

RESPIRABLE CRYSTALLINE SILICA

Protect your workers and your business

SILICA DUST EXPOSURE

Exposure to known carcinogen Respirable Crystalline Silica (RCS) - or silica dust - is possible from the mundane task of sweeping dirty areas to high energy operations such as open mine blasting. Kenelec Scientific offers a range of real-time monitoring solutions to ensure adherence to exposure standards; minimising risk to both your workers and business.

REAL-TIME MONITORING SOLUTIONS: REACT AS IT HAPPENS

TSI provides real-time monitoring instruments for measuring particles including RCS:

- Perform real time exposure assessments: **Know your conditions**
- Real time validation of engineering control: **Confirm effectiveness**



TSI DustTrak™ Aerosol Monitors

Real-time **indoor and outdoor environmental monitoring** of airborne contaminants including RCS, dust, smoke and fumes. Available as **handheld, desktop or permanently installed** for applications ranging from spot-checking to long-term monitoring.

TSI AM520 SidePak™ Personal Monitor

Real-time monitoring of a **worker breathing zone** while they are performing their tasks. Programmable audible and visible alarms with long life battery (up to 20 hours)



SAFE LEVELS OF EXPOSURE?

Safe Work Australia sets an exposure standard for RCS of **0.1 mg/m³**, however...

There is no evidence to support any safe level of silica dust exposure.



TSI PortaCount™ Respirator Fit Testers

Real-time quantitative measurement of the fit of your **respiratory protective equipment** to minimise inhalation of silica dust. Test the fit and protect your workers.

*Screen not included, must be purchased separately

For more information, contact us or visit our website:

1300 73 22 33 | sales@kenelec.com.au | www.kenelec.com.au

DID YOU KNOW?

*Courtesy of the Cancer Council: Silica Dust Factsheet, <https://www.cancer.org.au/preventing-cancer/workplace-cancer/silica-dust.html>

587,000

The approximate number of Australian workers who were exposed to silica dust in the workplace over a single year (2011)*

5,758

The estimated number of these workers who will develop lung cancer as a result of that exposure over the course of their life*

230

The estimated number of workers that will develop lung cancer as a result of that exposure each year*

0

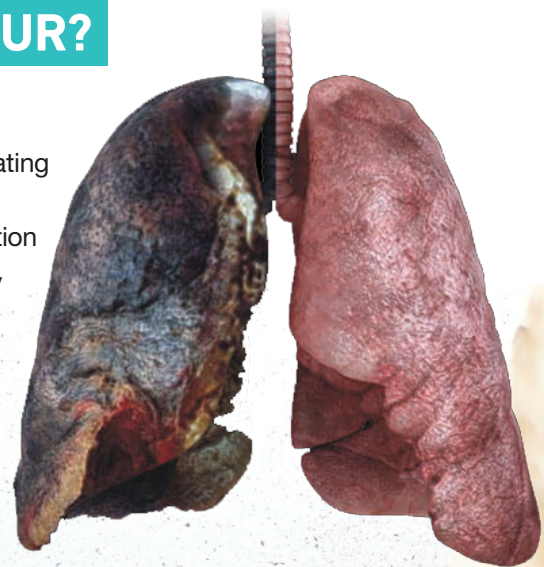
The number of cures for silicosis.



HOW CAN WORKPLACE EXPOSURE OCCUR?

You may be exposed to silica dust if your work involves*:

- Breaking, crushing, grinding or milling silica containing material
- Using or fitting some plastic composite products
- Moving earth e.g. excavating, mining, quarrying, tiling or tunnelling
- Handling, mixing or shovelling dry silica-containing material
- Drilling, cutting, chiselling or sanding silica-containing material
- Manufacture of glass, ceramics, concrete, tile, coke, metals, steel metal casting or mineral products
- Laying, maintaining or replacing ballast
- Paving, surfacing and cement finishing
- Mineral-ore treating processes
- Road construction
- Stone-masonry
- Sand blasting
- Sand casting
- Brick-laying
- Demolition
- Mining
- Construction



HOW MUCH AM I EXPOSED TO?

Indicative levels of silica dust exposure in typical construction jobs is summarised below:

Activity	Silica mg/m ³
Overhead drilling	0.15
Chasing	60.0
Drilling holes in brick or concrete	0.18 -0.37
Cleaning (sweep/vacuum)	0.03
Dismantling scaffolding used by bricklayers	0.1
Demolition / jack hammering	0:25
Tuck pointers chasing mortar	0.56
Background dust	0.03-0.05
National Exposure Standard	0.1

WHAT IS RCS?

Crystalline Silica (SiO₂) is found in some stone, rock, sand, gravel and clay, with the most common form being quartz. When these materials are worked on, silica is released as a fine dust known as respirable crystalline silica or silica dust, typically 100 times smaller than grain of sand, less than 4 microns. Exposure to silica dust can lead to the development of lung cancer, silicosis, kidney disease and chronic obstructive pulmonary disease.

Contact our team to discuss a silica monitoring solution that will work for you and your business.

Courtesy of Workplace Health and Safety Queensland: Silica and the Lung Factsheet, version 4, February 2013

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