

Burdett's Safety Data Sheet



Washed Sands

Section 1. Supplier & Product Information

Company Information

| | |
|------------------|--|
| Company | Burdett Sand Soil & Stone Pty Ltd |
| <i>Address</i> | P.O. Box 4123 Langwarrin 3910 |
| <i>Telephone</i> | (03) 9789 8266 / 0428 267 143 |
| <i>Contact</i> | Paul Marsh |
| <i>Email</i> | tech@burdetts.com.au |

Product Information

| | | |
|--------------------|----------------------|--------------------|
| <i>Other Names</i> | Concrete Sand | Asphalt Sand |
| | Fine Washed Sand | A2 Filter Sand |
| | Bunker Sand | Septic Filter Sand |
| | Soft-Fall Rated Sand | Coarse Washed Sand |
| <i>Use</i> | Product-specific | |

Section 2. Hazard identification

| | |
|---------------------------------|---|
| <i>Hazardous Classification</i> | Classified as a Hazardous Substance according to Safe Work Australia (applies to material where dust has been generated) |
| <i>GHS Classifications</i> | Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2 |
| <i>Dangerous Goods Class</i> | Not classified as a Dangerous Good by the criteria of the ADG Code, IMDG or IATA |
| <i>UN Number</i> | None Allocated |
| <i>Hazchem Code</i> | None Allocated |
| <i>Poisons Schedule Number</i> | None Allocated |
| Label Elements | |
| <i>Signal word</i> | WARNING |
| <i>Pictogram</i> | |
| <i>Hazard Statement(s)</i> | H373 May cause damage to organs (lungs) through prolonged or repeated exposure (inhalation). |
| <i>Prevention Statement(s)</i> | P260 Do not breathe dust. |
| <i>Response Statement(s)</i> | P314 Get medical advice/attention if you feel unwell. |
| <i>Storage Statement(s)</i> | None allocated |
| <i>Disposal Statement(s)</i> | P501 Dispose of contents/container in accordance with relevant regulations. |
| <i>Other Hazards</i> | The hazard information provided in this Safety data Sheet applies to dusts, specifically quartz (crystalline silica) dust within the Silica sand and particularly inhalable dust particles with a diameter less than 30 micron. |

| Section 3. Composition/information on ingredients | |
|--|---|
| <i>Chemical entity</i> | Product-specific blend of sand and other trace materials |
| <i>Other information</i> | Trace elements of soil may contain micro-organisms such as bacteria, fungi and protozoa, manure and compost |
| <i>CAS NO.</i> | Quartz (crystalline silica): 14808-60-7 > 99 % Soil, mineral and organic impurities Balance |

| Section 4. First-aid measures | |
|--------------------------------------|---|
| <i>Swallowed</i> | Rinse mouth with water. Do not induce vomiting. Seek medical attention if any abdominal symptoms |
| <i>Eye</i> | Flush eyes with running water for 15 minutes while holding eyelids open. If irritation persists seek medical assistance |
| <i>Skin</i> | Remove heavily contaminated clothing. Wash thoroughly with mild soap and water. If irritation persists seek medical attention |
| <i>Inhalation</i> | Remove person from source of contamination to fresh air. Dust in throat or nasal passages should clear spontaneously. If irritation persists seek medical attention |
| <i>Advice to doctor</i> | Treat symptomatically or consult Poisons Information Centre |

| Section 5. Fire-fighting measures | |
|--|--|
| <i>Flammability</i> | Not flammable or combustible |
| <i>Hazards from combustion products</i> | None |
| <i>Extinguishing media</i> | Not applicable |
| <i>Special protective equipment and precautions for firefighters</i> | None - use as required for fire in surrounding materials |
| <i>Hazchem Code</i> | None Allocated |

| Section 6. Accidental release measures | |
|--|--|
| <i>Methods and materials for containment and clean-up of spills</i> | Follow precautions in this SDS. If possible, pick up and re-use clean materials. Collect large spills with mechanical device avoiding dust generation. Where dust may be generated, we recommend using a vacuum device to collect spill or wet the spilled material before sweeping. The use of respiratory equipment (e.g. P2 mask) may be necessary dependant on the size of spill and amount of dust in atmosphere. |
| <i>Personal precaution, protective equipment and precautions for fire-fighters</i> | Recommendations on exposure controls / personal protection, see section 8, should be followed during spill clean-up if conditions are dusty. |
| <i>Environmental precautions</i> | No specific precautions required. Avoid sewer contamination. |

