

## SAFETY DATA SHEET

### FLY ASH

Revision Date: 28-Aug-2013

Revision Number: 13

#### 1. Product and Company Identification

**Product Name**

**Product Trade Name:** FLY ASH

**Other Names**

**Synonyms:** Fly Ash  
**Product Code:** HM000716

**Recommended Use**

**Recommended Use**

Light Weight Cement Additive

**Uses Advised Against** No information available

**Company Name, Address and Contact Details**

**Manufacturer/Supplier** Halliburton New Zealand  
1 Paraite Rd,  
Bell Block, New Plymouth  
New Zealand Registration No.: 824207

**E-Mail address:** fdunexchem@halliburton.com

**Emergency Telephone Number** +64-6-7559274

**New Zealand National Poisons Centre** 0800 764 766 (24 hours)

#### 2. Hazard(s) Identification

**Statement of Hazardous Nature**

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001;  
Not Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

**Classification**

6.7A Known or presumed human carcinogens

6.9B Harmful to human target organs or systems

**Hazard and Precautionary Statements**

**Hazard Pictograms**



**Signal Word** Danger

**Hazard Statements** H350 - May cause cancer by inhalation  
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled

**Precautionary Statements****Prevention**

P103 - Read label before use  
 P104 - Read Safety Data Sheet 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/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P281 - Use personal protective equipment as required

**Response**

P308 + P313 - IF exposed or concerned: Get medical advice/attention  
 P314 - Get medical attention/advice if you feel unwell

**Storage**

P405 - Store locked up

**Disposal**

P501 - Dispose of contents/container to an approved landfill

**Contains**

Substances	CAS Number	Substance HSNO Classification
Fly ash	68131-74-8	Not applicable
Crystalline silica, quartz	14808-60-7	6.7A 6.9A

**Other Hazards**

None known

### 3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT (w/w)
Fly ash	68131-74-8	60 - 100%
Crystalline silica, quartz	14808-60-7	5 - 10%

### 4. First-Aid Measures

**Requirements for First Aid or Medical Care****Inhalation**

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**Eyes**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Skin**

Wash with soap and water.

**Ingestion**

Under normal conditions, first aid procedures are not required.

**Workplace Facilities Required**

None

**Relation to Health Effect****Most Important Symptoms/Effects**

Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

**Medical Attention and Special Treatment****Notes to Physician**

Treat symptomatically

### 5. Fire-Fighting Measures

**Type of Hazard**

**Flammability Hazard**

Non-flammable

**Extinguishing media****Suitable Extinguishing Media**

None - does not burn.

**Extinguishing media which must not be used for safety reasons**

None known.

**HAZCHEM Code**

Hazchem Code: None Allocated

**Special Protective Equipment and Precautions for Fire Fighters****Special Protective Equipment for Fire-Fighters**

Not applicable.

**Special Exposure Hazards**

Not applicable.

## 6. Spillage, Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Avoid creating and breathing dust.

See Section 12 for additional information

**Environmental precautions**

None known.

**Methods and material for containment and cleaning up**

Collect using dustless method and hold for appropriate disposal. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage and disposal.

**Reference to other sections**

See Section 12 for additional information.

## 7. Handling and Storage

**Precautions for Safe Handling****Handling Precautions**

This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH certified, European Standard En 149, or equivalent respirator when using this product. Material is slippery when wet.

**Handling Practices****Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Approved Handlers**

If more than 10 kg (Class 6) is present, then an approved handler must be present when the substance is being handled and when not in use, the substance must be locked away.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry location. Store in a well ventilated area. Store locked up. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Product has a shelf life of 36 months.

**Store Site Requirements**

No special controls required

**Packaging**

No special packaging required

## 8. Exposure Controls and Personal Protection

### Workplace Exposure Standards

#### Exposure Limits

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Fly ash	68131-74-8	Not applicable	TWA: 1 mg/m <sup>3</sup>
Crystalline silica, quartz	14808-60-7	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.025 mg/m <sup>3</sup>

### Engineering Controls

#### Engineering Controls

Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.

### Personal Protective Equipment (PPE)

#### Respiratory Protection

Wear a NIOSH certified, European Standard EN 149 (FFP2/FFP3), or equivalent respirator when using this product.

#### Hand Protection

Normal work gloves.

