

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

Econolite™ LM

Revision Date: 21-Dec-2012

Revision Number: 2

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name Econolite™ LM

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

Recommended Use Light Weight Cement Additive

1.3 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

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

1.4 Emergency telephone number

+44 1224 795277 or +1 281 575 5000

Emergency telephone - §45 - (EC)1272/2008	
Europe	112
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO): + 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

2. Hazards Identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Skin Corrosion / irritation	Category 2 - (H315)
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - (H335)

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

R36/37/38 Irritating to eyes, respiratory system and skin.

2.2 Label Elements**Hazard Pictograms****Signal Word****Warning****Hazard Statements**

H315 - Causes skin irritation

H335 - May cause respiratory irritation

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

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

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

Contains**Substances**

Sodium silicate

CAS Number

1344-09-8

2.3 Other Hazards

None known

3. Composition/information on Ingredients
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Substances	EINECS	CAS Number	PERCENT (w/w)	EEC Classification	EU - CLP Substance Classification	REACH No.
Sodium silicate	215-687-4	1344-09-8	30 - 60%	C; R34 R37	Skin Corr. 1B (H314) Eye Dam. 1 (H318) STOT SE 3 (H335) Met. Corr. 1 (H290)	01-2119448725-31

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

4. First aid measures

4.1 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

Remove contaminated clothing and launder before reuse. In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

Ingestion

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

4.2 Most Important symptoms and effects, both acute and delayed

No information available

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2 Special hazards arising from the substance or mixture

Special Exposure Hazards

Decomposition in fire may produce toxic gases.

5.3 Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment.

See Section 8 for additional information

6.2 Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3 Methods and material for containment and cleaning up

Contain spill with sand or other inert materials. Neutralize to pH of 6-8. Scoop up and remove. Do NOT spread spilled product with water. Isolate spill and stop leak where safe.

6.4 Reference to other sections

See Section 8 and 13 for additional information.

7. Handling and Storage

7.1 Precautions for Safe Handling

Wash hands after use. Launder contaminated clothing before reuse. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

7.2 Conditions for safe storage, including any incompatibilities

Store away from acids. Store in a cool well ventilated area. Keep container closed when not in use. Keep from freezing.

7.3 Specific End Use(s)

Exposure Scenario

No information available

Other Guidelines

No information available

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits

Substances	CAS Number	EU	UK OEL	Netherlands	France OEL
Sodium silicate	1344-09-8	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany MAK/TRK	Spain	Portugal	Finland
Sodium silicate	1344-09-8	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Sodium silicate	1344-09-8	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
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Sodium silicate	1344-09-8	Not applicable	Not applicable	Not applicable	Not applicable
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Substances	CAS Number	Denmark
Sodium silicate	1344-09-8	Not applicable

Derived No Effect Level (DNEL)

No information available.

Worker

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Hazards for the eyes - local effects
Sodium silicate	5.61 mg/m ³	Not available	Not available	Not available	1.59 mg/kg bw/day	Not available	Not available	Not available	Not available

General Population

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Long-term exposure - systemic effects, Oral	Acute / short term exposure - local effects, Oral	Hazards for the eyes - local effects
Sodium silicate	1.38 mg/m ³	Not available	Not available	Not available	0.80 mg/kg bw/day	Not available	Not available	Not available	0.80 mg/kg	Not available	Not available

Predicted No Effect Concentration (PNEC)

No information available.

Substances	Freshwater	Marine water	Intermittent release	Sewage treatment plant	Sediment (freshwater)	Sediment (marine water)	Air	Soil	Secondary poisoning
Sodium silicate	7.5 mg/L	1 mg/L	7.5 mg/L	348 mg/L	Not available	Not available	Not available	Not available	Not available

8.2 Exposure controls**Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Personal protective equipment**Respiratory Protection**

Dust/mist respirator. (N95, P2/P3)

Hand Protection

Impervious rubber gloves.

Skin Protection

Full protective chemical resistant clothing.

