

# **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 50 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 reverse side for specific method and sampling equipment/media information.

#### **Sample Collection**

#### **Active Air Sampling Solutions**

SKC manufactures and stocks Tedlar, FlexFoil<sup>®</sup>, 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.

Target Compound	Select Methods*	SKC Sample Collection Media and Cat. No.	SKC Sample Pump and Cat. No.	Notes
Carbon dioxide <sup>†</sup>	NIOSH 6603 OSHA ID 172	Tedlar <sup>®</sup> sample bag <u>231-05</u> or <u>232-05</u>	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 <u>226-40A</u>	Pocket Pump TOUCH 220-1000TC	
Sulfur dioxide	OSHA 1011 NIOSH 6004	Sorbent tube <u>226-177</u> Coated filter cassette <u>225-9005</u>	Pocket Pump TOUCH 220-1000TC  AirChek® TOUCH 220-5000TC	
		Tedlar sample bag 231-10	<u>Grab Air</u> 222-2301	Requires PTFE tubing
Sulfur hexafluoride <sup>†</sup>	NIOSH 6602	Tedlar sample bag <u>231-03</u> or <u>232-03</u>	Pocket Pump TOUCH 220-1000TC or Grab Air 222-2301	Requires PTFE tubing
VOCs	EPA TO-17	Sorbent tube <u>226-300</u> <u>Series</u>	Pocket Pump TOUCH 220-1000TC	
Hydrocarbons and Aromatic Hydrocarbons	NIOSH 1500 NIOSH 1501	Sorbent tube 226-01	Pocket Pump TOUCH 220-1000TC	

<sup>&</sup>lt;sup>†</sup> 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 sample pump.

#### **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 <u>226-520</u> (includes diffusion cap); Sampling Shelter 226-526 available	
Nitrogen dioxide and/or sulfur dioxide	Research Reports <u>1781</u> and <u>1789</u>	UME <sup>X</sup> 200 Passive Sampler for NO <sub>2</sub> /SO <sub>2</sub>	
VOCs	EPA TO-17/ Research Report 1812	ULTRA <sup>®</sup> 690 Series, choice of four sorbents	

#### **Monitoring Solutions**

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

<sup>\*</sup> Other methods may apply. SKC recommends those listed.