



# Material Safety Data Sheet

<b>NFPA</b>  	<b>HMS</b>  <table border="1" style="margin: auto;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; border: 1px solid black;">2</td> </tr> <tr> <td style="background-color: #FFC0CB;">Fire Hazard</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	0	<b>Personal Protective Equipment</b>  
Health Hazard	2							
Fire Hazard	0							
Reactivity	0							
See Section 15.								

Section 1. Chemical Product and Company Identification		Page Number: 1
<b>Common Name/Trade Name</b>	<b>Sodium thiosulfate anhydrous</b>	
<b>Manufacturer</b>	SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
<b>Commercial Name(s)</b>	Chlorine Control; Chlorine Cure; Declor-It; S-HydriI; Sodothioli	
<b>Synonym</b>	Sodium Hyposulfite; Disodium Thiosulfate; Sodium oxide sulfide	
<b>Chemical Name</b>	Thiosulfuric acid, disodium salt	
<b>Chemical Family</b>	Not available.	
<b>Chemical Formula</b>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	
<b>Supplier</b>	SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
	<b>Catalog Number(s).</b>	XX115, S1498, S1499
	<b>CAS#</b>	7772-98-7
	<b>RTECS</b>	XN6476000
	<b>TSCA</b>	TSCA 8(b) inventory: Sodium thiosulfate anhydrous
	<b>CI#</b>	Not available.
<b><u>IN CASE OF EMERGENCY</u></b> <b><u>CHEMTREC (24hr) 800-424-9300</u></b>  CALL (310) 516-8000		

Section 2. Composition and Information on Ingredients					
		<i>Exposure Limits</i>			
Name	CAS #	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )	CEIL (mg/m <sup>3</sup> )	% by Weight
1) Sodium thiosulfate anhydrous	7772-98-7				100
<b>Toxicological Data on Ingredients</b>					
<b>Sodium thiosulfate anhydrous</b> LD50: Not available. LC50: Not available.					

Section 3. Hazards Identification	
<b>Potential Acute Health Effects</b>	Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of ingestion, of inhalation.
<b>Potential Chronic Health Effects</b>	Slightly hazardous in case of skin contact (irritant). <b>CARCINOGENIC EFFECTS:</b> Not available. <b>MUTAGENIC EFFECTS:</b> Not available. <b>TERATOGENIC EFFECTS:</b> Not available. <b>DEVELOPMENTAL TOXICITY:</b> Not available.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Serious Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Serious Inhalation</b>	Not available.
<b>Ingestion</b>	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
<b>Serious Ingestion</b>	Not available.

**Section 5. Fire and Explosion Data**

<b>Flammability of the Product</b>	Non-flammable.
<b>Auto-Ignition Temperature</b>	Not applicable.
<b>Flash Points</b>	Not applicable.
<b>Flammable Limits</b>	Not applicable.
<b>Products of Combustion</b>	Not available.
<b>Fire Hazards in Presence of Various Substances</b>	Not applicable.
<b>Explosion Hazards in Presence of Various Substances</b>	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.
<b>Fire Fighting Media and Instructions</b>	Not applicable.
<b>Special Remarks on Fire Hazards</b>	When heated to decomposition it emits highly toxic fumes of Disodium oxide and Sulfur oxides.
<b>Special Remarks on Explosion Hazards</b>	Dry trituration with oxidizing agents such as Potassium chlorate, Potassium permanganate, or nitrate may cause explosion. When Sodium nitrite and Sodium Thiosulfate were mixed and heated to evaporated to dryness, violent explosion occurred.

**Section 6. Accidental Release Measures**

<b>Small Spill</b>	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
<b>Large Spill</b>	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**Section 7. Handling and Storage**

<b>Precautions</b>	Do not breathe dust. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic.

**Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	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.
<b>Personal Protection</b>	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
<b>Personal Protection in Case of a Large Spill</b>	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.
<b>Exposure Limits</b>	Not available.

