

# Brick and Pavers Cutting Guide



## Controlling workplace exposure of respirable crystalline silica

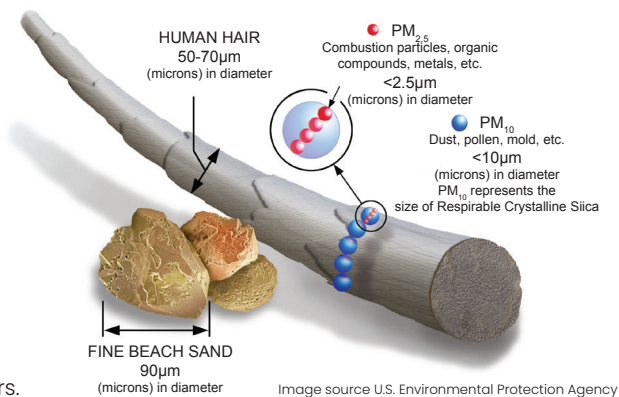
### WHAT IS CRYSTALLINE SILICA?

Crystalline Silica is found naturally in stone, rocks, sand, gravel and clay.

### WHAT IS RESPIRABLE CRYSTALLINE SILICA DUST?

Respirable crystalline silica is dust generated from materials and products containing crystalline silica. It is released when mechanically treated (e.g. cutting, sawing, abrading such as rasping, scraping, grinding down, chasing or crushing). This dust is of concern due to its size as it gets caught deep in your lungs and can cause long term damage.

CSR has conducted tests which have determined the amount of crystalline silica that may become respirable size particles when cutting bricks or pavers.



### CSR has made the following recommendations, in order of the hierarchy of controls.

<p><b>ELIMINATION</b> HAND CUT</p>	<p><b>Process below exposure limits when using the controls shown</b></p>  <ul style="list-style-type: none"> <li>• Cut bricks by hand using a hammer and bolster or a trowel</li> <li>• No P2 mask or respirator required</li> </ul>	
<p><b>ENGINEERING</b> WET CUT SAW</p>	<p><b>Process below exposure limits when using the controls shown</b></p>  <ul style="list-style-type: none"> <li>• Wet brick-cutting saw fitted with a slurry tray that provides continuous water flow to the cutting surface and blade</li> <li>• Clean shaven, fit tested P2 mask or respirator</li> </ul>	
<p><b>ENGINEERING</b> GRINDER WITH CLASS M OR H FILTER</p>	<p><b>Short Duration Controlled Cutting below exposure limits</b></p>  <ul style="list-style-type: none"> <li>• Grinder with on-tool dust extraction with a Class M or H filter</li> <li>• Clean shaven, fit tested P2 mask or respirator</li> <li>• <b>Limit cutting to 4 hours per day</b></li> </ul>	
<p><b>NO CONTROLS</b> NO ACTIVITY</p>	<p><b>Uncontrolled Cutting exceeds exposure limits</b></p>  <ul style="list-style-type: none"> <li>• Dry cutting bricks with a grinder or saw</li> <li>• P2 masks <b>DO NOT provide adequate protection</b></li> </ul>	
<p><b>CLEAN UP</b></p>	 <ul style="list-style-type: none"> <li>• Never dry sweep because it generates dust. Either wet the dust before sweeping up or use a vacuum with a M or H Class HEPA filter</li> <li>• Brick off-cuts can be disposed of as trade waste</li> <li>• Place the wet dust or dust from the vacuum into a sealed bag, double bagging it for safety, and dispose of it as trade waste</li> <li>• Slurry from the wet cutting saw should be bound with a quarter bag of Hebel Adhesive or a similar compound to harden it prior to disposing as trade waste</li> <li>• Be clean shaven, wearing a fit-tested P2 mask or respirator while cleaning up</li> </ul>	

Independent testing was conducted by Safe Environments Pty Limited to EN 689 and ISO 16258-1 (NATA accreditation 17139).



The activity of cutting bricks and pavers has been assessed and is considered low risk when people are trained in the task, equipment is used and maintained to manufacturer requirements and all controls as indicated are correctly in place.

**Regular monitoring of people conducting this activity is required to verify controls are effective in managing the risk of exposure to respirable crystalline silica.**

Disclaimer. It is the responsibility of the user to review and confirm applied controls meet exposure standards.

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