MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier:

Product Name:	BUTLERS YARWUN QUARRIES, QUARRY PRODUCTS
Synonym (s):	Aggregate | Drainage Aggregate | Concrete Aggregate | Asphalt Aggregate | Gravel | Fill | Manufactured Sand | Ballast | Gabion | Armor Rock | Road Base | Rail Capping | Concrete Mix | Rip Rap | Crusher Dust | Decorative Stone

1.2 Uses and uses advised against:

Uses (s)	Quarry products are used in a wide range of building construction and civil engineering work such as: Concrete | Asphalt | Drainage | Fill | Road Base | Rail Construction/Maintenance | Landscaping

1.3 Details of the supplier of the product:

Supplier Name:	Butlers Yarwun Quarries Pty Ltd
Address:	Lot 31 Guerassimoff Road, Yarwun Q 4694
Telephone:	0428 273 345
Email:	sales@yarwunquarries.com

1.4 Emergency telephone number:

Emergency	13 11 26 (Poisons Information Centre)

2. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

2.1 Classification of the substance:

GHS classification	• In their solid form the products are non-Hazardous • Dust in/on the products, as supplied, or generated by blasting, cutting and abrading contain crystalline silica which is classified as Hazardous according to Safe Work Australia criteria. Some particles may be small enough to be respirable into the lungs when inhaled. In this form the classification is: o Carcinogenicity: Category 1A o Specific target organ systemic toxicity (Repeated Exposure): Category 1

2.2 Label elements:

Signal word	DANGER
Pictogram (s)	
Hazard statement	
	May cause cancer Causes damage to organs through prolonged or repeated exposure

Prevention Statement	Do not breathe dust Wash thoroughly after handling Do not eat drink or smoke when using these products Use personal protective equipment as required Keep material wetted down to prevent dust exposure
Response Statement	If exposed or concerned: Seek medical advice/attention
Storage Statement	Keep stockpiles wetted down to prevent air-born dust

2.3 Other hazards:

- The solid product as supplied is classified as non-Hazardous.
- Small dust particles, typically less than 10 microns, may be respirable (i.e. small enough to enter deep into the lungs when inhaled).

3. COMPOSITION – INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures:

Ingredient:	QUARTZ (CRYSTALLINE SILICA)
CAS Number:	14808-60-7
EC Number:	238-878-4
Content:	<19%

Note: Depending upon the source material, may contain varying amounts of respirable quartz (crystalline silica)

4. FIRST AID MEASURES

4.1 Description of first aid measures:

Eye:	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Centre, a qualified medical practitioner, or at least for 15 minutes.
Inhalation:	Move from dusty area to fresh air. Apply artificial respiration if not breathing.
Skin:	If skin or hair contact occurs, remove contaminated clothing and wash off skin and hair with running water and mild soap (if available). If irritation persists, seek medical attention.
Ingestion:	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a Doctor. Due to product form and application, ingestion is considered unlikely.
First aid facilities:	Eye wash facilities and shower should be available.

4.2 Important symptoms and effects both acute and delayed:

Chronic exposure to crystalline silica contained in dust particles may result in lung fibrosis (silicosis). Principal symptoms of silicosis are coughing and breathlessness. Crystalline silica is classified as carcinogenic to humans (IARC Group 1) and may cause lung disease including lung cancer.

4.3 Medical Treatment:

Treat symptomatically.

5. HANDLING AND STORAGE

5.1 Precautions for safe handling:

Take precautions to avoid generating dust. In dusty conditions avoid eye or skin contact and inhalation by employing safe work practices. For solid product apply manual handling practices (refer to WHS Regulations and Codes of Practice for guidance)

5.2 Conditions for safe storage:

The faces of stockpiled solid products should be at or less than the natural angle of repose. Steep faces are to be avoided as they may collapse spontaneously or if disturbed, risking engulfment that could result in injury or suffocation.

6. EXPOSURE CONTROLS / PERSONAL PROTECTION

6.1 Control parameters:

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	Mg/m3	ppm	Mg/m3
Crystalline silica & silicosis	SWA (AUS)	--	0.1	--	--

Note: The workplace exposure standard for respirable crystalline silica that must not be exceeded is 0.1 mg/m3 (eight-hour time weighted average).

PCBUs *should keep worker exposures to respirable silica dust as low as reasonably practicable. Air monitoring will need to be conducted If there is any doubt that the exposure standard is being exceeded or to find out if there is a risk to a worker's health.*

6.2 Exposure controls:

Engineering controls	• Avoid dust inhalation. • Where an inhalation risk exists: o wet down the area / product where possible. o maintain dust levels below the recommended exposure standard.
PPE 	When handling the product: Eye / Face: Wear safety glasses or dust-proof googles to avoid contact with eyes. Body: Wear a long-sleeved shirt and (full length) trousers. Respiratory: Not required where engineering controls are in place and sufficient to control exposure to dust. If an inhalation risk exists personal respiratory protection complying with AS/NZS1716 may be required. The type of protection will depend on total airborne dust and respirable crystalline silica concentration levels and exposure (by frequency and time).

