

SAFETY DATA SHEET

Class F Fly Ash

Section 1 Identification of the Material and the Supplier

Product Name: Class F Fly Ash

Other Names: EverPlus™, Coal fly ash, Pulverised fuel ash

Product Use: Cement mineral additive, land fill, road base, filler, light-weighted filler and extender in building products.

Restriction of Use: Refer to Section 15

New Zealand Supplier: Golden Bay Cement

Address: Portland Road
Whangarei, 0178

Telephone: +64 9 432 2656 (7.30am – 4 pm, Mon – Fri)

Emergency Telephone: 0800 764 766 (National Poison Centre)
0800 243 622 (Chemcall)

Date of SDS Preparation: 26 September 2017

Prepared by: Technical Compliance Consultants (NZ) Ltd

Section 2 Hazard Identification

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

EPA Approval No: Construction Products (Toxic [6.7]) - HSR002545

Pictograms



Irritant/Toxic



Chronic

Signal Word: Danger

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.3A	H315	Causes skin irritation.	Category 2
6.4A	H319	Causes serious eye irritation.	Category 2A
6.7A	H350	May cause cancer	Category 1A
6.9A (Repeated exposure)	H372	Causes damage to organs through prolonged or repeated exposure	Category 1
9.1D	H401	Toxic to aquatic life.	Category 4

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Prevention Code	Prevention Statement
P103	Read label before use.
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 exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves, clothing and eye/face protection.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P314	Get medical advice/attention if you feel unwell.
P362	Take off contaminated clothing and wash before re-use.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Other Hazards:

Corrosive When Wet. Causes severe skin burns and eye damage.
Can become highly corrosive by sweat or moisture on skin/eyes.

Section 3 Composition/Information on Hazardous Ingredients

Ingredients	CAS NUMBER.	Wt%
Amorphous silica (SiO ₂)	7631-86-9	50 – 65
<i>contains respirable silica (<5%)</i>	14808-60-7	
Lime (CaO)	1305-78-8	2 - 10
Aluminium oxide (Al ₂ O ₃)	1344-28-1	10 - 30
Ferric oxide (Fe ₂ O ₃)	1309-37-1	5 - 10
Titanium dioxide (TiO ₂)	13463-67-7	1 - 3
Magnesium oxide (MgO)	1309-48-4	1 – 5
Heavy metals		Trace amounts

Section 4 First Aid Measures

Routes of Exposure:

If in Eyes Rinse cautiously with water for 15 minutes, ensuring all particles are removed from under the eyelids. Remove contact lenses, if present and easy to do. Seek immediate medical attention if irritation persists.

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If on Skin	Flush skin with plenty of soap and water. Take off contaminated clothing and wash before re-use, separate from household laundry. If skin irritation or rash occurs: get medical attention.
If Swallowed	Rinse mouth. Do Not induce vomiting. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek immediate medical attention.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult or experiencing respiratory symptoms.

Section 5 Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from combustion products	This material does not contribute fuel for fire. Product is inert.
Suitable Extinguishing media	Use extinguishing media suitable to surrounding materials
Precautions for firefighters and special protective clothing	Wear NIOSH approved self-contained breathing apparatus and chemical protective clothing. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.
HAZCHEM CODE	1Z

Section 6 Accidental Release Measures

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel. Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes.

Pick up dry. Take up mechanically and place in sealable containers for disposal. Avoid generation of dust. Treat the recovered material as prescribed in section 13 on waste disposal. Do not allow raw product to enter waterways. Wash down affected area with copious water and detergent.

Section 7 Handling and Storage

Precautions for Handling:

- Read label before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dusts
- Wash exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective gloves, clothing and eye/face protection.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.

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- Ensure packaging is labelled, protected from damage, and sealed when not in use
- Protect from water and moisture.

Section 8 Exposure Controls/Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm mg/m ³	STEL ppm mg/m ³
Silica – amorphous	10	
Crystalline silica (quartz) - as respirable dust	0.2	
Calcium oxide	2	
Aluminium oxide	10	
Titanium dioxide	10	

Workplace Exposure Standard – Time Weighted Average (WES-TWA). *The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.*

Engineering Controls

Use with adequate natural ventilation. Where dust inhalation hazard exists, mechanical extraction ventilation is required to keep concentrations of components below the WES concentrations.

Personal Protection Equipment

Eyes	Dust-proof goggles or safety glasses with side shields.
Hands	Wear suitable gloves.
Skin	Full cover clothing covering arms and legs.
Respiratory	Class P3 particulate respirator for high levels of dust. Class P2/P1 as appropriate to the exposure circumstances

Section 9 Physical and Chemical Properties

Appearance	fine powder
Colour	Light brown/grey
Odour	No specific odour
Odour Threshold	Not available
pH	12.3 +/- 0.1 (as 1:1 ratio of fly ash and water)
Boiling Point	Not available
Melting Point	1200 – 1400°C
Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	Inert
Vapour Density	Not available
Bulk Density	900 to 1700 kg/m ³
Water Solubility	4 g/100 ml @ 25°C
Partition Coefficient:	Not available

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Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not applicable
Respirable dust fraction	50% (dust fraction <7 micron)

Section 10 Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Liquid water, moisture.
Incompatible Materials	Avoid contact with acids, especially hydrofluoric acid
Hazardous Decomposition Products	May evolve toxic gases if heated to decomposition

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	May cause respiratory irritation. Over-exposure may result in severe mucous membrane irritation & bronchitis. Pre-existing respiratory conditions may be aggravated.
Eye	Causes severe irritation to eyes. When mixed with water, the product will be corrosive (causes severe eye damage)
Skin	Causes skin irritation. When mixed with water, the product will be corrosive (causes severe skin burns)

Chronic Effects:

Carcinogenicity	May cause cancer.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure. Chronic inhalation exposure to free crystalline silica may cause delayed lung injury including silicosis, a serious and potentially fatal disease, and cause or aggravate other lung conditions or diseases

Section 12 Eco Toxicological Information

HSNO Classes: 9.1C = Harmful to aquatic life with long lasting effects.

Persistence and degradability	No data available
Bioaccumulation	Bioaccumulation not expected to occur
Mobility in Soil	No data available
Other adverse effects	No data available

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Section 13 Disposal Considerations

Disposal Method:

This product is inert. Dispose by following label use instructions or to an approved landfill in accordance with any local regulations. Avoid contamination of any water source or the environment with product or empty container. Dispose of empty packaging by incineration or to landfill according to requirements of local regulations.

Ensure any container holding wet waste product is labelled "Hazardous Waste – Corrosive" and that the label also has the Corrosive Pictogram, waste type identifier, and the business name, address, and phone number.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ: NZS 5433:2012

Section 15 Regulatory Information

EPA Approval No: Construction Products (Toxic [6.7]) - HSR002545

HSNO Classification: 6.3A, 6.4A, 6.7A, 6.9A (Repeated exposure), 9.1D

HSWA Controls:

Trigger quantities for this substance:

	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	10000kg (9.1D)
Emergency Response Plan	1000kg (6.7A)
Secondary Containment	1000kg (6.7A)
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms - inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

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1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact the New Zealand distributor, Golden Bay Cement, if further information is required.

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