

SAFETY DATA SHEET

Cement Class G&I, with EZ-FLO II

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Date issued 17.04.2009
Revision date 01.08.2013

1.1. Product identifier

Product name Cement Class G&I, with EZ-FLO II

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation Cement.

1.3. Details of the supplier of the safety data sheet

Downstream user

Company name Halliburton AS / Halliburton Denmark A/S
Postal address Eldfiskvegen 1 (No) / Storstrømsvej 6 (Dk)
Postcode NO-4065/DK-6715
City Stavanger (No) / Esbjerg N (Dk)
Country Norway / Denmark
Tel +47 51837000 (No) / +4579145422 (Dk)
Fax +47 51838383 (No) / +4579145410 (Dk)
E-mail sds.sca@halliburton.com
Website <http://www.Halliburton.com>

1.4. Emergency telephone number

Emergency telephone Toxic Information:22 59 13 00

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to 67/548/EEC or 1999/45/EC Xi; R37/38,R41,R43
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Skin Irrit. 2; H315
Skin Sens. 1; H317
Eye Dam. 1; H318
STOT SE3; H335
Substance / mixture hazardous properties Causes skin and respiratory irritation. Causes Serious eye damage. May cause sensitisation by skin contact.

2.2. Label elements

Hazard Pictograms (CLP)



Composition on the label Portland cement:60 - 100 %
Signal word Danger
Hazard statements H315 Causes skin irritation.

	H317 May cause an allergic skin reaction. H318 Causes Serious eye damage. H335 May cause respiratory irritation.
Precautionary statements	P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/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. P312 Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Other hazards

PBT / vPvB	PBT/vPvB assessment has not been performed.
Description of hazard	When water is added, the mixture will have a corrosive effect on skin and eyes.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Portland cement	CAS no.: 65997-15-1 EC no.: 266-043-4	Xi; R37/38,R41,R43 STOT SE3; H335; Skin Irrit. 2; H315; Eye Dam. 1; H318; Skin Sens. 1; H317;	60 - 100 %

Column headings	CAS no. = Chemical Abstracts Service; EU (Einecs or Elincs number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m3, ppb, ppm, weight%, vol%
HH/HF/HE	T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E = Explosive, O = Oxidizing, F+ = Extremely flammable, F = Very flammable, N = Environmental hazard
Substance comments	Contains respirable crystalline quartz. The content of a-quartz in respirable form is less than the limit being subject for classification. See section 16 for explanation of Risk-phrases (R) and hazard statements (H) listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4 In case of unconsciousness or severe accidents, call 113.
Inhalation	Fresh air and rest. Contact physician if irritation continues.
Skin contact	Remove contaminated clothing. Wash the skin immediately with soap and water. Contact physician if symptoms appears.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. By prolonged rinsing, use luke warm water to avoid damage to the eye. Transport to physician. Keep on flushing during transport.
Ingestion	Rinse mouth thoroughly. Drink a few glasses of water or milk. Do not induce vomiting. Get medical attention if any discomfort continues. Never give liquid to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Acute symptoms and effects	May cause severe burning and pain in the eyes. The chemical irritates the skin and can cause itching, burning and redness. May cause sensitisation by skin contact. Allergic skin reactions: symptoms
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may include redness, swelling, blistering and itching.
The chemical irritates the airways and can cause itching, burning and cough.

4.3. Indication of any immediate medical attention and special treatment needed

Other Information Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Improper extinguishing media Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards The chemical is non-combustible. Amorphous silica may at high temperatures form tridymite (870 °C) or cristobalite (1470°C).

5.3. Advice for firefighters

Personal protective equipment Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures Use protective equipment as referred to in section 8.
Avoid dust formation. Avoid inhalation of dust.

6.2. Environmental precautions

Environmental precautionary measures Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up

Cleaning method Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container. Collect in a suitable container and dispose as hazardous waste according to section 13.

6.4. Reference to other sections

Other instructions See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling Avoid inhalation of dust and contact with skin and eyes. Use mechanical ventilation in case of handling which causes formation of dust. Use work methods which minimise dust production. Use protective equipment as referred to in section 8. Change contaminated clothing. Risk for slippery floors and tools when the material comes in contact with water.

Protective Safety Measures

Advice on general occupational hygiene Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage Store in a dry and cool place, tightly closed.

Special risks and properties This chemical contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. When water is added, the mixture will have a corrosive effect on skin and eyes.

Conditions for safe storage

Advice on storage compatibility Keep away from: Hydrofluoric acid (HF).

7.3. Specific end use(s)

Specific use(s) See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
α-Quarts, total dust	CAS no.: 14808-60-7 EC no.: 238-878-4	8-hour TWA: 0,3 mg/m ³ K	2010
α-Quarts, respirable dust	CAS no.: 14808-60-7 EC no.: 238-878-4	8-hour TWA: 0,1 mg/m ³ K	2010
Inhalable dust, total		8-hour TWA: 10 mg/m ³	2010
Respirable dust		8-hour TWA: 5 mg/m ³	2007

Other Information about threshold limit values Explanation of the notations:
K = carcinogenic

8.2. Exposure controls

Occupational exposure limits Provide adequate general and local exhaust ventilation. Personal protective equipment must be CE-marked and should be chosen in collaboration with the supplier of such equipment. The recommended protective equipment and the specified standards are only suggestions. The latest version of the specified standard shall be used. Risk assessment of the relevant current work/operation (the actual risk) may lead to other control measures.

Respiratory protection

Respiratory protection Use respiratory equipment with particle filter, type P3. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.

Hand protection

Hand protection Use protective gloves made of: Neoprene. Polyvinyl alcohol (PVA). Nitrile. Rubber (natural, latex). Viton rubber (fluor rubber). 4H multilayered gloves.