Note: A task specific risk assessment should be completed to ensure adequate controls are in place prior to handling.

7. PHYSICAL AND CHEMICAL PROPERTIES

7.1 Information on basic physical and chemical properties:

Appearance	Ranges in colour including dark blue/grey and light brown. Particle shape is typically angular and cubical. Aggregate texture is generally rough and abrasive. Manufactured Sand particles are typically less than 5mm. Road bases may be a combination of aggregates, manufactured sand and naturally occurring clay materials.
Melting Point	> 1200°C
Oxidising Properties	Not Oxidising

7.2 Other Information:

Bulk Density	1400 m3 to 1800 kg/m3

8. STABILTY AND REACTIVITY

8.1 Reactivity:

This material is considered inert in normal circumstances

8.2 Chemical stability:

Chemically stable

8.3 Conditions to avoid:

Dust generation

8.4 Hazardous decomposition products:

This material will not decompose to form hazardous products.

10. TOXICOLOGICAL INFORMATION

10.1 Information on toxicological effects:

Acute toxicity	This product is expected to be of low toxicity. Under normal conditions of use, adverse health effects are not anticipated.
Skin	Not classified as a skin irritant. However, if dust is formed, over exposure may result in mild irritation, rash and dermatitis.
Eye	Not classified as a skin irritant. However, if dust formed, over exposure may result in mild irritation, lacrimation and redness.
Sensitisation	This product is not known to be a skin or respiratory sensitizer.
Carcinogenicity	Dust in/on the supplied product or created when the product is cut, abraded or crushed may contain crystalline silica some of which may be respirable (particles small enough to penetrate to the unciliated airways of the lung when breathed in). Crystalline silica is classified as carcinogenic to humans (IARC Group 1). There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis.
STOT – Single exposure	Not classified as causing organ effects from single exposure.

STOT – Repeated exposure	Repeated exposure to respirable silica at levels greater than the Workplace Exposure Standard (WES) may result in serious, irreversible lung disease including silicosis (scarring of the lung) and chronic bronchitis and chronic obstructive airways disease. Principal symptoms of silicosis are coughing and breathlessness.
Aspiration	As the product is a solid aspiration hazards are not expected to occur.

11. ECOLOGICAL INFORMATION

11.1 Toxicity:

The main component/s of this product are not anticipated to cause any adverse effects to the environment. When mixed with water, crushed product or dust may form a slightly alkaline, slightly acidic or neutral slurry.

11.2 Persistence and degradability

Product is persistent and non-degradable.

11.3 Bio accumulative potential:

This product is not expected to bio accumulate.

11.4 Mobility in soil:

A low mobility would be expected in a landfill situation.

12. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD

13. REGULATORY INFORMATION

13.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison Schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). Hazardous Substance Regulations requiring exposure assessment, health surveillance and controls may be required in environments where exposure by inhalation to high dust levels is present.	
Classifications	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substance {(NOHSC: 1008(2004)}.	
Hazard Codes	Carc. T	Carcinogenic Toxic

Risk Phrases		Toxic: danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation

14. REGULATORY INFORMATION

Additional information	PERSONAL PROTECTIVE EQUIPMENT GUIDELINES: The recommendation for protective equipment contained within this SDS is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls must be considered before final selection of personal protective equipment is made. HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on factors including frequency and duration of use; quantity used; effectiveness of control measures: protective equipment used and method of application. Users must assess their specific risks and apply suitable control methods.

Abbreviations	
EC No.	EC NO – European Community Number
GHS	Globally Harmonised System
IARC	International Agency for Research on Cancer
Mg/m3	Milligrams per cubic meter
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline)
ppm	Parts Per Million
STEL	Short Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TWA	Time Weighted Average

Report status	This document has been complied by the manufacturer/supplier of the product and serves as their Material Safety Data Sheet (MSDS). This information presented herein is based on data considered to be accurate as of the date of preparation of this MSDS. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and information, nor is any authorisation given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, without a risk assessment for safe use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the products. This Material Safety Data Sheet (MSDS) applies only to the formulated material as supplied by Butlers Yarwun Quarries Pty Ltd. It does not apply where formulation has been altered. In this case a new MSDS may be required to reflect the modified material. Contact Butlers Yarwun Quarries for further information.

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