

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

PRODUCT: QUARRY PRODUCTS

SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

Product: **Quarry Products**

Other Names: Crushed Stone, Gravel, Aggregate, Road Base, Pre-Coat Aggregates, Sand, Fill

Use: As a material used extensively in concrete for building construction and civil engineering activities.

Company Details: **NUCRUSH PTY LTD**
Address: **Hart Street, Upper Coomera, QLD, 4209**

Telephone: **07 5573 8000**

Other Information: N/A

SECTION 2: HAZARD IDENTIFICATION

HAZARDOUS SUBSTANCE

NON- DANGEROUS GOOD

This product contains crystalline silica. Crystalline silica 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), &
R48: Danger of serious damage to health by prolonged exposure through inhalation (applies to dust)

Safety Phrases: **S22:** Harmful if swallowed

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

All significant constituents are listed below:

Ingredient	CAS	Proportion
Crushed Stone:	Not Required	0 – 100%
Sand:	14808-60-7	0 – 100 %

Note: These materials are naturally occurring materials, that are produced at either hard rock quarries or sand pits. Depending on the source of the materials the crystalline silica content can range from 0 to 100 %

Other ingredients:

Some products such as road base, pre-coated aggregates may be made by blending materials from one or more quarries/sources in order to meet the required physical properties or customer specification.

Aggregates for use in road works are often coated with a pre-coat solution.

Precoat	0 – 1 %
---------	---------

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

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

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

Avoid breathing dust. Respirable dusts can be generated during processing, handling, and storage. When stockpiling and handling large quantities of sand, care should be taken to avoid having the faces of the stockpile steeper than the natural angle of repose of the material. Steep faces can fall without warning and trap persons resulting in injury and possibly suffocation.

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)

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

The following applies to dust from this product:

Exposure Standards: National Occupational Exposure Standard (NES) Australian Safety and Compensation Council, 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. (≤ 7 microns particle equivalent aerodynamic diameter). Total dust (of any type, or particle size): 10 mg/m³ TWA.

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

Engineering Controls:**Ventilation:**

Keep exposures to dust as low as practicable, with the aim of maintaining respirable crystalline silica dust levels to below 0.05 mg/m³ TWA (time-weighted average). Work in the open air, and the opening of external openings (such as doors and windows in buildings) generally provides adequate ventilation. Local mechanical ventilation or extraction may be required in areas where dust could escape into the working environment. Local dust extraction and collection may be used, if necessary, to control airborne dust levels. If generated dust cannot be avoided follow personal protection recommendations. Where possible vacuum or wash down all gear, equipment or mobile plant prior to maintenance and repair work. If compressed air cleaning cannot be avoided, wear eye and respiratory protection, and clothing as listed below.

Personal Protection

Skin Protection: Wear loose comfortable clothing and gloves (standard duty leather or equivalent AS 2161). Wash work clothes regularly. Wash hands before eating, or smoking.

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

Respiratory Protection:

None required if engineering and handling controls are adequate to minimize dust generation and dust exposure. 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colour and particle shape varies widely depending on the source of the raw materials. Shape and texture varies from smooth and rounded to angular and rough.

Odour: None

pH, at stated concentration: Approximately 3-10

Vapour pressure: Not applicable

Vapour Density: Not applicable

Boiling Point/range: (°C): Not applicable

Freezing/Melting Point: (°C): Not applicable

Solubility in water: Insoluble

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

Solubility (Other): Not applicable
Specific gravity: **(H₂O = 1)** 2.0-3.0
Evaporation Rate: Not applicable
Flammability Limits: Not applicable
Flash Point: Not applicable
Explosive Properties: Not flammable
Particle Size: A proportion 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: Stable
Incompatible Materials: None
Conditions to avoid: Dust generation
Hazardous Decomposition products: None
Hazardous Polymerisation: None

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

SECTION 11: TOXICOLOGY 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, or abrasive, due to its physical characteristics.

Inhaled: Dust is mildly irritating to the nose, throat and respiratory tract and may cause coughing and sneezing.

Chronic (long term):

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

Skin: Repeated heavy contact 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 fine 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. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated. The product contains a proportion of respirable free crystalline silica in the quartz component. Long term occupational over-

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

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. 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/NOHSC has not classified crystalline silica as a carcinogen. Current research indicates no excess risk of lung cancer or other cancers from using these products.

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.

SAFETY DATA SHEET

Telephone: (07) 5573 8000
Fax: (07) 5573 2908
ABN 23 010 119 981

SECTION 14: TRANSPORT INFORMATION

UN number: None Allocated
Class: None Allocated
Subsidiary Risk 1: None Allocated
Packaging Group: None Allocated
Hazchem code: None Allocated
DG Class: None Allocated
EPG: None
Incompatibilities: None
Proper Shipping Name: None allocated
Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION**Poisons Schedule:** Not Scheduled

Sands, gravels and aggregates and crystalline silica itself is classified as non-Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. 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 to respirable crystalline silica dust 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).

Poisons Information Centre: 13 11 26

Australian Standards References:

AS/NZS 1336 Recommended Practices for Occupational Eye Protection.

AS/NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices.

AS/NZS 1716 Respiratory Protective Devices.

AS 2161 Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).

SECTION 16: OTHER INFORMATION

Emergency Contact No: 0412 392 509

Contact For further information contact Nucrush Office on 07 5573 8000.

Issue Date: 23/03/2017

We believe that the information given herein is accurate and given in good faith, but no warranty expressed or implied is made. Where the information provided herein discloses a potential hazard or hazardous ingredient, adequate warning should be provided to employees and users and appropriate precautions taken when using the product.