, snap top, clear RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack

SNAP CAPS

ITEM CODE	DESCRIPTION
9509C-10CB	Caps, light blue, snap top, fitted clear ultra pure Silicone/PTFE septa. AQR™ Brand. 100/pack
9509C-30CB	Caps, light blue, snap top, pre-slit fitted clear ultra pure Silicone/PTFE septa. AQR™ Brand. 100/pack

SCREW TOP VIALS

ITEM CODE	DESCRIPTION
9509S-WCV-RS	Vials, 2ml, 9-425mm screw top, clear RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack
9509S-WAV-RS	Vials, 2ml, 9-425mm screw top, amber RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack
9509S-OCV-RS	Vials, 2ml, 9-425mm screw top, clear RSA™ glass (12x32mm) RSA™ Brand. 100/pack
9512S-OCV-RS	Vials, 1.8ml, Maximum Recovery, 9-425mm screw top, clear RSA™ glass (12x32mm) RSA™ Brand. 100/pack
9512S-OAV-RS	Vials, 1.8ml, Maximum Recovery, 9-425mm screw top, amber RSA™ glass (12x32mm) RSA™ Brand. 100/pack
9512S-OCV-T-RS	Vials, 1.2ml, MRQ, 9-425mm screw top, clear RSA™ glass (12x32mm) RSA™ Brand. 100/pack
9532S-WCV-WT-RS	Vials, 300ul, wide tip fused insert, 9-425mm screw top, clear RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack
9532S-OCV-RS	Vials, 300ul, fused insert, 9-425mm screw top, clear RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack
9532S-OAV-RS	Vials, 300ul, fused insert, 9-425mm screw top, amber RSA™ glass with write on patch (12x32mm) RSA™ Brand. 100/pack

SCREW CAPS

ITEM CODE	DESCRIPTION
9509S-10C-B	Caps, light blue, 9-425mm screw thread, fitted clear ultra pure Silicone/PTFE septa. AQR™ Brand. 100/pack
9509S-30C-B	Caps, light blue, 9-425mm screw thread, pre-slit fitted clear ultra pure Silicone/PTFE septa. AQR™ Brand. 100/pack

EXCLUSIVELY BY:



RSA™ -Reduced Surface Activity Easy Purchase Packs

BEST-IN-CLASS

ORDERING INFORMATION: COMBINATION KITS

Easy Purchase Packs (EPP) are combination kits of 100 vials and 100 caps for convenient inventory and ordering. The item code is ordering information you need. The orange tinted area describes the vial in the kit while the blue tinted area describes the cap style and septa.