| Section 7. Handling and storage | |
|--|---|
| <i>Manual handling</i> | These products are generally supplied in bulk. For material supplied in 20kg bags handle in accordance with applicable manual handling guidelines and legislation. Use correct posture and lifting techniques and, where possible use mechanical lifting devices or enlist the aid of another person. |
| <i>Engineering controls</i> | Follow protective controls described in this SDS when handling product. All work should be carried out in a way to minimise dust generation and exposure to dust. |

| | |
|--------------------|--|
| <i>Ventilation</i> | Local exhaust or general ventilation adequate to maintain exposure below appropriate exposure limits |
|--------------------|--|

Section 8. Exposure controls/personal protection

| | |
|---------------------------|---|
| <i>Exposure standards</i> | All occupational exposures to atmospheric contaminants should be kept as low as reasonably practicable and in all cases below the Workplace Exposure Standard (WES) |
|---------------------------|---|

| Ingredient | Reference | TWA, 8-hour | | STEL | |
|---|-----------|-------------|-------------------|------|-------------------|
| | | ppm | mg/m ³ | ppm | mg/m ³ |
| Crystalline Silica (Quartz) (respirable dust) | SWA (AUS) | --- | 0.05 | --- | --- |
| Total dust (any type, or particle size) | SWA (AUS) | --- | 10.0 | --- | --- |

TWA, 8 hour: the time- weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working like. According to current knowledge this concentration should neither impair the health of, nor cause discomfort to, nearly all workers

| | |
|--------------------------------|-------------------------------|
| <i>Biological Limit Values</i> | No biological limit allocated |
|--------------------------------|-------------------------------|

| | |
|-----------------------------|---|
| <i>Engineering Controls</i> | <p>Minimise dust generation and airborne dust levels</p> <p>Use of dust extraction and collection</p> <p>Wetting, ventilation and use of enclosed equipment</p> <p>Work areas to be cleaned regularly</p> |
|-----------------------------|---|

| | |
|--|--|
| <i>Equipment repair &/or Maintenance</i> | 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 as listed below. Ensure exposures to respirable crystalline silica (quartz) are maintained below TWA. |
|--|--|

| | |
|-------------------|--|
| <i>Monitoring</i> | A program should be implemented to regularly monitor dust and Respirable Crystalline Silica levels. Results of this testing should be communicated to all concerned staff members. |
|-------------------|--|

Personal Protective Equipment

| | |
|---|---|
| <p><i>Respiratory protection</i></p> <p>Reference: AS/NZS 1715 & AS/NZS 1716</p> | <p>Where engineering and handling controls are inadequate to minimize dust generation and exposure to respirable crystalline silica below the total dust and respirable crystalline silica TWA, personal respiratory protection may be required.</p> <p>The type of respiratory protection required depends on the concentration of dust and respirable silica in the air, and the frequency and length of exposure time.</p> <p>The 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 in accordance the AS/NZS 1715 and AS/NZS 1716 may be sufficient for some situations but where high levels of dust are encountered, more efficient cartridge-type or supplied-air helmets such as Powered Air Purifying Respirators (PAPR) may be necessary.</p> <p>For dust levels approaching or exceeding the WES a particulate respirator providing greater protection should be worn.</p> <p>Procedures for selection and effective use of respirators should be applied and supervised.</p> |
|---|---|

| | |
|-------------------------------|--|
| | Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly. |
| <i>Skin protection</i> | Wear comfortable clothing and gloves (standard duty leather or equivalent AS 2161). Wash work clothes after use – see above. |
| <i>Eye protection</i> | Safety glasses or dust goggles (AS/NZ 1336) or face shield should be worn when excessively dusty conditions are present or anticipated. |
| <i>Other Control Measures</i> | Keep products to moist to minimise dust generation. Reduce exposure by the use of ventilation, enclosed equipment and water mist spray. |
| <i>Hygiene Measures</i> | When using do not eat, drink or smoke. Wash hands prior to eating, drinking or using toilet. Avoid eye contact or prolonged skin contact. Eyewash stations and safety showers should be available. Do not contaminate your car or home with dusty clothes and shoes. Do not shake out work clothes prior to laundering. |

