PROGRAMMED

SAFETY BULLETIN

74 - Silicosis

SILICOSIS OVERVIEW

Silicosis is a long-term lung disease caused by inhaling large amounts of crystalline silica dust (silica), usually over 10-20 years of exposure but can develop after 5-10 years.

Silica is a substance naturally found in certain types of stone, rock, sand and clay. Working with these materials can create a very fine dust that can be easily inhaled.

Once the dust is inside the lungs, the particles are attacked by the immune system. This causes swelling (inflammation) and gradually leads to areas of hardened and scarred lung tissue (fibrosis). Lung tissue that's scarred in this way doesn't function properly.

People who work in the following industries are particularly at risk:

- stone masonry and stone cutting – especially with sandstone;
- construction and demolition – as a result of exposure to concrete and paving materials;
- pottery, ceramics and glass manufacturing;
- mining and quarrying; and
- sand blasting

SYMPTOMS OF SILICOSIS

Symptoms of Silicosis usually take many years to develop and can include:

- A persistent cough and persistent shortness of breath;
- Fatigue;
- Chest pains; and
- Cyanosis. This is where a bluish or purplish discolouration of the skin, lips and / or fingertips occurs due to tissue of the skin surface having low oxygen levels

TO REDUCE THE RISK OF SILICOSIS

- Ensure work areas are properly ventilated and dust extraction systems in place; and
- Ensure dust suppression systems are in place where required
- Wet cut or fit vacuum to tools

- Isolate work / cutting areas from other employees to minimise exposure

- Monitor work environments and carry out personal monitoring. Review Silica exposure levels to ensure controls and PPE are still adequate
- Carry out health surveillance monitoring of employees where exposure levels are over the threshold

- Ensure dust is regularly cleaned up as work is being carried out - vacuum, don't sweep; and
- Use dust suppression methods while work is being carried out

- Always wear the correct PPE, such as dust masks, that are appropriate for the exposure levels

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If silicosis is suspected, you may be referred to a specialist for further tests to confirm the diagnosis. Tests you may have include:

- **a chest X-ray to detect abnormalities in the structure of your lungs**
- **a computerised tomography (CT) scan of your chest to produce more detailed images of your lungs**
- **lung function testing (spirometry), which involves breathing into a machine called a spirometer**

Report all incidents and near misses