Safety Data Sheet

Section 01 - Product And Company Identification

Product Identifier          Calcium Thiosulfate 30%
Other Means of Identification     Thiosulfuric acid, calcium salt, calcium hyposulphite, CAPTOR.
Product Use and Restrictions on Use   Dechlorination, ozone and hydrogen peroxide quenching, concrete and cement formulations, photographic processes, coatings, stabilizers, and reactant for precious and non-precious metals.
Initial Supplier Identifier   ClearTech Industries Inc.
                             1500 Quebec Avenue
                             Saskatoon, SK. Canada
                             S7K 1V7
Prepared By                  ClearTech Industries Inc. Technical Writer
                             Phone: 1 (800) 387-7503
24-Hour Emergency Phone      Phone: 1 (306) 664 – 2522

Section 02 - Hazard Identification

GHS-Classification
This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

Section 03 - Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>Unique Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Thiosulfate</td>
<td>10124-41-1</td>
<td>20-30%</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>70-80%</td>
<td></td>
</tr>
</tbody>
</table>

Section 04 - First Aid Measures

Inhalation          If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.

Skin Contact / Absorption   Remove contaminated clothing. Rinse skin with plenty of water and non-abrasive soap. If irritation occurs, seek medical attention.

Eye Contact          Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation. If irritation persists, seek medical attention.

Ingestion           Have victim drink water or milk. Induce vomiting. Seek medical attention.

Additional Information  Not Available.
Section 05 - Fire Fighting Measures

Suitable Extinguishing Media
Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media
Not Available

Specific Hazards Arising From the Chemical
Oxides of sulfur.

Special Protective Equipment and Precautions for Fire-Fighters
Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Further Information
Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures
Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.

Environmental Precautions
Prevent material from entering sewers or bodies of water.

Methods and Materials for Containment and Cleaning Up
Contain material to prevent contamination of soil, surface water or ground water. Dike spills and recover as much of the solution as possible.

Section 07 - Handling and Storage

Precautions for Safe Handling
Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for Safe Storage
Store in well-ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from sources of heat or flame. Store totes and smaller containers out of direct sunlight and at moderate temperatures.

Incompatibilities
Not Available.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

<table>
<thead>
<tr>
<th>Component</th>
<th>Regulation</th>
<th>Type of Listing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium thiosulfate</td>
<td>Not Available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering Control(s)

Ventilation Requirements
Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other
Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face
Chemical goggles with side splash protection should be used when handling product.

Hand Protection
No specific requirement, but it is good practice to prevent skin contact with the use of gloves.
### Skin and Body Protection
No specific requirement, but it is good practice to prevent skin contact.

No special footwear is required other than what is mandated at place of work.

### Respiratory Protection
Respiratory protection is not normally needed. If product mists will be present, a NIOSH/MSHS approved respirator should be selected based on potential airborne concentrations and in accordance with regulatory standards.

### Thermal Hazards
Not Available

## Section 09 - Physical and Chemical Properties

### Appearance

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

### Property

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>6.5-8</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Salt out temperature is 0°C (typical)</td>
</tr>
<tr>
<td>Initial Boiling Point and Boiling Range</td>
<td>100°C (decomposes)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Upper Flammable Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Lower Flammable Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapour Pressure (mm Hg, 20°C)</td>
<td>37mmHg @ 38°C</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>2.11 cSt @ 25°C</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Does not explode</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Specific Gravity (Water=1)</td>
<td>1.25-1.26</td>
</tr>
<tr>
<td>% Volatiles by Volume</td>
<td>Not Available</td>
</tr>
<tr>
<td>Formula</td>
<td>CaS$_2$O$_3$</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>152.2</td>
</tr>
</tbody>
</table>

### Section 10 - Stability and Reactivity

- **Reactivity**: Not Available
- **Stability**: Stable under normal storage conditions.
- **Possibility of Hazardous Reactions**: Polymerization will not occur.
- **Conditions to Avoid**: Heating to dryness.
- **Incompatible Materials**: Not Available
- **Hazardous Decomposition Products**: Oxides of sulfur.

### Section 11 - Toxicological Information

#### Acute Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD$_{50}$</th>
<th>Dermal LD$_{50}$</th>
<th>Inhalation LC$_{50}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium thiosulfate</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

#### Chronic Toxicity – Carcinogenicity

<table>
<thead>
<tr>
<th>Component</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium thiosulfate</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

- **Skin Corrosion/Irritation**: Prolonged exposure may cause skin irritation and a burning sensation.
- **Ingestion**: Ingestion may cause gastrointestinal or ulceration.
- **Inhalation**: Mist may cause throat/respiratory irritation.
- **Serious Eye Damage/Irritation**: Mist may cause eye irritation.
- **Respiratory or Skin Sensitization**: Not Available
- **Germ Cell Mutagenicity**: Not Available
- **Reproductive Toxicity**: Not Available
- **STOT-Single Exposure**: Not Available
- **STOT-Repeated Exposure**: Not Available
- **Aspiration Hazard**: Not Available
- **Synergistic Materials**: Not Available
Section 12 – Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicity Component</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Daphnia and Other Aquatic Invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium thiosulfate</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Biodegradability       Not Available
Bioaccumulation        Not Available
Mobility               Not Available
Other Adverse Effects  Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products
Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Contaminated Packaging
Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number                Not Regulated
UN Proper Shipping Name  Not Regulated
Transport Hazard Class(es) Not Regulated
Packaging Group          Not Regulated
Environmental Hazards    Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions       Not Available
Transport in Bulk         Not Available

TDG
Other
Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date         November 5, 2015

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.
Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:
1) CHEMINFO
2) eChemPortal
3) TOXNET
4) Transportation of Dangerous Goods Canada
5) HSDB
6) ECHA

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