

# Crystalline silica

amorphous (non-crystalline)

crystalline

**Quartz.** the most important form and it is found in a very wide range of rock types.

**Cristobalite.** rare in nature but is often formed when silicate materials are subjected to high temperatures for long periods.

**Tridymite.** this and other forms of crystalline silica are of little importance occupationally.

main industrial processes

coal mining

quarrying

stone crushing

slate working

foundry work

brick and tile manufacture

pottery and ceramics

refractories and construction

health effects

The major effects occur in the gas exchange region of the lungs (ie the respirable fraction):

mixed dust pneumocnioses - a name given to radiological evidence of inhalation of dust including a mixture of minerals including quartz

simple silicosis - characterised by diffuse nodular shadows on the chest radiograph which are usually small and first appear in the upper zones of the lungs.

progressive massive fibrosis (PMF) - as the number of nodules increase they may agglomerate to form the early lesions of progressive massive fibrosis.

