



Why does MicroSolv have 5 tiers or brands of autosampler vials – FAQ

A simple and quick answer is to meet the different needs of all laboratories and Chromatographers.

In 1997, the **MicroSolv Brand™** vials, made with N51A TYPE-1 borosilicate glass were the standard of the autosampler vial market and were used by many leading autosampler manufacturers as their brand. Made to be **pharmaceutical grade** vials equal to those used in pharma packaging, these vials are manufactured using computerized in line vision cameras to ensure fit, form, and cleanliness.

This high quality brand was more than some budget minded laboratories wanted hence the **BASIK™ brand** autosampler vial and cap line was born. This simple **chromatography grade** offering is a sufficient quality but the cost is lower. The BASIK brand uses computerized cameras for fit and form and will not jam your autosampler but the QC is less strict than the MicroSolv brand.

As HPLC and GC Instrumentation developed, mostly with mass spectrometry and UHPLC, improving quality demands for different vials and closures kept increasing. In 2007 some instrument companies wanted a product that was better for fit and form and for cleanliness than what was currently available. A guaranteed quality was required along with a packaging that would not “out-gas” contamination and could serve the needs of the UHPLC and LCMS and GCMS instruments that were developing. Hence the **AQ™ brand** was created; this higher quality glass (TYPE-1, 33 expansion borosilicate glass) product is more than just “certificated” and has a very tight SOP for our proprietary manufacturing techniques as all of the common contaminants of vial manufacturing such as greases, surfactants and other process agents were eliminated in our manufacturing process. Along with advanced packaging materials, strict SOP and QC and certification, this product became the product chosen by most for reliability, cleanliness, fit, form, and overall quality.

As technology kept improving, the needs of the market became very different. Low abundance analytes became possible to quantitate with new instrumentation which would lead to major scientific and commercial success. However, for basic compounds, pH labile analytes and for LCMS, even the AQ Brand™ vials could cause adsorption, precipitation, side reactions, chelation, and other issues due to the glass surface chemistry. All vials are susceptible to these phenomena. Hence the AQ™ brand with **RSA™ vial** was developed. This brand of vial is everything the AQ brand and other “certified” vials are and more. Using our proprietary vial conversion manufacturing, the RSA vials do not contain the highly variable layer of hydroxyl groups / silanols found in all autosampler vials.

It is the **RSA-Pro X™** vials that are the best choice for anyone doing LCMS, GCMS, LCMS/MS, UHPLC and may be looking for low dosage forms of pharma preparations, seeking the “needle in the haystack” bio marker, forensic analysis, environmental analysis, drugs of abuse analysis and many others. These vials are also designed for use with sticky proteins, peptides and will remain hydrophobic for years even when in the presence of water.

So to serve the needs of all “Tiers” in the chromatography market, MicroSolv and our partners have invested a great amount of resources to give you a one stop shopping for all needs of vials, caps, inserts and bottles.



[Click here to See All Tiers and Options](#)

Printed from the Chrom Resource Center

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com

Date: 05-05-2024