

## Section 1: Identification of Material and Supplier


Supplier	Barro Group Pty Limited ACN 005 105 724
Address	191 Drummond Street Carlton Vic 3053 Australia
Tel / Fax / Email	Tel: 03) 8656 3900 Fax: 03) 9663 2555 Email: barro@barro.com.au
Emergency Telephone	000 (fire brigade, ambulance, police)
Poisons Information Centre	13 11 26
Product Name	Silica Sand

Silica Sand is used in foundry sand and as a fine aggregate in mortar and concrete. It is used in building and civil engineering construction. Other names for Silica Sand may include quartz sand, washed concrete sand, packing sand, concrete sand, fine, medium or coarse sand, bricklayers sand

## Section 2: Hazard Identification

This product contains crystalline silica.  
Crystalline silica dust is classified as hazardous according to criteria of Safe Work Australia.  
Classified as **Non-Dangerous** Goods according to the Australian Code for Transport of Dangerous Goods by Road and Rail

**GHS CLASSIFICATION**

GHS Classification	GHS Signal Word	GHS Pictogram
Specific Target Organ Toxicity (repeated exposure to dust) – Category 2	Danger	

**GHS HAZARD (RISK) STATEMENTS**

H372, H373	May cause damage to organs (lungs) through prolonged or repeated exposure to dust if inhaled
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**GHS PRECAUTIONARY (SAFETY) STATEMENTS**

P260	Do not breathe in dust
P280	Wear protective gloves/protective clothing/eye protection/face protection
P305, P351, P338	If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P270	Do not eat or drink while using/handling product/s
P272	Contaminated work clothing (dust) should not be allowed out of the workplace
P363	Wash contaminated clothing before reuse

## Section 3: Composition / Information on Ingredients

Chemical Name	Proportion:
<b>Ingredients usually present:</b>	
◦ SAND-silica sand-containing crystalline silica (quartz)	>50% to >98% (CAS no 14808-60-7)
◦ Mineral and organic impurities	<2% (CAS - )

## Section 4: First Aid Measures

<b>Swallowed:</b>	Rinse mouth and lips with water. Do NOT induce vomiting. If symptoms persist seek medical advice and attention.
<b>Eyes:</b>	Flush thoroughly with flowing water whilst holding eyelids open for 15 minutes to remove all traces. Do not attempt to remove solid particles embedded in the eye. If symptoms such as irritation, pain or redness persist, seek medical attention.
<b>Skin:</b>	Remove clothing which is heavily contaminated; wash skin thoroughly with water. Use mild soap; shower if necessary. Seek medical attention if redness, irritation or burning to the skin.
<b>Inhaled:</b>	Move to fresh air environment, away from dusty area. Seek medical attention if irritation persists.
<b>First Aid Facility</b>	Eye wash and normal washroom facilities
<b>Advice to Doctor</b>	Treat symptomatically or contact poisons information centre

## Section 5: Fire Fighting Measures

◦ Flammability	:	Non-flammable or combustible
◦ Hazards from combustion products	:	Nil
◦ Suitable extinguisher media	:	Not applicable
◦ Special protective precautions and equipment for fire fighters	:	Nil
◦ Hazchem code	:	None allocated



# Safety Data Sheet

## Silica Sand

### Section 6: Accidental Release Measures

#### Spills and Disposal:

- Dust is best removed by mechanical means (sweepers/vacuums).
- Avoid dust generation – wetting down may assist control measures.
- Follow exposure controls/personal protection (section 8 below)

### Section 7: Handling and storage

<b>Storage Precautions:</b>	No special storage requirements.
<b>Transport:</b>	Not classified as a Dangerous Goods.
<b>Proper Shipping Name</b>	None allocated

### Section 8: Exposure Controls/Personal Protection

The following applies to Dust from this product:

#### Exposure Limits:

Workplace Exposure Standards (WES) for airborne contaminants – Safe Work Australia

Keep exposure to dust as low as practicable and below the following WES:

- Crystalline Silica: 0.05mg/m<sup>3</sup> TWA (time weighted average) as respirable dust.
- Total dust of any type: 10mg/m<sup>3</sup> TWA as inhalable dust

#### Engineering Controls

- Avoid generating dust and inhaling dusts and minimize exposure to dust.
- Provide adequate mechanical ventilation and/or local dust extraction or water spray to control airborne dust levels.
- Clean work areas regularly.

#### Eye Protection:

- Splash resistant **Safety Glasses** with side shields, safety goggles/face shields where splashing may occur or dust is likely. AS/NZS 1336.

#### Skin Protection:

- High level of personal hygiene should be maintained when using this product.
- Always wash hands before eating, drinking or using the toilet.
- Remove all contaminated clothing
- Wash skin with tepid water and non-abrasive soap.
- To avoid contamination do not shake out dusty work clothes/shoes in the home

#### Respirator Type

- None required if engineering or handling controls are adequate. Where engineering controls are not enough to minimize exposure to total dust and to respirable crystalline silica, **personal respiratory protection** may be required. Depending on the work circumstances/concentration of respirable crystalline silica dust, a suitable P2 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be sufficient, however where higher levels of dust are encountered cartridge or powered types of respirators may be necessary. Respirators that bear the Australian Standards mark and are properly fitted and maintained should be used.
- Where dust levels are approaching or exceeding the WES above greater respiratory protection may be required.

