

## Headspace Vials and Caps Stability in an Oven at 105 C with Extended Exposure - Tech Information

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When using MICROSOLV Headspace Vials and aluminum crimp caps such as those listed below, in applications that require prolonged heating at **105 °C**, the materials used in these components are designed to remain stable and maintain proper system performance under these conditions.

### Material Performance

- **Borosilicate glass vials** exhibit excellent thermal stability and are routinely used in applications exceeding 105 °C. They maintain structural integrity, resist thermal stress, and do not deform at this temperature.
- **Aluminum crimp caps** retain their mechanical clamping force and do not soften or lose shape at 105 °C.
- **PTFE/silicone septa** (commonly paired with crimp caps) are designed for high-temperature sealing and maintain chemical resistance, seal integrity, and low extractables at this temperature range.

### Seal Integrity

Under extended heating periods:

- The crimp seal remains tight, ensuring minimal risk of vapor loss or contamination.
- Septum compression set remains within acceptable limits, supporting reliable analytical performance.

### Expected Performance

Based on material specifications and typical laboratory use conditions, these vial-and-cap assemblies are expected to perform reliably at 105 °C for long-term oven exposure without compromising vial strength, cap function, or septum seal quality.

[95025-VN-05C | 5 ml Headspace Vial](#)

[95025-08-1S | Headspace Cap | Silicone/PTFE | 20 mm](#)

**AUTOSAMPLER**  
VIALS AND CAPS

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