

# Material Safety Data Sheet

## Sodium thiosulfate pentahydrate

ACC# 21715

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium thiosulfate pentahydrate

**Catalog Numbers:** AC123370000, AC123370010, AC123370025, AC123370250, AC202850000, AC202850025, AC202850100, AC424460000, AC424460050, 20285-0010, 42446-0010, S445-10, S445-3, S445-50, S445-500, S44510LC, S474-12, S474-3, S474-500, S474SAM1, S474SAM2, S474SAM3, S475-12, S475-212, S475-50, S475-50KG, S475SAM1, S475SAM2, S475SAM3

**Synonyms:** Sodium Hyposulfite; Disodium Salt Pentahydrate; Disodium Thiosulfate Pentahydrate.

**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
10102-17-7	Sodium thiosulfate, pentahydrate	>99	unlisted

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless to white solid.

**Caution!** May cause eye, skin, and respiratory tract irritation. Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated.

**Target Organs:** No data found.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** Prolonged and/or repeated contact may cause irritation and/or dermatitis.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** May cause respiratory tract irritation. Low hazard for usual industrial handling. The toxicological properties of this substance have not been fully investigated.

**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.

**Skin:** 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. Wash clothing before reuse.

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

**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.

**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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

## 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Store protected from moisture.

## 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 ventilation to keep airborne concentrations low.

#### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium thiosulfate, pentahydrate	none listed	none listed	none listed
Sodium thiosulfate anhydrous	none listed	none listed	none listed

**OSHA Vacated PELs:** Sodium thiosulfate, pentahydrate: No OSHA Vacated PELs are listed for this chemical. Sodium thiosulfate anhydrous: 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:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

### Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** colorless to white

**Odor:** odorless

**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:** 48.5 deg C

**Decomposition Temperature:** > 45 deg C

**Solubility:** 680 G/L WATER (20°C)

**Specific Gravity/Density:** 1.7290g/cm<sup>3</sup>

**Molecular Formula:** Na<sub>2</sub>O<sub>3</sub>S<sub>2</sub>.5H<sub>2</sub>O

**Molecular Weight:** 248.18

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable.

**Conditions to Avoid:** Dust generation, exposure to moist air or water.

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

**Hazardous Decomposition Products:** Exposure to moist air or water, hydrogen sulfide, sodium oxide.

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

### Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 10102-17-7: WE6660000

**CAS#** 7772-98-7: XN6476000

**LD50/LC50:**

Not available.

Not available.

**Carcinogenicity:**

CAS# 10102-17-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7772-98-7: 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

No information available.

## 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

	<b>US DOT</b>	<b>Canada TDG</b>
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

**TSCA**

CAS# 10102-17-7 is not on the TSCA Inventory because it is a hydrate. It is considered to be

listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 7772-98-7 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.

### **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 depletors.

This material does not contain any Class 2 Ozone depletors.

### **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# 10102-17-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7772-98-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

### **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:**

Not available.

#### **Risk Phrases:**

#### **Safety Phrases:**

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water

### **WGK (Water Danger/Protection)**

CAS# 10102-17-7: 0

CAS# 7772-98-7: 0

### **Canada - DSL/NDSL**

CAS# 10102-17-7 is listed on Canada's DSL List.

CAS# 7772-98-7 is listed on Canada's DSL List.

### **Canada - WHMIS**

This product has a WHMIS classification of D2B.

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:** 12/12/1997

**Revision #8 Date:** 9/26/2008

*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.*