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Siloxane Sampling in Gas using XAD-2 Sorbent Tubes

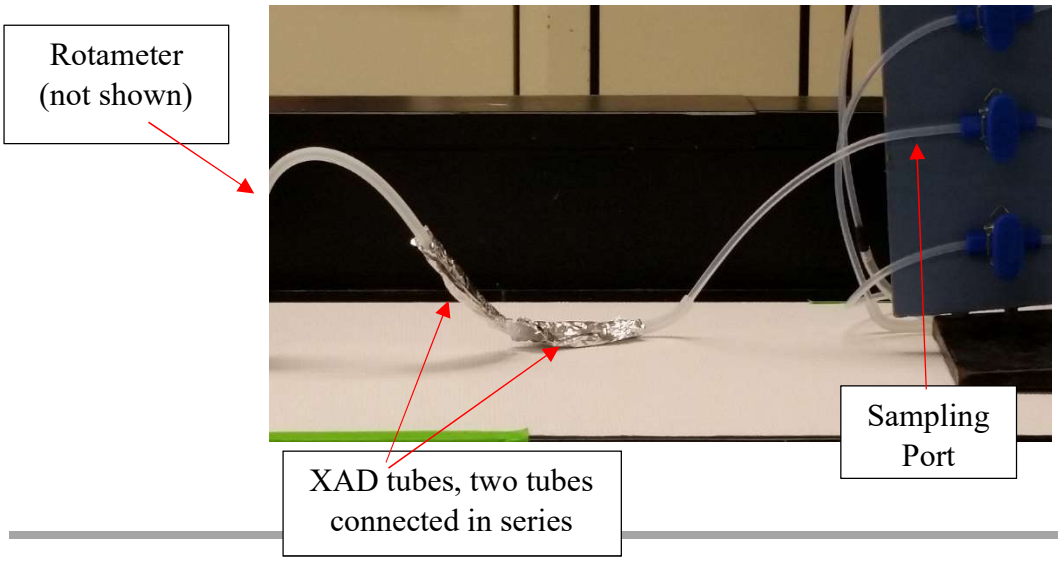
This sampling procedure is provided only as a guide to sampling gas from a sampling port. It assumes a representative sample flow of the source gas can be obtained. It is the sampler's responsibility to ensure a representative sample. Any historical information regarding the sample would aid us in better analyzing your sample. This would include previous results of laboratory or field screening analyses.

It is the sampler's responsibility to ensure sampling is performed in a safe manner. Neither GTI nor any person acting on behalf of GTI assumes any liability with respect to the use of, or for damages resulting from the use of, any information presented in this procedure.

Procedure:

XAD-2 resin packed in glass sample tubes will be used to collect samples for analysis of siloxanes. These samples are collected using two XAD-2 sorbent tubes attached in series utilizing a calibrated rotameter downstream of the sorbent tubes to determine the flow rate for calculating the volume of gas sampled. The recommended flow rate is 0.5 to 1.0 L/min to obtain a minimum of 60 liters of gas.

1) Attach the loose piece of PTFE tubing to the sample port. If the line to be sampled is pressurized, some type of regulating valve may need to be installed before the tubing.
2) Break the ends of 2 new XAD-2 sorbent tubes and connect them in series to the silicone tubing stubs at the end of each PTFE tube. Use the loose silicone tubing stub to connect the two sorbent tubes to each other.
   a) Try to butt the sorbent tubes up against the ends of the PTFE tubing and against each other to minimize exposure of the gas sample to the silicone tubing.
   b) Make sure the arrows on the sorbent tubes point in the same direction as the gas flow (toward the rotameter)
   c) Label the upstream sorbent tube as Tube A and the downstream tube as Tube B. Tape can be wrapped around the tube to use as a label.



3) Open the valve on the sampling port to begin flow.
4) Read the flow rate on the rotameter and adjust the flow as necessary to obtain a flow rate of 0.5 to 1.0 L/min. See the graph on the rotameter calibration for flow rates.
5) Record the rotameter initial flow rate, sample ID, start time & date on the COC
    a) It is recommended to check the rotameter every 10 -15 minutes for flow rate drift and adjust as necessary to maintain a constant flow rate
6) After a minimum of 60 liters of gas has been sampled, shut the valve on the sampling port to stop flow.
    a) Record the stop time on the COC
    b) Record the atmospheric temperature on the COC
    c) Cap the sorbent tube ends with the provided red plastic caps
    d) Ensure the Sample ID is listed on the labels for both the A and B tubes
7) Take a Blank sample
    a) Break the ends of a single sorbent tube, cap ends, and label as “Blank”
8) Return theXAD-2 sorbent tubes within three days of sampling to GTI for analysis.