

Material Safety Data Sheet

Revision Issued: 3/02/2010 Supercedes: 4/19/2005 First Issued: 10/03/1996

Section I - Chemical Product And Company Identification

Product Name: Sodium Bisulfite

CAS Number: 7631-90-5

HBCC MSDS No. CS05200



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Section II - Composition/Information On Ingredients

Chemical Name	CAS Number	%
Sodium Bisulfite	7631-90-5	28-43

See Section VIII for exposure guidelines

Section III - Hazard Identification

Routes of Exposure: Eyes, skin, inhalation, and ingestion

Summary of Acute Health Hazards

Ingestion: This product may cause irritation to the gastro-intestinal tract. Large doses may cause diarrhea, Central Nervous System Depression colic and death. May also cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Inhalation: If mists or sprays of this solution are inhaled, this product may cause irritation to respiratory tract. May cause allergic reaction in sensitive individuals. If mixed with acids, sodium bisulfite will release large amounts of sulfur dioxide gas. This gas can cause severe irritation of the nose and throat. Exposure to high levels of sulfur dioxide gas may result in severe lung damage.

Skin: Can cause burns and severe irritation to the skin and mucous membranes.

Eyes: Can cause severe irritation to the eyes.

Summary of Chronic Health Hazards: N/A

Signs and Symptoms of Exposure: Acute: This material is an irritant to eyes, skin, and mucous membranes. Inhalation of mist may cause irritation to respiratory tract. Ingestion may cause irritation to the gastrointestinal tract. Large doses may cause diarrhea, depression, colic and death. May also cause severe allergic reaction in some asthmatics and sulfite sensitive individuals. **Chronic:** Repeated skin contact with this product may result in dermatitis (inflammation and reddening of the skin). The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of acute exposures.

Effects of Overexposure: N/A

Medical Conditions Generally Aggravated by Exposure: May also cause severe

allergic reaction in some asthmatics and sulfite sensitive individuals.

Note to Physicians: N/A

Section IV - First Aid Measures

Ingestion: If this product is swallowed, call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Have person drink several glasses of water if able to swallow. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of label and MSDS to health professional with victim.

Inhalation: If vapors, mists, or sprays of this product are inhaled, remove victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable mouth-to-mouth if possible. Remove or cover gross contamination to avoid exposure to rescuers. Do not give anything by mouth to an unconscious person.

Skin: If the product contaminates the skin, rinse skin immediately with plenty of water for 15 minutes. Take off contaminated clothing, taking care not to contaminate eyes. Victim must seek medical attention. Call a poison control center or doctor for treatment advice.

Eyes: If this product enters the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. Do not attempt to neutralize. Oils or ointments should not be used at this time. Call a poison control center or doctor for treatment advice. Victim must seek immediate medical attention.

Section V - Fire Fighting Measures

Flash Point: Non-flammable

Autoignition Temperature: N/A

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Unusual Fire and Explosion Hazards: Not considered flammable or combustible. This material, when heated, may release sulfur dioxide gas. Run-off from fire control may cause pollution. Keep fire-exposed containers cool with water spray to prevent rupture due to excessive heat. High pressure water hose may spread product from broken containers increasing contamination. If involved in a fire, this product may decompose to produce a variety of compounds, i.e. sulfur dioxide, sodium oxide, oxygen), Emergency responders must wear the proper personal protective equipment suitable for this situation to which they are responding. Products of combustion are irritating to the respiratory tract and may cause breathing difficulty.

Extinguishing Media: Carbon dioxide, dry chemical, foam, halon, or water spray.

Special Firefighting Procedures: Incipient fire responders should wear eye protection. Structural fire fighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move fire-exposed containers, if it can be done without risk to firefighters. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, discard or decontaminate fire response equipment using before returning such equipment to service.

Section VI - Accidental Release Measures

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. The proper personal protective equipment for incidental releases (e.g. -1 L of the product released in a well-ventilated area) use impermeable gloves, specific for the material handled, goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard-hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations. Absorb spilled liquid with polypads or other suitable absorbent materials. Neutralize residue with sodium bicarbonate and water rinse. Decontaminate the area thoroughly. Test area with litmus paper to confirm neutralization. Place all spill residue in a suitable container.

