Material Safety Data Sheet
Sodium bisulfite

MSDS# 21001

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium bisulfite
Catalog Numbers: AC223070000, AC223070010, AC419440000, AC419440010, AC419440025, AC419440050, AC419440050, AC419441000, S654-3, S654-3LC, S654-500
Synonyms: Sodium hydrogen sulfite.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 7631-90-5
Chemical Name: Sodium bisulfite

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Warning! Harmful if swallowed. Contact with acids liberates toxic gas. Target Organs: Respiratory system.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin. May cause sensitization by skin contact.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled. May cause respiratory sensitization.
Chronic: Repeated or prolonged exposure may cause allergic reactions in sensitive individuals.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition
Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits:
Lower: Not available
Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 2;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage: Store in a cool, dry place. Store in a tightly closed container. Keep away from strong acids. Do not store in aluminum containers.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulfite</td>
<td>5 mg/m3</td>
<td>5 mg/m3 TWA</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Sodium bisulfite: 5 mg/m3 TWA

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Color: white
Odor: sulfurous odor
pH: 4 - 5 (25% aq. sol.)
Vapor Pressure: Not applicable.
Vapor Density: Not available
Evaporation Rate: Not applicable.
Viscosity: Not applicable.
Boiling Point: Not applicable.
Freezing/Melting Point: 150 deg C (decom)
Decomposition Temperature: Not available
Solubility in water: 300 g/L
Specific Gravity/Density: 1.480
Molecular Formula: HNaO3S
Molecular Weight: 104.06

Section 10 - Stability and Reactivity

Chemical Stability: Oxidizes when exposed to air. Contact with acid liberates gas. Moisture sensitive.
Conditions to Avoid: Incompatible materials, dust generation, exposure to air, temperatures above 150°C, exposure to moist air or water.

Incompatibilities with Other Materials: Oxidizing agents, acids, aluminum.
Hazardous Decomposition Products: Oxides of sulfur, toxic fumes of sodium oxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 7631-90-5: VZ2000000
RTECS: CAS# 7631-90-5: Oral, rat: LD50 = 2 gm/kg;
LD50/LC50: Other:
Carcinogenicity: Sodium bisulfite - IARC: Group 3 (not classifiable)
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
Hazard Class: 8
UN Number: UN3260
Packing Group: III

Canada TDG
Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O. (SODIUM BISULFITE)
Hazard Class: 8
UN Number: UN3260
Packing Group: III

USA RQ: CAS# 7631-90-5: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN
Risk Phrases:
R 22 Harmful if swallowed.
R 31 Contact with acids liberates toxic gas.
Safety Phrases:
S 25 Avoid contact with eyes.
S 46 If swallowed, seek medical advice immediately and show this container or label.

WGK (Water Danger/Protection)
CAS# 7631-90-5: 1

Canada
CAS# 7631-90-5 is listed on Canada's DSL List
Canadian WHMIS Classifications: D1B
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 7631-90-5 is listed on Canada's Ingredient Disclosure List

US Federal
TSCA
CAS# 7631-90-5 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 9/02/1997
Revision #10 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

------------------------------------------------------------------------