

1 IDENTIFICATION OF MATERIAL AND SUPPLIER**1.1 Product Identifier**

Product Name: [Premixed concrete](#)
Synonym(s): Concrete, Mortar, Shotcrete, Pool Spray, Grout, NuFlow

1.2 Uses and uses advised against

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

1.3 Details of the supplier of the product

Supplier Name: NUCON PTY LTD
Address: Hart Street, Upper Coomera, QLD, 4209
Telephone: 07 5573 8000
Email: sales@nucrush.com.au
Web site: www.nucrush.com.au

1.4 Emergency telephone number(s)

Emergency (A/H) 13 11 26 (Poisons Information Centre)

2: HAZARD IDENTIFICATION**2.1 Classification of the substance or mixture**

CLASSIFIED AS HAZARDOUS ACCORDING TO THE SAFE WORK AUSTRALIA CRITERIA

GHS classifications Skin Corrosion/Irritation: Category 2
 Serious Eye Damage / Eye Irritation: Category 1

2.2 GHS Label Elements

Signal word **Danger**

Pictograms



Hazard statements

H315 Causes skin irritation
H318 Causes serious eye damage

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Prevention statements

P264 Wash thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection

Response statements

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment is advised – see first aid instructions.
P332 + P313 If irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash before re-use.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses.
P310 Immediately call POISONS CENTRE or doctor/physician.

Storage Statements

None allocated

Disposal statements

None allocated

2.3 Other Hazards

Prolonged exposure to Portland Cement (fresh concrete or mortar in the wet form) can cause serious, potentially irreversible skin or eye damage in the form of chemical burns. Some susceptible individuals may exhibit an allergic skin response upon exposure to Portland Cement, possibly due to trace amounts of chromium.

Due to the product form (wet concrete or mortar), over exposure via inhalation is not anticipated with normal use.

However, if dust is generated via cutting, grinding, machining, etc of the dry/set product:

* Acute over exposure by inhalation may result in respiratory irritation.

* Chronic over exposure by inhalation to silica quartz dust may result in silicosis (lung disease). Principal symptoms of silicosis are coughing and breathlessness.

3 COMPOSITION / INFORMATION ON INGREDIENTS

This section may require changes for different product/s.

3.1 Substances / Mixtures

INGREDIENT	CAS NUMBER	EC NUMBER	CONTENT
QUARTZ (CRYSTALLINE SILICA (I.E. SAND)	14808-60-7	238-878-4	< 10 %
WATER	7732-18-5	231-791-2	< 10 %
PORTLAND / SLAG / FLYASH CEMENT			10 – 30 %
GRAVEL / OTHER AGGREGATE			< 60 %
ADMIXTURES			< 10 %
ADDITIVES			< 10 %

4 FIRST AID MEASURES

This section may require changes for different product/s.

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 Information Centre, a doctor, or for at least 15 minutes

Inhalation Due to product form / nature of use, an inhalation hazard is not anticipated. However, if exposed to dry product, remove from contaminated area. Apply artificial respiration if not breathing

Skin If skin or hair contact occurs, remove contaminated clothing, and brush off loose particles before flushing skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor

Ingestion For advice, contact a Poisons Information Centre on 13 11 26 or a doctor (immediately). If swallowed, do not induce vomiting.

First aid facilities Eye wash facilities and safety shower should be available.

Date Reviewed: 15/06/2023
Version: 4

4.2 Most important symptoms and effects, both acute and delayed

Irritating and potentially corrosive to the eyes, skin, and respiratory system.

Due to the product form over exposure via inhalation is not anticipated with normal use, unless dust is generated via cutting, grinding etc of the dry/set product. Chronic over exposure to silica quartz dust may result in silicosis (lung disease). Principal symptoms of silicosis are coughing and breathlessness. Crystalline silica is classified as carcinogenic to humans (IARC Group 1).

Some individuals may exhibit an allergic response upon exposure to this product, possibly due to the trace amounts of chromium present. Hexavalent chromium compounds are also classified as carcinogenic to humans (IARC Group 1).

4.3 Immediate medical attention and special treatment needed

Treat as for moderate to strong alkali and symptomatically.

5 FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Use an extinguishing media agent suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non-flammable. May evolve toxic gases if strongly heated

5.3 Advise for fire fighters

No fire or explosion hazard exist, treat as per requirements for surrounding fires. Evacuate area and contact emergency services.

5.4 Hazchem code

None allocated

6 ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment, and emergency measures**

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Contact emergency services where applicable.

6.2 Environmental precautions

Prevent product from entering drains and waterways

6.3 Methods of cleaning up

Contain spillage, then cover/absorb with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See sections 8 and 13 for exposure controls and disposal.

7 HANDLING AND STORAGE**7.1 Precautions for safe handling**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking, and smoking in contaminated areas

7.2 Conditions for safe storage, including any incompatibilities

Not intended for storage in the Pre-mix state.