**Section 9. Physical and Chemical Properties**

<b>Physical state and appearance</b>	Solid. (Crystal solid. Crystalline powder.)	<b>Odor</b>	Odorless.
<b>Molecular Weight</b>	158.11 g/mole	<b>Taste</b>	Not available.
<b>pH (1% soln/water)</b>	Not available.	<b>Color</b>	White.
<b>Boiling Point</b>	Not available.		
<b>Melting Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	1.667 (Water = 1)		
<b>Vapor Pressure</b>	Not applicable.		
<b>Vapor Density</b>	Not available.		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not available.		
<b>Water/Oil Dist. Coeff.</b>	Not available.		
<b>Ionicity (in Water)</b>	Not available.		
<b>Dispersion Properties</b>	See solubility in water.		
<b>Solubility</b>	Easily soluble in hot water. Soluble in cold water. Practically insoluble in alcohol. Solubility in Water: 50 g/100 ml water; 231 g/100 ml water at 100 deg. C.		

**Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Instability Temperature</b>	Not available.
<b>Conditions of Instability</b>	Incompatible materials
<b>Incompatibility with various substances</b>	Reactive with oxidizing agents, acids.

Continued on Next Page

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

**Special Remarks on Reactivity** Contact with acids releases sulfur dioxide and/or hydrogen sulfide gas.  
Contact with oxidizers causes a vigorous exothermic reaction.

**Special Remarks on Corrosivity** Not available.

**Polymerization** Will not occur.

### Section 11. Toxicological Information

**Routes of Entry** Inhalation. Ingestion.

**Toxicity to Animals** LD50: Not available.  
LC50: Not available.

**Chronic Effects on Humans** Not available.

**Other Toxic Effects on Humans** Hazardous in case of skin contact (irritant).  
Slightly hazardous in case of ingestion, 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 Potencial Health Effects:  
Skin: Causes skin irritation.  
Eyes: Causes eye irritation.  
Inhalation: May cause upper respiratory tract and mucous membrane irritation.  
Ingestion: Sodium Thiosulfate is an agent with a low order of toxicity. Ingestion of large doses may cause gastrointestinal irritation disturbances with nausea, vomiting, abdominal cramping, diarrhea, metabolic acidosis, and hypematremia. It may result in a cathartic (laxative, purging) effect. May also affect respiration (cyanosis, respiratory stimulation), cardiovascular(hypotension), behavior (ataxia, convulsions)  
Chronic Potential Health Effects:  
Skin: Prolonged or repeated skin contact may allergic dermatitis, and 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 product itself and its products of degradation are not toxic.

**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** Not a DOT controlled material (United States).

**Identification** Not applicable.

**Special Provisions for Transport** Not applicable.

**DOT (Pictograms)**

**Section 15. Other Regulatory Information and Pictograms**

**Federal and State Regulations** TSCA 8(b) inventory: Sodium thiosulfate anhydrous

**California Proposition 65 Warnings** California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.  
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

**Other Regulations** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 231-867-5).  
Canada: Listed on Canadian Domestic Substance List (DSL).  
China: Listed on National Inventory.  
Japan: Listed on National Inventory (ENCS).  
Korea: Listed on National Inventory (KECI).  
Philippines: Listed on National Inventory (PICCS).  
Australia: Listed on AICS.

**Other Classifications**

**WHMIS (Canada)** CLASS D-2B: Material causing other toxic effects (TOXIC).

**DSCL (EEC)** Not available Not available

**HMS (U.S.A.)**

Health Hazard	2
Fire Hazard	0
Reactivity	0
Personal Protection	E

**National Fire Protection Association (U.S.A.)**

Health	1	0	0	Flammability
				Reactivity
				Specific hazard

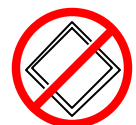
**WHMIS (Canada) (Pictograms)**



**DSCL (Europe) (Pictograms)**



**TDG (Canada) (Pictograms)**



ADR (Europe)  
(Pictograms)

## 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

MSDS Code S4590

References Not available.

## Other Special Considerations

Major Uses: To remove chlorine from solution; as an "anchlor" in the bleaching of paper, pulp; fixer in photography; mordant in dyeing and printing textiles; reducer in chrome dyeing; in manufacturing of leather; agent in chrome leather tanning; in extracting of silver from ores; bleaching bone, straw, ivory; reagent in analytical chemistry; preservative.

Validated by Sonia Owen on 10/2/2008.

Verified by Sonia Owen.

Printed 10/7/2008.

CALL (310) 516-8000

## Notice to Reader

*All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.*