Section VII - Handling and Storage

Avoid all bodily contact. Do not take internally. Wash thoroughly after handling. Avoid breathing mist. Store away from acids and oxidizers. Open containers carefully.

Section VIII - Exposure Controls/Personal Protection

Exposure Controls

Engineering Controls: Use ventilation to maintain TLV below 5 mg/m³. If required use a corrosion-resistant ventilation system separate from other exhaust ventilation systems to ensure that there is no potential for overexposure to sprays, mists of this product.

Work/Hygienic Practices: Wash hands thoroughly with soap and water before eating, drinking, smoking or using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

Exposure Guidelines: Sodium Bisulfite: CAS Number 7631-90-5, 28-43%, Exposure Limits (TWAs) in Air: ACGIH TLV: 5 ppm as SO₂; OSHA PEL: 5 ppm as SO₂; STEL: N/A

Personal Protection

Personal Protection Equipment (PPE): None normally required. (Respirator if TLV above 5 mg/m³) If adequate ventilation is not available or if there is potential for airborne exposure above the exposure limits (listed in Section II) a respirator may be worn up to respirator exposure limitations, check with respirator equipment manufacturer's recommendation/limitations. For a higher level of protection use positive pressure supplied air respiration protection or Self-Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

Protective Clothing: Rubber gloves, rubber boots, and rubber apron.

Eye Protection: Chemical safety goggles.

Section IX - Physical and Chemical Properties

Physical State: Liquid

pH: 4.8 – 5.2

Melting Point/Range: N/A

Boiling Point/Range (F): 210 - 220

Appearance/Color/Odor: Yellow liquid with a slightly sulfurous odor.

Solubility in Water: Complete
Specific Gravity (Water=1): 1.1 - 1.4
Vapor Density (Air=1): 10.26
How to detect this compound:
 Because it is a weak acid, litmus paper will maintain almost original brown paper bag color upon contact with this solution.

Vapor Pressure (mmHg @ 20°C): 2 - 9
Molecular Weight: N/A
% Volatiles: 57-72
Freezing Point: 6°C (43°F)

Section X - Stability and Reactivity

Stability: Stable **Hazardous Polymerization:** Will Not Occur
Conditions to Avoid: Temperature at or near boiling causes evolution of toxic and corrosive sulfur dioxide gas. Sulfur dioxide is also evolved slowly at ambient temperatures.
Materials to Avoid: Sodium nitrite, aluminum powder, acids, and oxidizing agents
Hazardous Decomposition Products: Sulfur Dioxide Gas

Section XI - Toxicological Information

Mildly Toxic (LD [Human] = 10G)
 This product is irritating to contaminated tissue.
 Sodium Bisulfite may also cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Section XII - Ecological Information

N/A

Section XIII - Disposal Considerations

If collected material can be dissolved, it may be discharged to an industrial waste water collection system. Consult local, state or federal regulatory agencies before disposing of any material.

Section XIV - Transport Information

DOT Proper Shipping Name	
	% Sodium Bisulfite in Solution
28	Bisulfites, aqueous solutions, n.o.s. (contains Sodium Bisulfite 28%)
40	Bisulfites, aqueous solutions, n.o.s. (contains Sodium Bisulfite 40%)
43	Bisulfites, aqueous solutions, n.o.s. (contains Sodium Bisulfite 43%)

DOT Hazard Class/ I.D. No.: 8, UN 2693, III
DOT Label(s) Required: Corrosive

Section XV - Regulatory Information

Reportable Quantity (CERCLA): 5000 Lbs.
NFPA Rating: Health - 2; Flammability - 0; Instability - 1
 0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
Carcinogenicity Lists: No **NTP:** No **IARC Monograph:** No **OSHA Regulated:** No

Section XVI - Other Information

Synonyms/Common Names: Sodium Acid Sulfite, Sodium Hydrogen Sulfite

Chemical Family/Type: Inorganic Salt

Sections changed since last revision: II, III, VIII, IX, XI, XIV, XV

IMPORTANT! Read this MSDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This MSDS has been prepared according to the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The MSDS information is based on sources believed to be reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Also, additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks prior to use, and then to exercise appropriate precautions for protection of employees and others.