#### Skin Protection

Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.

#### Eye Protection

Wear safety glasses or goggles to protect against exposure.

#### Other Precautions

None known.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

**Physical State:** Solid

**Odor:** Odorless

**Color:** Gray

**Odor Threshold:** No information available

#### Property

#### Remarks/ - Method

#### pH:

#### Freezing Point/Range

#### Melting Point/Range

#### Boiling Point/Range

#### Flash Point

#### Evaporation rate

#### Vapor Pressure

#### Vapor Density

#### Specific Gravity

#### Water Solubility

#### Solubility in other solvents

#### Partition coefficient: n-octanol/water

#### Autoignition Temperature

#### Decomposition Temperature

#### Viscosity

#### Explosive Properties

#### Oxidizing Properties

#### Values

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

2.30

Insoluble in water

No data available

No data available

No data available

No data available

No data available

No information available

No information available

### Other information

#### VOC Content (%)

No data available

## 10. Stability and Reactivity

### Chemical Stability

Stable

### Conditions to Avoid

None anticipated

**Incompatible Materials**

Hydrofluoric acid.

**Hazardous Decomposition Products**

Amorphous silica may transform at elevated temperatures to tridymite (870 C) or cristobalite (1470 C).

**Hazardous Reactions****Hazardous Polymerization:** Will Not Occur**11. Toxicological Information****Health Effect from Likely Routes of Exposure****Acute Toxicity****Inhalation**

Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1). There is sufficient evidence in experimental animals for the carcinogenicity of tridymite (IARC, Group 2A).

Breathing silica dust may cause irritation of the nose, throat, and respiratory passages. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also have serious chronic health effects (See "Chronic Effects/Carcinogenicity" subsection below).

**Eye Contact**

May cause mechanical irritation to eye.

**Skin Contact**

None known.

**Ingestion**

None known

**Chronic Effects/Carcinogenicity**

Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

Cancer Status: The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 - carcinogenic to humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A - possible carcinogen to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology Program classifies respirable crystalline silica as "Known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by scarring of the lungs, skin, and other internal organs) and kidney disease.

**Toxicity Data****Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Fly ash	68131-74-8	2000 mg/kg ( Rat )	No data available	No data available
Crystalline silica, quartz	14808-60-7	500 mg/kg ( Rat )	No data available	No data available

## 12. Ecological Information

### Toxicity

#### Ecotoxicity Effects

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Fly ash	68131-74-8	EC50: 1400 - 2000 mg/L (Scenedesmus subspicatus)	LC50: 700 - 2000 mg/L (Leuciscus idus)	No information available	TLM96: > 1000 ppm (Crangon crangon) EC50: 140 - 2000 mg/L (Daphnia magna)
Crystalline silica, quartz	14808-60-7	No information available	No information available	No information available	No information available

#### Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

#### Bioaccumulative potential

No information available

#### Mobility in soil

No information available

#### Ecotoxicity Hazard Statements

None known

#### Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 13. Disposal Considerations

#### Waste treatment methods

##### Disposal Method

##### Contaminated Packaging

Bury in a licensed landfill according to federal, state, and local regulations.

Follow all applicable national or local regulations. Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

## 14. Transport Information

#### IMDG/IMO

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): Not applicable

#### NZ 5433.1999

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): Not applicable

#### IATA/ICAO

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted

Transport Hazard Class(es): Not applicable

Special Precautions for User None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

## 15. Regulatory Information

New Zealand Inventory of Chemicals	All components listed on inventory or are exempt.
HSNO Approval Number	HSR002512
Group Name	Additives, Process Chemicals and Raw Materials (Toxic 6.7 HSR002512)
HSNO Controls	Refer to the NZ EPA website for more information: <a href="http://www.epa.govt.nz">http://www.epa.govt.nz</a>
Approved Handlers	If more than 10 kg (Class 6) is present, then an approved handler must be present when the substance is being handled and when not in use, the substance must be locked away.
Poisons Schedule:	None Allocated

## 16. Other Information

The following sections have been revised since the last issue of this SDS

Not applicable

**Additional Information** For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

### Key literature references and sources for data

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)  
NZ CCID

Revision Date: 28-Aug-2013

Revision Note

Not applicable

### Disclaimer Statement

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**End of Safety Data Sheet**