1. Identification of Substance & Company

Product	
Product name	James Hardie Fibre Cement Products
Other names	HardieDeck™ System, Scyon™ Stria™ cladding, Scyon™ Matrix™ cladding, Scyon™ Axon™ cladding, Scyon™ Linea™ weatherboard cladding, Scyon™ Axent trim, Scyon™ Secura™ exterior flooring , Scyon™ Secura™ interior flooring, EasyLap™ panel, Architectural™ Invibe™ Panels and Architectural™ Inraw™ Panels, Artista™ column, Ceramic Tile Underlay, ComTex™ Façade Panel, ExoTec™ Facade Panel, HardieBrace™ Sheet, HardieFlex™ Eaves Lining, HardieFlex™ Sheet, HardieGroove™ Lining, HardiePanel™ Compressed Sheets, HardiePlank™ Smooth Cladding, HardiePlank™ Woodgrain Cladding, HardiePlank™ Old Style Cladding, HardiePlank™ Rusticated Cladding, HardieScreen™ Lattice, HardieTex™ Base Sheet, PanelClad™ Stucco sheets, PanelClad™ TextureLine sheets, PineRidge™ Lining, PrimeLine™ Heritage Cladding, PrimeLine™ Chamfer Cladding, PrimeLine™ Summit Cladding, PrimeLine™ Newport Cladding, Villaboard™ Lining, Versilux™ Wall & Ceiling Lining, Vinyl and Cork Underlay and HardieFence™ sheets.
UN number	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	The above products are used in internal lining, external cladding, internal/external flooring, decking and fencing applications as per the relevant installation guides.
Company Details	
Company	**James Hardie Australia Pty Limited**
Address	10 Colquhoun Street Rosehill NSW 2142 Australia
Telephone	13 11 03

Emergency Telephone Number: 13 11 03

2. Hazard Identification

Hazard classification for Australia (GHS)

This product has been assessed according to GHS and is classified as follows:

GHS category	Hazard Code	Hazard Statements
Carcinogenicity, Cat 1A	H350	* May cause cancer through inhalation of dust.
Specific Target Organ Toxicity, Cat 1	H372	* Causes damage to lungs and respiratory system through prolonged or repeated exposure by inhalation of dusts.

*** This 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.**

SYMBOLS

DANGER

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.

Precautionary Statements

The following precautionary statements apply to handling and installation of this product and if respirable dust is created during processing/handling and installation. For details of personal protective equipment prefer to section 8.

Prevention

P201	Obtain special instruction before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust.
P264	Wash hands and face thoroughly after handling.
P270	Do not eat, drink or smok when using this product.
P281	Use personal protective equipment as required.

Response

P308+P313	IF exposed or concerned: get medical advice
P314	Get medical advice if you feel unwell.

Disposal

P501	Dispose of products in accordance with local/regional/national/international regulations.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration
Crystalline Silica (quartz)	14808-60-7	20-60%
Calcium Silicate (hydrate)	65997-15-1	35-65%
Calcium Carbonate	471-34-1	<30%
Calcium Aluminium Silicate (hydrate)	NA	<20%
Cellulose	9004-34-6	<15%
Carbon Black	1333-86-4	<1%

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

4. First Aid

General Information

If medical advice is needed, have product label at hand. You should call the Poisons Information Centre if you feel that you may have been harmed or irritated by this product. The number is 13 11 26 (24 hr, 7 days a week emergency service).
If shortness of breath or other health concerns develop after exposure to dust from the product, seek medical attention.

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

Exposure

Swallowed IF SWALLOWED: Give a glass of water to drink. Do NOT induce vomiting. If any symptoms occur, contact a doctor.

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.

