



# ENER-CRETE THERMAL '50'

## Safety Data Sheet

FOR WELLBORE APPLICATION

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Ener-Crete Thermal "50" For Wellbore Application
<b>Other Means of Identification</b>	
<b>Product Family</b>	ENER-CRETE Cements
<b>Recommended Use</b>	Special blend of cementitious materials with thermal properties.
<b>Manufacturer</b>	4810-47th STREET EAST, REDWATER AB T0A 2W0; www.enercrete.com
<b>Emergency Phone No.</b>	Ener-Crete Systems Inc., Phone: (780)-638-9501
<b>SDS No.</b>	0002
<b>Date of Preparation</b>	May 15, 2017

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Skin irritation - Category 2; Serious eye damage - Category 1; Skin sensitization - Category 1; Carcinogenicity - Category 1A; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 1

#### Label Elements



#### Signal Word:

Danger

#### Hazard Statement(s):

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to organs (lungs) through prolonged or repeated exposure.

#### Precautionary Statement(s):

Do not handle until all safety precautions have been read and understood.

Wash hands thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

Use only outdoors or in a well-ventilated area.

Do not breathe dust/fume/gas/mist/vapors/spray.

Do not eat, drink or smoke when using this product.

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**IF exposed or concerned:** Get medical advice/attention. **IF ON SKIN:** Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE or doctor if you feel unwell. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents and container in accordance with local, regional, national and international regulations. 10% of the mixture consists of ingredient(s) of unknown acute toxicity.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Portland cement	65997-15-1	30-70%	Not applicable
Silica, crystalline	14808-60-7	20-40%	Not applicable
Aluminum oxide	1344-28-1	0-5%	Not applicable
Iron oxide	1309-37-1	0-5%	Not applicable
Titanium dioxide	13463-67-7	0-5%	Not applicable

#### Notes

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor if you feel unwell.

##### Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation or a rash occurs, get medical advice or attention.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

##### Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Get medical advice or attention if you feel unwell or are concerned.

#### Most Important Symptoms and Effects, Acute and Delayed

*If inhaled:* can irritate the nose and throat, can cause lung injury. *If on skin:* skin sensitizer, may cause an allergic skin reaction in some people. May cause moderate to severe irritation. *If in eyes:* causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing. *If swallowed:* can irritate the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

#### Immediate Medical Attention and Special Treatment

##### Special Instructions

Not applicable.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

#### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

This product presents no unusual hazards in a fire situation.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

### Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Collect using shovel/scoop and place in a suitable container for disposal. Avoid generating dust.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid repeated or prolonged skin contact. Do not swallow. Do not breathe in this product. Avoid generating dusts. Keep containers tightly closed when not in use or empty. Do NOT eat, drink or store food in work areas.

### Conditions for Safe Storage

Store in an area that is: dry, well-ventilated. Protect product from contact with water, including humidity. Prevent rainwater and ground water from reaching storage area.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

#### Respiratory Protection

Wear a NIOSH approved particulate respirator equipped with a N95, R95, or P95 filter.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Grey powder.
Odor	Odorless
Odor Threshold	Not available
pH	10-12
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not available
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapor Pressure	Not available
Vapor Density (air = 1)	Not available
Relative Density (water = 1)	2.7-2.8
Solubility	Not available in water; not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
Physical State	Solid

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Water, moisture or humidity.

### Incompatible Materials

None known.

### Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

**Skin Corrosion/Irritation**

May cause moderate or severe irritation based on information for closely related materials.

**Serious Eye Damage/Irritation**

May cause serious eye damage based on information for closely related materials.

**STOT (Specific Target Organ Toxicity) - Single Exposure****Inhalation**

May cause severe nose and throat irritation, severe lung injury.

**Skin Absorption**

No information was located.

**Ingestion**

May be harmful based on information for closely related materials.

**Aspiration Hazard**

Can cause lung damage if aspirated based on human experience.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

Causes irritation of the respiratory system. Respiratory tract injury has been observed. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. The risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

**Respiratory and/or Skin Sensitization**

May cause an allergic reaction (skin sensitization) based on information for closely related chemicals.

**Carcinogenicity**

May cause cancer.

**Reproductive Toxicity**

No information was found.

**Germ Cell Mutagenicity**

No information was found.

**Interactive Effects**

No information was found.

**SECTION 12. ECOLOGICAL INFORMATION**

**General Comments** There are no known significant effects or critical hazards.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

**SECTION 14. TRANSPORT INFORMATION**

**Environmental Hazards** Not applicable

**Special Precautions** Protect from moisture.

**SECTION 15. REGULATORY INFORMATION****Safety, Health and Environmental Regulations****Canada****WHMIS 1988 Classification**

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Class D2A



Class E

D2A - Very Toxic (Chronic toxicity; Carcinogenicity); E - Corrosive

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Ener-Crete Systems Inc.

**Phone No.** (780)-638-9501

**Date of Preparation** May 15, 2017

**Disclaimer** To the best of our knowledge, the information contained herein is accurate. However, Ener-Crete Systems Inc. assumes no liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.