OPERATING INSTRUCTIONS

PoraPak® Sorbent Tubes

For measuring the air concentration of chemicals including Dimethyl Sulfate and Furfuryl Alcohol.

DESCRIPTION

These tubes are used to measure the average concentration of potentially harmful vapors in the air over a defined sample period. To use, the tube is connected to a small vacuum pump that draws air through the tube at a precise flow rate over a period of time. After the sample is taken, the tube is transported to a laboratory where they can remove the adsorbent material and perform analysis by solvent extraction and gas chromatography (GC) to determine the quantity of chemical collected, from which a time-weighted average (TWA) concentration can be calculated.

SPECIFICATIONS

Sorbent Material	PoraPak™-N PoraPak™-P PoraPak™-Q PoraPak™-R
Flow Resistance	<10 kPa at flows up to 500cc/min
Operating Temperature Range	10 to 40°C between 20-80% RH
Blank Tube Background	≤ NISOH LOD for the target vapor
Standards Compliance	ISO 22065

Item No	Tube OD	Tube Length	Primary Sorbent Wt	Backup Sorbent Wt
811-9981-50	6mm	70mm	88mg	44mg
811-9982-50	6mm	110mm	100mg	50mg
811-9983-50	6mm	110mm	150mg	75mh
811-9984-50	6mm	70mm	70mg	35mg

™ PorPark is a registered trademark of Waters

SENSIDYNE®
Industrial Health & Safety Instrumentation

Sensidyne, LP | 1000 112th Circle North, Suite 100 | St. Petersburg, Florida 33716
www.Sensidyne.com | info@Sensidyne.com | 800-451-9444 / +1 727-530-3602

Document No: 360-0248-01 Rev A

SAMPLING PROCEDURES

1. Determine which sampling method you will be using and look up the required tube, flow rate and sampling time. Sampling methods for vapors are available from numerous government agencies including NIOSH and OSHA in the USA along with non-government organizations such as ASTM.

2. Set the sampling pump to the flow rate specified in the sampling method using a representative tube in-line to simulate the appropriate amount of backpressure. Verify the flow rate with a calibration device traceable to a national standard.

3. Immediately before sampling, use a tube tip breaker tool to break open both ends of the tube as uniformly as possible. Ideally the opening on each end will be approx. 2mm diameter.

4. Connect the tube to a tube holder attached to the sampling pump, ensuring that the air flows is in the direction of the arrow mark on the tube.

5. Operate the sample pump at the flow rate specified and for the duration of time specified in the sampling method.

6. After sampling seal both ends of the tube using plastic clips provided immediately. To avoid contamination of the sample, do not remove the caps until just before analysis in the laboratory.

7. Send the tubes to laboratory for analysis.

CAUTION: High temperatures, high humidity and excessive flowrates can cause reduced adsorption capacity.

STORAGE AND TRANSPORTATION

No storage or transportation requirements apply to unsampled tubes. Leave tubes sealed until just before use. After sampling seal tubes with plastic clips immediately and consult the sampling method for any storage or transportation instructions.

DISPOSAL

Spent sorbents should be disposed of as laboratory chemical waste. Unused sorbents and packing materials may be placed in normal waste receptacles. Empty or broken glass tubes may be placed into a container for protection against sharp edges. Glass may be recycled according to local glass recycling programs.

ACCESSORIES

Item No	Tube OD
7015377P	Tube Tip Breaker, 5 Pack
800149	Tube Holder Kit – Single 6x70mm
800259	Tube Holder Kit – Single 7-10x110mm
800252	Tube Holder Starter Kit – Single Variable Included Tube Holders 6x70mm, 7-10x110mm, 7-10x150mm, 7-10x175mm
800251	Manifold Kit – Dual Variable Included Tube Holders 2ea: 6x70mm, 7-10x110mm, 7-10x150mm, 7-10x175mm
800249	Manifold Kit – Quad Variable Included Tube Holders 4ea: 6x70mm, 7-10x110mm, 7-10x150mm, 7-10x175mm
800232	Deluxe Tube Holder Kit Included Tube Holders 4 of 6x70mm, 3ea: 7-10x110mm, 7-10x150mm, 7-10x175mm, 2ea: 5x150mm, 7x130mm (also includes single, double and triple manifolds)

OPERATING INSTRUCTIONS

PoraPak® Sorbent Tubes

For measuring the air concentration of chemicals including Dimethyl Sulfate and Furfuryl Alcohol.

