

US EPA Method 625.1 Horizon Technology Fact Sheet

US EPA Method 625.1 Allows SPE for Extraction

Solid phase extraction brings benefits to the laboratory in terms of reproducibility and less solvent needed for elution when compared to liquid-liquid extraction. Combined with smaller sample sizes, drastically smaller volumes of solvent are required for elution, reducing evaporation time and solvent recovery needs.

Horizon Technology has been a leader in solid phase extraction and automation for decades and took an active position in ensuring the EPA was comfortable understanding SPE performance for a full suite of semivolatile analytes included in method 625. Participating in an ACIL Independent Laboratories Institute ([ILI](#)) [two-phase study](#) Horizon Technology worked with eight governmental and independent laboratories to collect data on three different matrices, reagent water, synthetic wastewater, and an acetic acid solution used in the toxicity characteristic leaching procedure (TCLP) for both 1 L and 100 mL samples.

[The Method Update Rule \(MUR\)](#) including the updated [method 625.1](#) was signed on August 7 and published in the Federal Register on August 28, 2017. It was effective on September 27 and allows the use of SPE for extraction of wastewater samples with a supporting validation study. Horizon Technology worked with ESC Laboratories, a subsidiary of Pace Analytical to provide a validation package that can be provided to customers interested in this methodology, upon request. The package demonstrates the performance of solid phase extraction disks using the one-pass system, an excellent match for wastewater samples with particulates. The method does not require the water to be pH adjusted and run through the disk a second time, saving time and avoiding the formation of emulsions.

Horizon technology has a variety of resources for information and support on this method.

Application notes:

- Development of the Protocol ([AN0911408_01](#))
- Validation Results ([AN1171706_01](#))

[Webcast on Validation](#)

[SPE-DEX 5000 video](#)

[SPE-DEX 5000 webpage](#)

[SPE-DEX 5000 Brochure](#)