

should be performed outside the contaminated area in order to prevent cross-contamination of the samples and contamination of the equipment.

As an easy means of field preservation, aqueous samples may be passed through a cartridge filled with a polymer C₁₈ adsorbent (Analytichem International Inc.) which retains chemical warfare agents. The cartridge may then be transported to the laboratory for subsequent elution and analysis. Solid samples may be extracted with water and the extract passed through the C₁₈ cartridge in the same way.

Procedure:

Wash the solid sample with 50 ml water and pass the sample through a 200 mg C₁₈ cartridge which has been pre-wetted with 0.5 ml methanol and 5 ml water. In order to prevent clogging of the cartridge, samples containing large amounts of particulate matter should be filtered through a 20 µm pore-size frit filter or through a Whatman microfibre filter grade GF/A.

Phosphonic acids, which are decomposition products from nerve agents, are preserved by sorption onto an aminopropyl weak anion exchanger (NH₂). Cartridges filled with 100 mg NH₂ material (Analytichem International Inc.) are attached after the C₁₈ cartridges and the sample solution is passed through the combined cartridges. The chemical warfare agents are retained on the C₁₈ cartridge (top) and the phosphonic acids on the NH₂ cartridge (bottom).

Organs or tissues from humans or animals should be placed in ethanol for preservation during transport to the laboratory.