



**MATERIAL SAFETY DATA SHEET**

**Sodium Thiosulfate**

**Section 01 - Chemical And Product And Company Information**

**Product Identifier** ..... Sodium Thiosulfate

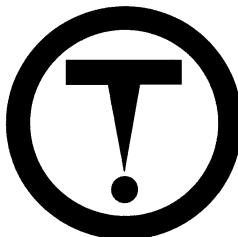
**Product Use** ..... Chemical industry: reducing agent and a source of sulphide ion; Paper industry: dechlorination; water treatment; photo processing.

**Supplier Name**..... ClearTech Industries Inc.  
2302 Hanselman Avenue  
Saskatoon, SK. Canada  
S7L 5Z3

**Prepared By**..... ClearTech Industries Inc. Technical Department  
Phone: (306)664-2522

**Preparation Date**..... 06/16/05

**24-Hour Emergency Phone**..... 306-664-2522



**Section 02 - Composition / Information on Ingredients**

**Hazardous Ingredients**..... Sodium Thiosulfate >97.5%

**CAS Number**.....Sodium Thiosulfate 7772-98-7

**Synonym (s)**.....Sodium Thiosulfate Anhydrous, Sodium Hyposulfite

**Section 03 - Hazard Identification**

**Inhalation**..... Breathing product dust or mist may irritate respiratory tract.

**Skin Contact / Absorption**..... Dust or mist may cause irritation from prolonged contact. Aqueous solutions may cause irritations from repeated or prolonged contact.



- Eye Contact**..... Dust, solutions, or mist may irritate or burn the eyes and cause temporary conjunctivitis.
- Ingestion**..... Relatively low in acute toxicity but may cause irritation of the gastrointestinal tract and purging, if large quantity is ingested. Doses of 8g/kg in rates were non-toxic upon ingestion.
- Exposure Limits**..... No OSHA/TWA or ACGIH/TLV established for sodium thiosulfate.  
 OSHA/TWA= 5ppm (SO<sub>2</sub>)  
 ACGIH/TLV= 2ppm (SO<sub>2</sub>)  
 ACGIH/STEL= 5ppm (SO<sub>2</sub>)

**Section 04 - First Aid Measures**

- Inhalation**..... 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. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
- Eye Contact**..... Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.
- Ingestion**..... Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
- Additional Information**..... Physician to treat symptomatically.

**Section 05 - Fire Fighting**

- Conditions of Flammability**..... Non-flammable. Heating above 100°C yields flammable residue, sodium sulphide.
- Means of Extinction**..... Product does not burn. Where fire is involved, use any fire fighting agent appropriate for surrounding material; use water spray to cool fire-exposed surfaces.
- Flash Point**..... Not applicable
- Auto-ignition Temperature**..... Not applicable
- Upper Flammable Limit** ..... Not applicable



**Lower Flammable Limit**..... Not applicable

**Hazardous Combustible Products**... If involved in a fire, toxic and irritating gases (eg. sulphur dioxide gas: toxic, corrosive, and an oxidizer) and residue (flammable sodium sulphide residue) may evolve.

**Special Fire Fighting Procedures**..... Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

**Explosion Hazards**..... Not available

**Section 06 - Accidental Release Measures**

**Leak / Spill**..... Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Cautiously spray residue with plenty of water.

**Deactivating Materials**..... Not available

**Section 07 - Handling and Storage**

**Handling Procedures**..... 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.

**Storage Requirements**..... Store in cool, dry, well-ventilated place. Keep container tightly closed, and away from incompatible materials.

**Section 08 - Personal Protection and Exposure Controls**

**Protective Equipment**

**Eyes**..... Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

**Respiratory**..... If use creates dust formations, then a NIOSH-approved respirator with a dust cartridge is recommended. If sulphur dioxide is evolved, a self-contained breathing apparatus should be used

**Gloves**..... Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing with soap and water, dry thoroughly before reuse.



