

7/11/24

Silica Dust Safety Notice – Cutting Concrete Sleepers

This applies to anyone cutting/grinding/drilling products containing Crystalline Silica

What is Crystalline Silica?

Crystalline silica is a naturally occurring mineral commonly found in materials such as concrete, stone, and sand. When concrete products (including retaining wall sleepers) are cut, ground, drilled, or polished, fine particles of silica dust – known as respirable crystalline silica (RCS) – are released into the air. This dust is hazardous when inhaled, leading to serious health issues.

Which Products Contain Crystalline Silica?

Concrete retaining wall sleepers, like many other construction materials, contain crystalline silica. Other products that may also release silica dust when worked on include:

- Concrete and cement products (e.g., retaining wall sleepers, pavers, tiles)
- Stone and masonry materials (e.g., granite, marble)
- Bricks and mortar
- Grout and fibre cement products

Activities That Release Crystalline Silica Dust into the Air

Crystalline silica dust is most commonly generated during activities such as:

- Cutting, grinding, or drilling concrete retaining wall sleepers (especially when using dry methods)
- Paving, demolition, or construction work involving concrete and masonry
- Angle grinding, jackhammering, or chiselling concrete or stone
- Sweeping or using pressurized air to clean up dust and debris

Health Risks and Dangers of Silica Exposure

Short-term and long-term exposure to respirable crystalline silica can result in serious respiratory conditions, including:

- **Acute Silicosis** – Rapid inflammation and fluid buildup in the lungs
- **Accelerated Silicosis** – Progressive lung damage, scarring, and inflammation
- **Chronic Silicosis** – Long-term scarring of the lungs, leading to shortness of breath and other respiratory complications
- **Chronic Bronchitis, Emphysema, and Lung Cancer**
- **Liver Damage and Scleroderma** – A disease causing fibrosis in the skin and internal organs

Control Measures to Protect Against Silica Exposure

To reduce the risk of exposure to respirable crystalline silica, we recommend the following control measures when working with concrete retaining wall sleepers or similar materials:

1. **Use Water Suppression (Wet Cutting):** Always use water or wet-cutting techniques to reduce the release of dust during cutting or grinding operations.
2. **Dust Extraction Systems:** Ensure that power tools used for cutting, grinding, or polishing are equipped with effective dust extraction systems.
3. **Personal Protective Equipment (PPE):** Workers must wear properly fitted respiratory protection (e.g., N95 masks or respirators) when working with concrete products.
4. **Ventilation:** Work in well-ventilated areas to minimize dust accumulation in the work environment.
5. **Equipment Maintenance:** Regularly maintain cutting and grinding equipment to ensure it is operating effectively and safely.
6. **Safe Work Method Statements (SWMS):** Ensure that all work is conducted according to an approved SWMS that includes clear instructions for dust suppression and silica control.

Responsibilities

As a supplier of concrete retaining wall sleepers, we take the safety of our products and our customers very seriously. We require that all handling, cutting, and installation of our concrete products follow these safety measures:

- **Use Dust Control Tools:** Always utilize water suppression or dust extraction systems when cutting, grinding, or polishing concrete sleepers.
- **PPE Compliance:** Ensure that appropriate PPE, including properly fitted respirators, is worn by all workers engaged in these activities.
- **Check Safety Data Sheets:** for our products containing silica are available upon request and should be reviewed to understand specific safety precautions.
- **Report Unsafe Practices:** If you observe any uncontrolled cutting, grinding, or other activities that may release silica dust, please report it to the supervisor or safety team immediately.

Important Notice:

Uncontrolled cutting of concrete products containing crystalline silica is strictly prohibited. Cutting, grinding, or sanding concrete sleepers must always be done with effective dust control measures in place.

Ensure that:

- Water suppression or dust extraction systems are used during cutting or grinding operations.
- All workers are equipped with the proper PPE, including respiratory protection.

For additional guidance, visit Safe Work Australia's **Working with Silica** page for further information on silica dust safety.

We are committed to ensuring the safe use of our products and protecting the health and safety of all workers involved.

Remember: When cutting, grinding, sanding, drilling, or performing any activities that release silica dust into the air, you must implement control measures to minimize exposure to yourself and others. Always ensure the work is carried out in accordance with your Safe Work Method Statement.

