

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

THERMATEK® LT

Revision Date: 02-Jan-2014

Revision Number: 16

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

1.1 Product Identifier

Product Name THERMATEK® LT

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

Recommended Use	Additive
Sector of use	SU2 - Mining, (including offshore industries)
Product category	PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents, other unspecific
Process categories	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

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

Serious Eye Damage / Eye Irritation	Category 2 - (H319)
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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 Irritating to eyes.

2.2 Label Elements

Hazard Pictograms



Signal Word Warning

Hazard Statements

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

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

Magnesium oxide

Calcium oxide

CAS Number

1309-48-4

1305-78-8

2.3 Other Hazards

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	EINECS	CAS Number	PERCENT (w/w)	EEC Classification	EU - CLP Substance Classification	REACH No.
Magnesium oxide	215-171-9	1309-48-4	60 - 100%	Not applicable	Not applicable	No data available
Calcium oxide	215-138-9	1305-78-8	1 - 5%	Xi; R37/38-41	Skin Irrit. 2 (H315) Eye Irrit. 1 (H318) STOT SE 3 (H335)	No data available

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, 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

May cause eye irritation.

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**

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.

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

Scoop up and remove.

6.4 Reference to other sections

See Section 8 and 13 for additional information.

7. HANDLING AND STORAGE**7.1 Precautions for Safe Handling**

Avoid creating or inhaling dust. Avoid contact with eyes, skin, or clothing. Wash hands after use.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****Exposure Limits**

Substances	CAS Number	EU	UK OEL	Netherlands	France OEL
Magnesium oxide	1309-48-4	Not applicable	STEL: 30 mg/m ³ STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³	10 mg/m ³	10 mg/m ³
Calcium oxide	1305-78-8	Not applicable	STEL: 6 mg/m ³ TWA: 2 mg/m ³	2 mg/m ³	2 mg/m ³

Substances	CAS Number	Germany MAK/TRK	Spain	Portugal	Finland
Magnesium oxide	1309-48-4	MAK: 1.5 mg/m ³ MAK: 4 mg/m ³	VLA-ED: 10 mg/m ³	TWA: 10 mg/m ³	Not applicable
Calcium oxide	1305-78-8	5 mg/m ³	VLA-ED: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
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Magnesium oxide	1309-48-4	Not applicable	Not applicable	Not applicable	STEL: 20 mg/m ³ TWA: 10 mg/m ³
Calcium oxide	1305-78-8	Not applicable	Not applicable	Not applicable	STEL: 4 mg/m ³ : 2 mg/m ³

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Magnesium oxide	1309-48-4	Not applicable	NDS: 5 mg/m ³ NDS: 10 mg/m ³	TWA: 6 mg/m ³ STEL: 24 mg/m ³	TWA: 5 mg/m ³
Calcium oxide	1305-78-8	Not applicable	NDSch: 6 mg/m ³ NDS: 2 mg/m ³	TWA: 5 mg/m ³ STEL: 5 mg/m ³	TWA: 2 mg/m ³

Substances	CAS Number	Denmark
Magnesium oxide	1309-48-4	TWA: 6 mg/m ³
Calcium oxide	1305-78-8	TWA: 2 mg/m ³

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

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

Not normally necessary.

Eye Protection

Wear safety glasses or goggles to protect against exposure.

Other Precautions

None known.

Environmental Exposure Controls No information available

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

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

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

VOC Content (%)

No data available

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. Avoid halogens. Prolonged contact with aluminum.

10.6 Hazardous Decomposition Products

Metal oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects**Acute Toxicity****Product Information**

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

Inhalation

May cause mild respiratory irritation. May cause allergic respiratory reaction. 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

May cause severe eye irritation.

Skin Contact

May cause 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 1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Magnesium oxide	1309-48-4	3870 mg/kg	No data available	No data available
Calcium oxide	1305-78-8	500 mg/kg (Rat)	No data available	No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity**Ecotoxicity Effects**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Magnesium oxide	1309-48-4	No information available	No information available	No information available	TLM96: 665,500 ppm (Mysidopsis bahia)
Calcium oxide	1305-78-8	No information available	LC50: 1070 mg/L (Cyprinus carpio) LC50: 33.884 mg/L (Clarias gariepinus)	No information available	No information available

12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Does not bioaccumulate

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**

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

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

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**

All of the components in the product are on the following Inventory lists: All of the components in the product are on the following Inventory lists:.

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

16. OTHER INFORMATION**Full text of R-phrases referred to under Sections 2 and 3**

R36 Irritating to eyes.

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

National Toxicology Program (NTP)

IUCLID

CDC/NIOSH

Revision Date:

02-Jan-2014

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