



SAFETY INCENTIVE PROGRAM
950 Keynote Circle, Suite 10
Cleveland, Ohio 44131-1802
Telephone (216) 398-9860

September 2007

SIP TIP: **SILICA and SILICOSIS**

Silica is a mineral compound made up of one silicon atom and two oxygen atoms.

There are other compounds that contain silicon whose names are quite similar, such as silicate and silicone.

Do not mistake these for silica. They are not the same thing.

There are quartz, cristobalite, tridymite, and other rare forms of crystalline silica. Quartz is so common that the term *quartz* is often used to refer to crystalline silica. And *sand* is often used to refer to quartz.

Persons working with silica can develop a disease called silicosis. This disease is 100% preventable if appropriate steps are taken. Individuals are at risk in the workplace if: 1) the silica can become airborne, 2) the airborne particles are a certain size, 3) the worker breathes in the silica.

The Basics on Silicosis

Silicosis is a disease where scar tissue forms in the lungs and reduces the ability to extract oxygen from the air.

Symptoms include:

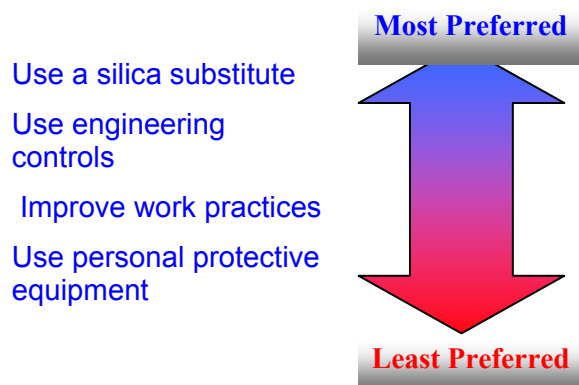
- shortness of breath while exercising
- fever
- occasional bluish skin at ear lobes or lips
- fatigue
- loss of appetite

Silicosis renders the victim more susceptible to infection and diseases such as tuberculosis and lung cancer.

Smoking increases the damage. Silicosis and smoking are deadly together.

Taking Action to Protect Against Silica

You must implement the best possible permanent solution to reducing or eliminating the hazard. If such a solution cannot be enacted immediately, then you are required to implement a temporary control to protect your workers until the permanent solution is put in place. The following solutions are listed in order of preference. (Depending on the work site a higher choice may actually be less effective.):



Note that all of these options may serve as a permanent solution if necessary. Yet the ones toward the bottom serve well as temporary controls and the ones toward the top serve best as permanent controls

REMINDER: Silicosis is a disease that is 100% preventable if appropriate steps are taken