

## SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

### THERMATEK® LT

Revision Date: 22-Sep-2015

Revision Number: 22

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

##### 1.1. Product Identifier

Product Name THERMATEK® LT  
Internal ID Code HM005274

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

<b>Recommended Use</b>	Additive
<b>Sector of use</b>	SU2 - Mining, (including offshore industries)
<b>Product category</b>	PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents, other unspecified
<b>Process categories</b>	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC 26 - Handling of solid inorganic substances at ambient temperature

##### 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

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

For further information, please contact

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

##### 1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Emergency telephone - §45 - (EC)1272/2008	
<b>Europe</b>	<b>112</b>
<b>Croatia</b>	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
<b>Cyprus</b>	+210 7793777
<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>Romania</b>	+40 21 318 36 06
<b>Spain</b>	Poison Information Service (ES): +34 91 562 04 20
<b>United Kingdom</b>	NHS Direct (UK): +44 0845 46 47

#### SECTION 2: Hazards Identification

##### 2.1. Classification of the substance or mixture

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

Skin Corrosion / irritation	Category 2 - (H315)
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Serious Eye Damage / Eye Irritation

Category 2 - (H319)

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

H315 - Causes skin irritation

H319 - Causes serious eye irritation

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

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

**Contains****Substances**

Calcium oxide

**CAS Number**

1305-78-8

**2.3. Other Hazards**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

<b>SECTION 3: Composition/information on Ingredients</b>
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**3.2. Mixtures**

Mixture

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Calcium oxide	215-138-9	1305-78-8	1 - 5%	Skin Irrit. 2 (H315) Eye Corr. 1 (H318) STOT SE 3 (H335)	No data available

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

<b>SECTION 4: First aid measures</b>
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**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, 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. Get medical attention if irritation persists.

**Ingestion**

Under normal conditions, first aid procedures are not required.

**4.2. Most Important symptoms and effects, both acute and delayed**

Causes skin irritation. Causes eye irritation

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

**Notes to Physician** Treat symptomatically

**SECTION 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**

Not applicable.

**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.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Avoid creating and breathing dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

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**

Scoop up and remove.

**6.4. Reference to other sections**

See Section 8 and 13 for additional information.

**SECTION 7: Handling and Storage****7.1. Precautions for Safe Handling**

Avoid creating or inhaling dust. Ensure adequate ventilation. Avoid contact with eyes, skin, or clothing. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

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

Store in a cool, dry location. Keep container closed when not in use. Store locked up. Product has a shelf life of 24 months.

**7.3. Specific End Use(s)**

**Exposure Scenario** No information available

**Other Guidelines** No information available

**SECTION 8: Exposure Controls/Personal Protection****8.1. Control parameters****Exposure Limits**

Substances	CAS Number	EU	UK	Netherlands	France
Calcium oxide	1305-78-8	Not applicable	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>

Substances	CAS Number	Germany	Spain	Portugal	Finland
Calcium oxide	1305-78-8	5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Calcium oxide	1305-78-8	TWA: 2 mg/m <sup>3</sup> STEL" 4 mg/m <sup>3</sup>	2 mg/m <sup>3</sup> TWA 6 mg/m <sup>3</sup> STEL (calculated)	TWA: 2 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Calcium oxide	1305-78-8	Not applicable	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Calcium oxide	1305-78-8	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	Not applicable

**Derived No Effect Level (DNEL)**  
**Worker**

No information available.

#### General Population

**Predicted No Effect Concentration (PNEC)**

No information available.

#### 8.2. Exposure controls

##### Engineering Controls

A well ventilated area to control dust levels.

##### Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

##### **Respiratory Protection**

Not normally necessary.

However, if significant exposures are likely then wear a Dust/mist respirator. (N95, P2/P3)

##### **Hand Protection**

Normal work gloves.

##### **Skin Protection**

Normal work coveralls.

##### **Eye Protection**

Wear safety glasses or goggles to protect against exposure.

##### **Other Precautions**

None known.

**Environmental Exposure Controls** Do not allow material to contaminate ground water system

## SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

**Physical State:** Solid

**Color:** White

**Odor:** Odorless

**Odor Threshold:** No information available

##### Property

##### Values

Remarks/ - Method

**pH:**

No data available

**Freezing Point/Range**

2852 °C

**Melting Point/Range**

No data available

**Boiling Point/Range**

3600 °C / 6512 °F

**Flash Point**

No data available

**Flammability (solid, gas)**

No data available

upper flammability limit

No data available

lower flammability limit

No data available

**Evaporation rate**

No data available

**Vapor Pressure**

No data available

**Vapor Density**

No data available

**Specific Gravity**

3.6

**Water Solubility**

Slightly soluble

**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

**Molecular Weight**

40.3 g/mol

**VOC Content (%)**

No data available

## SECTION 10: Stability and Reactivity

**10.1. Reactivity**

Not expected to be reactive.

