

# Brick and Pavers Cutting Guide



## Controlling workplace exposure of respirable crystalline silica

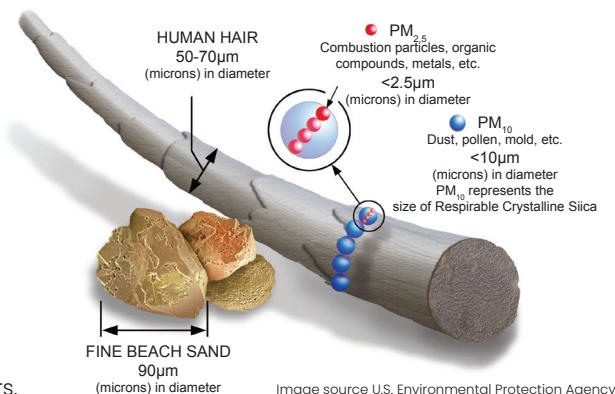
### WHAT IS CRYSTALLINE SILICA?

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.

[pghbricks.com.au](http://pghbricks.com.au) | [csr.com.au](http://csr.com.au)



# Safety Data Sheet



## NON-Hazardous, NON-Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **PGH Stone**

**Synonyms**

Classic LedgeStone  
Natural Fieldstone  
Rugged LedgeStone

**Product Code**

-  
-  
-

**Recommended use:** Stone veneers

**Supplier:** CSR Building Products Ltd  
**ABN:** 55 008 631 356  
**Street Address:** Triniti 3, 39 Delhi Road  
North Ryde NSW 2113  
Australia  
**Telephone:** +61 2 9235 8000 (or 1800 807 668 within Australia)

**Emergency Telephone number:** 1300 369 448 (Bus Hrs, Mon-Fri, 8am-5pm, AEST)

### 2. HAZARDS IDENTIFICATION

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia GHS 7.

The fine dust in/on the supplied product may include respirable crystalline silica. Cutting, breaking, drilling, sawing, grinding and finishing may generate dust which is **Hazardous**. Recommendations on Exposure Controls/Personal Protection (see Section 8 below) should be followed.

**Poison Schedule:** Not Applicable

#### DANGEROUS GOOD CLASSIFICATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

### 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Quartz (Respirable crystalline silica <0.1%)	14808-60-7	60 %
Cement, portland, chemicals	65997-15-1	10 - 30 %
Water	7732-18-5	1 - 10 %
Pigments	-	<1 %
Ingredients determined to be Non-Hazardous	-	Balance
		100%

### 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

# Safety Data Sheet



**Inhalation:** Not applicable as supplied.

**Skin Contact:** Not applicable as supplied.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Not applicable as supplied.

**Notes to physician:** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Hazchem Code:** Not applicable.

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**Specific hazards:** Non-combustible material.

**Fire fighting further advice:** Not applicable.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Dust is best cleaned up by wet sweeping and/or vacuuming to avoid making dust airborne. Wetting down before sweeping up dust may be a useful control measure. Bag waste materials.

### LARGE SPILLS

Collect and dispose of large pieces. Dust is best cleaned up by wet sweeping and/or vacuuming to avoid making dust airborne. Wetting down before sweeping up dust may be a useful control measure. Bag waste materials.

**Dangerous Goods - Initial Emergency Response Guide No:** Not applicable

## 7. HANDLING AND STORAGE

**Handling:** Avoid inhalation of dust. Ensure that eyewash stations and safety showers are close to the workstation location.

**Storage:** Not applicable as supplied.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**National occupational exposure limits:**

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Inspirable dust	-	10	-	-	-
Silica Crystalline - Quartz (respirable dust)	-	0.05	-	-	Carc. 1A

As published by Safe Work Australia.

# Safety Data Sheet



TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the following ingredients in this material may require Health Surveillance:

Crystalline silica

For detailed information see "Guidelines for Health Surveillance (Safe Work Australia)"

**Engineering Measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Keep exposures to dust as low as practicable. Fine dusts may contain respirable crystalline silica which is a hazardous chemical. When cutting or drilling work outside, open air is recommended. If mechanically cutting, a wet cutting masonry saw or masonry blade grinder with dust extraction (with HEPA M class filter) can be used. Unpowered hand tools generate minimal dust when cutting, so a hammer and masonry chisel is recommended when cutting.

