VICTORIAN TRADES HALL COUNCIL
APPROVED SAFETY STANDARD

VTHC2021.01B

Silica

EXPOSURE STANDARD: 0.02mg/m³ as an 8hr TWA

Employers must not expose workers to respirable silica dust at or above 0.02mg/m³ as an 8 hour time weighted average (TWA). Employers must take action to review control measures once respirable silica dust reaches 0.01mg/m³ as an 8hr TWA.

PLEASE TURN OVER FOR FURTHER INFORMATION
RATIONALE

Silica dust is so fine it can enter the deepest parts of the lungs. Silica dust remains in the lungs and causes irreversible scarring. Exposure to silica dust can lead to fatal diseases including silicosis and lung cancer. There is no known cure for silicosis – it can be a death sentence.

Internationally, the European Scientific Committee on Occupational Exposure Limits (SCOEL) assessment of respirable silica dust concludes that there is sufficient evidence from epidemiological studies to indicate that silicosis, the main effect in humans after occupational inhalation of respirable silica dust, is associated with the development of lung cancer. Importantly, silica dust can cause lung cancer even where silicosis has not occurred.

In August 2018 the VTHC declared an exposure standard for respirable silica dust of 0.025 mg/m³ as an 8-hr TWA. At that time, Australia's exposure standard was four times that, at 0.1 mg/m³. The campaign to lower the exposure standard revealed the shocking conditions facing workers in the manufactured stone industry. The Victorian Government implemented a reduced standard of 0.05 mg/m³ as an 8-hr TWA in February 2020. A number of other jurisdictions soon followed. The reduced standard took effect nationally by July 1, 2020.

This current exposure standard is still too high, exposing workers to unnecessary risk. At present approximately 1 in 5 workers screened for illness are receiving positive diagnoses of silicosis. Even the workplace OHS regulator, WorkSafe Victoria, recommends that employers take a precautionary approach and reduce employees exposure to below 0.02 mg/m³ as an 8-hr TWA to prevent silicosis and minimise the risk of lung cancer. The Cancer Council of Australia’s view is that there is currently no conclusive evidence to support a safe level of exposure to silica dust at all.

Given:
- the high risk of contracting a fatal illness as the result of exposure to even extremely low levels of respirable silica dust,
- WorkSafe Victoria’s recommendation that action be taken to reduce employees’ exposure to below 0.02 mg/m³ as an 8-hr TWA, and
- the position of the Cancer Council of Australia that there is no safe level of exposure to silica dust

VTHC is of the view that the state of knowledge in Victoria is now such that employers must control the risk of exposure where employees are exposed to respirable silica dust at or above 0.02mg/m³ as an 8-hr TWA, with an action level of 0.01mg/m³. We also support the phasing out of engineered stone completely, with other materials used in substitution.

On that basis, we have issued our updated Trades Hall Safety Standard – Silica.

For more information on how to control the risk of exposure to respirable silica, visit our website at www.ohsrep.org.au/hazards/chemicals/silica/