



Material Safety Data Sheet  
Sodium thiosulfate pentahydrate

MSDS# 21715

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium thiosulfate pentahydrate

Catalog Numbers: AC123370000, AC123370010, AC123370025, AC123370250, AC202850000, AC202850025, 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  
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

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Risk Phrases:

CAS#: 10102-17-7

Chemical Name: Sodium thiosulfate, pentahydrate

%: >99

EINECS#: unlisted

Hazard Symbols:

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Text for R-phrases: see Section 16

Hazard Symbols: None listed

Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

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

Ingestion: 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:

#### 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.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: 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

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

OSHA Vacated PELs: Sodium thiosulfate anhydrous: None listed Sodium thiosulfate, pentahydrate: None listed

#### 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.

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

Color: 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 ( 119.30°F)

Decomposition Temperature:

Solubility in water: 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>2.5</sub>H<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	Moisture, hydrogen sulfide, sodium oxide.
Hazardous Polymerization	Has not been reported.

## Section 11 - Toxicological Information

RTECS#:	CAS# 7772-98-7: XN6476000 CAS# 10102-17-7: WE6660000
LD50/LC50:	RTECS: Not available. RTECS: Not available.
Carcinogenicity:	Sodium thiosulfate anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Sodium thiosulfate, pentahydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

Not available

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

## Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

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

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).

## WGK (Water Danger/Protection)

CAS# 7772-98-7: 0

CAS# 10102-17-7: 0

## Canada

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

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

Canadian WHMIS Classifications: 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.

CAS# 7772-98-7 is not listed on Canada's Ingredient Disclosure List.

CAS# 10102-17-7 is not listed on Canada's Ingredient Disclosure List.

## US Federal

## TSCA

CAS# 7772-98-7 is listed on the TSCA Inventory.

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)).

## Section 16 - Other 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 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.

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