**Personal Protection Equipment:** WEAR STANDARD SAFETY EQUIPMENT.

When handling material wear standard safety equipment – including safety shoes.

When cutting or mechanically abrading material wear safety shoes, overalls, safety glasses. Where there is risk of dust generation, a P2 particulate respirator is to be used in accordance with AS/NZS 1715 and AS/NZS 1716. Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly and kept in clean storage when not in use. Protective gloves should be worn when cutting, however, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of dust. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Solid  
**Colour:** Variou colours  
**Odour:** Odourless

**Solubility:** Insoluble in water  
**Specific Gravity:** N Av  
**Relative Vapour Density (air=1):** N App  
**Vapour Pressure:** N App  
**Flash Point (°C):** N App  
**Explosion/Flammability Limits:** Non flammable  
**Autoignition Temperature (°C):** N App

# Safety Data Sheet



<b>Melting Point/Range (°C):</b>	N App
<b>Boiling Point/Range (°C):</b>	N App
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Total VOC (g/Litre):</b>	N App

(Typical values only - consult specification sheet)  
N Av = Not available, N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Dust generation

**Incompatible materials:** Strong acids

**Hazardous decomposition products:** None known

**Hazardous reactions:** No known hazardous reactions.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Acute Effects

**Inhalation:** Not applicable as supplied. If material is cut or mechanically abraded may be an irritant to mucous membranes and respiratory tract.

**Skin contact:** Not applicable as supplied. If material is cut or mechanically abraded, contact with skin may result in irritation.

**Ingestion:** Not applicable as supplied. If material is cut or mechanically abraded swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Eye contact:** Not applicable as supplied. If material is cut or mechanically abraded may be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

### Acute toxicity

**Inhalation:** This material has been classified as not hazardous for acute inhalation exposure. Acute toxicity estimate (based on ingredients):  $LC_{50} > 5.0$  mg/L for dust.

**Skin contact:** This material has been classified as not hazardous for acute dermal exposure. Acute toxicity estimate (based on ingredients):  $LD_{50} > 2,000$  mg/Kg bw

**Ingestion:** This material has been classified as not hazardous for acute ingestion exposure. Acute toxicity estimate (based on ingredients):  $LD_{50} > 2,000$  mg/Kg bw

**Corrosion/Irritancy:** Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

# Safety Data Sheet



**Aspiration hazard:** This material has been classified as not an aspiration hazard.

**Specific target organ toxicity (single exposure):** This material has been classified as not a specific hazard to target organs by a single exposure.

## Chronic Toxicity

**Mutagenicity:** This material has been classified as not a mutagen.

**Carcinogenicity:** This material has been classified as not a carcinogen.

**Reproductive toxicity (including via lactation):** This material has been classified as not a reproductive toxicant.

**Specific target organ toxicity (repeat exposure):** This material has been classified as not a specific hazard to target organs by repeat exposure.

**Crystalline Silica:** Long term occupational over-exposure or prolonged breathing-in (or inhalation) of crystalline silica dust at levels above the TWA carries the risk of causing serious and irreversible lung disease, including bronchitis, and silicosis (scarring of the lung), including acute and/or accelerated silicosis. It may also increase the risk of other irreversible and serious disorders including scleroderma (a disease affecting the skin, joints, blood vessels and internal organs) and other auto-immune disorders.

**Specific Toxic Effects:** Inhalation of dust, including crystalline silica dust, is considered by medical authorities to increase the risk of lung disease due to tobacco smoking.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** This material has been classified as not hazardous for acute aquatic exposure. Acute toxicity estimate (based on ingredients): > 100 mg/L

**Long-term aquatic hazard:** This material has been classified as not hazardous for chronic aquatic exposure. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K<sub>ow</sub> < 4.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

## 14. TRANSPORT INFORMATION

# Safety Data Sheet



## ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

## MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

## AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

## 15. REGULATORY INFORMATION

### **This material is not subject to the following international agreements:**

Montreal Protocol (Ozone depleting substances)  
The Stockholm Convention (Persistent Organic Pollutants)  
The Rotterdam Convention (Prior Informed Consent)  
Basel Convention (Hazardous Waste)  
International Convention for the Prevention of Pollution from Ships (MARPOL)

### **This material/constituent(s) is covered by the following requirements:**

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth): Not Applicable.

AICIS Status: All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC).

NZ EPA Status: All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

## 16. OTHER INFORMATION

Reason for issue: Revised

This Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd on behalf of its client.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.