SAFETY DATA SHEET

JAMES HARDIE FIBRE CEMENT SHEETS PRODUCTS

Infosafe No.: LQA8N
ISSUED Date : 18/06/2020
ISSUED by: James Hardie New Zealand Limited

1. IDENTIFICATION

GHS Product Identifier
JAMES HARDIE FIBRE CEMENT SHEETS PRODUCTS

Company Name
James Hardie New Zealand Limited

Address
50 O'Rorke Road, PO Box 12-070, Penrose
Auckland 1061 New Zealand

Telephone/Fax Number
Tel: 0800 808 868 (CustomerLink)

Emergency phone number
0800 154 666 (24 Hours)

Recommended use of the chemical and restrictions on use
Fibre cement sheet products are used as internal lining, external cladding, soffits and eaves lining, and internal/external flooring as per the relevant installation guides.

Precautions: Fibre cement sheet products listed are not classified as hazardous substances under HSNO. However these products contain crystalline silica, which may be released on cutting, grinding or drilling. For safe use of these products refer to the current Safe Working Practices in the relevant installation guide provided by James Hardie, which detail recommended Best Practice guidelines.

Other Names

Name	Product Code
Axent™ Fascia	
Axent™ Trim	
Axon™ Panel	
CLD™ Structural Cavity Batten	
ExoTec™ Façade Panel	
Hardie Soffit™ Lining	
HardiePanel™ Compressed Sheet	
HomeRAB™ PreCladding	
James Hardie™ Weatherboards	
Linea™ Oblique™ Weatherboard	
Linea™ Weatherboard	
Monotek™ Sheet	
Secura™ Interior/Exterior Flooring	
Stria™ Cladding	
Tile and Slate Underlay	
Titan™ Façade Panel	
EasyLap™ Panel	
RAB™ Board	
HardieFlex™ Sheet	
Villaboard™ Lining	
HardieGroove™ Lining	

2. HAZARD IDENTIFICATION

IMPORTANT NOTE(S)

Approval

Fibre cement is a manufactured Article. The products are exempt under HSNO.

The following classification applies to any respirable crystalline silica dust potentially released from James Hardie Fibre Cement products, e.g. during cutting, drilling, grinding or rebating in the course of installation and handling of this product. The intact fibre cement products are not expected to result in any adverse toxic effects.

Other Classifications

The dust and fibres of this substance may be irritating to the skin and respiratory tract as a result of physical (mechanical) reaction (i.e. scratch). The irritation is not a result of a chemical reaction and therefore does not trigger these classifications under HSNO.

GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017, New Zealand.
Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.
6.7A Substance that is known or presumed to be a human carcinogen
6.9A (Repeated exposure) - Substance that is toxic to human target organs or systems

Signal Word (s)

DANGER

Hazard Statement (s)

H350 May cause cancer by inhalation.
H372 Causes damage to organs (lungs and respiratory system) through prolonged or repeated exposure by inhalation.

Pictogram (s)
Health hazard

Precautionary statement – Prevention
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 contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

Precautionary statement – Disposal
P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition
The exact ratio of components will vary between specific products. Trace quantities of impurities are also likely.

Ingredients

Name	CAS	Proportion
Crystalline Silica (Quartz)	14808-60-7	10-60 %
Calcium Silicate Hydrate	1344-96-3	10-50 %
Cellulose	9004-34-6	<15 %
Calcium Silicate	1344-95-2	<10 %
Ingredients determined not to be hazardous		Balance

4. FIRST-AID MEASURES

First Aid Measures
General Information
You should call 0800 154 666 (24 hr, 7 days a week emergency response service) if you feel that you may have been harmed or irritated by the dust of this product. If shortness of breath or other health concerns develop after exposure to dust from the product, seek medical attention. If medical advice is needed, have this SDS or label at hand.

Inhalation
IF INHALED: Dusts may cause irritation. If experiencing irritation, remove to fresh air. Drink water to clear throat. If shortness of breath or wheezing develops, seek medical attention. Call 0800 154 666 (24 hr, 7 days a week emergency response service) or doctor/physician if you feel unwell.

Ingestion
Due to the nature of the product, this route of exposure is not expected under normal conditions. Give a glass of water to drink. If a substantial quantity has been swallowed, call 0800 154 666 (24 hr, 7 days a week emergency response service).

Skin
IF ON SKIN: Wash with plenty of soap and water. Get medical advice if irritation occurs or persists.

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. If eye irritation occurs: Get medical advice.

First Aid Facilities
Ready access to running water is recommended.

Advice to Doctor
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.

Hazards from Combustion Products
Non-flammable material.