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

Inhaled 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 a POISON CENTER or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	There are no specific risks for fire/explosion for this product. It is non-flammable.
Suitable extinguishing substances:	Not applicable.
Unsuitable extinguishing substances:	Not applicable.
Products of combustion:	Fibre Cement boards are non-flammable.
Protective equipment:	No special measures are required.
Hazchem code:	1T (recommended, no signage required)

6. Accidental Release Measures

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

Emergency procedures	This product I not considered flammable or ecotoxic. If a significant spill 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 material to minimise dust generation.
Clean-up method	If possible to wet the dust, wet and sweep up the solid. Dry sweeping should not be attempted. Vaccuming with an industrial vacuum outfitted with a high efficiency particulate filter is recommended. Do not wash material down stormwater drains.
Disposal	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. See section 14.
Precautions	Wear protective equipment to prevent eye contamination and the inhalation of dusts. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage near food and beverages. 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.
Handling	Keep exposure to crystalline silica dust to a minimum, and minimise the quantities of dust in work areas. During installation and handling 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 the technical data sheet 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. Keep away from incompatible substances (section 10).

8. Exposure Controls / Personal Protective Equipment

Exposure Standards

An Exposure Standard (ES) for the mixture has not been established. Below are the exposure standards for the ingredients that are listed in the NOHSC: 1003.

NOHSC (NOHSC: 1003)	Ingredient	ES-TWA	ES-STEL
	nuisance dust	10mg/m^3	Not available
	quartz (SiO_2):		
	quartz (respirable dust)	0.1mg/m^3	Not available
	cristobalite (respirable dust)	0.1mg/m^3	Not available
	cellulose (paper fibre)	10mg/m^3	Not available
	carbon black	3mg/m^3	Not available

Engineering Controls

In workplace situations, concentration values below the ES value must be maintained. 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 that may generate silica dust: 1) Refer to current James Hardie instruction and best practice guidelines to reduce or limit the release of dust. 2) Warn others in the area to avoid the dust. 3) When using mechanical saw or high speed cutting tools, work out doors and use dust collection equipment. 4) if no other dust controls are available, wear an approved dust mask or respirator (see below).
During clean-up, use a well-maintained vacuum and filter appropriate for capturing fine respirable dust or use wet clean-up methods, never dry sweep.

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-class vacuum extraction GOOD (for low to moderate cutting only) • Dust reducing circular saw with Hardieblade™ saw blade
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 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-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 HEPA vacuum. NEVER use a grinder or continuous rim diamond blade for cutting. ALWAYS follow tool manufacturer's safety recommendations.

Personal Protective Equipment

Eyes	Avoid contact with eyes. Use safety glasses or goggles if irritant levels of dusts are present.
Skin	Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves if concerned about irritation or dryness of the skin.
Respiratory	Use Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment for more extensive guidance and more options on selecting respirators for the workplace. 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 that complies with Safe work Australia Guide for Health Monitoring for exposure to hazardous chemicals.

WES Additional Information

No additional information

9. Physical & Chemical Properties

Appearance	Solid usually grey sheets or planks with various dimensions according to the product profiles.
Odour	no odour
pH	no pH data
Vapour pressure	not applicable
Viscosity	no data
Boiling point	no data
Volatile materials	not applicable
Freezing / melting point	no data

Solubility	no data
Specific gravity / density	no data
Flash point	not flammable
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Product is non reactive and stable.
Conditions to be avoided	Avoid the creation of dust during processing, handling and installation.
Substance Specific Incompatibility	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.
Hazardous decomposition products	May react with hydrofluoric acid to form toxic silicon tetra-fluoride gas.
Hazardous reactions	None known

11. Toxicological 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.

IF SWALLOWED: No adverse effects expected.
IF IN EYES: Dust may be irritating to eyes (mechanical irritation).
IF ON SKIN: This product is not absorbed through the skin. Dust may dry out the skin.
IF INHALED: 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.
CHRONIC EFFECTS: Long term exposure to high levels of fine nuisance dust may cause injury to lungs and the respiratory system. This product contains crystalline silica (quartz and cristabolite). Inhaling crystalline silica containing dusts can aggravate respiratory conditions such as asthma or emphysema. Long term exposure to crystalline silica dust can lead to silicosis, and there is limited evidence of carcinogenicity for crystalline silica dust. Acute silicosis may occur s a result of extremely high exposure to respirable crystalline silica over a short period (<5years). Accelerated silicosis can develop over 5-10 years of exposure to high levels of respirable crystalline silica. Chronic silicosis may develop as a result of lower levels of exposure to respirable crystalline silica over >10 years. In addition to silicosis there is some evidence that exposure to respirable crystalline silica may be linked to scleroderma and an increased risk of kidney disease.

