

Safety Data Sheet

Fly Ash

Section 1: Material and Supplier Information

Product Name:	Fly Ash
Applicable In:	Australia
Other Names:	Fly Ash, Furnace Ash, Coal Ash
Recommended Use:	Fly ash can be used as supplementary cementitious material for concrete, cement additive, mortar additive. It may also be used in road soil stabilization processes and as asphalt filler.
Company Details:	Independent Cement & Lime Pty Ltd 750 Lorimer Street Port Melbourne, VIC 3207 ABN 49 005 829 550
Emergency contact details:	Contact Person: Technical Manager Telephone: Office hours 03 9676 0000 or Poison information center 13 11 26
Phone:	VIC 03 9676 0000
Fax:	VIC 03 9646 4954

This Safety Data Sheet (SDS) is issued by Independent Cement & Lime Pty Ltd in accordance with the Code and guidelines from the Australian Safety and Compensation Council (ASCC). The information in it must not be altered, deleted or added to. Independent Cement & Lime Pty Ltd will not accept any responsibility for any changes made to its SDS by any other person or organization. Independent Cement & Lime Pty Ltd will issue a new SDS when there is a change in product specifications and/ or ASCC standards, guidelines or regulations.

Section 2: Hazards Identification

Statement of 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
Serious Eye Damage/Eye Irritation:	Category 2A
Specific Target Organ Systematic Toxicity (Single Exposure):	Category 3
Specific Target Organ Systematic Toxicity (Repeated Exposure)	Category 2

SIGNAL WORD **WARNING**

Pictograms



**Independent
Cement**

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Hazard Statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to lungs and respiratory tract through prolonged or repeated exposure.

Prevention Statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P271	Use only outdoor
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.

Disposable Statements

P501	Dispose of contents/container in accordance with relevant regulations.
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UN No	None Allocated	Hazchem Code	None Allocated	Pkg Group	None Allocated
DG Class	None Allocated	Subsidiary Risk(s)	None Allocated	EPG	None Allocated

Section 3: Composition / Information on Ingredients

Ingredient	Formula	Proportion	CAS Number
Fly ash	Not available	>95%	68131-74-8
Product may contain less than 5% Crystalline silica (14808-60-7)			



Section 4: First Aid Measures

Eye:	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor.
Inhalation:	Remove from dusty area to fresh air. If symptoms persist, seek medical attention.
Skin:	Remove heavily contaminated clothing. Wash off skin thoroughly with water. A shower may be required. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor
Ingestion:	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once)
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.

Eye

Irritating to the eye.

Section 5: Fire Fighting

Flammability:	Not 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 Allocated

Section 6: Accidental Release Measures

Spillage:

If spill (bulk), clean up using a vacuum cleaner. 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.



Section 7: Handling and Storage

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.
Storage:	Store tightly sealed in a cool, dry, well ventilated area removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills
Property/Environmental	Refer to Section 13.

Section 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 Fly ash (68131-74-8)
 ES-TWA: 10 mg/m³ (Respirable Dust)
 Crystalline Silica (Quartz) (14808-60-7)
 ES-TWA: 0.1 mg/m³ (Respirable Dust)

PPE Wear dust-proof goggles/safety glasses and rubber or PVC gloves. Where an inhalation risk exists, wear a clear P2 respirator. If there is potential for prolonged and/or excessive skin contact, wear long sleeve shirts and full-length trousers or similar clothing like overalls. At high dust levels, wear a Class P3 respirator or a Powered Air Purifying Respirator (PAPR) with class P3 filter. Check the site's specific risk assessment.