Specific Hazards Arising From The Chemical
This product is non-flammable.

Decomposition Temperature
Not available

Precautions in connection with Fire
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
This product is not considered flammable or ecotoxic.
If a significant spill of dust occurs:
Wear protective equipment to prevent skin, eye and respiratory exposure to dusts.
Clear area of any unprotected personnel.
Avoid creating dust. If appropriate, use a gentle water spray to wet dust to minimise dust generation.

Methods And Materials For Containment And Cleaning Up
Containment: There is no current legal requirement for secondary containment of this product. Prevent dust formed from the product from entering environment as it may clogg drains and cause excess sediment in waterways.

Clean-up method: If possible to wet the dust, wet and sweep up the solid. Dry sweeping should not be attempted. Vaccuming with an M or H class industrial vacuum is recommended. Do not wash material down stormwater drains.

Spills & Disposal
Collect recoverable material into labelled containers for recycling or salvage. This material may be suitable for approved landfill. Dispose of only in accordance with all regulations. See section 13.

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

Other Information
Fibre cement products in their intact state do not present a fire, health or environmental hazard. The mentioned precautions apply to spills and releases of dust generated during cutting, rebating, drilling, routing, sawing or abrading fibre cement.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Keep exposure to crystalline silica dust to a minimum, and minimise the quantities of dust in work areas.
During installation and use of this product: Wherever possible, practices likely to generate dust should be carried out in well-ventilated areas (e.g.outdoors).
Minimise dust creation by using the recommended tooling and cutting methods. (refer to the relevant installation guide and James Hardie Best Practice Guide for tips on the safe handling of these products).
Work area should be cleaned regularly by wet sweeping or vacuuming with an M or H class vacuum.
Keep away from incompatible substances (section 10).
Avoid inhalation of dust, and skin or eye contact. Prevent the build up of dust in the work atmosphere. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities.
Avoid exposure. Do not use until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities
Avoid contact with incompatible substances as listed in Section 10.
Store all James Hardie building products in a dry location. Avoid mechanical damage to the product, such as chipping of the edges and corners of the sheets. The product must be laid flat under cover on a smooth surface clear of the ground to avoid exposure to water or moisture.
Store in a cool, well-ventilated area, out of direct sunlight and moisture. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

Corrosiveness
Non corrosive

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Ingredient: Crystalline Silica (Quartz) (respirable dust)
WES-TWA: 0.05 mg/m³
Note: 6.7A

Ingredient: Calcium Silicate
WES-TWA: 10 mg/m³

Ingredient: Cellulose
WES-TWA: 10 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Source: Workplace Exposure Standards and Biological Exposure Indices

Biological Limit Values
No biological limits allocated.

Appropriate Engineering Controls
The dust created when cutting, drilling, rebating or grinding fibre cement products using high speed tools is hazardous and should be carried out with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.
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 airborne concentrations of dusts are high, you are advised to modify processes or increase ventilation.

Personal protection when handling products in a manner that may generate silica dust: 1) Refer to current James Hardie instruction and best practice guide to reduce or limit the release of dust. 2) Warn others in the area to avoid the dust. 3) When using mechanical saws or high speed cutting tools, work out doors and use a well mainained M or H class industrial vacuum & filter appropriate for capturing fine respirable dust. 4) Wear a correctly fitted, approved dust mask or respirator (see below). 5) Consider rotating personnel across the cutting task.
During clean-up, use a well-maintained M or H class vacuum and filter appropriate for capturing fine respirable dust or use wet clean-up methods, never dry sweep.

Respiratory Protection
Always use appropriate and correctly fitted respiratory protection equipment when using high speed tooling on fibre cement products.
Reference should be made to Australian 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.
Ideally, select respirators based on the level of exposure to crystalline silica as measured by dust sampling. Use respirators that offer protection to the highest concentrations of crystalline silica if the actual concentrations are unknown.
Put in place a respiratory protection and monitoring program. Monitoring for exposure to hazardous chemicals.

Eye Protection
Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.
Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection
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. Occupational protective gloves should conform to relevant regulations.
Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Footwear
Wear safety footwear, i.e. steel capped boots. Final choice will vary according to individual circumstances.

Body Protection
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where high quantities of product are cut and/or dust produced.

Other Information
Specific Handling instructions:
Cutting Outdoors:
Position cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation.
Use one of the following methods based on the required cutting rate and job-site conditions:
BEST - Score and snap using carbide-tipped scoring knife or utility knife.
- Fibre-cement shears (electric or pneumatic).
BETTER - Dust reducing circular saw equipped with Hardieblade™ saw blade and M or H class vacuum. Always wear an approved dust mask or respirator and warn others in the immediate area.

