CH SOP-18 - Analysis of low boiling range flammable liquids

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OBJECTIVE

To determine the presence of flammable liquids such as ethanol, acetone and other low boiling range individual compounds in fire debris using gas chromatography/mass spectrometry.

MATERIALS

See CH SOP-18-1.

ANALYSIS

The sample is extracted via the heated headspace method-CH SOP-18-1.

Data acquisition: Scan mode at various amu ranges depending on the type of sample (typically 19-150 amu).

NOTE: The SIM mode is not used for the analysis of fire debris samples.

INTERPRETATION OF THE RESULTS

The following data analysis scheme is performed.

- 1. Select the spectrum for each chromatographic peak in the total ion chromatogram (TIC).
- 2. Compare the extracted spectrum against the library findings.
- 3. Print and save a hard copy of the library search results.