Protecting you from Respirable Crystalline Silica (RCS)

Silica dust is one of the main causes of work-related disease. Prevent exposure and protect your workforce with the Institute of Occupational Medicine's (IOM) complete RCS analysis services.

UNDERSTANDING THE PROBLEM

A natural substance, silica is found in building materials including brick, tiles, concrete, and mortar.

When cut, drilled, or ground, fine dust particles called Respirable Crystalline Silica (RCS) can be inhaled into the lungs. High dust levels mean exposure is particularly prevalent in construction.

Even small amounts of RCS can cause serious respiratory illnesses such as Silicosis and Chronic Obstructive Pulmonary Disease (COPD). Detrimental and irreversible effects will develop slowly and are exacerbated by prolonged exposure.

Regular and up-to-date sampling and analysis of RCS is the only way to assess and control any risk and ensure safe and compliant workplaces with healthy and protected staff. Such measures are particularly vital in workplaces dealing with rocks such as sandstones which can contain up to 70% silica.

HOW WE HELP

As a UKAS accredited testing laboratory, we at the IOM are uniquely positioned to give our clients a combined approach to RCS analysis based on over 30 years of knowledge and laboratory expertise.

Our trusted RCS analysis service integrates state-of-the art technology with our team of highly skilled and friendly analysts who are here to help clients make informed decisions.

We want to give our clients confidence that working with us means greater risk prevention, effective controls, and peace of mind that they can demonstrate compliance with the Workplace Exposure Limit (WEL) of 0.1 mg/m^3 over an 8-hour day and COSHH regulations.

We treat each client individually based on their needs, giving them practical advice and a tailored analysis service designed to meet their specific requirements.

IOM

Respirable Crystalline Silica

OUR METHODS

At the IOM we employ the two recommended analytical methods for determining workplace RCS as outlined in MDHS 101/2. These are X-ray Diffraction (XRD) and Fourier Transmission Infra-Red (FTIR).

Having both instruments in-house means we can allow for potential inferences in samples to be comprehensively investigated.

This dual machine approach combined with our expertise gives clients complete reassurance that the analysis we carry out is completely accurate, resulting in a cost-effective, valid outcome.

FTIR ANALYSIS SOLUTION:

- Ideal for sites where RCS is only likely to be present as quartz
- If interfering minerals are present it will show on the FTIR trace and XRD can be used for resolution
- Satisfactory for most samples therefore more cost effective

XRD ANALYSIS SOLUTION:

- Preferred choice for samples collected in high temperature environments e.g., foundries and ceramics industry
- Analysis for different forms of crystalline silica (mainly quartz and cristobalite)
- Helps resolve interference which may be present from other minerals on samples collected for FTIR analysis

WHAT THIS MEANS FOR YOU

RCS quality air analysis and monitoring is vital for creating a safe and productive working environment, protecting workers from potential hazards, giving employers peace of mind that they are complying with legislation.

The results IOM provides through its trusted RCS analysis services, means our clients can meet these goals confidently, safe in the knowledge that the entire process has not only been efficient, accurate and cost-effective, but underpinned with direct access to friendly and professional experts.

WHAT OUR CLIENTS SAY

"Friendly and knowledgeable staff as well as sample turn around means I want to go back." **Christian Atkin, ACS**

"IOM seems to always strive for excellence in all it does, we would not use any other company for analysis, and we have complete confidence in the work they do" **Mark Hedges, DSC Environmental Services Ltd**

"Using IOM lab for nearly 20 years without any issues or complaints" **Grant Fraser, East Lothian Council**

GET IN TOUCH

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