Cutting Indoors:
Cut only using score and snap method or with fibre-cement shears (manual, electric or pneumatic)
Position cutting station in well-ventilated area to allow for dust dissipation.

Sanding / Rebating / Drilling / Other Machining:
If sanding, rebating, drilling or other machining is necessary, you should always connect tool to a M or H class vacuum and wear an approved dust mask or respirator and warn others in the immediate area.

Clean-Up:
During clean-up of dust and debris, NEVER dry sweep as it may excite silica dust particles into the user's breathing area. Instead, wet debris down with a fine mist to suppress dust during sweeping, or use a M or H class vacuum to collect particles.

Important Notes:
For maximum protection (lowest respirable dust production), James Hardie recommends always using "Best" level cutting methods where feasible.
NEVER use a power saw indoors.
NEVER use a circular saw blade that does not carry the Hardieblade™ saw blade trademark, or is of equal or better performance at reducing risk of dust exposure.
NEVER dry sweep – use wet suppression methods or M or H class vacuum.

NEVER use a grinder or continuous rim diamond blade for cutting.
ALWAYS follow tool manufacturer's safety recommendations.

WES Additional Information
Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Solid	**Appearance**	Solid usually grey sheets or planks with various dimensions according to the product profiles
Colour	Grey	**Odour**	No odour
Decomposition Temperature	Not available	**Melting Point**	Not available
Boiling Point	Not available	**Solubility**	Not applicable
Specific Gravity	Not available	**pH**	Not available
Vapour Pressure	Not applicable	**Vapour Density (Air=1)**	Not available
Evaporation Rate	Not available	**Corrosiveness**	Non corrosive
Odour Threshold	Not available	**Viscosity**	Not available
Volatile Component	Not available	**Partition Coefficient: n-octanol/water**	Not available
Flash Point	Not flammable	**Auto-Ignition Temperature**	Not available
Explosion Limit - Upper	Not applicable	**Explosion Limit - Lower**	Not applicable
Explosion Properties	Not available	**Oxidising Properties**	Not available

10. STABILITY AND REACTIVITY

Reactivity
Reacts with incompatible materials.

Chemical Stability
Product is non reactive and stable under normal conditions of storage and handling.

Conditions to Avoid
Avoid the creation of dust during processing, handling and installation.

Incompatible materials
Incompatible groups:
Hydrofluoric acid will dissolve silica and can generate silicon tetrafluoride, a corrosive gas. Contact with strong oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride or oxygen difluoride may cause fires and /or explosions. Furthermore, limestone is incompatible with acids and ammonium salts.
Substance Specific Incompatibility:
May react with hydrofluoric acid to form toxic silicon tetra-fluoride gas.

Hazardous Decomposition Products
Thermal decomposition may result in the release of toxic and/or irritating fumes.

Possibility of hazardous reactions
Reacts with incompatible materials.

Hazardous Polymerization
Not available

11. TOXICOLOGICAL INFORMATION

Toxicology Information
Summary:
Fibre cement is non-toxic in its intact form. The following applies to respirable dust that may be generated during cutting, rebating, drilling, routing, sawing, crushing or otherwise abrading fibre cement.

Acute Toxicity - Oral
The estimated LD_{50} (oral, rat) for the mixture is >5,000 mg/kg. Calcium Silicate: 3400 mg/kg (rat).

Acute Toxicity - Inhalation
The substance is not considered acutely toxic if inhaled, however there may be irritation of the respiratory tract if dust is inhaled.

Acute Toxicity - Dermal
The estimated LD_{50} (dEPAl, rat) for the mixture is >5,000 mg/kg.

Ingestion
No adverse effects expected, however ingesting large amounts 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, emphysaema and asthma.
Dusts may cause upper respiratory tract irritation, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) upon inhaling dust during cutting, rebating, drilling, routing, sawing, crushing or otherwise abrading fibre cement, and when cleaning up, disposing of or moving the dust.

Skin
This product is not absorbed through the skin. Dust may dry out the skin. The mixture is not considered to be a skin irritant. May cause abrasive irritation in contact with the skin, which can result in redness, itching and possible dermatitis.

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

Respiratory sensitisation
Not expected to be a respiratory sensitiser.

Skin Sensitisation
Not expected to be a skin sensitiser.

Germ cell mutagenicity
Not considered to be a mutagenic hazard.
No ingredient present at concentrations >0.1% is considered a mutagen.