**Clothing**..... Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing with soap and water, dry thoroughly before reuse.

**Footwear**..... Impervious boots of chemically resistant material should be worn at all times

### Engineering Controls

**Ventilation Requirements**..... Mechanical ventilation (dilution or local exhaust), process or personnel enclosure, and control of process conditions. Supply sufficient replacement air to make up for air removed by exhaust systems.

**Other**..... Emergency shower and eyewash should be in close proximity.

## Section 09 - Physical and Chemical Properties

**Physical State**..... Solid

**Odor and Appearance**..... No odor; clear to white granules or crystals.

**Odor Threshold**..... Not applicable

**Specific Gravity (Water=1)**..... 1.667

**Vapor Pressure (mm Hg, 20C)**..... Not applicable

**Vapor Density (Air=1)**..... Not applicable

**Evaporation Rate**..... Not applicable

**Boiling Point**..... Decomposes at temperatures >100°C

**Freeze/Melting Point**..... Not available

**pH**..... 8.6 (7.5% solution)

**Water/Oil Distribution Coefficient**.... Not applicable

**Bulk Density**..... 1.44 kg/L

**% Volatiles by Volume**..... Not applicable

**Solubility in Water**..... 33% at 0°C

**Molecular Formula**..... Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>



Molecular Weight..... 158.11

**Section 10 - Stability and Reactivity**

**Stability**..... Stable under normal conditions. Avoid temperatures 100°C or greater.

**Incompatibility**..... Incompatible with strong oxidizers, acids and water reactive materials.

**Hazardous Products of Decomposition**.. Oxides of sulphur and hydrogen sulphide

**Polymerization**..... Will not occur

**Section 11 - Toxicological Information**

**Irritancy**..... Severe irritant. Skin and eye irritant.

**Sensitization**..... Not available

**Chronic/Acute Effects**..... No unusual toxicity reported

**Synergistic Materials**..... Not available

**Animal Toxicity Data**..... Low toxicity; doses of 8 mg/kg in rats were non-toxic upon ingestion.

**Carcinogenicity**..... Not available

**Reproductive Toxicity**..... Not available

**Teratogenicity**..... Not available

**Mutagenicity**..... Not available

**Section 12 - Ecological Information**

**Fish Toxicity**..... Not available

**Biodegradability**..... Not available

**Environmental Effects**..... Not available



**Section 13 - Disposal Consideration**

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

**Section 14 - Transportation Information**

**TDG Classification**

**Class**..... Not regulated

**Group**..... Not regulated

**PIN Number**..... Not regulated

**Other**..... Secure containers (full and/or empty) with suitable hold down devices during shipment.

**Section 15 - Regulatory Information**

**WHMIS Classification**.....D2B

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

**Section 16 - Other Information**

**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.

**ClearTech Industries Inc. - Locations**

**Corporate Head Office: 2302 Hanselman Avenue, Saskatoon, SK, S7L 5Z3**  
**Phone: 306-664-2522**  
**Fax: 306-665-6216**

[www.ClearTech.ca](http://www.ClearTech.ca)

Location	Address	Postal Code	Phone Number	Fax Number
Richmond BC	12431 Horseshoe way	V7A 4X6	604-272-4000	604-272-4596
Calgary AB	5516E - 40 <sup>th</sup> St. S.E.	T2C 2A1	403-279-1096	403-236-0989
Edmonton AB	11750 - 180 <sup>th</sup> Street	T5S 1N7	780-452-6000	780-452-4600



Saskatoon SK	2302 Hanselman Avenue	S7L 5Z3	306-933-0177	306-933-3282
Regina SK	555 Henderson Drive	S42 5X2	306-721-7737	306-721-8611
Winnipeg MB	340 Saulteaux Crescent	R3J 3T2	204-987-9777	204-987-9770
Mississauga ON	7480 Bath Road	L4T 1L2	905-612-0566	905-612-0575

**24 Hour Emergency Number - All Locations - 306-664-2522**