

Sampling Solutions for Petroleum Refineries

Introduction

Through the many chemical processes involved in converting raw material and crude oil into various products, workers may be exposed to compounds that present health and safety hazards. SKC offers solutions for active and passive sampling in workplace air.



SKC active samplers require an air sample pump to collect hazardous gases, vapours, and particulates in air; passive samplers collect hazardous vapours by diffusion without the use of an air sample pump.

SKC offers equipment for sampling the following compounds:

- Hydrogen sulphide
- Sulphuric and hydrofluoric acids
- Benzene, ethyl benzene, toluene, xylene, and other VOCs
- Polynuclear aromatic hydrocarbons (PAHs)
- Sulphur dioxide

For passive benzene fenceline monitoring, see [Publication 1849](#).

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.

SKC sampling solutions for petroleum refineries include air sample pumps, active and passive samplers, filter cassettes, and sorbent tubes following agency methods and established protocols.

Air Sample Pumps



Samplers



Sampling Media



Sample Collection

Active Air Sampling Solutions

Target Compound	Select Methods*	SKC Sample Collection Media and Part No.	SKC Sample Pump and Part No.	Notes
Acids (hydrofluoric and sulphuric)	NIOSH 7902 OSHA ID 110	Preloaded coated filter cassette 225-9001	AirChek TOUCH 220-5000TC	For hydrofluoric acid
	NIOSH 7908	Preloaded coated filter cassette 225-9033	AirChek TOUCH 220-5000TC	For sulphuric acid. Use with thoracic Parallel Particle Impactor (PPI) 225-381 for comparison to thoracic TLV
	OSHA ID 113	Preloaded filter cassette 225-3-01 or Preloaded thoracic PPI sampler 225-3861	AirChek TOUCH 220-5000TC	For sulphuric acid For comparison to thoracic TLV
	OSHA ID 165SG	Sorbent tube 226-10-03	Pocket Pump TOUCH 220-1000TC or AirChek TOUCH 220-5000TC	For sulphuric acid
Benzene, ethyl benzene, toluene, xylene and other VOCs	NIOSH 1501 OSHA 7 OSHA 12 OSHA 1002 OSHA 1005	Sorbent tube 226-01	Pocket Pump TOUCH 220-1000TC or AirChek TOUCH 220-5000TC	
Hydrogen sulphide	OSHA 1008	Sorbent tube 226-177	Pocket Pump TOUCH 220-1000TC or AirChek TOUCH 220-5000TC	
PAHs	NIOSH 5506 NIOSH 5515	Preloaded filter cassette 225-1713 with sorbent tube 226-30-04	AirChek TOUCH 220-5000TC	
Sulphur dioxide	OSHA 1011	Sorbent tube 226-177	Pocket Pump TOUCH 220-1000TC or AirChek TOUCH 220-5000TC	

* Other methods may apply. SKC recommends those listed.

Passive Air Sampling Solutions

Target Compound	Select Methods* / SKC Validation	SKC Sample Collection Media and Part No.	Notes
Benzene, ethyl benzene, toluene, xylene, and other VOCs	OSHA 1002 OSHA 1005 Research Reports 1312 and 1812	VOC Chek 575-001 or 575-002	

* Other methods may apply. SKC recommends those listed.