

SPME Suitable Caps for Solid Phase Micro Extraction SPME Vials - Tech Information

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Solid Phase Micro Extraction (SPME) is a highly sensitive sampling technique in which a coated fiber extracts analytes from a sample matrix before being inserted into a gas chromatograph (GC) for thermal desorption. Because the SPME fiber must pierce the vial septum repeatedly—and with minimal resistance—the choice of cap and septum is critical.

According to MicroSolv's technical guidance, SPME applications benefit from thin septa, which reduce friction and help prevent damage to the delicate extraction fiber during needle penetration.

Recommended Crimp Caps and Septa for SPME

For best performance and to protect the SPME fiber, MicroSolv recommends the following components:

- **Crimp Cap:**
Catalog #95025-04-1S — A crimp cap specifically suitable for SPME vials, designed with a septum thickness that accommodates SPME fiber requirements.
- **Septa Only:**
Catalog #95025-04 — A thin septum option ideal for SPME instruments, reducing resistance and preventing needle coring.

Recommended Vials for SPME

- **SPME Vial:**
Catalog #95025-SPME — A vial designed specifically for SPME sampling, allowing consistent fiber insertion depth and maintaining vial integrity during extraction.

Why Using Proper SPME Components Matters

- **Protects the SPME Fiber:** Using the wrong septum thickness can cause excessive wear, breakage, or coring of the fiber.
- **Ensures Analytical Reproducibility:** Poor seals can lead to analyte loss, contamination, or inconsistent extraction efficiency.
- **Supports Precise GC Injection:** SPME fibers rely on repeatable, smooth penetration through the septum and consistent desorption conditions.

NOTE: Catalog number [95025-04-1S](#) is a recommended crimp cap for use with SPME. Catalog number [95025-04](#) is recommended as septa. As for vials, catalog number [95025-SPME](#) is ideal for SPME use.

AUTOSAMPLER

VIALS AND CAPS

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