

EcoFine® is an ultra-superfine, cementitious injection grout for stabilising and strengthening soil and sand substrates

1. Identification of the material and supplier

Product Name	EcoFine®
Supplier Name	EcoFine Materials
Address	Landsdale WA 6065
Telephone	1300 931 524
Email	sales@ecofine.com.au
Web Site	www.ecofine.com.au
Synonym(s)	Type LH (Low Heat), Type GB (General Blended), Low Heat Coarse (Type LH), Minecem (MCem), Backfill binder.
Use(s)	Blended cement is used as a binder in structural concrete, masonry, renders, mortars and grouts. It is also used as a general binder in cementitious backfill in underground mines, in the manufacture of fibre cement products and in soil stabilisation in construction and civil engineering projects.

2. Hazards Identification

This product is classified as hazardous according to Safe Work Australia criteria.
Not classified as a dangerous good by the criteria of the ADG code, IMDG or IATA.

GHS Classifications

Skin Corrosion/Irritation:	Category 2
Skin Sensitization:	Category 1B
Serious Eye Damage / Eye Irritation:	Category 1
Specific Target Organ Systemic Toxicity (Repeated Exposure):	Category 2

SIGNAL WORD

DANGER

Pictograms



Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to lungs and respiratory tract through prolonged or repeated exposure.

Prevention statements

P260	Do not breathe dust.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response statements

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Disposal statements

P501	Dispose of contents/container in accordance with relevant regulations.
------	------------------------------------------------------------------------

3. Composition/Information on ingredients

Ingredient	Formula	Conc.	CAS No.
Portland Cement Clinker	Not Available	< 80%	65997-15-1
Ground Blast Furnace Slag	Not Available	0 - 70%	65996-69-2
Limestone	CaCO ₃	0 - 5%	1317-65-3
Gypsum	CaSO ₄ 2H ₂ O	3 - 8%	10101-41-4
Lime Kiln Dust (Calcium Oxide)	CaO	0 - 10%	1317-78-8
Chromium (VI) Hexavalent	Cr ⁶⁺	Trace	18540-29-9

*NOTE: Ingredient may contain crystalline silica (CAS No. 14808-60-7).

4. First Aid Measures

Eye

Flush thoroughly with flowing water for at least 15 minutes and seek medical attention if symptoms persist. If wet cement is splashed into the eyes flush thoroughly with flowing water for 15 minutes and seek urgent medical attention.

Inhalation

Remove from dusty area to fresh air. If symptoms persist, seek medical attention.

Skin

Remove heavily contaminated clothing immediately. Wash off skin thoroughly with water. A shower may be required. Seek medical attention for persistent irritation or burning of the skin

Ingestion

Rinse mouth and lips with water. Do not induce vomiting. Give water to drink to dilute stomach contents. If symptoms persist, seek medical attention.

Advice to Doctor

Treat symptomatically.

First Aid Facilities Eye wash station.

Additional Information - Aggravated Medical Conditions

Inhalation

Over exposure resulting from prolonged and repeated inhalation of dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung.) It may also increase the risk of scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs) and lung cancer. Epidemiological studies have shown that smoking increases the risk of bronchitis, silicosis (scarring of the lung) and lung cancer in persons exposed to crystalline silica.

Skin

Prolonged and repeated skin contact with cement in wet concrete, mortars and slurries may result in irritant dermatitis or alkaline burns.

Eye

Irritating to the eye. If wet cement is splashed into the eye alkaline burns can cause permanent damage.

5. Fire Fighting

Flammability Non-flammable. Does not support combustion of other materials.

Fire and Explosion No fire or explosion hazard exists.

Extinguishing Non-flammable; use suitable extinguishing agent for surrounding fire.

Hazchem Code None.

6. Accidental Release Measures

Spillage	If spilt (bulk), contact emergency services if appropriate. Wear dust-proof goggles, PVC/rubber gloves, a Class P2 respirator (where an inhalation risk exists), coveralls and rubber boots. Clear area of all unprotected personnel. Prevent spill entering drains or waterways. Collect and place in sealable containers for disposal or reuse. Avoid generating dust.
Emergency Procedures	Follow safety requirements for personal protection under Section 8 Exposure. Controls/Personal Protection.

