SAMPLING SOLUTIONS

For Respirable Crystalline Silica

Recognition

Exposure to respirable crystalline silica occurs in common workplace operations such as cutting, sawing, drilling, and crushing of concrete, brick, block, rock, and stone and in operations that use sand products such as sand blasting and glass cutting.[1] Silica exposure has been linked to lung disease silicosis and to increased risks for lung cancer, tuberculosis, airway diseases, and other ill health effects. In recent years, there has been a particular focus on exposure in hydraulic fracturing (fracking) operations in the oil and gas industries. *See Sampling Solutions for Hydraulic Fracturing (Fracking) Exposure at Oil and Gas Sites, SKC Publication 1870.*

The new U.S. OSHA Final Rule on Respirable Crystalline Silica sets a lower PEL of 50 µg/m^3 for all industries covered by the rule, adopts the more conservative ISO/CEN criteria of a 4-µm cut-point for respirable dust samplers, and allows any sampler conforming to ISO 7708/CEN criteria to be used. SKC offers active sampling solutions for silica, including respirable dust samplers that meet the performance criteria in (and are listed in) the OSHA final rule. SKC active samplers require an air sample pump to collect hazardous particulates in air.

See the SKC equipment recommended for sampling respirable crystalline silica.

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 the SKC sampling solutions for respirable crystalline silica, including air sample pumps, size-selective respirable dust samplers, and filter cassettes following agency methods and established protocols.

See reverse side for specific method and sampling equipment/media information.

[1] OSHA Safety and Health Topics: Silica, Crystalline, https://www.osha.gov/silica-crystalline

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

Sample Collection

Active Air Sampling Solutions

Target Compound	Select Methods*	SKC Sample Collection Media and Cat. No.	SKC Sample Pump and Cat. No.	Notes
Respirable crystalline silica	NIOSH 7500 NIOSH 7602 OSHA ID 142	Preloaded PVC filter cassette 225-803 and cyclone 225-01-02 or 225-100 OR Parallel Particle Impactor 225-385 with PVC filter 225-5-37 and support pad 225-27	AirChek® TOUCH 220-5000TC	Cyclone 225-01-02 requires flow rate of 2.5 L/min. Cyclone 225-100 requires flow rate of 2.75 L/min. Parallel Particle Impactor 225-385 is operated at 2 L/min. Models are available for 4 and 8 L/min. The 8 L/min flow rate is for shorter-term sampling and provides for lower limits of detection.

* Other methods may apply. SKC recommends those listed.

Publication 1881 Rev 2022.11

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