**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. Avoid halogens. Prolonged contact with aluminum.

**10.6. Hazardous Decomposition Products**

Metal oxides.

**SECTION 11: Toxicological Information****11.1. Information on Toxicological Effects****Acute Toxicity****Inhalation**

May cause mild respiratory irritation. May cause Metal Fume Fever (if heated) which is characterized by chills, fever, aching muscles, dryness and metal taste in mouth and throat, headaches, sneezing, nausea, and irritation of the nose and trachea.

**Eye Contact**

Causes eye irritation.

**Skin Contact**

Causes skin irritation.

**Ingestion**

Large doses may cause nausea, vomiting and diarrhea.

**Chronic Effects/Carcinogenicity**

No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium oxide	1305-78-8	> 2000 mg/kg (Rat)	> 2500 mg/kg	No data available

Substances	CAS Number	Skin corrosion/irritation
Calcium oxide	1305-78-8	Extremely corrosive and destructive to tissue

Substances	CAS Number	Eye damage/irritation
Calcium oxide	1305-78-8	Causes eye burns. (Rabbit)

Substances	CAS Number	Skin Sensitization
Calcium oxide	1305-78-8	Patch test on human volunteers did not demonstrate sensitization properties

Substances	CAS Number	Respiratory Sensitization
Calcium oxide	1305-78-8	No information available

Substances	CAS Number	Mutagenic Effects
Calcium oxide	1305-78-8	In vitro tests did not show mutagenic effects

Substances	CAS Number	Carcinogenic Effects
Calcium oxide	1305-78-8	Did not show carcinogenic effects in animal experiments (similar substances)

Substances	CAS Number	Reproductive toxicity
Calcium oxide	1305-78-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Calcium oxide	1305-78-8	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure

Calcium oxide	1305-78-8	None under normal use conditions
Substances	CAS Number	Aspiration hazard
Calcium oxide	1305-78-8	Not applicable

## SECTION 12: Ecological Information

### 12.1. Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Calcium oxide	1305-78-8	EC50 (72h) 184.57 mg/L (Pseudokirchnerella subcapitata) (similar substance)	LC50 33.884 mg/L (Clarias gariepinus) LC50 (96h) 1070 mg/L (Cyprinus carpio) NOEC (46d) 100 mg/L (Tilapia nilotica)	EC50 (3h) 300.4 mg/L (activated sludge) (similar substances)	EC50 (48h) 49.1 mg/L (Daphnia magna) (similar substance) LC50 (96h) 158 mg/L (Crangon septemspinosa) (similar substance) NOEC (14d) 32 mg/L (Crangon septemspinosa) (similar substance) LC50 (14d) 53.1 mg/L (Crangon septemspinosa) (similar substance)

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Calcium oxide	1305-78-8	The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Calcium oxide	1305-78-8	Log Kow = -0.571 BCF = 0.5

### 12.4. Mobility in soil

Substances	CAS Number	Mobility
Calcium oxide	1305-78-8	No information available

### 12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment
Calcium oxide	Not applicable

### 12.6. Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## SECTION 13: Disposal Considerations

### 13.1. 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.

## SECTION 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 Hazards:** Not applicable

**ADR**

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

**14.1. UN Number:** Not restricted

**14.2. UN Proper Shipping Name:** Not restricted

**14.3. Transport Hazard Class(es):** Not applicable

**14.4. Packing Group:** Not applicable

**14.5. Environmental Hazards:** Not applicable

**14.6. Special Precautions for User:** None

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

## SECTION 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/NDSL** - 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

**SECTION 16: Other Information****Full text of H-Statements referred to under sections 2 and 3**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

**Key or legend to abbreviations and acronyms**

bw – body weight

CAS – Chemical Abstracts Service

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures

EC – European Commission

EC10 – Effective Concentration 10%

EC50 – Effective Concentration 50%

EEC – European Economic Community

ErC50 – Effective Concentration growth rate 50%

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL0 – Lethal Loading 0%

LL50 – Lethal Loading 50%

MARPOL – International Convention for the Prevention of Pollution from Ships

mg/kg – milligram/kilogram

mg/L – milligram/liter

NIOSH – National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

PC – Chemical Product category

PEL – Permissible Exposure Limit

ppm – parts per million

PROC – Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL – Short Term Exposure Limit

SU – Sector of Use category

**Key literature references and sources for data**[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

NZ CCID

National Toxicology Program (NTP)

IUCLID

CDC/NIOSH

OSHA

ECHA C&amp;L

**Revision Date:** 22-Sep-2015**Revision Note**

SDS sections updated: 1

**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**