

Sampling Instructions for Diffusive Sampling

Please read carefully before sampling



CASSEN

CASSEN Testing Laboratories

Telephone: 416 679 9663

Toll Free: 1 866 423 3001

www.cassen.ca

Sampling Instructions

1) Immediately Before Sampling

Wash hands thoroughly without using fragrant soap or hand cream prior to handling the sorbent tubes; ensure no fragrant personal products are used.

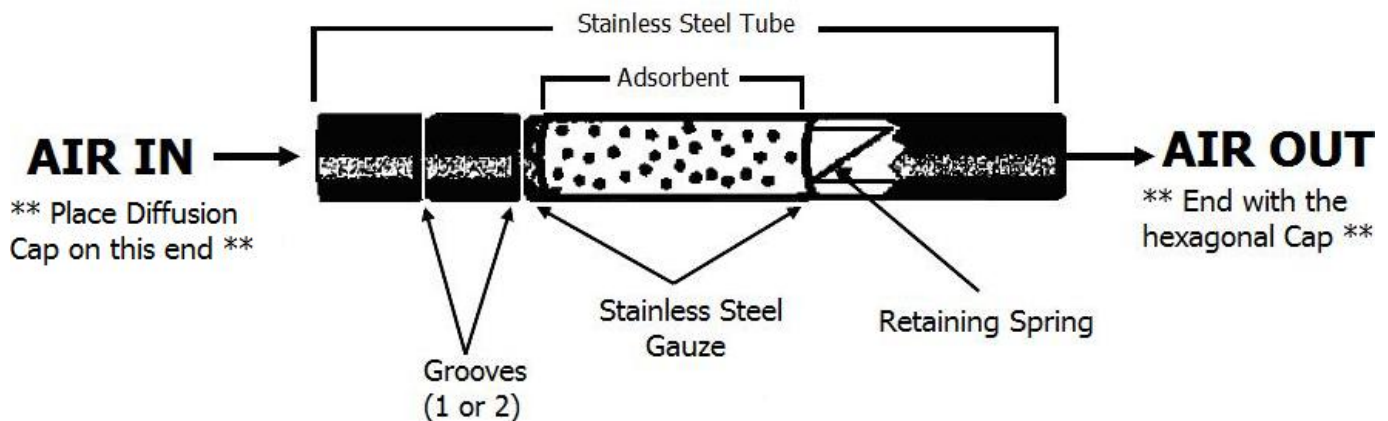
Take the individual sorbent tube out of the aluminum container. Do not remove the caps at this time.

2) Sorbent Tube Identification

All sorbent tubes have unique identification numbers (the number etched on the side of the stainless steel tube). Match this number with the one labelled on the container. Write down this number on the "Air Sampling Data Sheet" for the location to be sampled

3) Direction of Air Flow

On the tube, look for the end with one or two grooves (depending on manufacturer) – this is the sampling end where the air will enter. A typical sampling configuration is shown below:

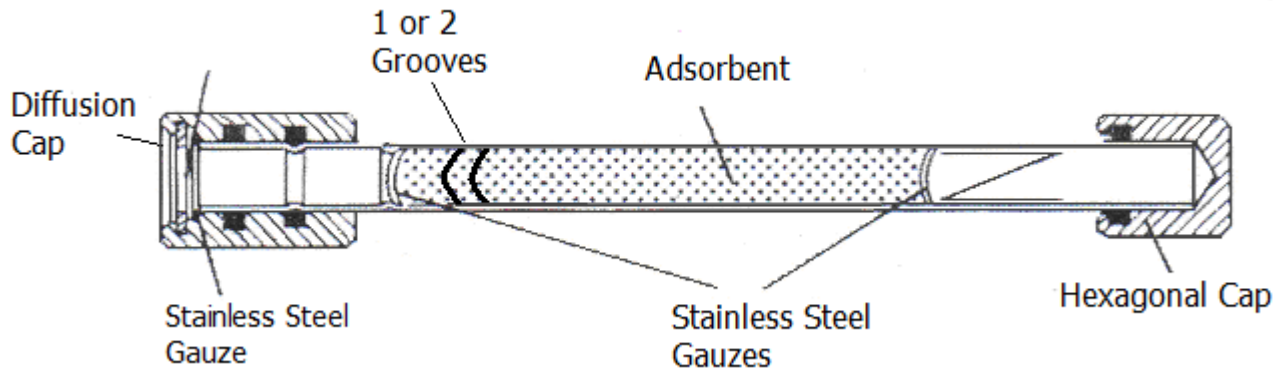


4) Humidity

Please record the relative humidity during sampling (if possible) otherwise describe the condition (i.e. dry, rain, indoor/outdoor etc.)

DO NOT expose the sampling tube to rain or snow.

5) Tube Deployment



*****Push the Diffusion Cap all the way down onto the tube*****

- a) Record the start time, end time and other environment conditions data on the attached "Air Sampling Data Sheet".
- b) On the end of the tube where the 1 or 2 groove/s is located, remove the hexagonal cap from the tube and promptly connect to the diffusion cap.
- c) Place the diffusion cap on the top of the tube where the grooves are located by **pushing it all the way down onto the tube**. This is very important to ensure the samples are collected properly.
- d) For **personal sampling**, use the clip provided to attach the tube to the individual. The tube can be placed facing up in a shirt pocket, or on a person's collar. For **area sampling**, use the clip to attach a wire and object at least 5 feet above the ground, with the diffusion cap facing down. The tube should be placed to minimizing the possibility of tampering and contamination. **Leave the tube for a period of 8 hours sampling.**

6) Field Blank

Uncap the tube designated as "field blank" and immediately reseal it at the sampling site. The field blank should be transported to and from the monitoring site as the sampling tubes.

7) After Sampling

Immediate after sampling:

- a) Record the total sampling time for the tube.
- b) Disconnect the diffusion cap from the tube
- c) Recap the tubes with the original caps.
- d) Wrap with aluminum foil provided and immediately place in the corresponding tube ID container.
- e) Repeat steps a to d for each tube.
- f) Fill in the chain-of-custody form provided with the samples. Use the comment area to record additional important information about the samples. Include an additional comment sheet if necessary, to detail problems or deviations from the sampling plan.
- g) Place diffusion caps in plastic bag and return with the samples

8) Sample Storage

Refrigerate at $< 4^{\circ}\text{C}$ in a clean environment during storage. The tubes should not be removed from the aluminum containers until they are in the laboratory and ready for analysis.

Appendix A

RECOMMENDED SAMPLING TIME

- 1) Occupational Setting: 8hours (ppm detection only)
- 2) Indoor Air: 7 days (ppb detection)
- 3) Odour problems: 14 days (mercaptans etc.)
- 4) Ambient Air (outdoor): 14 days

Appendix B

REPLACEMENT COST

The sampling tubes and accessories have been designed and engineered to allow for high precision sampling, analysis and storage. Please handle these items with care to ensure analytical accuracy.

The replacement costs for damaged or lost items are:

Stainless Steel Sorbent Tube:	\$150 each
Hexagonal Cap:	\$ 15 each
Diffusion Cap:	\$ 40 each
CapLok™ Tool:	\$ 70 each set
Wrenches:	\$ 20 – 35 per pair

Visit our YouTube channel for tutorials!

<http://www.youtube.com/cassenlabs>

Please call CASSEN Labs at (416) 679-9663 if you need any assistance in setting up the sampling equipment.

Field Notes