

Testing for Polynuclear Aromatic Hydrocarbons (PAH) in Ambient Air Analyzed by GC/MS EPA Method TO-13A

Method Overview

Method TO-13A provides procedures for the sampling, detection and quantitative measurement of polynuclear hydrocarbons (PAHs) in ambient air samples collected by a high volume sampler equipped with a quartz-fiber filter and polyurethane foam (PUF) cartridge. Pace Analytical utilizes a GC/MSSIM (selective ion monitoring) procedure to deliver optimum detection limits on the 18 most common PAH compounds. Method TO-13A is normally utilized in a perimeter or fence line monitoring mode around incinerators, chemical production facilities or Superfund sites, in support of the Clean Air Act (CAA).

Method Detection and Reporting Limits

Actual detection limits achieved by Method TO-13A will vary according to the volume of air brought through the sample media. Method TO-13A recommends that 300 cubic meters of air be sampled, this is normally accomplished over a 24 hour period. Pace will supply results in micrograms per sample with a reporting limit of .1 micrograms per compound.

Method Specifications

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| Holding Times: | <ul style="list-style-type: none">- Extracted within 7 days of collection.- Analyzed within 40 days of extraction. |
| Method Turnaround (TAT): | <ul style="list-style-type: none">- 10 working days. |
| Method QAQC: | <ul style="list-style-type: none">- Initial calibration as specified by the method.- Internal standards and surrogate recoveries continuously monitored.- Lab Blank/Batch (maximum 20 samples). |

Method Sampling Guide

The complexity of this method is such that only experienced, trained personnel should perform sampling operations. Sampling includes calibration of the high volume sampler, installation of the PUF and filter and subsequent operation of the sampler, usually for 24 hours, to sample 300m³ ambient air. Pace Analytical will provide appropriate sampling filter and the prespiked PUF cartridge upon request. The PUF cartridge and glass housing should be carefully packed in accordance with the method to avoid contamination or breakage and shipped via overnight carrier, chilled to 4°C (39°F). Include completed chain of custody document.