

## ENGINEERED STONE FATAL SILICA RISKS FOR WORKERS

The rapid rise in popularity of modern “engineered” or “artificial” stone countertops has created a potential deadly hazard for many workers manufacturing, polishing and installing these products.

Engineered stone is made from processed quartz, a material containing silica levels as high as 90%, or twice the amount found in granite. When slabs are cut and finished to fit, large quantities of silica particles are released into the air. Without proper protection, workers inhale this fine crystalline dust leading to silicosis, chronic obstructive pulmonary disease (COPD), lung cancer or kidney disease and alarmingly, young workers are being diagnosed.

### RESPIRATORY PROTECTION FOR FABRICATORS OF ENGINEERED STONE:

Occupational Safety and Health Regulations recommend that when engineering and work practice controls do not limit silica dust exposure to the permissible exposure limit, employers must provide workers with respirators and have a respiratory protection program in place<sup>(1)</sup>. Specific recommendations include:

- ✓ Ensure adequate ventilation
- ✓ Avoid dry cutting
- ✓ Use water suppression or dust extraction
- ✓ Use properly fitted approved respirators

CleanSpace<sup>®</sup> is the world’s lightest powered respirator: delivering high protection from harmful airborne substances like silica.

### ENGINEERED STONE - THE RISKS

- Global market for engineered stone rapidly grew 28% per annum from 2012 - 2017
- Silicosis, caused by respirable crystalline silica, is an incurable progressively disabling, and potentially fatal lung disease
- Types of silicosis: Chronic – 10+ years exposure; Accelerated – 5 - 10 years high exposure; Acute (fatal) - weeks to months very high exposure
- Increasing number of accelerated outbreaks of silicosis in workers
- Silica dust concentrations averaged over a nominal 30min period: 600  $\mu\text{g}/\text{m}^3$  (wet blade with local ventilation) & 44,000  $\mu\text{g}/\text{m}^3$  (dry blade)<sup>1</sup>
- OSHA recommend restriction of exposure to crystalline silica of 100  $\mu\text{g}/\text{m}^3$  (maximum average airborne concentration of a crystalline silica when calculated over an eight-hour time weighted exposure)

<sup>1</sup>. Hazard Alert – Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation – OSHA, 2016.



# A REVOLUTION IN RESPIRATORY PROTECTION



## CLEANSPACE RESPIRATORS FOR PROTECTION AGAINST CRYSTALLINE SILICA DUST

### LIGHTWEIGHT (1.1 lb)

- Portable and easily transported in tool boxes and vehicles

### COMPACT

- No belts, cables or hoses for easy movement in critical situations

### COMFORT

- Cool air and no fogging

### HIGH-LEVEL PROTECTION

- APF 50 (half-mask)/APF 1000 (full-face mask)

### WATER TOLERANT (IP RATING 66)

- Suitable for use with water applications (CleanSpace Ultra)

### EASY SET UP AND USE

- Donned in under 15 seconds; Simple assembly; One-button start

### SMART BATTERY

- Long run time. Up to 8 hours of continuous use. Rapid re-charge time in under 2 hrs

### AIR-SENSIT<sup>®</sup> TECHNOLOGY

- Breath-responsive airflow; Adjusts 100 times per second

### CLEAR COMMUNICATION

- Transparent silicone mask; Quiet motor

### ROBUST, REUSABLE SYSTEM

- Shockproof with 2 yr warranty



- ✓ NIOSH Approved
- ✓ ANSI Z87.1+ Impact Rated Protection
- ✓ Training tools and product specialist support available

Offer your workers a high level of protection – and peace of mind to do their job.

Trial CleanSpace today, contact Customer Support to arrange a demonstration of the revolutionary CleanSpace respirators.

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