SAMPLING SOLUTIONS

For Fugitive Emissions / Fence-line Testing

Recognition

Fugitive emissions are emissions of gases and vapors due to leaks from components in pressurized equipment including pipe connections, valves, and mechanical seals. Fugitive emissions also occur at waste management facilities, storage tanks, and agricultural sites. Fugitive emissions contribute to air pollution and climate change and can affect public health, particularly that of residents in nearby communities. In 2015, U.S. EPA published Method 325 to address fugitive emission of benzene from petroleum refineries. It includes two sub-parts: EPA 325A, Sampler Deployment and VOC Sample Collection, describes procedures for deploying the sorbent tubes and passively collecting VOCs and EPA 325B, Volatile Organic Compounds from Fugitive and Area Sources, which describes thermal desorption/gas chromatography (TD/CD) analysis of volatile organic compounds (VOCs) from fugitive emission sources collected onto sorbent tubes using passive sampling.

SKC offers both active and passive sampling solutions for EPA 325 (Parts A and B) for fence-line monitoring which targets compounds throughout an environmental perimeter.

See the SKC equipment recommended for fugitive emissions/fence line testing.

Evaluation with SKC Sampling Solutions

For over 60 years, SKC has led the research, design, and manufacture of quality sampling equipment and media to aid health and safety professionals in the evaluation of occupational and environmental hazards.

Choose from SKC method-based sampling solutions for fugitive emissions/fence-line testing, including sample pumps, sample tubes, sample bags, passive samplers, and innovative portable instruments.

See following tables for specific method and sampling equipment/media information.

Notice: This publication is intended for general information only and should not be used as a substitute for reviewing applicable government regulations, equipment operating instructions, or legal standards. The information contained in this document should not be construed as legal advice or opinion nor as a final authority on legal or regulatory procedures.

SKC Ltd www.skcltd.com
+44 1258 480188 enquiries@skcltd.com

Sample Collection

Active Air Sampling Solutions

SKC manufactures and stocks Tedlar, FlexFoil®, and custom sample bags with a choice of stainless steel, polypropylene, or PTFE fittings. *See the SKC Sample Bag Stability Report to choose the bag best suited to your target compound.*

Note: When using a sorbent tube with an AirChek® Touch Series pump, a low flow tube holder is required.

Target Compound	Select Methods*	SKC Sample Collection Media and Cat. No.	SKC Sample Pump and Cat. No.	Notes
Carbon dioxide†	NIOSH 6603 OSHA ID 172	Tedlar® sample bag 231-05 or 232-05	Pocket Pump TOUCH 220-1000TC or Grab Air 222-2301	*Requires PTFE tubing*
Methane	---	Tedlar or FlexFoil sample bag	Grab Air 222-2301 or Pocket Pump TOUCH 220-1000TC	*Requires PTFE tubing*
Nitrogen dioxide/Nitric oxide	NON 59	Sorbent tube 226-40A	Pocket Pump TOUCH 220-1000TC	
Sulfur dioxide	OSHA 1011 NIOSH 6004	Sorbent tube 226-177 Coated filter cassette 225-9005	Pocket Pump TOUCH 220-1000TC AirChek TOUCH, Essential, Essential+, Connect	
	---	Tedlar sample bag 231-10	Grab Air 222-2301	*Requires PTFE tubing*
Sulfur hexafluoride†	NIOSH 6602	Tedlar sample bag 231-03 or 232-03	Pocket Pump TOUCH 220-1000TC or Grab Air 222-2301	*Requires PTFE tubing*
VOCs	EPA TO-17	Sorbent tube 226-300 Series	Pocket Pump TOUCH 220-1000TC	
Hydrocarbons and Aromatic Hydrocarbons	NIOSH 1500 NIOSH 1501	Sorbent tube 226-01	Pocket Pump TOUCH 220-1000TC	

† For these target compounds, SKC also recommends using Tedlar 232 Series, FlexFoil 262 Series, or FlexFoil PLUS 252 Series sample bags with the Vac-U-Chamber 231 Series and AirChek XR5000 or AirChek TOUCH, Essential, Essential+, Connect sample pump.

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Passive Air Sampling Solutions

Target Compound	Select Methods*	SKC Sample Collection Media and Cat. No.	Notes
Benzene	EPA 325A and EPA 325B	Passive TD Tube 226-520 (includes diffusion cap); Sampling Shelter 226-526 available	
Nitrogen dioxide and/or sulfur dioxide	Research Reports 1781 and 1789	UME^X 200 Passive Sampler for NO_2/SO_2	
VOCs	EPA TO-17/ Research Report 1812	ULTRA® 690 Series, choice of four sorbents	

Monitoring Solutions

Target Compound	Instrument and SKC Cat. No.	Notes
VOCs	HAZ-SCANNER EPAS	Custom configured

* Other methods may apply. SKC recommends those listed.

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