Breakthrough time Penetration time is not known. The recommended material of gloves is recommended after a study of the single components in the chemical.

Eye / face protection

Eye protection Use tight fitting goggles if dust is generated.

Skin protection

Skin protection (except hands) Wear appropriate protective clothing to protect against skin contact.

Appropriate environmental exposure control

Environmental exposure controls Do not allow to enter into sewer, water system or soil.

Other Information

Other Information Eye wash facilities and emergency shower should be available when handling this chemical.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Powder, dust.
Colour	Grey.
Odour	Odourless.
Comments, Odour limit	Not relevant.
pH (aqueous solution)	Value: 12-13

Comments, pH (aqueous solution)	Diluted solution.
Melting point/melting range	Value: 1250-2000 °C
Comments, Boiling point / boiling range	Not known.
Comments, Flash point	Not known.
Comments, Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Comments, Explosion limit	Not known.
Comments, Vapour pressure	Not known.
Specific gravity	Value: 3,18 g/cm³ Test temperature: 20 °C
Solubility in water	Insoluble or slightly soluble. 0,5 g/100g H ₂ O (20°C)
Comments, Partition coefficient: n-octanol / water	Not known.
Comments, Spontaneous combustability	Not known.
Comments, Decomposition temperature	Not known.
Comments, Viscosity	Not applicable.
Explosive properties	Not known.
Oxidising properties	Not known.

9.2. Other information

Other physical and chemical properties

Physical and chemical properties	Not known.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions known.
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10.4. Conditions to avoid

Conditions to avoid	Avoid contact with water.
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10.5. Incompatible materials

Materials to avoid	Hydrofluoric acid (HF).
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10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

LD50 oral	Value: > 5000 mg/kg Animal test species: rat
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Other information regarding health hazards

General	When water is added, the mixture will have a corrosive effect on skin and eyes.
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Potential acute effects

Inhalation	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing.
Skin contact	Irritating and degreasing. May cause alkali burns with confined contact.
Eye contact	Causes Serious eye damage.
Ingestion	May irritate and cause stomach pain, vomiting and diarrhoea. May cause chemical burns in mouth, oesophagus and stomach.

Delayed effects / repeated exposure

Sensitisation	May cause sensitisation by skin contact.
Chronic effects	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. May cause lung fibrosis including silicosis and/or pneumoconiosis. There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with increased incidences of significant disease endpoints such as scleroderma and kidney disease.
STOT-single exposure	May cause respiratory irritation. Classification: STOT SE 3: H335.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity	Inhalated crystalline silica (a-quartz, cristobalite, tridymite, respirable form) was in 2007 reclassified as Toxic with risk-phrase R48/23 "Toxic: danger of serious damage to health by prolonged exposure through inhalation". Inhalation of silica does not give an evident damage or illness, even if a permanent lung injury may be observed. Quartz, respirable dust is not classified as carcinogenic, but is marked as carcinogenic in the Norwegian working exposure limit list.
Mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	The chemical is not classified as harmful to the environment. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.
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12.2. Persistence and degradability

Persistence and degradability	Not applicable. Contains only inorganic compounds.
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12.3. Bioaccumulative potential

Bioaccumulative potential	Will not bio-accumulate.
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12.4. Mobility in soil

Mobility	Insoluble or slightly soluble in water.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	PBT assessment has not been performed.
vPvB evaluation results	vPvB assessment has not been performed.

12.6. Other adverse effects

Other adverse effects / Remarks	Not known.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intended as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.
Product classified as hazardous waste	Yes
EWC waste code	EWC: 10 13 14 waste concrete and concrete sludge

NORSAS

7091 Inorganic salts and other solids

SECTION 14: Transport information

14.1. UN number

Comments Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

14.2. UN proper shipping name

Comment Not relevant.

14.3. Transport hazard class(es)

Comment Not relevant.

14.4. Packing group

Comment Not relevant.

14.5. Environmental hazards

Comment Not relevant.

14.6. Special precautions for user

Special safety precautions for user Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Additional information.

Additional information. Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

References (laws/regulations) Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Norwegian regulation on classification and labelling of dangerous chemicals, 16. juli 2002, with amendments.
Directive (EC) No 1907/2006 (REACH) Annex II: Safety data sheets.
FOR 2011-12-06 nr 1358, Regulation of indicative and binding occupational exposure limit values, from Norwegian labour inspection authority.
Norwegian regulations on waste, no. 930/2004, from Ministry of the Environment.
Dangerous Goods regulations

15.2. Chemical safety assessment

Chemical safety assessment performed No

SECTION 16: Other information

Supplier's notes The information contained in this SDS must be made available to all those who handle the product.

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Skin Irrit. 2; H315;
Skin Sens. 1; H317;
Eye Dam. 1; H318;
STOT SE3; H335;

List of relevant R-phrases (under headings 2 and 3). R43 May cause sensitization by skin contact.
R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.

List of relevant H-phrases (Section H318 Causes Serious eye damage.

2 and 3).	H317 May cause an allergic skin reaction. H315 Causes skin irritation. H335 May cause respiratory irritation.
Abbreviations and acronyms used	LD50: Lethal dose, is the amount of a substance given to a group of test animals, which causes the death of 50%. PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative
Important data sources used to construct the safety data sheet	Suppliers safety data sheet. Halliburton AS
Information which has been added, deleted or revised	Sections being revised since previous version: 1-16. Change in classification. Nytt format.
Checking quality of information	This SDS is quality controlled by National Institute of Technology in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2008.
Responsible for safety data sheet	Halliburton AS / Halliburton Denmark A/S
Prepared by	National Institute of Technology as, Norway, by Bente Frogner