



Exposure

Swallowed	Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.
Eye contact	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. If eye irritation occurs: Get medical advice.
Skin contact	Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.
Inhaled	If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

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-flammable.
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:	No special measures are required.
Hazchem code:	NA

6. Accidental Release Measures

Containment	There is no current legal requirement for containment of this product.
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.
Disposal	Sweep up and collect recoverable material into labelled containers for recycling or salvage. 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 dusts. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Stable under normal use and storage conditions.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Do not breathe 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/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Perlite	data unavailable	data unavailable
	Quartz (SiO ₂):		
	quartz, respirable dust	0.2mg/m ³	data unavailable
	cristobalite, respirable dust	0.1mg/m ³	data unavailable

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

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if dust is likely.
Skin	Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash contaminated clothing before re-use.
Respiratory	To prevent irritation a well fitted dust mask should be used (this is not recommended when exposure is close to the WES). Use of a P2 dust mask or fine particulate half or full face respirator with an effective seal is recommended when airborne concentrations approach the WES (section 8). 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	White granules
Odour	no odour
pH	6-8.5
Vapour pressure	NA
Particle characteristics	1µm – 15mm
Boiling point	NA
Volatile materials	no data
Freezing / melting point	~1260-1343°C
Solubility	not soluble in water, partially soluble in mineral acid soluble in hot concentrated alkali and hydrogen fluoride, moderately soluble in alkali solutions, insoluble in organic solvents
Density	Bulk density: 32-400kg/m ³ Specific Gravity: 2.2-2.4
Flash point	no data
Danger of explosion	NA
Auto-ignition temperature	NA
Upper & lower flammable limits	NA
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Avoid the creation of dust.
Incompatible groups	Perlite reacts with hydrofluoric acid, strong alkali, strong acids, mineral acids and reducing agents.
Hazardous decomposition products	None known
Hazardous reactions	Perlite reacts with Hydrofluoric Acid to form toxic silicon tetra fluoride gas

11. Toxicological Information

Summary

IF IN EYES: fine dust may cause irritation when in direct contact.
IF ON SKIN: fine dust from this material may cause drying out of skin.
IF INHALED: dust may cause respiratory irritation.
IF SWALLOWED: No adverse effects anticipated under normal use conditions.
CHRONIC EFFECTS: none known

Supporting Data

Acute	Oral	Not considered acutely toxic if swallowed.
	Dermal	Not considered acutely toxic by dermal contact.
	Inhaled	The substance is not considered acutely toxic if inhaled, however there may be irritation of the respiratory tract if dust is inhaled.
	Eye	The mixture is not considered to be an eye irritant. Dust may be an eye irritant (mechanical irritation).
Chronic	Skin	The mixture is not considered to be a skin irritant.
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentration >0.1% is considered a carcinogen.



**Reproductive /
Developmental
Systemic
Aggravation of
existing conditions**

No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
No ingredient present at concentration >1% is considered a systemic toxicant.
None known

12. Ecological Data

Summary

This product is not considered ecotoxic.

Supporting Data

Aquatic	Not ecotoxic in the aquatic environment.
Bioaccumulation	No data
Degradability	No data
Soil	No considered ecotoxic in the soil environment.
Terrestrial vertebrate	Not toxic towards terrestrial vertebrates
Terrestrial invertebrate	Not toxic 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 requirements of the Resource Management Act for which approval should be sought from the Regional Authority.
Contaminated packaging	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

14. Transport Information

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:	Not applicable.	Hazchem code:	NA

15. Regulatory Information

This substance is not considered to be hazardous under HSNO.

All ingredients appear on the NZIoC.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

SDS	Not required (non hazardous), but best practice to have the SDS available.
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	Not required.
Certified handler	Not required.
Tracking	Not required.
Bundling & secondary containment	Not required.
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	not applicable – non hazardous.
CAS Number	Unique Chemical Abstracts Service Registry Number
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Agency
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
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
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
April 2017	New SDS.
June 2021	Update, GHS.

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO and GHS classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.

