1. Identification of Substance & Company

Product

Product name	Bentogrout®
HSNO approval	HSR002545
Approval description	Construction Products (Carcinogen) Group Standard 2020
UN number	NA
Proper Shipping Name	NA
DG class	NA
Packaging group	NA
Hazchem code	NA
Uses	Grout

Company Details

Company	**Allco Waterproofing Solutions**	
Address	5 Te Kea Place	PO Box 101-903
	Albany	North Shore City
	Auckland	0745
	New Zealand	New Zealand
Telephone	+64 9 448 1185	
Website	www.allco.co.nz	

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO), Approval Construction Products (Carcinogen) Group Standard 2020, HSR002545. The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

GHS Classes	Hazard Statements
Carcinogen category 1	H350 - May cause cancer.
STOT* repeated exposure category 1	H372 - Causes damage to organs through prolonged or repeated exposure.

*STOT – System Target Organ Toxicity

SYMBOLS

WARNING

Other Classifications

No other classifications are known to apply.

Precautionary Statements

Prevention	P103 - Read label before use. P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust. 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.
Storage	P405 - Store locked up.
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Bentonite which includes:	1302-78-9	Not specified
Crystalline silica, quartz	14808-60-7	<6%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended.

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart.

Skin contact IF ON SKIN (or hair): Rinse skin with water/shower. Wash contaminated clothing before re-use.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice.

Advice to Doctor

Treat symptomatically.

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is non-combustible.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Product does not burn. Dust may form irritating atmosphere.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than 1000kg is stored, secondary containment is required. Emergency plans to manage any potential spills must be in place.

Emergency procedures In the event of large spillage alert the fire brigade to location and give brief description of hazard. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Sweep up the solid. Avoid creating dust. If appropriate, use a gentle water spray to wet material to minimise dust generation.

Clean-up method Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal Sweep up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions Wear protective equipment to prevent skin and eye contamination and the inhalation of dust. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Containers (and outer packaging) must bear the prescribed labelling.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. Minimise dust generation and accummulation. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of dust.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m^3 for respirable particulates and 10mg/m^3 for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Crystalline silica	0.05mg/m^3 (respirable dust)	no data

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General	Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.
Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if dust generated.
Skin	Avoid repeated or prolonged skin contact. If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), avoid contact. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.
Respiratory	A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with a dust/mist filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	solid powder various colours
Odour	Not specified
Odour Threshold	no data
pH	7-9
Freezing/melting point	no data
Boiling Point	no data
Flashpoint	no data
Flammability	non flammable
Upper & lower flammable limits	no data
Vapour pressure	estimated: 0.00004hPa
Vapour density	no data
Specific gravity/density	no data

Solubility	negligible in water
Partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	no data
Particle Characteristics	no data

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	None known
Substance Specific Incompatibility	None known.
Hazardous decomposition products	Will not occur.
Hazardous reactions	Stable

11. Toxicological Information

Summary

IF IN EYES: Fine dust may cause irritation when in direct contact.
IF ON SKIN: Material may cause drying out of skin.
IF INHALED: May cause respiratory irritation. Also see chronic effects.
IF SWALLOWED: No adverse effects anticipated under normal use conditions.
CHRONIC EFFECTS: The adverse health effects from respirable crystalline silica exposure-silicosis, cancer, scleroderma, tuberculosis, and nephrotoxicity- are chronic effects.

Supporting Data

Acute	**Oral**	No data for mixture is available. Using LD_{50}'s for ingredients, the estimated LD_{50} (oral, rat) for the mixture is > 2000 mg/kg.
	Aspiration	This mixture is not considered an aspiration hazard.
	Dermal	No data for mixture is available. Using LD_{50}'s for ingredients, the estimated LD_{50} (dermal, rat) for the mixture is >2000 mg/kg.
	Inhaled	No data for mixture is available. Using LC50's for ingredients, the estimated LC_{50} (inhalation, rat) for the mixture is > 5mg/L (dust).
	Eye	No data for mixture is available. The mixture is not considered to be an eye irritant.
	Skin	No data for mixture is available. The mixture is not considered to be a skin irritant.
Chronic	**Sensitisation**	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	The mixture is considered to be a known or presumed carcinogen, because at least one of the ingredients present in greater than 0.1% is known or presumed to be a carcinogen. This mixture does contain crystalline silica (<6%). Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC Group 1). The mixture triggers Carcinogen cat 1 classification.
	Reproductive / Developmental	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	The mixture is considered to be a known or presumed target organ toxicant, because it contains crystalline silica (quartz). Crystalline silica triggers STOT RE cat 1 classification if it is in the form of a fine respirable dust in an occupational (chronic exposure) setting.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is not considered ecotoxic

Supporting Data

Aquatic	No evidence of ecotoxicity.
Bioaccumulation	Not considered bioaccumulative.
Degradability	Not readily biodegradable
Soil	Not consided ecotoxic in the soil environment.
Terrestrial vertebrate	Not harmful towards terrestrial vertebrates
Terrestrial invertebrate	No evidence to toxicity towards terrestrial invertebrates
Biocidal	Not biocidal
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007
There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	**Proper shipping name:**	NA
Class(es)	NA	**Packing group:**	NA
Precautions:	NA	**Hazchem code:**	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO), EPA approval code: Construction Products (Carcinogen) Group Standard 2020, HSR002545. All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Not required. (non pooling substance)
Signage	Not required.
Location compliance certificate	Not required.
Flammable zone	Not required
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002545, Construction Products (Carcinogen) Group Standard 2020, Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
EPA Notices	www.epa.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	Suppliers SDS

Review

Date	**Reason for review**
August 2022	Not applicable – new SDS

Disclaimer