



INFORMATION SHEET

Crystalline silica substances regulations

Amendments to the Work Health and Safety (General) Regulations 2022 (WHS General Regulations) commenced operation 1 September 2024.

Additional requirements are now in place for **processing** 'crystalline silica substances' (CSS), particularly if the work is considered 'high risk'.

What is a crystalline silica substance?

A crystalline silica substance is any material containing at least 1 per cent crystalline silica (by weight).

Examples of these include:

- natural stone products including marble or granite benchtops
- engineered stone and sintered stone
- porcelain and ceramic products
- sandstone
- asphalt, cement products, mortar and grout
- bricks, blocks, pavers and tiles
- mortar concrete and cement-based products, fibre-cement sheeting and autoclaved-aerated concrete
- rocks, sands and clays
- composite dental fillings.

The amount of crystalline silica in a product or substance can be confirmed by referring to the product's safety data sheet, or other information sources such as technical data sheets or analytical reports.

What activities are considered 'processing' of CSS?

Activities that are considered as processing of CSS include:

- using power tools or mechanical plant for crushing, cutting, grinding, trimming, sanding, abrasive polishing or drilling of a CSS
- using roadheaders on CSS material

- quarrying CSS material
- tunnelling CSS material
- mechanical screening CSS material
- any process that exposes, or is reasonably likely to expose, a person to respirable crystalline silica (RCS) during manufacture or handling of a CSS (e.g. cleaning and maintenance processes, such as sweeping or emptying a vacuum cleaner).

What processing is considered 'high risk'?

- Processing of a CSS that is reasonably likely to result in a risk to the health of a person at the workplace.
- If unable to determine if processing is high risk, you must assume it is high risk.

Factors determining whether the processing of a CSS is classified high risk

The person assessing whether the processing of a CSS is high risk must have regard to:

- the specific processing carried out
- the form or forms of crystalline silica present in the CSS
- the proportion of crystalline silica contained in the CSS (weight / weight concentration)
- the hazards associated with the work, including frequency and duration persons will be exposed to RCS
- the airborne concentration of RCS present at the workplace, and whether it is reasonably likely to exceed half the workplace exposure standard (WES) of 0.05 mg/m³
- any air and health monitoring previously carried out at the workplace
- previous incidents, illnesses or diseases associated with exposure to respirable crystalline silica at the workplace.

Assessing risk and control measures

The person assessing the risk of processing CSS at the workplace must consider all factors above, as no one factor can determine the outcome of assessment, and:

- cannot solely rely on control measures implemented
- must not consider the effect of any personal protective equipment, including respiratory protective equipment, and administrative controls used to control the risks associated with RCS.

Processing of a CSS determined as high risk

If you determine the processing of a CSS is high risk, then you must:

- ensure that processing is 'controlled' (see *When is processing of CSS considered controlled* below)
- meet additional requirements (see *Silica risk control plan, Training and Monitoring* below).

Processing of a CSS determined as not high risk

If you determine the processing of a CSS is *not* high risk, then you must:

- ensure all processing is controlled
- comply with other duties and requirements of the WHS laws.

When is processing of CSS considered controlled?

Work involving processing of CSS is controlled if control measures are implemented, so far as is reasonably practicable, that eliminate or minimise risks arising, with at least one of the following in place:

- isolation of all persons from dust exposure
- fully enclosed operator cabin with high efficiency air filtration system
- effective wet dust suppression method
- effective on-tool extraction system
- effective local exhaust ventilation system, and

people still at risk of being exposed to respirable crystalline silica:

- are provided with respiratory protective equipment (mask or respirator), and
- wear the respiratory protective equipment correctly while the work is carried out.

If it is not reasonably practicable to implement at least one of the controls above, processing of CSS is only considered controlled if the people who are at risk of being exposed to RCS:

- are provided with respiratory protective equipment (mask or respirator), and
- wear the respiratory protective equipment correctly while the work is carried out.

Note: It is expected that at least one higher order control should be practicable in most situations.

Silica risk control plan: high risk processing of CSS

A silica risk control plan (SRCP) is required for any high risk processing of CSS. All high risk CSS processing work must be carried out in accordance with the SRCP. The SRCP must:

- be provided to workers before CSS work commences
- be available to all workers
- be reviewed and revised when controls are no longer effective, workplace changes or a new hazard or risk is identified.

Workers, and their health and safety representatives, must be consulted when developing the SRCP. The SRCP may be incorporated into a safe work method statement (SWMS) if these are in place or use for high risk construction work.

Training: high risk processing of CSS

Training on crystalline silica must be provided to:

- workers involved in high risk processing of CSS
- workers at risk of exposure to RCS due to high risk processing of CSS.

Training must include:

- health risks associated with exposure to CSS
- required control measures and how to use them.

The regulations require the training to be accredited or approved by the regulator, however a Statement of Regulatory Intent is in place to accept other forms of documented training if accredited or approved training is not readily accessible.

Monitoring: high risk processing of CSS

Under regulation 50 of the WHS General Regulations, air monitoring is required where there is uncertainty about whether the workplace exposure standard will be exceeded.

PCBUs are able to use all available information to consider whether this is the case, such as previous air monitoring results and results of air monitoring published in literature or by the equipment manufacturer for similar tasks.

Air monitoring for respirable crystalline silica must be carried out in accordance with regulation 50, where:

- airborne levels of RCS unknown, or
- monitoring is required to determine whether risk to health.

Air monitoring results must be provided to the regulator, as soon as reasonably practicable within 14 days, if airborne concentration of RCS has exceeded the workplace exposure standard.

Results must be reported even if workers are wearing appropriate and correctly fitted respirators.

Workers carrying out high risk CSS processing work must be provided with health monitoring in accordance with regulation 368 of the WHS General Regulations where RCS exposure results in a risk to the health of workers.

Further information

WorkSafe

[Working with crystalline silica substances: Guide](#)

[Respirable crystalline silica air monitoring notification form](#)

[Statement of regulatory intent: Implementation of work health and safety regulations relating to crystalline silica processes](#)