Carcinogenicity
May cause cancer by inhalation. Respirable crystalline silica is classified by International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1) .
The carcinogenicity of silica is related to long term (e.g., 10 years) inhalation of very fine particulate. Carcinogenicity of silica appears linked to development of silicosis (see systemic below) followed by complications and, eventually lung cancer.

Reproductive Toxicity
Not considered to be toxic to reproduction.
No ingredient present at concentrations >0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.

STOT-single exposure
Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure
Causes damage to organs (lungs and respiratory system) through prolonged or repeated exposure by inhalation.

Aspiration Hazard
Not expected to be an aspiration hazard.

Other Information
Systemic:
There may be some irritation of the respiratory tract. This product contains crystalline silica which if it is in the form of a fine respirable dust may cause silicosis in an occupational setting. Exposure to respirable crystalline silica may also affect the immune system and the kidneys.
Aggravation of existing conditions:
Medical conditions which may be aggravated: pre-existing upper respiratory and lung disease such as, but not limited to bronchitis, emphysema and asthma.
Some studies suggest that cigarette smoking increases the risk of silicosis, bronchitis and lung cancer in persons also exposed to crystalline silica.

12. ECOLOGICAL INFORMATION

Ecological information
Summary:
These products are not considered ecotoxic.
Supporting Data:
Aquatic: The mixture is not considered to be toxic in the aqueous environment.
Soil: The mixture is not considered to be toxic in the soil environment.
Biocidal: Not designed as a biocide.
Terrestrial vertebrate: This product is not considered harmful to terrestrial vertebrates. No LC_{50} (diet) data for ingredients are available and the classification is based on the LD_{50} (oral) – see section 11 – oral toxicity.
Terrestrial invertebrate: The mixture is not considered harmful to terrestrial invertebrates.

Persistence and degradability
Not available

Mobility
Not available

Bioaccumulative Potential
This product is not considered biopersistent.

Other Adverse Effects
Not available

13. DISPOSAL CONSIDERATIONS

Disposal considerations
The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. Restrictions: There are no product-specific restrictions, however, local council and resource consent conditions may apply.
Product Disposal:
Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. The product should be rendered non-hazardous before being sent to a licensed landfill facility.
Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed. Do not dispose directly into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.
In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Notice 2017. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.
Disposal of the dust of this product must comply with requirements of the Resource Management Act 1991 for which approval should be sought from the Regional Authority. Place dust in sealable plastic bags and label as construction waste.
Container Disposal:
The packaging can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.
In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

14. TRANSPORT INFORMATION

Transport Information
Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

U.N. Number
None Allocated

UN proper shipping name
None Allocated

Transport hazard class(es)
None Allocated

IMDG Marine pollutant
No

Transport in Bulk
Not available

Special Precautions for User
Not available

15. REGULATORY INFORMATION

Regulatory information
Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017, New Zealand.
These products are Manufactured Articles. The products are exempt under HSNO.
Fibre Cement products are not classified as hazardous substances under HSNO. However these products contain crystalline silica, which may be released on cutting, grinding or drilling. Crystalline silica is an approved substance under the HSNO act as Construction Products (Toxic [6.7A]) Group Standard 2017, HSR002545.
All ingredients appear on the NZIoC.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix) for crystalline silica:

Key workplace requirements are:
SDS - Required if storing any quantity
Emergency plan - Required if storing >1000kg (dust).
Certified handler* - Not required.
Tracking - Not required.
Bunding and secondary containment - Required if storing >1000kg (dust).
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 1991 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.

HSNO Approval Number
Not applicable – Fibre Cement Sheet is a manufactured Article. The product is exempt under HSNO.
Fibre Cement Sheet Products contain crystalline silica, which is an approved substance under HSNO as Construction Products (Toxic [6.7A])

Group Standard 2017, HSR002545.

Approval description: Manufactured Article

16. OTHER INFORMATION

Date of preparation or last revision of SDS
SDS Created: June 2020

References
Hazardous Substances and New Organisms Act 1996.
Health and Safety at Work (Hazardous Substances) Regulations 2017.
Workplace Exposure Standards and Biological Exposure Indices.
Transport of Dangerous goods on land NZS 5433.
Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 09-06).
Assigning a hazardous substance to a group standard.
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Other Information
Abbreviations:
Approval Code - Crystalline silica dust: Approval HSR002545, Construction Products (Toxic 6.7) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number - Unique Chemical Abstracts Service Registry Number
Ceiling - Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix - List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC50 - 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)
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)
MSDS (SDS) - Material Safety Data Sheet (or Safety Data Sheet)
NZIoC - New Zealand Inventory of Chemical
PES - Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
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 workers breathing zone.

END OF SDS