

Silica

What Is Silica?

Crystalline silica is a common mineral found in the earth's crust. Materials like sand, stone, concrete, and mortar contain crystalline silica. It is also used to make products such as glass, pottery, ceramics, bricks, and artificial stone. Respirable silica particles are very small (about the size of a red blood cell). Unlike the particles you can see, these particles get deep inside your lungs and come from activities such as:

- abrasive blasting with sand
- sawing brick or concrete
- sanding or drilling into concrete walls
- grinding mortar
- cutting or crushing stone



Workers who inhale these very small respirable crystalline silica particles are at increased risk of developing serious silica-related diseases, including:

- Silicosis, an incurable lung disease that can lead to disability and death;
- Lung cancer;
- Chronic obstructive pulmonary disease (COPD); and
- Kidney disease.

Below are Do's and Don'ts when it comes to dealing with silica containing material on a job site.

Do's

- Establish a competent person for your job site.
- Check the Safety Data Sheet for the material you are working with to determine if it contains silica.
- Always cut into silica containing material either wet or with ventilation (HEPA vacuum)
- Wear a respirator in accordance with OSHA's table 1 depending on what task you are completing (ie. circular saw vs hand grinder)
- Restrict unprotected workers from being near tasks involving silica.
- Wet down area, use a dust reducing compound, and/or manually lift silica containing material when cleaning your area.

Don'ts

- Work around any equipment that is producing visible dust.
- Never cut into silica containing material dry. If you see dust, respirable silica is airborne.
- Wear a respirator that you haven't been properly fit tested for.
- Dry sweep silica containing material. This causes respirable silica to become airborne.