Section 9: Physical and Chemical Properties

Appearance	Fine grey to light grey powder	Solubility (water)	Slight, hardens when mixing with water.
Odor	Odorless	Specific Gravity	1.8 to 2.4
pH (in water)	3-5	% Volatiles	Not Available
Vapor Pressure	Not Available	Flammability	Non-Flammable
Vapor Density	Not Available	Flash Point	Not Relevant
Boiling Point	Not Available	Upper Explosion Limit	Not Relevant
Melting Point	> 1560°C	Lower Explosion Limit	Not Relevant
Evaporation Rate	Not Available	Autoignition Temperature	Not Available



Bulk Density	800-1000 kg/m ³
Particle Size	Not available

Section 10: Stability and Reactivity

Chemical Stability:	Chemically stable under recommended conditions of storage
Conditions to Avoid:	Keep free of moisture
Incompatible Materials	Incompatible with alkali and acids. Avoid contact with oxidizing agents (e.g. hypochlorites), hydrogen fluoride, oxygen difluoride, chlorine trifluoride, manganese trifluoride, fluoride, manganese trioxide, chlorine trioxide, concentrated phosphoric acid, vinyl acetate
Decomposition Products:	None
Hazardous Reactions:	Crystalline silica may form after the product is exposed to extended periods of high temperatures (>900°C)

Section 11: Toxicological Information

Acute Toxicity	No known toxicity data for this product. Based on available data, the classification criteria are not met.
Eyes	Contact may result in irritation, redness, pain and rash
Inhalation	Slightly corrosive. Irritating to the respiratory system, causing coughing and sneezing. Over exposure may result in severe mucous membrane irritation and bronchitis. 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	Contact may result in irritation, redness, pain and rash
Sensitization	Not classified as causing skin or respiratory sensitization.
Mutagenicity	Insufficient data available for this product to classify as a mutagen.
Carcinogenicity	Fly ash is not classified as a carcinogen by NOHSC. Crystalline silica is classified as carcinogenic to humans (IARC Group 1). However, there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis.
Reproductive	Insufficient data available to classify as reproductive toxin
STOT-single exposure	Over exposure may result in irritation of the nose and throat, with coughing
STOT-repeated exposure	Repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused by deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are coughing and breathlessness
Aspiration	Not classified as causing aspiration



Section 12: Ecological Information

Toxicity	No information provided
Persistence and Degradability	Product is persistent and would have a low degradability.
Mobility in Soil	No information provided

Section 13: Disposal Considerations

Waste Disposal	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 storm water drains.

Section 14: Transport Information

Not classified as a dangerous good by the criteria of the ADG code, IMDG or IATA.

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

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

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

Section 15: Regulatory Information

Poison Schedule AICS	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). All chemicals listed on the Australian Inventory of Chemical Standards (AICS).
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Section 16: Other Information

Additional Information	<p>When fly ash has been exposed to service temperatures exceeding 982°C for prolonged periods, cristobalite, a form of crystalline silica may be formed. Exposure to cristobalite dust may cause pulmonary fibrosis-silicosis. A hazard is only anticipated during demolition of use of refractory materials. Cristobalite is classified as carcinogenic to humans (IARC Group 1)</p> <p>RESPIRATORS: In general, the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure</p>
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correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES: The Recommendation for protective equipment contained within this SDS report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare an SDS report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

ABBREVIATIONS:

mg/m³ – Milligrams per cubic metre

ppm – Parts Per Million

ES-TWA – Exposure Standard - Time Weighted Average

CNS – Central Nervous System

NOS – Not Otherwise Specified

pH – relates to hydrogen ion concentration – this value will relate to a scale of 0 – 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service Number – used to uniquely identify chemical compounds. IARC – International Agency for Research on Cancer.

Report Status

This document has been compiled by Independent Cement & Lime Pty Ltd the manufacturer of the product and serves as the manufacturer's Safety Data Sheet.

While the information in this Safety Data Sheet has been prepared in good faith, Independent Cement & Lime Pty Ltd does not warrant that the information is accurate, complete or up to date.

Contact Point

For further information on this product contact:

Telephone: Office hours 03 9676 0000

Facsimile: 03 9646 4954

Web site: <http://www.independentcement.com.au/>

Advice Note

The information in this document is believed to be accurate. Please check the currency of this SDS by contacting:

03 9676 0000

Or



<http://www.independentcement.com.au/>

Each user of any information, or any product referred to, in this Safety Data Sheet must:

- determine whether the information or product is suitable for their purpose;
- assess and control any risks associated with the information or product; and
- obtain professional advice in relation to the use of the information or product.

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