SAFETY DATA SHEET

Sodium Sulfite Solution

Section 01 - Product And Company Identification

Product Identifier .......................... Sodium Sulfite Solution

Product Use .................................. Chemical reduction of chlorine and chlorine dioxide, in bleached pulp and in vent gas scrubbing processes. Bleaching operations, reducing agent in the manufacture of dyes, photographic developers and fixers, food additive, water treatment dechlorinating agent.

Supplier Name .............................. ClearTech Industries Inc.
1500 Quebec Avenue
Saskatoon, SK. Canada
S7K 1V7

Prepared By ................................. ClearTech Industries Inc. Technical Department
Phone: 800-387-7503

24-Hour Emergency Phone ............. 800-387-7503

Section 02 - Hazard Identification

Inhalation................................. Product is irritating to nose, throat and respiratory tract.

Skin Contact / Absorption .......... Skin contact causes irritation with reddening, swelling, rash, scaling and/or blistering.

Eye Contact............................... Vapours from this product are irritating to the eyes. This product causes irritation, redness and pain. Corneal damage and conjunctivitis may result from eye contact with this product.

Ingestion................................. May cause nausea, gastrointestinal upset, abdominal pain, central nervous system depression, vomiting, diarrhea, violent colic and death.

Exposure Limits......................... None established for sodium sulphite. The decomposition product of sulphur dioxide has the following limits:
OSHA/TWA: 5 ppm (sulphur dioxide)
ACGIH/TLV: 5 ppm (sulphur dioxide)
ACGIH/STEL: 2 ppm (sulphur dioxide)

Section 03 - Composition / Information on Ingredients

Ingredients.............................. Sodium Sulfite
Water

15%
85%
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................................. Check for and remove any contact lenses. 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....................................... Do not induce vomiting. If vomiting occurs, lean victim forward to prevent breathing in vomitus. Give two glasses of water. Do not give anything by mouth to an unconscious or convulsing person. Immediately call the local poison control center or hospital.

Additional Information.............. Not available.

Section 05 - Fire Fighting Measures

Conditions of Flammability........... Non-flammable

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..... May yield sulphur dioxide gas upon decomposition.

Special Fire Fighting Procedures..... Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
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. Flush with water to remove any residue.

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 a cool, dry area and away from acids or oxidizers. Store in tightly closed container, preferably the supplier container. Storage tanks should be constructed from polyethylene, fiberglass-reinforced plastic (FRP), cross-linked polyethylene (XLPE), or 316 stainless steel to avoid corrosion problems. Store above freezing point. 15% sodium sulfite solution becomes saturated at approximately 4.5°C (crystals may appear). Ideal storage temperatures are between 15°C-27°C.

Section 08 - Exposure Controls and Personal Protection

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 ....................................... A NIOSH/MSHA approved air-purifying respirator equipped with acid gas/fume, dust, mist cartridges for concentrations up to 50mg/m³ or 20ppm as sulfur dioxide. A powered air-purifying respirator with acid gas cartridges for up to 50ppm sulfur dioxide. A full-facepiece air-supplied respirator if concentrations are for up to and higher than 100ppm sulfur dioxide.

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

Clothing ......................................... Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Footwear. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

Engineering Controls

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

Other. Emergency shower and eye wash must be available, working, tested, and within proximity of the work station in accordance with applicable regulations.

Section 09 - Physical and Chemical Properties

Physical State. Liquid

Odor and Appearance. Clear to pale yellow with a slight sulfur odor.

Odor Threshold. Not available

Specific Gravity (Water=1). 1.15 @ 20 °C

Vapor Pressure (mm Hg, 20°C). Not available

Vapor Density (Air=1). Not available

Evaporation Rate. Not available

Boiling Point. > 100 °C

Freeze/Melting Point. ~ -4.5 °C

pH. 9.0-10.0

Water/Oil Distribution Coefficient. Not available

Bulk Density. Not available

% Volatiles by Volume. Not available

Solubility in Water. Completely miscible

Molecular Formula. \( \text{Na}_2\text{SO}_3 + \text{H}_2\text{O} \)

Molecular Weight. 126, \( \text{Na}_2\text{SO}_3 \)
Section 10 - Stability and Reactivity

Stability........................................ Stable under normal conditions. May air oxidize.

Incompatibility................................. Acids and strong oxidizers, high temperatures.

Hazardous Products of Decomposition.... Reaction with acids release sulfur dioxide gas. Sodium sulphide residue forms when product decomposes.

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

Section 11 - Toxicological Information

Irritancy........................................ Mild irritant

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

Chronic/Acute Effects......................... Effects include severe or deadly allergic reactions in some asthmatics and sulfite sensitive individuals. Possible signs and symptoms of allergic reactions include bronchoconstriction, sweating, flushing, hives, rapid heart rate, decreased blood pressure, and anaphylaxis.

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

Animal Toxicity Data......................... LD$_{50}$(oral,mouse): 820mg/kg (sodium sulphite)

Carcinogenicity............................... Sodium sulphite is not considered to be carcinogenic by the ACGIH or IARC.

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

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

Mutagenicity................................. Sodium sulfite has been demonstrated to be mutagenic in microbial systems; however, it is not mutagenic in studies involving insects and is not considered to present a mutagenic threat to multicell organisms.

Section 12 - Ecological Information

Fish Toxicity................................... Sodium sulphite:
LC$_{50}$(Daphnia magna, 48 hour): 440ppm
LC$_{50}$(Western Mosquito fish, 96 hour): 460ppm

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

Environmental Effects..................... Not available
Section 13 - Disposal Considerations

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

Section 14 - Transport Information

TDG Classification

Shipping Name ................................. Not regulated
Class ............................................... Not regulated
Group ............................................ Not regulated
PIN Number .................................... Not regulated
Other ............................................. Secure containers (full and/or empty) with suitable hold down devises during shipment and ensure all caps, valves, or closures are secured in the closed position.

Section 15 - Regulatory Information

WHMIS Classification .......................... Not regulated

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

Version # ........................................ One
Preparation Date ............................. January 14, 2014
Revision Date ..................................
Revision Note .................................

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 (CADC) 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 or technical service department.

ClearTech Industries Inc. - Locations

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Phone: 800-387-7503  
Fax: 888-281-8109  
www.ClearTech.ca

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<td>V7A 4X6</td>
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<td>Winnipeg, MB.</td>
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<td>800-387-7503</td>
<td>888-281-8109</td>
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