Eye Protection

Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls No information available

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties**Physical State:** Liquid**Color:** Off white**Odor:** Slightly soapy**Odor Threshold:** No information available**Property****Values**

Remarks/ - Method

pH:

11 - 12.5

Freezing Point/Range

No data available ~ 0

Melting Point/Range

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

No data available

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

9.2 Other information

VOC Content (%)	No data available
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10. Stability and Reactivity

10.1 Reactivity

Not applicable

10.2 Chemical Stability

Stable

10.3 Possibility of Hazardous Reactions

Will Not Occur

10.4 Conditions to Avoid

None anticipated

10.5 Incompatible Materials

Strong acids. Amphoteric metals such as aluminum, magnesium, lead, tin, or zinc.

10.6 Hazardous Decomposition Products

Toxic fumes.

11. Toxicological Information

11.1 Information on Toxicological Effects**Acute Toxicity**

Inhalation	May cause respiratory irritation.
Eye Contact	Causes eye irritation.
Skin Contact	May cause skin irritation.
Ingestion	May be harmful if swallowed.

Chronic Effects/Carcinogenicity	No data available to indicate product or components present at greater than 1% are chronic health hazards.
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Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium silicate	1344-09-8	1153 mg/kg (Rat) 1100 mg/kg (Mouse) 3400 mg/kg (Rat) 5150 mg/kg (Rat)	4640 mg/kg (Rabbit) > 5000 mg/kg (Rat) (similar substance – Potassium silicate)	> 2.06 mg/L (Rat) 4 h (similar substance – Potassium silicate)

Substances	CAS Number	Skin corrosion/irritation
Sodium silicate	1344-09-8	Corrosive to skin (rabbit)

Substances	CAS Number	Eye damage/irritation
Sodium silicate	1344-09-8	Corrosive to eyes (rabbit)

Substances	CAS Number	Skin Sensitization
Sodium silicate	1344-09-8	Did not cause sensitization on laboratory animals (mouse) (similar substances)

Substances	CAS Number	Respiratory Sensitization
Sodium silicate	1344-09-8	No information available

Substances	CAS Number	Mutagenic Effects
Sodium silicate	1344-09-8	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects

Substances	CAS Number	Carcinogenic Effects
Sodium silicate	1344-09-8	No information available.

Substances	CAS Number	Reproductive toxicity
Sodium silicate	1344-09-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)

Substances	CAS Number	STOT - single exposure
Sodium silicate	1344-09-8	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Sodium silicate	1344-09-8	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Sodium silicate	1344-09-8	Not applicable

12. Ecological Information

12.1 Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Sodium silicate	1344-09-8	EC50(72h): 207 mg/L (biomass) (Desmodesmus subspicatus)	LC50(96h): 1108 mg/L (Danio rerio) LC50(96h): 260 – 310 mg/L (Oncorhynchus mykiss)	EC0(20m): 3454 mg/L (Pseudomonas putida) EC0(18h): > 348 mg/L (Pseudomonas putida)	EC50(48h): 1700 mg/L (Daphnia magna)

12.2 Persistence and degradability

No information available

Substances	CAS Number	Persistence and Degradability
Sodium silicate	1344-09-8	No information available

12.3 Bioaccumulative potential

Substances	CAS Number	Log Pow
Sodium silicate	1344-09-8	No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

13.1 Waste treatment methods

Disposal Method

Contaminated Packaging

Disposal should be made in accordance with federal, state, and local regulations.
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
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

RID

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

ADR

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

IATA/ICAO

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

15.1 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 1: Low hazard to waters.

15.2 Chemical Safety Assessment

No information available

16. Other Information

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

Xi - Irritant.

R36/37/38 Irritating to eyes, respiratory system and skin.

Key literature references and sources for data

www.ChemADVISOR.com/

Revision Date: 21-Dec-2012

Revision Note

Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

Disclaimer Statement

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End of Safety Data Sheet