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## Material Safety Data Sheet Sodium hydrosulfite MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Sodium hydrosulfite

**Catalog Codes:** SLS3463, SLS1246

**CAS#:** 7775-14-6

**RTECS:** JP2100000

**TSCA:** TSCA 8(b) inventory: Sodium hydrosulfite

**CI#:** Not applicable.

**Synonym:** Blankit; Burmol; Hydros; Hydrosulfite R Conc; V-Brite B; Vatrolite; Sodium Dithionite; Sodium Hyposulfite; Disodium dithionite; Disodium hydrosulfite

**Chemical Name:** Dithionous acid, disodium salt

**Chemical Formula:** Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub>

**Contact Information:**

**Sciencelab.com, Inc.**  
14025 Smith Rd.  
Houston, Texas 77396

US Sales: **1-800-901-7247**  
International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**  
1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Sodium hydrosulfite	7775-14-6	100

**Toxicological Data on Ingredients:** Sodium hydrosulfite: ORAL (LD50): Acute: >500 mg/kg [Rat]. DERMAL (LD50): Acute: >10000 mg/kg [Rabbit].

### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Hazardous in case of eye contact (irritant), of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

## Section 4: First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

### Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available.

### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

### Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

### Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Flammable.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** Some metallic oxides.

### Fire Hazards in Presence of Various Substances:

Highly flammable in presence of open flames and sparks, of heat.  
Slightly flammable to flammable in presence of moisture.  
Non-flammable in presence of shocks.

### Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.  
Risks of explosion of the product in presence of static discharge: Not available.

### Fire Fighting Media and Instructions:

Flammable solid. Spontaneously combustible material.  
Do not use water or foam. SMALL FIRE: Use DRY chemical powder.  
LARGE FIRE: Use DRY chemical powder. Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

### Special Remarks on Fire Hazards:

Burns slowly, about like sulfur. Heats spontaneously in contact with moisture and air. May ignite nearby combustible materials. Vigorously supports combustion.  
Sodium Dithionite + Sodium Chlorite causes ignition of the latter.  
Reacts on exposure to moist air form toxic and corrosive fumes with the generation of heat and risk of combustion.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill:**

Spontaneously combustible solid. Oxidizing material.

Stop leak if without risk. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray curtain to divert vapor drift. Cover with dry earth, sand or other non-combustible material. Prevent entry into sewers, basements or confined areas. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

## Section 7: Handling and Storage

**Precautions:**

Keep away from heat. Keep away from sources of ignition. Keep away from direct sunlight or strong incandescent light. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes. Avoid shock and friction. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, moisture.

**Storage:**

Store in a segregated and approved area. Keep in a cool and ventilated area away from combustible materials. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Separate from acids, alkalis, reducing agents and combustibles. Avoid all possible sources of ignition (spark or flame).

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:**

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Solid powder.)

**Odor:** Characteristic. Sulfurous. (Slight.)

**Taste:** Not available.

**Molecular Weight:** 174.11 g/mole

**Color:** White. Grayish white.

**pH (1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** Decomposition temperature: 20°C (68°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 0.8 - 1.02(Water = 1)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:**

Soluble in cold water.

Slightly soluble in alcohol.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Heat (above 50 deg. C) moisture, air, moist air, incompatible materials.

**Incompatibility with various substances:**

Reactive with acids, moisture.

The product may undergo hazardous decomposition, condensation or polymerization, it may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:**

Air sensitive. Oxidizes in air(more readily so in the presence of moisture or when in solution) to bisulfite and acquires an acid reaction.

It is a strong reducing agent and reacts violently with oxidants.

Reacts with acids to form sulfur oxides.

Thermal decomposition occurs violently at 190 deg. C.

Avoid contact with oxidizing agents such as peroxides, potassium chlorate, and potassium permanganate. .

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:**

Acute oral toxicity (LD50): >500 mg/kg [Rat].

Acute dermal toxicity (LD50): >10000 mg/kg [Rabbit].

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:**

Hazardous in case of ingestion.

Slightly hazardous in case of skin contact (irritant), of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects:

Skin: Causes skin irritation. Contact dermatitis may develop in sensitive individuals.

Causes eye irritation and possible eye damage.

Inhalation: It can irritate the respiratory tract (nose, throat, lungs) and cause wheezing, and/or shortness of breath.

Ingestion: May be harmful if ingested. It can cause gastrointestinal tract irritation with nausea, abdominal pain, vomiting, and diarrhea. It may also affect behavior/central nervous system and cause headache, irritability, restlessness, and convulsions. Ingestion of large amounts may also cause hypotension, and cardiovascular collapse. Hypersensitivity reactions, occurring more frequently in asthmatics, may produce bronchoconstriction, diaphoresis, flushing, tachypnea, dyspnea, rhinorrhea, urticaria, tachycardia, hypotension and anaphylaxis.

Chronic Potential Health Effects:

Skin: Prolonged contact may cause skin irritation.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** CLASS 4.2: Spontaneously combustible substance.

**Identification:** : Sodium dithionate UNNA: 1384 PG: II

**Special Provisions for Transport:** Not available.

## Section 15: Other Regulatory Information

### Federal and State Regulations:

Connecticut hazardous material survey.: Sodium hydrosulfite  
Rhode Island RTK hazardous substances: Sodium hydrosulfite  
Pennsylvania RTK: Sodium hydrosulfite  
Massachusetts RTK: Sodium hydrosulfite  
New Jersey: Sodium hydrosulfite  
TSCA 8(b) inventory: Sodium hydrosulfite

**Other Regulations:** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

### Other Classifications:

#### WHMIS (Canada):

CLASS B-6: Reactive and very flammable material.  
CLASS F: Dangerously reactive material.

#### DSCL (EEC):

R7- May cause fire.  
R22- Harmful if swallowed.  
R31- Contact with acids liberates toxic gas.  
S7/8- Keep container tightly closed and dry.  
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28- After contact with skin, wash immediately with plenty of water.  
S43- In case of fire, never use water.

#### HMIS (U.S.A.):

**Health Hazard:** 2

**Fire Hazard:** 3

**Reactivity:** 2

**Personal Protection:** E

#### National Fire Protection Association (U.S.A.):

**Health:** 2

**Flammability:** 1

**Reactivity:** 2

**Specific hazard:**

#### Protective Equipment:

Gloves.  
Lab coat.  
Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.  
Splash goggles.

## Section 16: Other Information

**References:**

- Hawley, G.G.. The Condensed Chemical Dictionary, 11e ed., New York N.Y., Van Nostrand Reinold, 1987.
- SAX, N.I. Dangerous Properties of Industrial Materials. Toronto, Van Nostrand Reinold, 6e ed. 1984.
- The Sigma-Aldrich Library of Chemical Safety Data, Edition II.
- Guide de la loi et du r glement sur le transport des marchandises dangereuses au Canada. Centre de conformit  internationale Lt e. 1986.

**Other Special Considerations:** Not available.

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