DESCRIPTION

These tubes are used to measure the average concentration of potentially harmful vapors in the air over a defined sample period. To use, the tube is connected to a small vacuum pump that draws air through the tube at a precise flow rate over a period of time. After the sample is taken, the tube is transported to a laboratory where they can remove the adsorbent material and perform analysis by solvent extraction and gas chromatography (GC) to determine the quantity of chemical collected, from which a time-weighted average (TWA) concentration can be calculated.

SPECIFICATIONS

Sorbent Material	PoraPak™-N PoraPak™-P PoraPak™-Q PoraPak™-R
Flow Resistance	<10 kPa at flows up to 500cc/min
Operating Temperature Range	10 to 40°C between 20-80% RH
Blank Tube Background	≤ NISOH LOD for the target vapor
Standards Compliance	ISO 22065

Item No	Tube OD	Tube Length	Primary Sorbent Wt	Backup Sorbent Wt
811-9981-50	6mm	70mm	88mg	44mg
811-9982-50	6mm	110mm	100mg	50mg
811-9983-50	6mm	110mm	150mg	75mh
811-9984-50	6mm	70mm	70mg	35mg

™ PorPark is a registered trademark of Waters

SENSIDYNE®
Industrial Health & Safety Instrumentation

Sensidyne, LP | 1000 112th Circle North, Suite 100 | St. Petersburg, Florida 33716
www.Sensidyne.com | info@Sensidyne.com | 800-451-9444 / +1 727-530-3602

Document No: 360-0248-01 Rev A

SAMPLING PROCEDURES

1. Determine which sampling method you will be using and look up the required tube, flow rate and sampling time. Sampling methods for vapors are available from numerous government agencies including NIOSH and OSHA in the USA along with non-government organizations such as ASTM.

2. Set the sampling pump to the flow rate specified in the sampling method using a representative tube in-line to simulate the appropriate amount of backpressure. Verify the flow rate with a calibration device traceable to a national standard.

3. Immediately before sampling, use a tube tip breaker tool to break open both ends of the tube as uniformly as possible. Ideally the opening on each end will be approx. 2mm diameter.

4. Connect the tube to a tube holder attached to the sampling pump, ensuring that the air flows is in the direction of the arrow mark on the tube.

5. Operate the sample pump at the flow rate specified and for the duration of time specified in the sampling method.

6. After sampling seal both ends of the tube using plastic clips provided immediately. To avoid contamination of the sample, do not remove the caps until just before analysis in the laboratory.

7. Send the tubes to laboratory for analysis.

CAUTION: High temperatures, high humidity and excessive flowrates can cause reduced adsorption capacity.

STORAGE AND TRANSPORTATION

No storage or transportation requirements apply to unsampled tubes. Leave tubes sealed until just before use. After sampling seal tubes with plastic clips immediately and consult the sampling method for any storage or transportation instructions.

DISPOSAL

Spent sorbents should be disposed of as laboratory chemical waste. Unused sorbents and packing materials may be placed in normal waste receptacles. Empty or broken glass tubes may be placed into a container for protection against sharp edges. Glass may be recycled according to local glass recycling programs.

ACCESSORIES

Item No	Tube OD
7015377P	Tube Tip Breaker, 5 Pack
800149	Tube Holder Kit – Single 6x70mm
800259	Tube Holder Kit – Single 7-10x110mm
800252	Tube Holder Starter Kit – Single Variable Included Tube Holders 6x70mm, 7-10x110mm, 7-10x150mm, 7-10x175mm
800251	Manifold Kit – Dual Variable Included Tube Holders 2ea: 6x70mm, 7-10x110mm, 7-10x150mm, 7-10x175mm
800249	Manifold Kit – Quad Variable Included Tube Holders 4ea: 6x70mm, 7-10x110mm, 7-10x150mm, 7-10x175mm
800232	Deluxe Tube Holder Kit Included Tube Holders 4 of 6x70mm, 3ea: 7-10x110mm, 7-10x150mm, 7-10x175mm, 2ea: 5x150mm, 7x130mm (also includes single, double and triple manifolds)