

SAFETY DATA SHEET

THERMALOCK CEMENT

Revision Date: 17-May-2013

Revision Number: 14

1. Product and Company Identification

Product Name

Product Trade Name: THERMALOCK CEMENT

Other Names

Synonyms: None
Product Code: HM003253

Recommended Use

Recommended Use: Cement
Uses Advised Against: No information available

Company Name, Address and Contact Details

Manufacturer/Supplier: Halliburton New Zealand
1 Paraita 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

6.3A Irritating to the skin
6.7A Known or presumed human carcinogens
6.9B Harmful to human target organs or systems
8.3A Corrosive to ocular tissue

Hazard and Precautionary Statements

2. Hazard(s) Identification

Hazard Pictograms



Signal Word

Danger

Hazard Statements

H318 - Causes serious eye damage
 H350 - May cause cancer by inhalation
 H373 - May cause damage to organs through prolonged or repeated exposure if inhaled
 H315 - Causes skin irritation

Precautionary Statements

Prevention

P101 - If medical advice is needed, have product container or label at hand
 P102 - Keep out of reach of children
 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
 P280 - Wear protective gloves/eye protection/face protection
 P281 - Use personal protective equipment as required

Response

P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P362 - Take off contaminated clothing and wash before reuse
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing
 P310 - Immediately call a POISON CENTER or doctor/physician

Storage

P405 - Store locked up

Disposal

P501 - Dispose of contents/container to an approved landfill

Contains

Substances	CAS Number	Substance HSNO Classification
Calcium aluminate cement	65997-16-2	6.3A 8.3A
Fly ash	68131-74-8	Not applicable
Sodium polyphosphate	68915-31-1	6.9B
Crystalline silica, quartz	14808-60-7	6.7A 6.9A

Other Hazards

None known

3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT
Calcium aluminate cement	65997-16-2	30 - 60%
Fly ash	68131-74-8	30 - 60%
Sodium polyphosphate	68915-31-1	1 - 5%
Crystalline silica, quartz	14808-60-7	1 - 5%

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, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Skin	Wash with soap and water. Get medical attention if irritation persists.
Ingestion	Under normal conditions, first aid procedures are not required.

Workplace Facilities Required

None

Relation to Health Effect

Most Important Symptoms/Effects

May cause severe eye irritation. May cause skin irritation. 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

6. Spillage, Accidental Release Measures

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

Avoid contact with eyes, skin, or clothing. 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

This product does NOT require an approved handler.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry location. Store in a well ventilated area. Keep container closed when not in use. 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 24 months.

Store Site Requirements

No special controls required

Packaging

No special packaging required

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Calcium aluminat cement	65997-16-2	Not applicable	Not applicable
Fly ash	68131-74-8	Not applicable	TWA: 1 mg/m ³
Sodium polyphosphate	68915-31-1	Not applicable	Not applicable
Crystalline silica, quartz	14808-60-7	TWA: 0.2 mg/m ³	TWA: 0.025 mg/m ³

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	Eyewash fountains and safety showers must be easily accessible.
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	Color:	Gray to tan
Odor:	Odorless	Odor Threshold:	No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ Method</u>	
pH:	7-8
Melting Point/Range	No data available
Freezing Point/Range (C):	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	2.76
Water Solubility	No data available
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	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

Product Information

Under certain conditions of use, some of the product ingredients may cause the following:

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 severe eye irritation.

Skin Contact

May cause skin irritation. Can dry skin.

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

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium aluminate cement	No data available	No data available	No data available
Fly ash	2000 mg/kg (Rat)	No data available	No data available
Sodium polyphosphate	3053 mg/kg (Rat)	No data available	No data available
Crystalline silica, quartz	500 mg/kg (Rat)	No data available	No data available

12. Ecological Information

Toxicity

Ecotoxicity Effects

12. Ecological Information

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Calcium aluminate cement	No information available	No information available	No information available	No information available
Fly ash	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)
Sodium polyphosphate	No information available	No information available	No information available	No information available
Crystalline silica, quartz	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

Does not bioaccumulate

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

14. Transport Information

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 This product does not comply with NZIOC

HSNO Approval Number HSR002545
Group Name Construction Products (Toxic 6.7A HSR002545)
HSNO Controls Refer to the NZ EPA website for more information: <http://www.epa.govt.nz>
Approved Handlers Not Applicable
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/
NZ CCID
IUCLID

Revision Date: 17-May-2013
Revision Note Not applicable

Disclaimer Statement

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End of Safety Data Sheet