

SILICA DUST EXPOSURE



WHAT IS CRYSTALLINE SILICA?

Crystalline silica is a mineral that comes in several forms, the most common being quartz. Crystalline silica can be present in sediments, sandstones, granite and other rock types or materials.

Fine quartz powder is considered a carcinogen by the Danish Work Environment Authority.



HOW CAN YOU BE EXPOSED TO SILICA DUST?

Exposure to silica dust at Geoscience commonly occurs during processes such as cutting, sawing, drilling, crushing and grinding sediments or rocks which all produce a certain amount of fine airborne silica particles. Exposure is also a risk when handling sand or other products by sieving, pouring of material from one container into another etc.

WHY IS IT HARMFUL?

Fine particles are respirable and are transported to your lung alveoli. The particles become lodged in the lungs and continuously irritates the tissue and reduces lung capacity. Silica dust exposure affects your health on a long term basis: Inhaling silica dust puts you in risk of silicosis, bronchitis, lung cancer, kidney failure and chronic diseases such as lupus and rheumatoid arthritis. Shortness of breath, loss of appetite, chest pain, dry cough and respiratory failure are also side effects.

WHAT CAN YOU DO TO AVOID EXPOSURE TO SILICA DUST?

All processes: Use appropriate ventilation and personal protection equipment (i.e. masks approved to protect against silica dust, a random mask will not do).

Contain the dust: To avoid exposure to others and sample contamination, close doors when working (this will also optimize ventilation during your work process).

Cutting: Always apply water to a saw blade. This reduces the amount of respirable dust created during the process.