

Silica Dust

Overview

This document covers sources of silica dust, associated health risks and how to control exposure.

What is Silica?

- 1) Crystalline silica is a basic component of soil, clay, sand, shale, slate, granite and many other minerals, including components used to make concrete and mortar.
- 2) Quartz is the most common form.
- 3) Many materials in the construction industry contain crystalline silica, including bricks and concrete blocks.
- 4) When workers chip, cut, drill, grind, grit blast, scabble or tunnel through objects that contain crystalline silica the particles can become small enough to breathe in.
- 5) The use of power tools can lead to high exposure if exhaust systems or wet cutting processes are not used or maintained.

Health hazards and symptoms

- 1) Crystalline silica has been classified as a human lung carcinogen.
- 2) Breathing crystalline silica dust can also cause silicosis, which, in severe cases, can be disabling or even fatal.
- 3) When silica dust enters the lungs it causes scar tissue, reducing the ability of the lungs to take in the oxygen.
- 4) There is no cure for silicosis. Since silicosis affects lung function, it makes a person more susceptible to lung infections like tuberculosis.
- 5) In addition, smoking causes lung damage and adds to the damage caused by breathing in silica dust.

Preventative and protective measures

- 1) Replace crystalline silica materials with safer substitutes whenever possible.
- 2) Use engineering or administrative controls (such as local exhaust ventilation and wet cutting).
- 3) Use respiratory protective equipment (RPE) to reduce exposures to a safe level, where necessary.
- 4) Wear disposable or washable work clothes and use shower facilities, if they are available.
- 5) Participate in training, exposure monitoring, and health screening and surveillance programmes to monitor any adverse health effects caused by exposure.
- 6) Be aware of the tasks creating crystalline silica dust and consider who may be affected, including the general public.
- 7) Do not eat, drink or smoke in areas where crystalline silica dust is present. Wash your

Health and safety

Summary

TOOL BOX TALK RECORD

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Silica Dust

Feedback arising from Talk



Trinity
Safety