

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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