

Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Details: Hanson Construction Materials Pty Ltd
ABN 90 009 679 734
Address Level 10, 35 Clarence street
Sydney 2000
Tel/Fax Tel: +61 2 9323 4000 Fax: +61 2 9323 4500
Emergency 1800 882 478
Contact No

Product: Silica Sand

Other Names/Synonyms Quartz sands, Wash concrete sand, Packing sand, Concrete sand, Foundry sand, Fine sand, Medium sand, Manufacturing sand, Fine white sand, Wash pit sand, Bricklayers sand, DROC40, DROC60, DROC90

Use Quartz sands are used in building construction and other civil engineering activities such as road building

Other Information NA

SECTION 2: HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

Classification of the substance or mixture

GHS classifications Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2

Label elements

Signal word WARNING **Pictograms**



Hazard Statement(s)

H373 May cause damage to organs (lungs) through prolonged or repeated exposure (inhalation).

Prevention Statement(s)

P260 Do not breathe dust.

Response Statement(s)

P314 Get medical advice/attention if you feel unwell.

Storage Statement(s)

None Allocated

Disposal Statement(s)

P501 Dispose of contents/container in accordance with relevant regulations.

Other Hazards

The hazard information provided in this Safety Data Sheet applies to the dusts within Silica Sand and particularly inhalable dust particles with a diameter less than 75 microns.

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Silica Sand are supplied from naturally occurring materials excavated and processed at sand pits, gravel pits and hard rock quarries. Depending upon the source materials, the quarry product may contain varying amounts of quartz (crystalline silica).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

All significant constituents are listed below:

Major Ingredients

Name	CAS	Proportion
SILICA SAND (INCLUDING CRYSTALLINE SILICA)	14808-60-7	0-100 %
Mineral and organic impurities	NA	Balance

Note: These are naturally occurring materials excavated and processed at sand pits, gravel pits and hard rock quarries. Depending on the source materials/deposit the Crystalline Silica (quartz) content of any particular quarry product can range from 0 to 100%

SECTION 4: FIRST AID MEASURES

- Swallowed** Rinse mouth and lips with water. Do not induce vomiting. If symptoms persist, seek medical attention
- Eye** Flush thoroughly with flowing water, while holding eyelids open, for 15 minutes to remove all traces. If symptoms such as irritation or redness persist, seek medical attention
- Skin** Remove heavily contaminated clothing. Wash off skin thoroughly with water. Use a mild soap if available. Shower if necessary. Seek medical attention for persistent redness, irritation or burning of the skin
- Inhaled** Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have a qualified person give oxygen through a face mask if breathing is difficult. If irritation persists seek medical attention

First Aid Facilities Eye wash and normal washroom facilities

Advice to Doctor: Treat symptomatically or consult a Poisons Information Centre

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SECTION 5: FIRE FIGHTING MEASURES

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills:

- Dust is best cleaned up by vacuum device to avoid making dust airborne. Wetting down before sweeping up dust may be a useful control measure
- Recommendations on Exposure Controls / Personal Protection (see Section 8 below) should be followed during spill clean-up if conditions are dusty

SECTION 7: HANDLING AND STORAGE

Storage Precautions	No special storage requirements
Transport	Not classified as a Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (6th Edition)
Proper Shipping Name	None Allocated

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

The following applies to dust from this product:

Exposure Limits:

Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia.

- Crystalline silica (quartz): 0.05 mg/m³ TWA (time –weighted average- 8 Hour) as respirable dust
- Total dust (of any type, or particle size): 10 mg/m³ TWA

All occupational exposures to atmospheric contaminants should be kept to as low as reasonably practicable and in all cases to below the Workplace Exposure Standard (WES).

TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

Engineering Controls:

- All work should be carried out in such a way as to minimise dust generation, and exposure to dust.
- Mechanical ventilation: Dust extraction and collection may be used, if necessary, to control airborne dust levels
- Work areas should be cleaned regularly

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Personal Protection:

Skin: Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet

Remove all contaminated clothing. Wash gently and thoroughly with tepid water and non-abrasive soap. If irritation develops and persists seek medical attention

Eyes Safety glasses with side shields or safety goggles (AS/NZ 1336) or a face shield should be worn

Respiratory: Where engineering and handling controls are not enough to minimise exposure to total dust and to respirable crystalline silica, personal respiratory protection may be required. The type of respiratory protection required depends primarily on the concentration of the respirable crystalline silica dust in the air, and the frequency and length of exposure time. Amount of exertion required during the work, and personal comfort are other considerations in choice of respirator. A suitable P1 or P2 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be sufficient for many situations, but where high levels of dust are encountered, more efficient cartridge-type or powered respirators or supplied-air helmets or suits may be necessary.

Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly.

For dust levels approaching or exceeding the NES (see above) a more effective particulate respirator providing a greater protection factor should be worn. Procedures for effective use of respirators should be applied and supervised.

Do not contaminate the home environment with dusty work clothes and shoes. Do not shake out work clothes before laundering



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	May range from fine white grains (sand) to large dark rock (aggregate/road base).
Odour	None
Ph	3.0 –10.0
Vapour Pressure	Not determined
Vapour Density	Not determined
Boiling Point/range	Not determined
Freezing/melting point	Not determined
Solubility	Not soluble.
Specific gravity	2.2- 2.7 (water=1)
Flash Point	Not applicable
Upper and lower flammability Limits	Not applicable
Ignition Temp	Not applicable
Particle Size	A <i>proportion</i> of the dust may be respirable (below 10 microns) and if it becomes airborne constitutes an exposure if inhaled.

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Chemically Stable
Condition to avoid:	Dust generation.
Incompatible materials:	None
Hazardous Decomposition: Products	None
Hazardous Reactions:	None

Crystalline silica is stable, compatible with other 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
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. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated

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

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Inhaled

Repeated exposure to the 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. Long term occupational over-exposure or prolonged breathing-in (or inhalation) of crystalline silica dust at levels above the NES 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. 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). Safe work Australia - workplace exposure standards for airborne contaminants classifies RCS as Category 1A (Carc. 1A) -Known to have carcinogenic potential for humans.

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

Aggregates, Road Base, Sand and Fill

Ecotoxicity

Silica Sands pose no ecology risk. They are non-toxic to aquatic and terrestrial organisms and are not biodegradable

Persistence and Degradability

Product is persistent and is non-degradable

Mobility

Low mobility would be expected in a landfill situation

Dust

Crystalline silica is non-toxic to aquatic and terrestrial organisms; is not biodegradable; is insoluble and is expected to have low mobility in landfill

SECTION 13: DISPOSAL CONSIDERATIONS

- Crystalline silica itself in all common forms can be treated as a common waste for disposal or dumped into a landfill site in accordance with local authority guidelines.
- Measures should be taken to prevent dust generation during disposal and exposure and personal precautions should be observed (see above).
- Wear sufficient respiratory protection. Dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container for reuse.
- May be disposed in local landfill.

SECTION 14: TRANSPORT INFORMATION

UN Number

None Allocated

UN proper Shipping name

None Allocated

Class and subsidiary risk

None Allocated

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Packing Group	None Allocated
Hazchem Code	None Allocated
Special precautions for user	See Above
DG class	None Allocated

SECTION 15: REGULATORY INFORMATION

- Crystalline silica is classified as non-Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail
- Crystalline silica in the form of respirable dust is classified as Hazardous according to the Safe work Australia (formerly ASCC/NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition
- Exposures by inhalation to high levels of dust may be regulated under the Hazardous Substances Regulations (State and Territory) as they are applicable to Respirable Crystalline Silica, requiring exposure assessment, and control of inhalation exposure below the NES
- Persons who have potential for exposure above the NES may be required by Regulations to have periodic health surveillance including Chest X-ray (see relevant State Government Regulations and SWA (ASCC/NOHSC documentation))

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SECTION 16: OTHER INFORMATION

Emergency Contact No (All hours)

1800 882 478

Emergency Contact No (Office Hours)

Contact For further information contact the Risk Manager at your nearest Hanson office;

New South Wales & ACT

Level 18, 2-12 Macquarie St
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Date of issue information 1/7/2020 (Replace version dated 1-7-15)

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END OF SDS