

MSHA (Mine Safety and Health Administration) Silica Final Rule Requirements

The MSHA Silica Final Rule is a critical regulation aimed at reducing miners' exposure to respirable crystalline silica, a hazardous substance linked to serious health conditions such as silicosis, lung cancer, and other respiratory diseases.



Key Aspects of MSHA Rule:

Engineering Control Measures

MSHA requires engineering controls for the air conditioner system. This level of control exceeds PPE and respirators, providing full protection to the operator in the breathing zone.

Monitoring Requirements

Regular air sampling using approved methods is required to measure particulate levels in mining environments. Prompt sharing of results with miners ensures awareness of workplace conditions, enabling proactive measures to maintain safe environments and protect miners' health.

Training and Education

Training programs must be implemented to **recognise silica hazards**, use controls effectively, and understand the importance of PPE, dual HEPA and **safe work practices**.

Permissible Exposure Limit

The rule establishes a **Permissible Exposure Limit (PEL) of 50 µg/m³** for respirable silica, averaged over 8 hours. Site operators and mines must implement additional protective measures if exposures reach or exceed the **action level of 25 µg/m³**, calculated as an **8-hour Time Weighted Average (TWA)**, to safeguard workers' health.

MSHA Requirement	BreatheSafe
Engineering Control Measures	Our Dual HEPA Filtration System removes hazardous particulates, eliminating the need for PPE. The OnGuard system continuously monitors and displays real-time data on pressure, CO ₂ , temperature, humidity, and both particulate mass and count.
Monitoring Requirements	The OnGuard measures, records, and stores real-time data for Particulate Matter (PM) concentration and PM particle counts.
Training and Education	Our resource library covers a range of training and education pieces on the importance of protection from hazardous dusts.
Permissible Exposure Limit	The OnGuard displays Time Weighted Average (TWA), adjustable for shifts ranging from 8 to 12 hours.