

SAFETY DATA SHEET
for New Zealand market

Section 1. Identification of the material and the supplier

Product: **ELCOSEAL Geosynthetic Clay Liner (GCL)**
 Product Use: ELCOSEAL Geosynthetic Clay Liners (GCLs) are used as an easy to install lining system in landfills and waste containment structures and for liquid containment in effluent ponds and tailings dams. ELCOSEAL GCLs are also effective liners for dams, ponds, lakes, wetlands, irrigation canals and channels.

Restriction of Use: Refer to Section 15

Manufacturer: **Geofabrics Australasia Pty Ltd**
 83-93 Canterbury Road
 Braeside
 Victoria 3195, Australia
 Ph: +61 3 8586 9144

New Zealand Supplier: **Geofabrics New Zealand Ltd**
 14 Goodman Place
 Penrose
 Auckland 1061, New Zealand
 Ph: +64 9 634 6495

Emergency phone number: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 1 December 2017

Date of SDS Expiry: 1 December 2022

Section 2. Hazards Identification

This substance is hazardous according to the Hazardous Substances (Classification) Notice 2017

EPA Approval No: Construction Products (Toxic [6.7]) – HSR002551

Pictograms



Chronic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.7A	H350	May cause cancer.	Category 1A
6.9A	H372	Causes damage to organs through prolonged or repeated exposure.	Category 1

Prevention Code	Prevention Statement
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 Code	Response Statement
P314	Get medical advice/attention if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Quartz/Cristobalite	<18	14808-60-7 14464-46-1
Non hazardous	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on Skin	Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. 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. Seek medical attention if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation: Inhalation of dusts may irritate the respiratory system. Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema and asthma. Onset and progression are related to dust concentrations and duration of exposure. Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or

signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma. Exposure by inhalation may aggravate pre-existing upper respiratory and lung disorders such as bronchitis, emphysema and asthma.

Skin: Skin contact may cause mechanical irritation resulting in redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye: Eye contact may cause mechanical irritation. May result in mild abrasion.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable or combustible.
Hazards from combustion products	Heating can cause expansion or decomposition. The packaging may burn under fire conditions.
Suitable Extinguishing media	Use extinguishing media that are suitable for the surrounding combustible materials.
Precautions for firefighters and special protective clothing	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed product.
HAZCHEM CODE	None Allocated

Section 6. Accidental Release Measures

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure.

Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled plastic containers for subsequent recycling or disposal.

Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only in a well ventilated area. Prevent the build-up of dust in the work atmosphere.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture.
- Ensure at all times the product is labelled as HAZARDOUS and that locations in which the product is stored has appropriate reference to the presence of HAZARDOUS material.

Section 8**Exposure Controls / Personal Protection****WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Crystalline Silica (quartz and cristobalite)	-	0.1	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone.

Personal Protection Equipment

Eyes	Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 -Eye Protectors for Industrial Applications.
Hands	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Skin	Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.
Respiratory	If engineering controls are not effective in controlling airborne exposure then a respirator with a replaceable dust/particulate filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Section 9**Physical and Chemical Properties**

Appearance	Powder or Granules
Colour	Light pink, off white
Odour	No specific odor
Odour Threshold	Not available
pH	7-9 (20% aqueous slurry)
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Non-combustible
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	3.30

Water Solubility	Insoluble. Forms colloidal suspensions in water, with strong thixotropic properties.
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Not available
Conditions to Avoid	Extremes of temperature, dust accumulation.
Incompatible Materials	Not available
Hazardous Decomposition Products	Not available

Section 11 Toxicological Information

Acute Effects:

Swallowed	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Dermal	Not applicable.
Inhalation	Inhalation of dusts may irritate the respiratory system. Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema and asthma. Onset and progression are related to dust concentrations and duration of exposure. Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma. Exposure by inhalation may aggravate pre-existing upper respiratory and lung disorders such as bronchitis, emphysema and asthma.
Eye	Eye contact may cause mechanical irritation. May result in mild abrasion.
Skin	Skin contact may cause mechanical irritation resulting in redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Chronic Effects:

Carcinogenicity	May cause cancer by inhalation.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure.

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Section 13. Disposal Considerations

Disposal Method:

Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product, rinsate, or contaminated spill media is labelled "Hazardous Waste – Carcinogenic" and that the label also has the Chronic Pictogram, waste type identifier, and the business name, address, and phone number.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Section 15 Regulatory Information

EPA Approval Code: Construction Products (Toxic [6.7]) – HSR002551

HSNO Classification: 6.7A, 6.9A

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Approved Handler	Not required as per Group Standard
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	1000kg (6.7A)
Secondary Containment	1000kg (6.7A)
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level

1. HSNO Approved Code of Practice: Hazardous Substances (Safety Data Sheets) Notice 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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