

Silica Dust

– An awfully familiar danger

In July 2024, Australia became the first nation in the world to prohibit the use, manufacture and supply of artificial stone. This ban came into place due to a concerning rise in cases of silicosis.

The ban included everyday products such as quartz worktops and in addition to this some kitchen manufacturers have banned the sale of quartz worktops.

What is Silica and what are the risks?

Silica is a natural substance typically used as a constituent of construction materials such as bricks, tiles, concrete and mortar. Silica dust is produced when cutting, grinding, drilling, polishing and disturbing materials that contain crystalline silica particles.

Silicosis is a progressive and potentially fatal lung disease which is caused by excessive exposure to silica dust, usually over a long period of time.

The above sounds awfully familiar doesn't it, this is why silica is widely regarded as the 'new asbestos' which from the description above it is easy to see why the concerns are warranted.

Rises in silicosis cases have been seen across the world in countries such as the USA, China, Spain and Italy and even in the UK, as statistics produced by the HSE also depict a concerning growth in the amount of reported silicosis cases over the last two years which indicate we also have an emerging problem with silica dust.

What does exposure to silica dust do to the body?

Repeated exposure to silica dust causes inflammation in the lungs which can result in irreversible scarring of the lung tissue and once silicosis has developed it can lead to several complications such as:

- Chest infections
- Chronic Obstructive Pulmonary Disease (COPD)
- Kidney Disease
- Tuberculosis
- Arthritis and other autoimmune diseases
- Increased risk of developing lung cancer

Like Asbestos related diseases, there is no cure for silicosis.



How is silica dust regulated in the UK?

The main regulation relating to exposure to silica dust is the Control of Substances Hazardous to Health Regulations (COSHH) 2002. In the UK, there is a workplace exposure limit of 0.1mg/m³ whereas in contrast Australia and the US consider 'safe' levels to be no more than 0.05mg/m³.

In addition, all employees are owed a duty of care by their employer to ensure so far as is reasonably practicable the safety of their employees and UK workplaces mandate the avoidance however where this is not possible employers should reduce exposure to the lowest level practicable.

At present the HSE are not taking any further actions, such as the reduction of the exposure limits in line with the US or Australia or through banning the sale of artificial stone completely. However, if cases continue to rise rapidly this may soon change.

How to protect yourself

- Limit exposure: Avoid prolonged exposure to silica dust.
- Use PPE: Wear a suitable respirator, goggles, or face shield, and coveralls to keep dust off your clothes. Make sure your mask fits properly and is replaced regularly and is the correct type for the risk.
- Ensure you understand and adhere to the Risk Assessment and Method Statement for your works and correctly follow all control measures.
- Follow workplace safety policies and procedures.
- Follow good housekeeping practices.
- If you are unsure STOP and ASK.

Your employer is also required to limit exposure to you and your colleagues, this can be achieved through the following methods:

- Engineering controls such as local exhaust ventilation, water suppression, utilising vacuums or on tool extraction.
- Training, supervision and the provision of procedures to cover working with Silica.
- Rescheduling work as not to expose others or relocating other workers away from dusty areas.