EASY PURCHASE PACKS

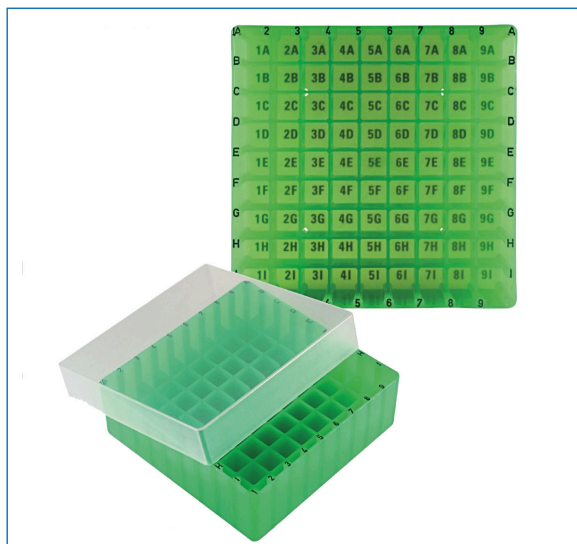
ITEM CODE	VIAL	VOLUME	COLOR	CAP	CAP STYLE	SEPTA
9509C-1WCP-RS	9509C-WCV-RS	2ml	Clear	9509C-10CB	Snap	Non-Slit
9509C-3WCP-RS	9509C-WCV-RS	2ml	Clear	9509C-30CB	Snap	Pre-Slit
9509C-1WAP-RS	9509C-WAV-RS	2ml	Amber	9509C-10CB	Snap	Non-Slit
9509C-3WAP-RS	9509C-WAV-RS	2ml	Amber	9509C-30CB	Snap	Pre-Slit
9509S-1WCP-RS	9509S-WCV-RS	2ml	Clear	9509S-10C-B	Screw	Non-Slit
9509S-3WCP-RS	9509S-WCV-RS	2ml	Clear	9509S-30C-B	Screw	Pre-Slit
9509S-1WAP-RS	9509S-WAV-RS	2ml	Amber	9509S-10C-B	Screw	Non-Slit
9509S-3WAP-RS	9509S-WAV-RS	2ml	Amber	9509S-30C-B	Screw	Pre-Slit
9509S-1CP-RS	9509S-OCV-RS	2ml	Clear	9509S-10C-B	Screw	Non-Slit
9509S-3CP-RS	9509S-OCV-RS	2ml	Clear	9509S-30C-B	Screw	Pre-Slit
9512C-1CP-RS	9512C-OCV-RS	1.8ml	Clear	9509C-10CB	Snap	Non-Slit
9512C-3CP-RS	9512C-OCV-RS	1.8ml	Clear	9509C-30CB	Snap	Pre-Slit
9512S-1CP-RS	9512S-OCV-RS	1.8ml	Clear	9509S-10C-B	Screw	Non-Slit
9512S-3CP-RS	9512S-OCV-RS	1.8ml	Clear	9509S-30C-B	Screw	Pre-Slit
9512S-1AP-RS	9512S-OAV-RS	1.8ml	Amber	9509S-10C-B	Screw	Non-Slit
9512S-3AP-RS	9512S-OAV-RS	1.8ml	Amber	9509S-30C-B	Screw	Pre-Slit
9512S-1MP-RS	9512S-OCV-T-RS	1.2ml	Clear	9509S-10C-B	Screw	Non-Slit
9512S-3MP-RS	9512S-OCV-T-RS	1.2ml	Clear	9509S-30C-B	Screw	Pre-Slit
9532C-1CP-RS	9532C-OCV-RS	300ul	Clear	9509C-10CB	Snap	Non-Slit
9532C-3CP-RS	9532C-OCV-RS	300ul	Clear	9509C-30CB	Snap	Pre-Slit
9532S-1CP-RS	9532S-OCV-RS	300ul	Clear	9509S-10C-B	Screw	Non-Slit
9532S-3CP-RS	9532S-OCV-RS	300ul	Clear	9509S-30C-B	Screw	Pre-Slit
9532S-1CP-WT-RS	9532S-WCV-WT-RS	300ul	Clear	9509S-10C-B	Screw	Non-Slit
9532S-3CP-WT-RS	9532S-WCV-WT-RS	300ul	Clear	9509S-30C-B	Screw	Pre-Slit

Other combinations may be available, please inquire.

www.rsa-glass.com

Autosampler Vial Racks

For 12 x 32mm Crimp, Snap and Screw Neck Vials



These Autosampler Vial Racks are a safe and convenient way to store and transport your sample vials. The cavities are 130mm x 130mm x 45mm, designed to fit 12mm x 32mm Crimp, Snap and Screw Neck Vials. They are available in 6 assorted colors: blue, orange, yellow, pink, white and green. The cavities allow for your vials to stand safely in a standing position on the laboratory table. They are coded alpha numerically for clear sample identification.

These racks are ideal for space saving storage in cooling units. As the transparent lid prevents condensation on the closures thus avoiding a possible contamination. They also are temperature resistant from -80°C to +100°C.

- CONVENIENT AND SAFE
- FOR STORAGE AND TRANSPORTATION
- STACKABLE
- AUTOCLAVABLE



Cat. No.	Description	For more information visit www.mtc-usa.com
9502SB-01	Storage Box/Rack with cover, PP, for 12 x 32mm autosampler vials, blue, 130mm x 130mm x 45mm. 81 cavities with alpha numeric coding of all 4 sides as well as the cavity bottom. 1 each.	
9502SB-02	Storage Box/Rack with cover, PP, for 12 x 32mm autosampler vials, orange, 130mm x 130mm x 45mm. 81 cavities with alpha numeric coding of all 4 sides as well as the cavity bottom. 1 each.	
9502SB-03	Storage Box/Rack with cover, PP, for 12 x 32mm autosampler vials, pink, 130mm x 130mm x 45mm. 81 cavities with alpha numeric coding of all 4 sides as well as the cavity bottom. 1 each.	
9502SB-04	Storage Box/Rack with cover, PP, for 12 x 32mm autosampler vials, yellow, 130mm x 130mm x 45mm. 81 cavities with alpha numeric coding of all 4 sides as well as the cavity bottom. 1 each.	
9502SB-05	Storage Box/Rack with cover, PP, for 12 x 32mm autosampler vials, green, 130mm x 130mm x 45mm. 81 cavities with alpha numeric coding of all 4 sides as well as the cavity bottom. 1 each.	
9502SB-06	Storage Box/Rack with cover, PP, for 12 x 32mm autosampler vials, transparent, 130mm x 130mm x 45mm. 81 cavities with alpha numeric coding of all 4 sides as well as the cavity bottom. 1 each.	

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