# RESPIRATORY PROTECTION FOR SILICA EXPOSURE IN THE CONSTRUCTION INDUSTRY

## WHAT IS RCS?

Respirable Crystalline Silica (RCS) is a product of, among many tasks, cutting, sawing, grinding, drilling, polishing, crushing or even dry sweeping products that contain crystalline silica (quartz) such as concrete, mortar, brick and other cement-based materials just to name a few. RCS particles are not always visible under normal lighting, can stay airborne for long periods, and can easily be inhaled, potentially causing irreparable or even fatal harm to human health.

### **RCS EXPOSURE RISKS**

**MOLDEX DISPOSABLE RESPIRATORS** 

Exposure to RCS can lead to silicosis, an incurable lung disease that can lead to disability or death. RCS can also contribute to lung cancer, renal cancer, and chronic obstructive pulmonary disease (COPD). Individual susceptibility varies so steps to eliminate or minimize exposure to RCS even below the exposure standards established by **Safe Work Australia** should be taken including engineering and administrative controls and the proper selection, fitting and use of Personal Protective Equipment (PPE).



# **MOST POPULAR MOLDEX RESPIRATORS FOR SILICA EXPOSURE**



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# **FIT TESTING**

There are two types of fit tests that can be performed to ensure proper fit of respiratory protection equipment, qualitative and quantitative.

- 1. Qualitative tests use sense of smell or taste or reaction to an irritant to detect leaks, therefore they are a pass or fail test.
- 2. Quantitative tests use a machine to measure actual leakage into the facepiece.

# IMPORTANT FIT TEST REQUIREMENTS TO KEEP IN MIND

- Facial hair can affect your respirator's ability to protect you. Anything that interferes with the seal of the respirator to the face disqualifies the subject from wearing a tight fitting respirator.
- Glasses, goggles or other corrective or protective equipment that will be worn while working must be worn during test, when feasible.

#### **BITREX FIT TEST (0102)**

#### FIT TEST RESPIRATOR WEARERS

Test the face to facepiece seal of Moldex<sup>®</sup> particulate respirators. Check that respirators are being worn correctly and that they fit satisfactorily. Ensure that users are properly protected.

### **APPROVED FIT TEST METHOD**

The Moldex<sup>®</sup> BITREX<sup>®</sup> Fit Test Kit can help you meet respirator program fit test requirements established by Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment.

#### EASY TO USE

The Moldex<sup>®</sup> Fit Test Kit contains everything needed to conduct a qualitative fit test. Written instructions provide easy-to-use, step-by-step instructions. It's a simple pass/fail test. Taste sensitivity to BITREX<sup>®</sup> is checked. The wearer dons a Moldex<sup>®</sup> particulate respirator, the fit test hood is put on and the fit test solution is sprayed into the hood.

**IMPORTANT** – The Australian/New Zealand Standard 1715:2009 Silica Standards are a minimum. An employer can provide their employees with a respirator even though the standard may not require it. As always, when the employer provides an employee with a respirator they must comply with Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment, and any other Federal, State or Local regulations, as appropriate. **Moldex respirators MUST NEVER be used for sandblasting or for any associated applications where direct exposure to sandblasting may occur and the employer must refer to the respective Australian/New Zealand Standard 1715:2009 regulations when sandblasting.** 

Moldex recommends employers review and understand Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment and Australian Standard 2985:2009 Workplace Atmospheres - Method for sampling and gravimetric determination of respirable silica for detailed information on silica hazards and other compliance information. A respirator program meeting the requirements of Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment must be implemented when respirator use is required. Employers and workers must read, understand and follow the procedures and recommendations in the respirator manufacturer's user instructions.

Your local Moldex Territory Manager or our Technical Service Helpline (tech@moldex.com) can discuss various products and their features. It is the responsibility of the employer or safety professional to review the worksite to determine if the PPE is appropriate for the hazards and to identify any additional hazards that must be controlled.

Assessments should be repeated as needed to identify changes in conditions, tasks, tools and work practices as the project progresses.

The information contained in this pamphlet is dated and was accurate to the best of Moldex's knowledge, on the revision date. It is not meant to be comprehensive, nor is it intended to be used in place of the warnings/use instructions that accompany Moldex respirators.



