

# Material Safety Data Sheet

## Sodium hydrosulfite

ACC# 01503

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium hydrosulfite

**Catalog Numbers:** AC419520000, AC419520020, AC419525000, S80182, 23402355, S310-100, S310-500

**Synonyms:** Sodium hydrosulphite; Sodium sulfoxylate; Sodium dithionite.

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7775-14-6	Sodium dithionite	>85	231-890-0

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white crystalline powder.

**Warning!** Self-heating; exposure to air may cause substance to self-heat without an energy supply. Spontaneously combustible material. Exposure to small amounts of water causes spontaneous ignition, & the resulting decomposition causes SO<sub>2</sub> to be released. Large amounts of water will dissolve the product but the stability of solutions is limited & they quickly oxidize when exposed to air Strong reducing agent. Fire and explosion risk in contact with oxidizing agents. Causes eye irritation. May cause skin and respiratory tract irritation. May cause central nervous system effects. Contact with acids liberates toxic gas, sulfur dioxide. Heat sensitive.

**Target Organs:** Central nervous system, eyes.

#### Potential Health Effects

**Eye:** May cause lacrimation (tearing), blurred vision, and photophobia. May cause chemical conjunctivitis and corneal damage.

**Skin:** May cause skin irritation and possible burns.

**Ingestion:** May cause nausea, vomiting, abdominal pain, and increased salivation.

**Inhalation:** Inhalation of dust may cause respiratory tract irritation. Olfactory fatigue may occur.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:** Treat symptomatically

### Section 5 - Fire Fighting Measures

**General Information:** Evacuate area and fight fire from a safe distance. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. Combustible solid. May decompose explosively when heated or involved in a fire. Powerful reducing agent. Closed containers may rupture violently when heated. Heats spontaneously in contact with air, especially moist air, and may ignite surrounding combustible materials.

**Extinguishing Media:** Use dry sand or earth to smother fire. If water is the only media available, use in flooding amounts.

**Flash Point:** Not applicable.

**Autoignition Temperature:** > 80 deg C (> 176.00 deg F)

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 2

### Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Place under an inert atmosphere. Do not get water inside containers. Control runoff and isolate discharged material for proper disposal.

## Section 7 - Handling and Storage

**Handling:** Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Handle under an inert atmosphere. Store protected from air. Do not allow contact with water. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air. Store protected from moisture. Store under an inert atmosphere. Isolate from oxidizing materials and acids. Should not be exposed to temperatures above 122°F (50°C). Do not store in an area equipped with emergency water sprinklers. Consider equipping storage facilities with sulfur dioxide detectors.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium dithionite	none listed	none listed	none listed

**OSHA Vacated PELs:** Sodium dithionite: No OSHA Vacated PELs are listed for this chemical.

### 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.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a 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

**Appearance:** white

**Odor:** penetrating odor - sulfur dioxide odor

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 55 deg C

**Decomposition Temperature:** 70-130 deg C

**Solubility:** 25 g/100ml (20°C)

**Specific Gravity/Density:** 1.4

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

**Molecular Weight:** 174.10

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Ignition sources, dust generation, exposure to air, excess heat, moisture, high humidity.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of sulfur, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

CAS# 7775-14-6 unlisted.

### LD50/LC50:

Not available.

### Carcinogenicity:

CAS# 7775-14-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found  
**Teratogenicity:** No information found  
**Reproductive Effects:** No information found  
**Mutagenicity:** No information found  
**Neurotoxicity:** No information found  
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.  
**Environmental:** No information available.  
**Physical:** No information available.  
**Other:** COD (per g of sodium dithionite) = 210 mg O<sub>2</sub>.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	SODIUM DITHIONITE	SODIUM DITHIONITE
<b>Hazard Class:</b>	4.2	4.2
<b>UN Number:</b>	UN1384	UN1384
<b>Packing Group:</b>	II	II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7775-14-6 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 7775-14-6: immediate, fire, reactive.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 7775-14-6 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### 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.

R 7 May cause fire.

**Safety Phrases:**

- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 7/8 Keep container tightly closed and dry.
- S 28A After contact with skin, wash immediately with plenty of water
- S 43E In case of fire, use dry sand (never use water).

**WGK (Water Danger/Protection)**

CAS# 7775-14-6: 1

**Canada - DSL/NDL**

CAS# 7775-14-6 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B6.

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.

**Canadian Ingredient Disclosure List**

Section 16 - Additional Information
-------------------------------------

**MSDS Creation Date:** 1/19/1998

**Revision #5 Date:** 3/29/2004

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability 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 Fisher 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 Fisher has been advised of the possibility of such damages.*