



SILICA INFORMATION FOR BUSINESSES THAT WORK WITH ENGINEERED STONE

The ACT has specific silica safety rules under our work health and safety laws that prohibit uncontrolled dry cutting of engineered stone and mandate silica dust awareness training.

Working with engineered stone

Engineered stone, also known as composite stone, artificial stone or quartz conglomerate, is an artificial product that is created by combining and heat curing natural stone materials that contain crystalline silica with other chemical constituents.

Engineered stone is often used to manufacture products, such as kitchen benchtops.

The crystalline silica content in engineered stone can vary widely. Often engineered stone will contain much higher amounts of silica than natural stones, sometimes up to 92% crystalline silica.

The person conducting a business or undertaking (PCBU) must identify if crystalline silica is present at the workplace.

- If the crystalline silica content of products is unknown, review the product information sheet or safety data sheets (SDS), or contact your supplier.

The fabrication and fitting of engineered stone products involves using mechanical processes such as cutting, grinding, trimming, drilling, sanding and polishing of the engineered stone.

When materials that contain crystalline silica are cut, drilled, crushed or sanded, dust is released. The dust generates silica particles that are very small, known as respirable crystalline silica or silica dust. Silica dust is very small, and when it is airborne there is a risk of it being inhaled into the lungs.

Silica dust can cause significant health issues, including chronic bronchitis and emphysema, silicosis (irreversible scarring and stiffening of the lungs), lung cancer, kidney disease and auto-immune diseases such as scleroderma.

New requirements for managing the risks of silica dust

The new regulations are in place to prohibit the uncontrolled dry cutting of engineered stone to reduce the risk of silica dust being inhaled.

PCBUs must not direct or allow uncontrolled dry cutting of engineered stone

The ban applies to things containing crystalline silica such as:

- **engineered stone**
- **natural stone**
- **concrete and masonry**
- **cement and mortar, and**
- **bricks.**

This prohibition means that when power tools are used to modify engineered stone, a continuous flow of water must be applied to suppress the silica dust becoming airborne and a combination of other control measures must be used.

PCBUs must first consider if the risks can be eliminated, for example by not using engineered stone or using engineered stone that is precast to size.

If elimination is not possible, a continuous flow of water must be used over the cutting site and other control measures can be used in combination.



The remaining risk should be managed through administrative controls, such as signage and preparing a safe work method statement (SWMS).

PCBUs must supply the relevant personal protective equipment (PPE) that is needed to manage risks. This includes respiratory protective equipment (RPE) which must be properly fit tested and maintained.

Silica dust awareness training

PCBUs must provide the information, training, instruction and supervision that is necessary for workers to carry out their work safely.

All workers who work with engineered stone and those who may be exposed to silica dust during their work must complete the nationally accredited Course in Crystalline Silica Exposure Prevention (10830NAT).

***Crystalline Silica Exposure
Prevention training must be
completed by
1 July 2023***

Air monitoring

Air monitoring is a method of measuring airborne hazardous substances. It is not a control measure - it is used to check if worker's health is at risk; if the workplace exposure standard is being exceeded; and, can be used to check the effectiveness of the control measures.

The mandatory maximum limit for silica dust in the ACT is an eight hour time weighted average (TWA) of 0.05 mg/m³. However, there is still a risk to worker health at this concentration. Therefore, exposure must be reduced as far as is reasonably practicable under this TWA.

Air monitoring should be undertaken at least every 12 months and when there is a change at the workplace, for example when a control measure changes. Air monitoring results must be readily available to workers and records of results kept for 30 years.

Health monitoring

Under the *Work Health and Safety Regulation 2011* PCBUs must provide health monitoring to workers who are continually working with crystalline silica material. This is because there is a significant risk to their health due to the possible exposure to silica dust.

Health monitoring is carried out or supervised by a specialist doctor and may include:

- answering questions regarding previous occupational and medical history
- a physical examination or a spirometry (lung function test)
- clinical tests – urine or blood samples, and
- X-rays or HRCT.

For more information, see the [WorkSafe ACT Silica dust webpage](#).

More information

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