

MATERIAL SAFETY DATA SHEET

Sodium Bisulphite Solution

Section 01 - Chemical And Product And Company Information

Product Identifier Sodium Bisulphite 38% (commercial grade)
Sodium Bisulphite 38% (NSF commercial grade)

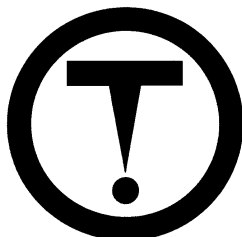
Product Use Manufacturing of perfume, pharmaceuticals, photochemicals, bleaching agent, and papermaking

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..... September 14, 2009

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



Section 02 - Composition / Information on Ingredients

Hazardous Ingredients..... Sodium Bisulphite 30-44%

CAS Number..... Sodium Bisulphite 7631-90-5

Synonym (s)..... Sodium hydrosulphite, sodium hydrogen sulphite

Section 03 - 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**..... ACGIH/TLV: 5mg/m³
NIOSH/REL: 5mg/m³
OSHA/PEL: 5mg/m³

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**..... 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

- Conditions of Flammability**..... Non-flammable
- Means of Extinction**..... For small fires use carbon dioxide or dry chemical. For large fires involving sodium bisulphite, flood fire area with water. Do not get the solid stream of water on spilled material.
- Flash Point**..... Not applicable
- Auto-ignition Temperature**..... Not applicable



Upper Flammable Limit Not applicable

Lower Flammable Limit..... Not applicable

Hazardous Combustible Products... Heating causes thermal decomposition, which liberates toxic fumes of sulfur dioxide, and corrosive fumes of nitrogen oxide and nitric acid. Reaction with some metals produces hydrogen gas.

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

Explosion Hazards..... Non-explosive

Section 06 - Accidental Release Measures

Leak / Spill..... Wear appropriate personal protective equipment. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers.

Deactivating Materials..... Sodium hypochlorite, sodium hydroxide, sodium carbonate (soda ash), sodium bicarbonate, dilute ammonia solutions, and lime.

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 corrosion-proof area away from incompatible substances. Store in tightly closed container, preferably the supplier container. Store in a cool, well ventilated location away from heat, sparks and flames. Storage tanks should be constructed from polyethylene, polypropylene, fiberglass-reinforced plastic (FRP), cross-linked polyethylene (XLPE), or 316 stainless steel to avoid corrosion problems. Tanks should be vented into an alkaline fume recovery system or scrubber. Storage tanks should be protected from water ingress, and maintained structurally in a safe and reliable condition. Store above freezing point. Ideal storage temperatures are between 20°C-27°C.

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**..... 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, neoprene, vinyl 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.

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 eyewash should be in close proximity.

Section 09 - Physical and Chemical Properties

- Physical State**..... Liquid

- Odor and Appearance**..... Clear yellow liquid. Pungent odour of sulfur dioxide

- Odor Threshold**..... Not available

- Specific Gravity (Water=1)**..... 1.33

- Vapor Pressure (mm Hg, 20C)**..... 78mm Hg @ 20°C

- Vapor Density (Air=1)**..... Not available

- Evaporation Rate**..... Not available

- Boiling Point**..... 104°C

- Freeze/Melting Point**..... 6°C

- pH**..... 3.8-5.2



Water/Oil Distribution Coefficient.... Not available
Bulk Density..... Not available
% Volatiles by Volume..... Not available
Solubility in Water..... Completely miscible
Molecular Formula..... NaHSO₃
Molecular Weight..... 60.86353

Section 10 - Stability and Reactivity

Stability..... Stable under normal conditions. Slowly evolves sulfur dioxide under ambient temperatures.
Incompatibility..... Reacts with strong oxidizers, Lewis acids, and mineral acids. Decomposes with heat.
Hazardous Products of Decomposition.. Sulfur dioxide released upon heating.
Polymerization..... Will not occur

Section 11 - Toxicological Information

Irritancy..... High irritancy
Sensitization..... Not available
Chronic/Acute Effects..... Breathing fumes may aggravate existing pulmonary disease such as asthma, emphysema, and bronchitis.
Synergistic Materials..... Not available
Animal Toxicity Data..... LD₅₀(oral, rat)= 2000mg/kg
Carcinogenicity..... Not considered carcinogenic by NTP, IARC, ACGIH and OSHA.
Reproductive Toxicity..... Not available
Teratogenicity..... Not available



Mutagenicity..... Not available

Section 12 - Ecological Information

Fish Toxicity..... LC₅₀(96 hrs, mosquito fish)= 240ppm

Biodegradability..... Not available

Environmental Effects..... Harmful to aquatic life in low concentrations.

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..... 8

Group..... III

PIN Number..... UN 2693

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

Section 15 - Regulatory Information

WHMIS Classification.....D2, E

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.

NSF Certification.....Product is certified under ANSI/NSF Standard 60 for dechlorination and antioxidant at a maximum dosage of 50mg/L (note: only NSF commercial grade has NSF certification).

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.

Attention: Receiver of the chemical goods / MSDS 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 Material 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

Corporate Head Office: 2302 Hanselman Avenue, Saskatoon, SK, S7L 5Z3

Phone: 306-664-2522

Fax: 306-665-6216

www.ClearTech.ca

Location	Address	Postal Code	Phone Number	Fax Number
Richmond, B.C.	12431 Horseshoe Way	V7A 4X6	604-272-4000	604-272-4596
Calgary, AB.	5516E - 40 th St. S.E.	T2C 2A1	403-279-1096	403-236-0989
Edmonton, AB.	11750 - 180 th 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