1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier	
Product name	Recycled concrete aggregate
Synonym(s)	Solid concrete; concrete washout; solid concrete waste; construction and demolition Concrete; recycled concrete aggregate; recycled concrete materials
Use(s)	Engineered and non-engineered construction materials such as: pipe bedding; fill product; drainage aggregate; concrete aggregate; road base
Details of the supplier of the safety data sheet	
Supplier name	BMI Group ABN 86 075 195 756
Address	132 Commercial Rd, Teneriffe QLD 4005 PO Box 2117, Fortitude Valley QLD 4006
Telephone	07 3254 2933
Email	info@bmigroup.com.au
Website	www.bmigroup.com.au
Emergency telephone number(s)	
Emergency	07 3272 0143
Emergency (a/h)	13 11 26 (poisons information centre)

2 HAZARDS IDENTIFICATION

Hazardous according to safe work Australia criteria
Not classified as a dangerous good by the criteria of the ADG code, IMDG or IATA

Classification of the substance or mixture	
GHS classifications	Skin sensitization: category 1 Specific target organ systemic toxicity (repeated exposure): category 2
Label elements	1.1
Signal word	Warning
PICTOGRAMS	
Hazard statement(s)	H317 - may cause an allergic skin reaction. H373 - may cause damage to organs (lungs) through prolonged or repeated exposure (inhalation).
Prevention statement(s)	P260 - do not breathe dust. P272 - contaminated work clothing should not be allowed out of the workplace. P280 - wear protective gloves/protective clothing/eye protection/face protection.
Response statement(s)	P302 + P352 if on skin: wash with plenty of soap and water.

Other hazards	Dust of recycled aggregates may contain crystalline silica some of which may be respirable (particles small enough to go into the deep parts of the lungs when breathed in). As a result of above dust in/on the supplied product or created when product is processed, abraded, or crushed, is classified as hazardous according to the Australian criteria for the classification of chemicals.

COMPOSITION / INFORMATION ON INGREDIENTS

Recycled concrete is composed of rock fragments coated with cement with or without sands/ fillers produced in a controlled manner to close tolerances of grading and minimum foreign material content.

SUBSTANCES / MIXTURES	
Aggregate, sand, crush stone or gravel or slag, quartz, VENM containing crystalline silica (quartz),	30 to 90%
Portland cement	1 to 50%
Water	2 to 30%
Ashes, residue (flyash)	Up to 20%
Gypsum	Up to 10%
Limestone	Up to 10%

Notes:
Depending upon the source material, may contain varying amounts of respirable quartz (crystalline silica).
Chromium VI is a trace impurity in Portland Cement.
Although rare, may contain trace amounts (<0.01%) of Respirable Elongated Mineral Particulates. The levels detected are determined to be below the threshold level.

FIRST AID MEASURES

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 poison's information centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a poison's information centre or a doctor.
Ingestion	For advice, contact a poisons information centre (pic) or a doctor (at once). Due to product form and Application, ingestion is considered unlikely.
First aid facilities	Eye wash facilities and safety shower are recommended.
Most important symptoms and effects, both acute and delayed	Some individuals may exhibit an allergic response upon exposure to this product, possibly due to the trace amounts of chromium

	present. Chronic exposure to crystalline silica may result in lung fibrosis (silicosis). Principal symptoms of silicosis include coughing and breathlessness. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Croup 1).
Immediate medical attention and special treatment needed	Treat symptomatically.

FIREFIGHTING MEASURES

Extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Special hazards arising from the substance or mixture	Non-flammable.
Advice for firefighters	Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including self-contained breathing apparatus when combating fire. Use water fog to cool intact containers and nearby storage areas.
Hazchem code	None allocated.

ACCIDENTAL RELEASE MEASURES

General measures	Dampen spills, if possible. Sweep up spilled material and place in a container. Avoid actions that cause the material to become airborne. Avoid inhalation. Prevent run-off into drains and waterways. Wear appropriate PPE as described in section 8. Reuse crushed concrete wherever possible.
Personal precautions, protective equipment, and emergency procedures	Wear personal protective equipment (PPE) as detailed in section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.
Environmental precautions	Prevent product from entering drains and waterways
Methods of cleaning up	Contain spillage, keep moist and place in suitable containers for disposal or reapplication. Within enclosed environments clean spill site using wet methods or an approved industrial vacuum device. Avoid generating dust.
Reference to other sections	See sections 8 and 13 for exposure controls and disposal

HANDLING AND STORAGE

Precautions for safe handling	Before use carefully read the SDS. The use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating.

Conditions for safe storage, including any incompatibilities	Avoid breathing dust. Respirable dust can be generated during processing, handling and storage. When stockpiling and handling large quantities of products, care should be taken to avoid having the face 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. This product is recycled through the system
Specific end use(s)	Not applicable

EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure standards - exposure to material should be kept as low as practicable. The product contains low levels of crystalline silica (< 15%), with <0.05% of respirable quartz in the respirable fraction of the dust.