### Section 9: Physical and Chemical Properties

<b>Appearance:</b>	Granular mixture of coarse to fine solid particles varying from white to yellow		
<b>Boiling Point:</b>	Not available	<b>Flamm. Limits:</b>	Not applicable
<b>Vapour Pressure:</b>	Not available	<b>Vapour Density</b>	Not applicable
<b>Freezing/Melting Point</b>	Melting point > 1200°C	<b>Auto-ignition temperature:</b>	Not applicable
<b>Specific Gravity (H<sub>2</sub>O=1)</b>	2.0 – 2.7	<b>Solubility (other)</b>	Not applicable
<b>Solubility in Water</b>	Not soluble	<b>pH</b>	7.4
<b>Flash Point:</b>	Not applicable	<b>Odour</b>	None
<b>Particle Size</b>	proportion of dust may be respirable (> 10 microns) if airborne, becomes an exposure if inhaled		



# Safety Data Sheet

# Silica Sand

## Section 10: Stability and Reactivity

<b>Chemical Stability:</b>	stable	<b>Incompatible materials</b>	none
<b>Conditions to avoid</b>	dust generation	<b>Hazardous decomposition products</b>	none
<b>Hazardous polymerization</b>	none		

Crystalline silica is stable, compatible with other products/materials, does not polymerise and will not decompose into hazardous by-products.

## Section 11: Toxicological Information

### Health Effects

#### *Acute (short term)*

##### Swallowed

Unlikely under normal industrial use. Mildly abrasive to mouth and throat if swallowed

##### Eye

Dust is irritating to the eyes. Exposure to dust may aggravate pre-existing eye conditions. Particles impacting on the eye may cause eye injury.

##### Skin

Dust may be mildly irritating and drying to the skin due to its physical characteristics

##### Inhaled

Dust is mildly irritating to the nose, throat and respiratory tract and may cause coughing and sneezing; dust could aggravate pre-existing upper respiratory and lung diseases including asthma and bronchitis.

#### *Chronic (long term)*

##### Eyes

Dust may cause irritation and inflammation of the eyes and aggravate pre-existing eye conditions

##### Skin

Repeated heavy contact with the dust may cause drying of the skin and can result in skin rash (dermatitis) typically affecting the hands. Over time this may become chronic and can also become infected

##### Inhaled

Repeated heavy contact with dust may result in increased nasal and respiratory secretions and coughing, inflammation of lining tissue of the respiratory system may follow repeated exposure to high levels of dust with increased risk of bronchitis and pneumonia.

The product contains a proportion of respirable free crystalline silica in the quartz component. Long term occupational over-exposure or prolonged breathing-in (or inhalation) of crystalline silica dust at levels above the WES carries the risk of causing serious and irreversible lung disease, including bronchitis, and silicosis (scarring of the lung), 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.

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

The product contains a proportion of respirable free crystalline silica in the quartz component. Crystalline silica (inhaled in the form of quartz or cristobalite from occupational sources) has been classified by The International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group 1). However, the research on this is inconclusive and ASCC has not classified crystalline silica as a carcinogen. Current research indicates no excess risk of lung cancer or other cancers from using these products.

### Other information

Inhalation of airborne particles from other sources in the work environment, including those from cigarette smoke, may increase the risk of respiratory diseases. It is recommended that all storage and work areas should be smoke free zones and that other airborne contaminants should be kept to a minimum

## Section 12: Ecological Information

<b>Ecotoxicity:</b>	Poses no risk ecology risk; silica sands are non-toxic to aquatic and terrestrial organisms.
<b>Mobility:</b>	A low mobility would be expected in a landfill situation
<b>Persistence &amp; Degradability:</b>	Product is persistent and is has non-degradability;
<b>Dust:</b>	Crystalline silica is non toxic to aquatic and terrestrial organisms; is not biodegradable; is insoluble and is expected to have low mobility in landfill



# Safety Data Sheet

# Silica Sand

## Section 13: Disposal considerations

Silica sands and crystalline silica itself can be treated as a common waste for disposal or may be dumped into a landfill site in accordance with local authority guidelines.

Recycling into other construction products is usually a practical alternative.

Measures should be taken to prevent dust generation during disposal and exposure and personal precautions should be observed.

Dampen spilled product with water to avoid airborne dust generation then transfer to suitable container to reuse

## Section 14: Transport

<b>UN Proper Shipping Name:</b>	None allocated	<b>UN Number:</b>	None allocated
<b>Class &amp; subsidiary risk</b>	None allocated	<b>DG Class:</b>	None allocated
<b>Packing Group:</b>	None allocated	<b>Hazchem Code:</b>	None allocated
<b>Special precautions for users:</b>	See above		

## Section 15: Regulatory information

Exposure by inhalation to high levels of dust may be regulated under the Hazardous Substances Regulations as they apply to Respirable Crystalline Silica, requiring exposure assessment and control of inhalation exposure below the WES

Persons who have potential for exposure above the WES may be required by Regulations to have periodic health surveillance.

## Other Information

Barro Group Pty Limited (ACN 005 105 724) provides this Safety Data Sheet (“SDS”) for itself and its subsidiaries/related bodies corporate (as defined in the Corporations Act 2001) and all trading divisions/entities (whether registered or not) under which it carries on business at the date of this SDS or added during the validity of this SDS - “Barro Group”.

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### CONTACT POINT for further information

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END of SDS