# No Difference in Performance Between Clear and Amber RSA Autosampler Vials - HPLC Primer

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From a chromatographic standpoint, there is **no measurable difference** in performance between clear and amber RSA™ (Reduced Surface Activity) vials. Both vial types are manufactured using the same proprietary RSA™ process, which eliminates surface silanols and minimizes adsorption of basic analytes—ensuring consistent performance across vial types.

**Key Observations from QC and R&D Testing:**

- Adsorption behavior: No significant difference in the adsorption of basic compounds between clear and amber RSA™ vials.
- pH stability: No observable variation in pH-related effects on sample diluents.
- Surface chemistry: Both vial types exhibit identical surface activity profiles due to the RSA™ manufacturing process.

**When to Choose Amber Glass:**

Amber RSA™ vials are recommended for **light-sensitive analytes**, as the amber coloration provides protection against UV and visible light exposure. This is particularly important for compounds prone to photodegradation.

**Glass Composition:**

- Clear RSA™ vials are manufactured from Type I, Class A 33 expansion borosilicate glass.
- Amber RSA™ vials are produced using N51A expansion borosilicate glass, which includes iron and other oxides to achieve light-blocking properties.

**Conclusion:**

The choice between clear and amber RSA™ vials should be based on **sample light sensitivity**, not chromatographic performance. Both options deliver the same high level of surface inertness, dimensional precision, and LCMS compatibility expected from RSA™ technology.

RSA™
REDUCED SURFACE ACTIVITY GLASS

Click *HERE* for ordering information and pictures of RSA glass

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