| Section 9. Physical and chemical properties | |
|--|---|
| <i>Appearance</i> | Product specific, with light odour |
| <i>Colour</i> | Product specific |
| <i>Melting Point</i> | Not generally applicable (sand component: 1680°C) |
| <i>Vapour Pressure (mm Hg @ 25 °C)</i> | Not applicable |
| <i>Flammability Limits</i> | Not applicable for solid materials |
| <i>Specific Gravity</i> | 2.4 – 2.8 (water=1) |
| <i>Solubility in water</i> | Insoluble but generally dispersible |
| <i>pH</i> | 4 – 8 Approx. (product-specific) |
| <i>Bulk Density (T/m³)</i> | 1.4 – 1.8 Approx. (product-specific) |
| <i>Respirable Quartz (<18 microns) in bulk sample %</i> | <1 |

| Section 10. Stability and reactivity | |
|---|--|
| <i>Chemical Stability</i> | Considered to be stable under normal conditions |
| <i>Conditions to Avoid</i> | Dust generation |
| <i>Incompatible Materials</i> | Incompatible with strong acids (e.g. hydrofluoric acid) |
| <i>Hazardous Decomposition Products</i> | Silicon tetrafluoride, oxides of carbon, nitrogen & toxic fumes if heated to decomposition point |
| <i>Hazardous Reactions</i> | None known |

| Section 11 Toxicological information | |
|---|--|
| <i>Health Effects</i> | Sand is considered to be an inert product. No specific toxicology data is available, but expected to be very low. |
| Acute (short-term) | |
| <i>Swallowed</i> | Unlikely source of exposure. Mildly abrasive to mouth and throat if swallowed. May cause abdominal discomfort. |
| <i>Eyes</i> | Dust may irritate the eyes, causing redness or irritation and may aggravate pre-existing eye conditions |
| <i>Skin</i> | Contact may result in skin irritation or redness. |
| <i>Inhalation</i> | Inhalation of dust may irritate the nose, throat or lungs and aggravate pre-existing conditions such as asthma and bronchitis. |

| Chronic (long-term) | |
|------------------------------|---|
| <i>Eyes</i> | Dust may cause irritation and inflammation of the eyes and aggravate pre-existing eye conditions |
| <i>Skin</i> | Dust may be mildly irritating and repeated heavy contact may cause drying to the skin due to its physical characteristics, causing a skin rash typically affecting the hands. |
| <i>Inhalation</i> | <p>Repeated exposure to the dust may result in increased nasal and respiratory secretions and coughing. Inflammation of the 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.</p> <p>Long term occupational over exposure or prolonged inhalation of crystalline silica dust at levels above the TWA carries the risk of causing serious and irreversible lung disease, including bronchitis, 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.</p> <p>Crystalline silica, the respirable fraction only, has been classified by: SWA - carcinogenic potential for humans, Category 1A IARC - carcinogenic to humans, Group 1.</p> |
| <i>Symptoms of silicosis</i> | Silicosis symptoms can occur long after exposure has ceased. Symptoms of silicosis may include; coughing, shortness of breath, weight loss, reduction of lung volume, chest pain and heart failure. People with silicosis have an increased risk of pulmonary tuberculosis infection. Acute silicosis may be fatal. |
| <i>Other</i> | These products are unlikely to be a health hazard if used for their intended applications, however it is possible that under certain circumstances dust may be generated, with subsequent potential for exposure to Respirable Crystalline Silica. |

| Section 12. Ecological information | |
|---|---|
| <i>Eco-toxicity</i> | These products are considered to be inert and not expected to have any short or long term toxicological effects |
| <i>Persistence and Degradability</i> | Products are not persistent and are non-degradable |
| <i>Bio-accumulative potential</i> | There is no evidence to suggest bio-accumulation will occur |
| <i>Mobility</i> | Low mobility in a landfill due to physical nature of product |
| <i>Dust</i> | Quartz (Crystalline silica) is non-toxic to aquatic and terrestrial organisms. It is insoluble and expected to have low mobility in landfill. It is not biodegradable |

| Section 13. Disposal consideration | |
|---|---|
| <i>Disposal</i> | <p>These products may be treated as a common waste for disposal in accordance with applicable federal, state, and local laws and regulations. Recycling into construction materials is typically a preferable and practicable alternative.</p> <p>May be disposed in local landfill, prevent dust generation during disposal, personal precautions should be observed (Section 8).</p> |