7. Handling and Storage

Storage	Store off the floor in the original bags in a cool, dry, well ventilated area, removed from excessive moisture and heat. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking, and smoking in contaminated areas.
Property/ Environmental	Refer to Section 13

8. Exposure Controls/Personal Protection

Ventilation	Do not inhale dust/powder. Use with adequate ventilation. Where a dust inhalation hazard exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.
Exposure Standards	CALCIUM CARBONATE (1317-65-3) ES-TWA: 10mg/m ³ (Respirable Dust) CHROMIUM (VI) HEXAVALENT(18540-29-9) ES-TWA: 0.05 mg/m ³ (Chromium VI compounds) GYPSUM (10101-41-4) ES-TWA: 10 mg/m ³ (Respirable Dust) PORTLAND CEMENT (65997-15-1) ES-TWA: 10 mg/m ³ (Respirable Dust) SILICA, CRYSTALLINE – QUARTZ (14808-60-7) ES-TWA: 0.05 mg/m ³ (Respirable Dust). Under Model WHS Law adopted in most Australian jurisdictions.
PPE	Wear dust-proof goggles and rubber or PVC gloves. Where an inhalation risk exists, wear a Class P2 respirator. If there is potential for prolonged and/or excessive skin contact, wear coveralls. At high dust levels, wear a Class P3 respirator or a Powered Air Purifying Respirator (PAPR) with Class P3 filter.

9. Physical and chemical properties

Appearance	Fine powder ranging in colour from grey to off-white	Solubility (water)	Slight, hardens on mixing with water
Odour	Odourless	Specific Gravity	2.5 to 3.2
pH	Approximately 12 (Alkaline)	% Volatiles	Not Available
Vapour Pressure	Not Available	Flammability	Non Flammable
Vapour Density	Not Available	Flash Point	Not Relevant
Boiling Point	Not Available	Upper Explosion Limit	Not Relevant
Melting Point	> 1200 C	Lower Explosion Limit	Not Relevant
Evaporation Rate	Not Available	Autoignition Temperature	Not Available
Bulk Density	1000 - 1600 kg/m ³		
Particle Size	10 - 30% of particles are < 5 μm, ie in the respirable range		

10. Stability and Reactivity

Chemical Stability	Store off the floor in the original bags in a cool, dry, well ventilated area, removed from excessive moisture and heat. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.
Conditions to avoid	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking, and smoking in contaminated areas.
Incompatible Materials	Incompatible with oxidising agents (e.g. hypochlorites), ethanol, acids (e.g. hydrofluoric acid) and interhalogens (e.g. chlorine trifluoride). Water contact may increase product
Decomposition Products	Unlikely to evolve toxic gases when heated to decomposition.
Hazardous Reactions	None

11. Toxicological

Acute Toxicity	No known toxicity data available for this product.
Eye	Irritant upon contact with powder/dust. Over exposure may result in pain, redness, corneal burns, and ulceration with possible permanent damage.
Inhalation	Slightly corrosive. Irritating to the respiratory system, causing coughing and sneezing. Over exposure may result in severe mucous membrane irritation and bronchitis. Hexavalent chromium is reported to cause respiratory sensitisation, however due to the trace amount present, a hazard is not anticipated under normal conditions of use. Crystalline silica can cause silicosis (lung disease) with chronic over exposure, however due to low levels present and product application, adverse health effects are not anticipated.
Skin	Irritating to the skin. Prolonged and repeated contact with powder or wetted form may result in skin rash, dermatitis, and sensitisation.
Ingestion	Slightly corrosive. Ingestion may result in burns to the mouth and throat, with vomiting and abdominal pain. Due to product form, ingestion is not considered a likely exposure route.
Mutagenicity	Insufficient data available for this product to classify as a mutagen.
Carcinogenicity	Blended Cement is not classified as a carcinogen by NOHSC. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1), however due to low levels present and product application, the criteria for classification is not met.

12. Ecological Information

Toxicity	Product forms an alkaline slurry when mixed with water. This product is non-toxic to aquatic life forms when present in cured solid form.
Persistence & Degradability	Product is persistent and would have a low degradability.
Mobility in soil	A low mobility would be expected in a landfill situation.

13. Disposal Considerations

Waste Disposal	Reuse or recycle where possible. Alternatively, ensure product is covered with moist soil to prevent dust generation and dispose of to an approved landfill site. Contact the manufacturer for additional information.
Legislation	Dispose of in accordance with relevant local legislation. Keep out of sewer and stormwater drains.

14. Disposal Considerations

Only classified as a dangerous good when transported by air (ADG Code).

Transport is by rail or road in bulk or bag form.

Drivers of trucks transporting bagged product should ensure that the bags are properly restrained.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

Shipping Name	None Allocated				
UN No	None Allocated	Hazchem Code	None Allocated	Pkg Group	None Allocated
DG Class	None Allocated	Subsidiary Risk(s)	None Allocated	EPG	None Allocated

15. Regulatory Information

Poison Schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
AICS	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).