



Respirable Crystalline Silica in mines and quarries

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The potential for worker exposure to crystalline silica is widespread within mining and quarrying. Very fine Respirable Crystalline Silica (RCS) is particularly harmful to workers. It can be generated during drilling, blasting, crushing, cutting and transporting.

Follow these four simple steps to reduce risk of exposure.

Identify



Sample source rock to identify presence of silica

Assess



Conduct personal exposure monitoring to determine worker exposure

Control



Use controls listed below to reduce the risk of exposure

Monitor



Regular personal monitoring
Periodic Health surveillance

Some facts about Respirable Crystalline Silica

Current Workplace Exposure Standard (WES) level for RCS is **0.1mg/m³**

Exposure monitoring must be done by a competent person in accordance with **AS 2985**

Multiple samples allow better understanding of exposure

Regular health surveillance (medical) should be conducted including spirometry (lung capacity test)

All health surveillance should be supervised by an appropriate doctor

Health and Safety at Work (General Risk and Workplace Management) Regulations 2016

Reg 29 - The person in charge of a business unit (PCBU) must ensure no person at a workplace is exposed to a substance hazardous to health in a concentration exceeding the prescribed exposure standard

Reg 32 - Records of exposure monitoring and health surveillance must be kept for **30 years**

Reg 36 - The PCBU must pay all expenses relating to health monitoring

Reg 39 - Results of health monitoring of a worker must be given to that worker

Controls include:



- Use of water on plant, stockpiles and roads
- Dry dust extraction
- Separation of workers from high exposure areas
- Personal protection equipment - dust masks

For more information see [A guide to Worker Health in Extractives](#) on the MinEx website.