

# Material Safety Data Sheet

**Product Name: Litecrete Lightweight Precast Concrete**

**STATEMENT OF HAZARDOUS NATURE:** This product is classified as not hazardous according to the criteria of OSH. However, dust generated from the cutting, drilling or grinding of all concrete products, including this product, is hazardous.

**MANUFACTURER:**

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**IMPORTANT NOTICE:** This Material Safety Data Sheet (MSDS) is issued by Litecrete (NZ) Ltd, in accordance with OSH (Occupational Safety and Health) guidelines. As such, the information in it must not be altered, deleted or added to. Litecrete (NZ) Ltd will issue a new MSDS when there is a change in product specifications and/or OSH guidelines/regulations. Litecrete (NZ) Ltd will not accept any responsibility for any changes made to its MSDS by any other person or organisation.

**Description:**

Product name:	Litecrete
Applicable In:	New Zealand
Manufacturer's Product Code:	Not Applicable
UN number:	None Allocated
Dangerous goods class & Subsidiary Risk:	None Allocated
Hazchem code:	None Allocated
Poisons schedule number:	None Scheduled
Use:	Litecrete lightweight concrete has a wide variety of applications, such as wall and roofing panels in residential commercial and industrial construction projects.

**Physical Description/Properties:**

Appearance:	Solid concrete – light grey colour
Boiling Point:	(°C) Not Determined
Melting Point:	(°C) Not Determined
Vapour pressure:	Not Determined
Specific gravity (H <sub>2</sub> O = 1)	1.35
Flashpoint:	Not Applicable
Flammability Limits:	Not Flammable
Solubility in water:	Not Soluble
pH, at stated concentration	>7.0

**Ingredients:**

<b>Chemical Name:</b>	<b>CAS Number:</b>	<b>Proportion:</b>	<b>Exposure Limits:</b>
Portland cement	65997-15-1	+/-30%	10 mg/m <sup>3</sup> insp dust
Pumice, coarse and fine	1332-09-8	+/-50%	0.2 mg/m <sup>3</sup> resp
polypropylene fibre (polyolefin)	9003-07-0	+/-1%	5 mg/m <sup>3</sup> resp
Water		+/-18%	
Steel rod and bar and/or steel mesh		<10%	
Admixtures (such as water reducers, plasticisers and waterproofing agents)		+/-1%	



## Health Hazard Information

*Note:* Concrete products in their intact state and as delivered do not release airborne dusts, but crystalline silica (quartz) dust may be produced during cutting, drilling, grinding, chasing and other machining of the product. Concrete dust contains crystalline silica, and repeated inhalation of crystalline silica may cause serious illness (see below - Health effects, chronic). Repeated inhalation of crystalline silica may add or multiply the serious health effects caused by tobacco smoking. Concrete dusts, in association with sweat and friction can lead to skin irritation and dermatitis, and the dust may be irritating to the eyes and upper respiratory system.

### Health Effects of Concrete Dust

#### **Acute:**

*Swallowed:* Unlikely under normal conditions of use, but swallowing concrete dust may cause irritation of the mouth and throat and may result in abdominal discomfort.

*Eye:* Concrete dust is irritating and corrosive to the eyes causing watering and redness and may result in corneal inflammation and ulceration.

*Skin:* The dust, particularly in association with heat and sweat, may irritate the skin, resulting in itching and occasionally a red rash.

*Inhaled:* Concrete dust is irritating to the nose, throat and lungs, especially in people with upper respiratory tract or chest complaints such as asthma.

#### **Chronic:**

*Inhaled:* Repeated exposure to the dust may result in increased nasal and respiratory secretions and coughing. Repeated inhalation of dry concrete dust containing crystalline silica can cause scarring of the lung (silicosis), lung cancer, and chronic bronchitis, and may increase the risk of scleroderma (thickening of the connective tissue) and kidney disease.

*Skin:* Repeated skin contact with the dust can lead to skin irritation and dermatitis. Concrete dust may cause sensitisation in some people resulting in dermatitis.

#### **First Aid**

*Swallowed:* Give plenty of water to drink to flush mouth and throat and do not induce vomiting.

*Eye:* Flush thoroughly with flowing water for at least 15 minutes as concrete is alkaline. If symptoms/irritation or redness persists, seek medical attention.

*Skin:* Flush dust off skin with running water. Wash with soap and water. Seek medical attention if there is any rash or redness of the skin.

*Inhaled:* Remove to fresh air. Seek medical attention if any respiratory symptoms.

*First Aid Facilities:* Eyewash station and washing facilities.

#### **Advice to Doctor:**

Treat symptomatically.

## Precautions for Use

**Exposure Standards:** (Applicable to situations where concrete dust is created by operations). There is no specific OSH standard for concrete dust. Exposure of persons to concrete dust should be kept as low as practicable and the occupational exposure standard for respirable crystalline silica must be observed. Respirable crystalline silica: 0.2 mg/m<sup>3</sup> time-weighted average (TWA).

**Engineering Controls:** Keep levels of respirable crystalline silica (quartz) in work areas as low as practicable. When cutting or drilling, external openings such as doors and windows generally provide adequate ventilation. Local mechanical ventilation may be required in areas where dust could escape into the work environment.

**Ventilation:** Ventilation, either through natural means or by mechanically assisted ventilation must be maintained throughout work areas to reduce dust levels to as low as practicable and to within the occupational exposure standards.

**Special Considerations:** Avoid contact with skin and dry concrete dust. Wear personal

**Repair / Maintenance:** protective equipment and clothing as listed below. Wash down machinery and equipment prior to repairs and maintenance. If hosing down plant, wear a face shield.

#### **Personal Protection:**

Skin Protection: Wear loose, comfortable clothing and light duty gloves (AS2161: Occupational Protective Gloves - Selection, Use and Maintenance). Wear safety shoes and gloves. Wash work clothes regularly.

Eye Protection: Dust resistant safety spectacles with side shields (AS/NZS1336: Recommended Practices for Eye Protection in the Industrial Environment) should be worn when cutting or drilling concrete and dusts are likely to be generated.



- Respiratory Protection: If dusts are generated wear appropriate respiratory protection approved for particulates: ie dust. For example a class P1 or P2 replaceable filter or disposable half face-piece particulates respirator should be worn when using power tools for wet or dry cutting, drilling, chasing, routing or other machining, or when dust is generated by other processes. Respirators should comply with AS/NZS 1716 and be selected, used and maintained in accordance with AS/NZS 1715.
- Personal Hygiene: Do not smoke whilst drilling or cutting concrete products.
- Flammability: Not flammable, does not support combustion of other materials.

## Safe Handling Information

- Storage and Transport: Mass of individual lightweight concrete products can range from 50 kg up to 10 tonnes. Litecrete (NZ) Ltd can provide additional information on the handling and transportation of specific items. Some Litecrete products are manufactured with projecting steel reinforcing rods or fastenings. Additional care is required during handling of such products to prevent injury.
- Spills and disposal: Dispose of offcuts or waste in an authorised landfill site in accordance with local authority guidelines.
- Fire/explosion hazard: Material is non-flammable. (Refer BRANZ Fire Resistance Test FR3524). Does not cause dust explosions.
- Smoking and Other Dust: Inhalation of airborne particles from other sources, including those from cigarette smoke, may increase the risk of lung disease. It is recommended that all storage and work areas should be non-smoking zones, and other airborne contaminants be kept to a minimum.

## Contact Point

For further information on this product, please contact:

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