Supporting Data

Acute	**Oral**	No evidence of oral toxicity.
	Dermal	No evidence of dermal toxicity.
	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 dust may cause eye irritation (mechanical).
	Skin	The mixture is not considered to be a skin irritant.
Chronic	**Sensitisation**	No evidence of skin sensitisation or respiratory sensitisation.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	This product contains crystalline silica. Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC Group 1). The carcinogenicity of silica is related to long term (e.g., 10 years) inhalation of very fine particulate (e.g., from sand blasting or dry cutting of concrete). Carcinogenicity of silica appears linked to development of silicosis (see systematic below) followed by complications and, eventually lung cancer.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	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 Data

Summary

These products are not considered ecotoxic.

Supporting Data

Aquatic	These products are not considered to be toxic in the aqueous environment.
Bioaccumulation	No data.
Degradability	No data
Soil	These products are not considered to be toxic in the soil environment.
Biocidal	Not designed as a biocide.

13. Disposal Considerations

Restrictions	There are no product-specific restrictions. However, state and local disposal regulations may apply. Note that state and local disposal regulations may differ from federal disposal regulations.
Disposal method	Disposal of this product must comply with the requirements of state and local disposal regulations. If there are no applicable regulations, dispose of in a secure landfill, or in a way that will not expose others to dust.
Contaminated packaging	Not applicable.

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

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)	Not scheduled	
Applicable prohibitions and notifications/licensing requirements	Not listed	
Agricultural and Veterinary Chemicals Act	Not listed	
Listing in the Australian Inventory of Chemical Substances (AICS)	Quartz	High Volume Industrial Chemicals List (HVICL) Hazardous Substance International Programme on Chemical Safety (IPCS) – CICAD
	Cristobalite	High Volume Industrial Chemicals List (HVICL) Hazardous Substance
	Calcium silicate hydrate	High Volume Industrial Chemicals List (HVICL)
	Calcium carbonate	High Volume Industrial Chemicals List (HVICL)
	Cellulose	listed
	Carbon black	Hazardous substance High Volume Industrial Chemicals List (HVICL)
Additional information	Not applicable	
GHS Hazardous Chemical Information List	Not listed	

16. Other Information

Abbreviations

AICS	Australian Inventory of Chemical Substances
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)
ES	Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day.
GESTIS	Database on Hazardous substances, Information system on hazardous substances of the German Social Accident Insurance.
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSIS	Hazardous substance Information System, http://hsis.safeworkaustralia.gov.au/
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)
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NZ EPA CCID	New Zealand Environmental Protection Agency. Chemical Classification Information Database.
Peak Limitation	Peak Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
SDS	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
STOT	Specific Target Organ Toxicity
TWA	Time Weighted Average – generally referred to ES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number

References

Data	Unless otherwise stated comes from Hazardous Substances Information System (HSIS) for the specific chemical.
NOHSC: 1003	National Occupational Health and Safety Commission 1995, *Exposure Standards for Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]*
Other References:	Suppliers SDS

Review

Date	**Reason for review**
August 2016	Not applicable – new SDS

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 GHS classifications for this SDS have been allocated based on general information from the supplier (e.g., hazard, toxicological). This SDS is prepared in accordance with the Code of Practice for "Preparation of Safety Sheets for hazardous Chemicals" December 2011 in accordance with WHS regulations.

To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.

Datachem