

# Atmospheric Analysis & Consulting, Inc.

## **CARB Method 430 Summary**

### Determination of Formaldehyde and Acetaldehyde in Emissions from Stationary Sources

This method applies to the analysis of Formaldehyde and Acetaldehyde in stationary source emissions utilizing two impingers in series containing acidified aqueous DNPH solutions followed by high performance liquid chromatographic detection

A typical test program per source includes 3 runs plus possibly a 4th matrix spike run

### **DNPH Solution Requirements for Sampling**

Front Impinger-10mL, Back Impinger-10mL, Rinse = 2mL per run Total=22mL per run 3 Field Blanks x12mL=36mL per source

Total =  $\underline{102-124mL}$  per source

You will need HPLC grade water for the probe rinse After sampling rinse the sampling line with 2mL DNPH followed by 1mL HPLC water The Front and Back impingers are analyzed separately

Sampling Equipment-AAC can clean all of your sampling equipment prior to sampling

## Formaldehyde Spiking Solution for Matrix Spike

10-100ug/ml in HPLC Water-AAC can provide a 0.25 -1.0 ml syringe for spiking

## **QC** Requirements

- We will provide 2 trip blanks/trip spikes that get analyzed along upon return with 2 lab spikes.
- 3 Field Blanks per source must be collected and subtracted from the sample values. The Field Blanks can be collected at the start of the test program before contamination occurs.

## Storage, Shipping, and Holding Times

- Use 25ml glass vials with Teflon lined caps
- Store samples at 4 degrees Celsius after collection and during transport
- You have to use the solution within 2 days of certification or meet the sample concentration/blank requirements. Recertification to extend the lifetime of the solution is possible.



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- Samples must be extracted within 7 days of collection and analyzed within 30 days of collection.
- Please let us know how many CARB 430 vials you will need.

#### **Analytes**

#### Please specify which analytes you will require

- Method Analyte List: Formaldehyde, and Acetaldehyde
- AAC CARB 430M Analyte List: Formaldehdye, Acetaldehyde, and Acrolein
- Additional Analytes available upon request: Crotonaldehyde, Methacrolein, MEK+Butanal, Benzaldehyde, Valeraldehyde, m-Tolualdehyde, Hexaldehyde.

Flow Rate Range: 0.1-0.5 lpm

