

# SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

## ShaleCem 190 Cement Blend

Revision Date: 08-Aug-2011

Revision Number: 1

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Identifier**

**Product Name** ShaleCem 190 Cement Blend

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Cement

**Uses Advised Against** No information available

**Details of the supplier of the safety data sheet**

Halliburton Energy Services  
Halliburton House, Howemoss Place  
Kirkhill Industrial Estate  
Dyce  
Aberdeen, AB21 0GN  
United Kingdom

Emergency Phone Number: +44 1224 795277 or +1 281 575 5000

[www.halliburton.com](http://www.halliburton.com)

For further information, please contact

**E-Mail address:** [fdunexchem@halliburton.com](mailto:fdunexchem@halliburton.com)

**Emergency telephone number**

+44 1224 795277 or +1 281 575 5000

**Emergency telephone \$45 - (EC)1272/2008**

<b>Europe</b>	<b>112</b>
<b>Denmark</b>	Poison Control Hotline (DK): +45 82 12 12 12
<b>France</b>	ORFILA (FR): + 01 45 42 59 59
<b>Germany</b>	Poison Center Berlin (DE): +49 030 30686 790
<b>Italy</b>	Poison Center, Milan (IT): +39 02 6610 1029
<b>Netherlands</b>	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
<b>Norway</b>	Poisons Information (NO): + 47 22 591300
<b>Poland</b>	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
<b>Spain</b>	Poison Information Service (ES): +34 91 562 04 20
<b>United Kingdom</b>	NHS Direct (UK): +44 0845 46 47

### 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Skin Corrosion / irritation	Category 1 - (H314)
Serious Eye Damage / Eye Irritation	Category 1 - (H318)
Carcinogenicity	Category 1A - (H350)
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - (H335)
Specific Target Organ Toxicity - (Repeated Exposure)	Category 1 - (H372)

## 2. HAZARDS IDENTIFICATION

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

For the full text of the R-phrases mentioned in this Section, see Section 16

**Classification** Xi - Irritant.

**Risk Phrases**

R41 Risk of serious damage to eyes.  
R43 May cause sensitization by skin contact.  
R37/38 Irritating to respiratory system and skin.

**Label Elements****Hazard Pictograms****Signal Word**

**Danger**

**Hazard Statements**

H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H372 - Causes damage to organs through prolonged or repeated exposure  
H350i - May cause cancer by inhalation

**Contains****Substances**

Portland cement  
Crystalline silica, quartz

**CAS Number**

65997-15-1  
14808-60-7

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P201 - Obtain special instructions before use  
P280 - Wear eye protection/face protection  
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  
P308 + P313 - IF exposed or concerned: Get medical advice/attention

**Other Hazards**

None known

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Portland cement	266-043-4	65997-15-1	60 - 100%	Xi; R37/38-41 R43	Eye Dam. 1 (H318) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) STOT SE 3 (H335)	No data available
Crystalline silica, quartz	238-878-4	14808-60-7	10 - 30%	Not applicable	Carc. 1A (H350i) STOT RE 1 (H372)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16

### 4. FIRST AID MEASURES

#### Description of first aid measures

##### 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.

#### Most important symptoms and effects, both acute and delayed

May cause eye and skin irritation.

#### Indication of any immediate medical attention and special treatment needed

##### Notes to Physician

Treat symptomatically

### 5. FIREFIGHTING MEASURES

#### Extinguishing media

##### Suitable Extinguishing Media

None - does not burn.

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

None known.

#### Special hazards arising from the substance of mixture

##### Special Exposure Hazards

Not applicable.

#### Advice for firefighters

##### Special Protective Equipment for Fire-Fighters

Not applicable.

### 6. 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

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.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry location. 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.

### Specific End Use(s)

**Exposure Scenario** No information available

**Other Guidelines** No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Substances	EU	UK OEL	Netherlands	France OEL	Germany MAK/TRK
Portland cement	Not applicable	10 mg/m <sup>3</sup>	Not applicable	Not applicable	5 mg/m <sup>3</sup>
Crystalline silica, quartz	Not applicable	0.1 mg/m <sup>3</sup>	0,075 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	0,15 mg/m <sup>3</sup>

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Portland cement	Not applicable	6.0 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	10.0 mg/m <sup>3</sup>	Not applicable
Crystalline silica, quartz	Not applicable	2 mg/m <sup>3</sup>	0.15 mg/m <sup>3</sup>	Not applicable	Not applicable

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

### Exposure controls

#### Engineering Controls

Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits listed in Section 2.

#### Personal protective equipment

##### 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.

#### Environmental Exposure Controls

No information available

## 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

Values

**pH:**  
**Melting Point/Range**  
**Freezing Point/Range (C):**  
**Boiling Point/Range**  
**Flash Point**  
**Evaporation rate**  
**Vapor Pressure**

12.4  
No data available  
No data available  
No data available  
No data available  
No data available  
No data available

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Vapor Density	No data available
Specific Gravity	No data available
Water Solubility	Insoluble in water
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
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**10. STABILITY AND REACTIVITY****Reactivity**

Not applicable

**Chemical Stability**

Stable

**Possibility of Hazardous Reactions**

Will Not Occur

**Conditions to Avoid**

Keep away from any contact with water.

**Incompatible Materials**

Hydrofluoric acid.

**Hazardous Decomposition Products**

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

**11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****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 severe eye irritation.

**Skin Contact**

Can dry skin. May cause an allergic skin reaction. May cause alkali burns with confined contact.

**Ingestion**

None known

## 11. TOXICOLOGICAL INFORMATION

**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.

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Portland cement	No data available	No data available	No data available
Crystalline silica, quartz	No data available	No data available	No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Portland cement	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 No information available

### Bioaccumulative potential No information available

### Mobility in soil No information available

### Results of PBT and vPvB assessment No information available.

### 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**

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

**Contaminated Packaging**

Follow all applicable national or local regulations.

### 14. TRANSPORT INFORMATION

**IMDG/IMO**

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

**RID**

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

**ADR**

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

**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories****EINECS Inventory**

This product, and all its components, complies with EINECS

**US TSCA Inventory**

All components listed on inventory or are exempt.

**Canadian DSL Inventory**

All components listed on inventory or are exempt.

**Legend****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**Germany, Water Endangering  
Classes (WGK)**

WGK 0: Generally not water endangering.

**Chemical Safety Assessment**

No information available

### 16. OTHER INFORMATION

**Full text of R-phrases referred to under Sections 2 and 3**

R41 Risk of serious damage to eyes.

R43 May cause sensitization by skin contact.

**16. OTHER INFORMATION**

R37/38 Irritating to respiratory system and skin.

**Key literature references and sources for data**

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

**Revision Date:** 08-Aug-2011  
**Revision Note** Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer Statement**

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**End of Safety Data Sheet**