SUBSTANCE	TWA	STEL	REFERENCE
CRYSTALLINE SILICA (QUARTZ)	0.1 MG/M3	NONE ALLOCATED	SAFE WORK AUSTRALIA
PARTICULATES (DUST)	10 MG/M3	NONE ALLOCATED	SAFE WORK AUSTRALIA

Engineering controls	
Ventilation	Avoid inhalation. Use in well ventilated area. Where an inhalation risk exists, wet down the product or use mechanical extraction ventilation to keep dust levels below exposure standards. Wear PPR as listed below.
Maintenance considerations	Where possible, wet down all plant, equipment, and the work area prior to maintenance. If not possible, wear PPE as listed below.

PPE - SHOULD MEET RECOMMENDED NATIONAL STANDARDS, CHECK WITH PPE SUPPLIERS		
Face	Wear safety glasses or dust-proof googles when handling material to avoid contact with eyes	
Skin	Wear gloves and long sleeves to avoid skin contact	 
Respiratory	Where an inhalation risk exists wear a class p1 (particulate) respirator, dependent on site specific risk assessment	

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Generally grey gravelly mixture
Odour	Slight concrete odour
Flammability	Non-flammable
Flash point	Not relevant
Upper explosion limit	Not relevant
Appearance	Generally grey gravel mixture odour
Partition coefficient	Not relevant
Boiling point	Not relevant
Melting point	> 1200°c
Evaporation rate	Not available
pH	7 – 12 (depending on the nature of recycled materials) not available
Vapour density s	2.32
Specific gravity	Insoluble
Solubility (water)	Not available
Vapour pressure	Not relevant
Odour threshold	Not relevant
Particle size	Ranging from dust (<6mm) up to 100mm | bulk density - 1.32 t/m3

STABILITY AND REACTIVITY

Reactivity	Carefully review all information provided in sections 10.2 to 10.6.
Chemical stability	Stable under recommended conditions of storage.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid	Avoid wetting product to a point of slurry. Avoid dust generation.
Incompatible materials	Incompatible with oxidising agents (e.g. Hypochlorites) and strong acids (e.g. Hydrofluoric acid).
Hazardous decomposition products	May evolve toxic gases if heated to decomposition (>1200°c)

TOXICOLOGICAL INFORMATION

Acute toxicity	No known toxicity data is available for this product. Based on available data, the classification criteria are not met.
Skin	Contact with powder or wetted form may result in irritation, rash, dermatitis and possible burns with prolonged and repeated contact.
Eye	Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.
Sensitization	Some individuals may exhibit an allergic response upon exposure to this product, possibly due to the race amounts of chromium present.

Carcinogenicity	This product contains crystalline silica and trace amounts of hexavalent chromium compounds which are classified as carcinogenic to humans (iarc group 1). However, there is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore, preventing the onset of silicosis will also reduce the cancer risk.
STOT – single exposure	Over exposure may result in irritation of the nose and throat, with coughing. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.
STOT – repeated exposure	Repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are cough and breathlessness
Aspiration	This product is not expected to present an aspiration hazard.

ECOLOGICAL INFORMATION

Toxicity	The main component/s of this product are not anticipated to cause any adverse effects to the environment.
Persistence and degradability	Product is persistent and non-degradable.
Bio-accumulative potential	This product is not expected to bioaccumulate.
mobility in soil	The product contains non-volatile materials that will sink in water and form a solid on the surface of the ground. not expected to be mobile in landfill.
Other adverse effects	Prevent contamination of drains or waterways.

DISPOSAL CONSIDERATIONS

Waste disposal	Reuse or recycle where possible. Alternatively, ensure product is kept moist to prevent dust generation. Dispose of waste and containers in compliance with applicable federal, state, and local regulations. Suitable for disposal to landfill sites. Keep out of stormwater and sewer drains.
Legislation	Dispose of in accordance with relevant local legislation

TRANSPORT INFORMATION

Road And Rail Transport (Australian Dangerous Goods Code 7.4)	Not regulated
Marine Transport (International Maritime Dangerous Goods Code)	Not regulated
Marine Pollutant	No
Air Transport (International Air Transport Association Dangerous Goods Regulations)	Not regulated

REGULATORY INFORMATION

Australian inventory of chemical substances (ACIS)	All components are either listed on the inventory or are exempt under the industrial chemicals (notification and assessment) act 1989
Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)	Not scheduled

ABBREVIATIONS

ACGIH	American Conference of Industrial Hygienists.
ADG	Australian Dangerous Goods.
BEI	Biological Exposure Indices.
CAS#	Chemical Abstract Service Number Used to uniquely identify chemical compounds.
CNS	Central Nervous System.
EC NO	European Community Number.
IARC	International Agency for Research on Cancer.
MG/M3	Milligrams Per Cubic Metre

DOCUMENT CONTROL AND DISCLAIMER

This document has been compiled by BMI Group, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

The information presented herein is based on data considered to be accurate as of the date of preparation of this SDS. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. 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 Safety Data Sheet (SDS) applies only to the formulated material as supplied by BMI Group. It does not apply where the formulation has been altered. In this case a new SDS may be required to reflect the modified material. Contact BMI Group for further information.

This Safety Data sheet is valid for 5 years from the date of issue and may be withdrawn and revised any time prior to that date. Please ensure that you are using the latest issue. DATE ISSUED 18th July 2018.

Version date	Version	Version information	Originator	Approver
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19/07/2023	V1.1		P Rutherford	