

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 Contact No	1800 882 478

Product	AGGREGATES, ROAD BASE, SAND AND FILL
Other Names/ Synonyms	Gravel, Fill, Road Base, Blue metal, Ridge gravel, Quartz sands, Scoria
Use	Quarry products are use in building construction and other civil engineering activities such as road building.
Other Information	NA

Section 2: Hazards Identification

HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS

This product contains crystalline silica. Crystalline silica dust is classified as Hazardous

(Australian Safety and Compensation Commission ASCC (formerly NOHSC) Approved Criteria for Classifying Hazardous Substances [NOHSC:1008] 3rd Edition)

- The solid product as supplied is classified as non-Hazardous
- Dust in/on the supplied product or created when the product is cut, abraded, or crushed contains crystalline silica some of which may be respirable (particles small enough to go into the deep parts of the lung when breathed in)
- A proportion of the fine dust in/on the supplied product may be respirable crystalline silica

The following Risk and Safety phrases apply to this product:

Risk Phrases:

R20: Harmful by Inhalation (Applies to dust)

R22: Harmful if Swallowed

R48: Danger of serious damage to health by prolonged exposure through inhalation (Applies to dust)

Safety Phrases:

S22: Do not breathe dust

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Section 3: Composition / Information On Ingredients

All significant constituents are listed below:

Major Ingredients

Name	CAS	Proportion
Sand Containing Crystalline Silica (Quartz)	14808-60-7	0 - 100 %
Crushed Stone, Gravel	Not required	0 - 100 %

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%

Other ingredients may be added:

- Some quarry products such as road base, stabilized and pre-coated aggregates are made by blending materials from one or more quarries/sources in order to meet the required physical properties or customer specification. Aggregates used for road works are often mixed or coated with the below prior to delivery

Portland cement	65997-15-1	0 - 4 %
Blast Furnace Slag or Fly Ash		0 - 4%
Pozzolans		0 - 4%
Precoat (Diesel and bitumen)		0 - 1%
Lime		0 - 4%

- Some materials sold as quarry products are made by recycling by products from building demolition, and wash out waste from concrete operations
- Depending on the source materials the Crystalline Silica (quartz) 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:

- National Occupational Exposure Standard (NES) Australian Safety and Compensation Commission ASCC (formerly NOHSC)
- Exposure to dust should be kept as low as practicable, and below the following NES.
- Crystalline silica (quartz): 0.1 mg/m³ TWA (time –weighted average) as respirable dust
Total dust (of any type, or particle size): 10 mg/m³ TWA

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

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 proportion of the dust may be respirable (below 10 microns) and if it becomes airborne constitutes an exposure if inhaled.

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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

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

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Inhaled (cont.)

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).

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	Quarry Products 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.

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SECTION 14: Transport Information

UN Number	None Allocated
UN proper Shipping name	None Allocated
Class and subsidiary risk	None Allocated
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 Australian Safety and Compensation Commission ASCC (formerly 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 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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