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Before the main sample is split into sub-samples, it should be properly homogenized. Dry particulate samples should be homogenized by shaking for three minutes in a shaking machine, while a mortar should be used for wet particulate samples. Other solid samples may be crushed into small pieces with a mortar, and liquid samples well mixed before splitting.

The extraction of the samples should be carried out in accordance with the recommended operating procedures for each sample material.

The C_{18} cartridges brought back from the facility should be eluted with 500 μ l of an organic solvent which is suitable for the final analysis. Acetone and dichloromethane have satisfactory eluting properties for chemical warfare agents and may be used for analysis by gas chromatography or mass spectrometry. For NMR or liquid chromatography methanol may be used.

The phosphonic acids are eluted from the NH_2 cartridges with 300 μ l methanol. The eluates may be analyzed directly by HPLC or by GC after derivatization of the acids.

The controls should be processed and analyzed in the same way as the samples in order to be sure that there has been no cross-contamination. The controls should also be spiked with any chemical warfare agent found to establish the recovery rate for the analytical method used.

The recommended operating procedures for quality control for each instrument should be followed.