| Section 14 Transport information | |
|---|---|
| <i>Dangerous Goods</i> | Not classified as a Dangerous Good for the purposes of transport by land & rail (ADG Code), air (IATA Code), or sea (IMDG/IMO Code) |
| <i>UN Number</i> | None allocated |
| <i>UN Proper shipping Name</i> | None allocated |
| <i>Class and subsidiary risk</i> | None allocated |
| <i>Packaging Group</i> | None allocated |
| <i>Marine Pollutant</i> | No |
| <i>Special Precautions for User</i> | None allocated |
| <i>HAZCHEM code</i> | None allocated |

| Section 15 Regulatory information | |
|---|---|
| <i>Poisons Schedule</i> | None allocated |
| <i>Hazardous Classification (SWA & GHS)</i> | Crystalline silica in the form of respirable dust is classified as Hazardous according to Safe Work Australia – Approved criteria for Classifying Hazardous Substances. |
| <i>Dangerous Goods</i> | Not classified as a Dangerous Good for the purposes of transport by land & rail (ADG Code), air (IATA Code), or sea (IMDG/IMO Code). |
| <i>Health Surveillance</i> | Persons who have potential for exposure above the WES may be required by regulations to have periodic health surveillance including Chest X-ray - see relevant state Government Regulations and SWA (ASCC/NOHSC documentation). |

Glossary

ADG – Australian Code for the Transport of Dangerous Goods by Road and Rail

GHS – Globally Harmonized System of Classification and Labelling of Chemicals, United Nations, New York and Geneva, Seventh Edition

IARC – International Agency for Research on Cancer

SWA - Safe Work Australia

TWA - Time-weighted average

WES - Workplace Exposure Standards for Airborne contaminants

References

ASCC - Australian Safety & Compensation Commission

Approved Criteria for Classifying Hazardous Substances

CCAA - Cement Concrete & Aggregates

Guide to preparing SDS for products containing Respirable Crystalline Silica

Safe Silica – IMA Europe

Using crystalline silica safely

Safe Work Australia

Workplace exposure standards for airborne contaminants

Guidance on The Interpretation of Workplace Exposure Standards for Airborne Contaminants

Health monitoring - Guide for Crystalline silica

HCIS – Hazardous Chemical Information system

WorkSafe Victoria

Crystalline Silica: Safety Basics

Poisons Information Centre

13 11 26

Section 16 Other information

This Safety Data Sheet is issued by Burdett Sand Soil & Stone Pty Ltd in good faith and as far as possible in accordance with GHS guidelines. As such, information contained herein must not be altered, deleted or added to. Burdett Sand Soil & Stone Pty Ltd will issue a new SDS when there is a change in product specification and/or GHS guidelines, or at a minimum every 5 years. Burdett Sand Soil & Stone Pty Ltd will not accept responsibility for changes made to the content of this SDS by any person or organisation.

Information contained in this SDS is based on the best available knowledge at the time of preparation. No responsibility can be accepted by us for errors and omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their purposes and circumstances. Since this material is used under conditions beyond our control, we cannot accept responsibility for any loss or damage caused by persons acting or not acting as a result of this information.

Information specific to Respirable Crystalline Silica:

This SDS is not a substitute for expert advice by a qualified occupational hygienist. As we cannot be responsible for the specific practices and handling measure of each work-site, it should be used in combination with the end user's own assessment considering the likely exposure to workers, the public and other parties.

Each user must equip themselves with adequate knowledge of local and state legislation, council by-laws, planning regulations and any other laws enacted by local planning authorities.

This document was prepared in accordance with the best available information at the time of publication, however It is incumbent upon the end user to ensure they are kept up with the latest scientific knowledge, health & safety advice and which may render this document may not include the best-available information

Updated, applicable legislation and standards that are available after the publication date of this SDS may affect the accuracy, currency or relevance of this document.

Independent advice may recommend strategies and measures that differ from the general guidance provided in this document.

This document should be considered as one piece of a larger puzzle that informs any overall assessment of the risks associated with the use of sand containing inhalable crystalline silica.

Implementation of the updated WES for respirable crystalline was adopted by Victoria in Dec 2019