7.3 Specific end uses

This product contains more than 1% crystalline silica.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

INGREDIENT	REFERENCE	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Portland Cement	SWA (AUS)	--	10	--	--
Quartz (respirable crystalline silica)	SWA (AUS)	--	0.05	--	--

Biological limits No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls

Use in well ventilated areas. Avoid generating dust. All work should be carried out in such a way as to minimise exposure to dust and repeated skin contact. Where dust could be generated whilst handling, use local mechanical ventilation or extraction in areas where dust could escape into the work environment.

PPE

Eye / Face

Personal protective equipment (PPE) should meet recommended national standards.

Wear safety glasses or splash-proof goggles when handling material to avoid contact with eyes, Refer to AS/NZS 1336

Hands

Wear PVC, rubber, or cotton gloves when handling material to prevent skin contact, Refer to AS/NZS 2161

Body

Wear long sleeved shirt, full-length trousers, and safety boots

Respiratory

Where an inhalation risk exists (when exposed to dry product, or when cutting, grinding, machining etc without appropriate water suppression) use P1 particulate respirator in accordance with AS/NZS 1715 and AS/NZS 1716, dependent on a site-specific risk assessment



9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical properties

Appearance	VISCOUS GREY LIQUID
Odour	ODOURLESS
Flammability	NON-FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	12 to 13 (approximately)
Vapour density	NOT AVAILABLE
Specific gravity	NOT AVAILABLE
Solubility (water)	NOT AVAILABLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	>1200°C
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

10 STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6

10.2 Chemical stability

Stable under recommended conditions of storage

10.3 Possible hazardous reactions

Polymerisation is not expected

10.4 Conditions to avoid

Avoid contact with incompatible substances

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. Hypochlorite's, ethanol, acids (hydrofluoric acid) and interhalogens (e.g. Chlorine trifluoride) and acids

10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition (>1200°C)

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	No known toxicity data is available for this product. Based on available data, the classification criteria are not met
Skin	Causes skin irritation. Contact may result in irritation, redness, pain, rash, and dermatitis. Caution: prolonged contact with wet concrete may cause serious skin burns
Eye	Causes serious eye damage. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis, and possible alkaline burns. Caution: prolonged contact with wet concrete may cause serious eye damage
Sensitisation	Not classified as causing respiratory sensitisation. Some individuals may exhibit an allergic skin response upon exposure to cement, possibly due to trace amounts of chromium
Mutagenicity	Insufficient data available to classify as a mutagen
Carcinogenicity	Adverse health effects, usually associated with long term exposure to high crystalline silica dust levels are not anticipated due to product form. This product may only present a hazard if dried product is cut, sanded, or drilled with dust generation. Crystalline quartz and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).
STOT – single exposure	Over exposure to dust (if generated) may result in irritation of the nose and throat, with coughing. High level exposure may result in breathing difficulties
STOT – repeated exposure	Due to the product form (wet concrete or mortar), over exposure via inhalation is not anticipated with normal use. However, if dust is generated via cutting, grinding, machining, etc of the dry/set product, repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused by deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are coughing and breathlessness
Reproductive	Insufficient data available to classify as a reproductive toxin
Aspirations	This product is a solid and aspiration hazards are not expected to occur

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Due to the high pH (alkaline nature) of the product it may be harmful to the aquatic environment. This product is non-toxic to aquatic organisms when present as a cured solid.

12.2 Persistence and degradability

Not applicable for inorganic substances.

12.3 Bioaccumulative potential

This product is not expected to bioaccumulate.

12.4 Mobility in soil

A low mobility would be expected in a landfill situation. The product hardens to a solid immobile substance.

12.5 Other adverse effects

Avoid contamination of drains and waterways.

13 DISPOSAL CONSIDERATIONS

Waste disposal	Reuse or recycle where possible. Alternatively, ensure product is covered with moist soil to prevent dust generation and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).
Legislation	Dispose of in accordance with relevant local legislation.

14 TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG/IMO)	AIR TRANSPORT (IATA/ICAO)
14.1 UN Number	None allocated	None allocated	None allocated
14.2 Proper Shipping Name	None allocated	None allocated	None allocated
14.3 Transport Hazard Class	None allocated	None allocated	None allocated
14.4 Packing Group	None allocated	None allocated	None allocated

14.5 Environmental hazards

Due to the high pH (alkaline nature) of the product it may be harmful to the aquatic environment.
This product is non-toxic to aquatic organisms when present as a cured solid.

14.6 Special precautions for user

Hazchem code None allocated
Avoid contamination of drains, waterways and dust generation.

15 REGULATORY INFORMATION

15.1 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).
Inventory listings	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS or are exempt.
Classifications	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).

16 OTHER INFORMATION

Additional information

CEMENT CONTACT DERMATITIS: Individuals using wet cement, mortar, grout, or concrete could be at risk of developing cement dermatitis. Symptoms of exposure include itchy, tender, swollen, hot, cracked, or blistering skin with the potential for sensitisation. The dermatitis is due to the presence of soluble (hexavalent) chromium.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should 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 several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

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Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
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
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report Status

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 Nucon Concrete. 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 Nucon Concrete for further information.

Printed documents are uncontrolled. Refer to www.Nucrush.com.au regularly for a more recent copy of the SDS where it exists.

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

Date Reviewed: 15/06/2023

Version: 4