

JOB AID

Crystalline Silica Awareness

Crystalline Silica Awareness

What Is Crystalline Silica?

Silica is an abundant mineral that makes up the Earth's crust. Crystalline silica is a basic component of soil, sand, granite, quartz and many other minerals.

Where Is Crystalline Silica?

When crystalline silica is crushed into small enough particles, it can become airborne. You can breathe it in or it can get in your eyes or on your skin. Crystalline silica that you can breathe is known as **respirable crystalline silica**.

Cutting, sawing, drilling or crushing concrete, brick, rock, mortar, industrial sand or other stone products can produce respirable crystalline silica. Activities such as cutting a granite countertop, core drilling through a concrete floor, and even sweeping a street can stir up crystalline silica into the air.

What Are the Health Effects of Crystalline Silica Exposure?

Getting crystalline silica in your eyes can cause irritation.

Inhaling respirable crystalline silica can cause:

- Kidney disease
- Chronic obstructive pulmonary disease (COPD)
- Lung cancer
- Silicosis

What Is Silicosis?

Silicosis is a respiratory disease caused by inhaling silica dust. There is no treatment or cure for silicosis and it CAN kill you!

Symptoms include:

- Shortness of breath
- Fever
- Fatigue
- Loss of appetite
- Chest pain
- Dry, nonproductive coughing
- Respiratory failure (may cause death)

If you believe you've been exposed to crystalline silica and notice any of these symptoms, see your doctor.

People with silicosis are also at high risk for developing the active form of tuberculosis (TB).

How Can I Protect Myself from Crystalline Silica Exposure?

Engineering controls:

- Choose a material that doesn't contain crystalline silica
- Install and use ventilation
- Use containment methods
- Use wet sawing/drilling

Administrative and Work Practice controls:

- Exclude non-essential personnel from potential exposure areas
- Schedule cutting tasks when fewer people will be present
- When possible, position yourself so dust blows away from you
- Avoid the use of compressed air when cleaning
- Sweep after wetting the area to suppress dust
- Use a vacuum system with high-efficiency filters Take a shower and wear clean clothes before leaving work

Personal protective equipment (PPE):

- Respirators
- Safety glasses

What Do I Do If I've Been Exposed to Crystalline Silica?

If you get crystalline silica **in your eyes**, flush them immediately with lukewarm water while holding your eyelids open. If irritation persists, seek medical attention.

If you **breathe in large amounts** of respirable crystalline silica, move to fresh air at once. Keep warm and at rest. Get medical attention as soon as possible.

If someone inhales crystalline silica and **stops breathing**, perform CPR and follow your site's emergency procedures.