DIXON SAND

SAFETY DATA SHEET

Context & Purpose of Safety Data Sheet

Dixon Sand produce white brick sand, coarse sand, quarry block products and specialised washed sands for the building, landscaping and sports field industries. Washed sand is suitable for playground use.

Products are provided to distributors for the industries noted and are supplied as a sand or sandstone block product. Dixon Sand are unaware of what the products are specifically being used for or what processes they may be exposed to that may create additional hazards.

1.IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	**SILICON DIOXIDE, CRYSTALLINE (QUARTZ)**
Other name(s):	Quartz* Silica, crystalline (quartz) * Silicon dioxide, microcrystalline (quartz)* Silica flour* Silica sand* SIL 600
Recommended Use of the Chemical and Restrictions on Use:	Building materials, addition to cement for building products, landscaping, backfill for pipelines. Washed sand is suitable for playground use.
Supplier	Dixon Sand Pty Ltd
ABN:	80 002 278 686
Street Address:	4610 Old Northern Road Maroota NSW 2765
Telephone Number Emergency Telephone:	+61 2 4566 8348 (Working hours)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Carcinogenicity – Category 1A
Specific target organ toxicity (repeated exposure) – Category 1

SIGNAL WORD: DANGER

Hazard Statement(s):
H350 May cause cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust / fume / gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P281 Use personal protective equipment as required.

Response:
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Poisons Schedule (SUSMP): **None allocated.**

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Crystalline silica (Quartz)	14808-60-7	99%	H350H372

Dixon Sand has undertaken testing with SafeWork NSW (TestSafe Australia – Chemical Analysis Branch) of its White Brick Sand, Coarse Sand and sand from the saw cutting activities. The following test results are provided for information.

Sample Identification	**Result – Alpha Quartz (% w/w)**	**Result – Cristobalite (% w/w)**
White brick sand	64 +/- 6	Not Detected
Coarse Sand	63 +/- 6	Not Detected
Sand from saw cutting activities	55 +/- 5	Not Detected

4. FIRST AID MEASURES

For advice contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact:
If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

Eye Contact:
If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion:
Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Not combustible however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.

Specific hazards arising from the chemical:
Non-combustible material.

Special protective equipment and precautions for fire-fighters:
Non-combustible material.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up: Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid eye contact and breathing in dust. Avoid formation and buildup of dust.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Silica Crystalline - Quartz (respirable dust): 8hr TWA= 0.05 mg/m3 (1 July, 2020)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA – The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:
Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep areas clean of dust by managing with dust suppression techniques or engineering controls.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Powder or solid
Colour:	White, Buff, Yellow
Odour:	Odourless
Molecular Formula:	SiO2
Solubility:	Insoluble in water
Specific Gravity:	2.64 – 2.66 @20 degrees Celsius
Relative Vapour Density:	Not applicable
Vapour Pressure:	Not applicable
Flash Point	Not applicable
Flammable Limits:	Not applicable
Autoignition Temperature:	Not applicable
Melting Point/Range:	ca. 1600
Boiling Point/Range:	2230 degrees Celsius
pH:	4.0 – 5.0 (20% aqueous slurry)

10. STABILITY AND REACTIVITY

Reactivity:	Reacts with hydrofluoric acid.
Chemical stability:	Stable under normal conditions of use.
Possibility of hazardous reactions:	Hazardous polymerisation will not occur.
Conditions to avoid:	Avoid dust generation.
Incompatible materials:	Incompatible with alkaline aqueous solutions, hydrofluoric acid & catechol.
Hazardous decomposition Products:	None known

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	Swallowing may result in nausea, vomiting, and abdominal pain.
Eye contact:	May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.
Skin contact:	Repeated or prolonged skin contact may lead to irritation.
Inhalation:	Breathing in dust may result in respiratory irritation.

Acute toxicity: The toxicity of crystalline silica is directly proportional to the ability of any particle to reach the lower respiratory tract. Quartz particles with an aerodynamic diameter below 10um are likely to be most harmful to humans, as they reach the lower respiratory tract and are less readily removed by the lungs.

Increases in lung cancer have been attributed to the inhalation of crystalline silica in a number of industries including: ore mining; quarrying and granite works; ceramics pottery, refractory brick and diatomaceous earth industries; and in foundry workers.
The International Agency for Research on Cancer has classified crystalline silica as a Group 1 Carcinogen - Carcinogenic to Humans, based on sufficient evidence in humans and animals.
Increasing in vitro and in vivo evidence suggests that lung carcinomas in rats are a result of marked and persistent inflammation and epithelial proliferation.

Crystalline silica also causes a range of non-neoplastic pulmonary effects, including: inflammation, silicosis, lymph node fibrosis, airways disease, emphysema and increased permeability of the airspace epithelium.

Chronic effects: Epidemiological studies in humans have revealed that crystalline silica may cause lung cancer, silicosis, lymph node fibrosis, airways disease emphysema and lung inflammation.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of material through a licensed waste contractor as required.

14. TRANSPORT INFORMATION

Road and Rail Transport
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:
This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Carcinogenicity - Category 1A
Specific target organ toxicity (repeated exposure) - Category 1

Hazard Statement(s):
H350 May cause cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Poisons Schedule (SUSMP): None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

(1) International Agency for Research on Cancer. In: 'IARC Monographs on the Evaluation of Carcinogenic Risk to Humans'. World Health Organisation, Vol 68. Silica, some Silicates Coal Dust and Para-aramid Fibrils, 1997.

(2) Context & Purpose of Safety Data Sheet

Dixon Sand produce white brick sand, coarse sand, quarry block products and specialised washed sands for the building, landscaping and sports field industries. Washed sand is suitable for playground use.

Products are provided to distributors for the industries noted and are supplied as a sand or sandstone block product. Dixon Sand are unaware of what the products are specifically being used for or what processes they may be exposed to that may create additional hazards.

Document control:

Date	Version	Changes/Comment
August 2021	1	Updated for new workplace exposure standard.
December 2021	2	General update and included playground use