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 help adhere to exposure standards; minimising risk to both your workers and business.

REAL-TIME MONITORING SOLUTIONS: REACT AS IT HAPPENS

TSI manufactures 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**

RENT ME

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.

RENT ME

TSI AM520 SidePak™ Personal Monitor

Real-time monitoring of a **worker's 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 set a new exposure standard for RCS of **0.05 mg/m³,** however...

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

RENT ME

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

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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*

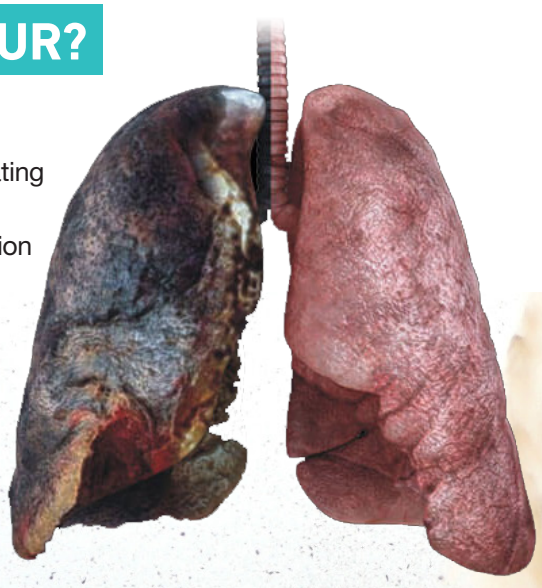
230 The estimated number of workers that will develop lung cancer as a result of that exposure each year*

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	**0.05**

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

WHAT IS RCS?

Crystalline Silica (SiO_2) 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.

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