

I - PRODUCT IDENTIFICATION

Product: PROtech **Chlorine Neutralizer**

Chemical Family: Sodium Thiosulfate, Sodium Thiosulfate pentahydrate

Formula: $\text{Na}_2\text{S}_2\text{O}_3$ (anhydrous), $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$ (pentahydrate/crystal)

CAS Number: 7772-98-7 (anhydrous)

Synonyms: Sodium Hyposulfite; "hypo."

COMPANY IDENTIFICATION

AllChem Industries Water Treatment Group, Inc.

6010 NW First Place

Gainesville, FL 32607

Tel:352-378-9696

II – COMPOSITION, INFORMATION ON INGREDIENTS

Chemical or Common Name:	Exposure Limits	
	OSHA PEL:	ACGIH TLV:
Sodium Thiosulfate, Anhydrous	NE	NE
Sodium Thiosulfate, Crystal	NE	NE
ACGIH/TLV for SO_2 is 2 ppm with STEL: 5 ppm		

* NE – Not established

III – HAZARDS IDENTIFICATION

Primary Route(s) of Entry:

Ingestion: ()

Inhalation: ()

Skin Contact: ()

Eye Contact: ()

Primary Health Hazards (Acute and Chronic):

Unusual Chronic Toxicity: None reported

Carcinogenity Listings:

OSHA: ()

NTP: ()

IARC: ()

Signs & Symptoms of Exposure:

Ingestion: Relatively low in acute toxicity but may cause irritation of the gastrointestinal tract and purging, if large quantity is ingested. Doses of 8 g/kg in rats were non-toxic upon ingestion.

Inhalation: Contact with acids releases sulfur dioxide and /or hydrogen sulfide gas, which may be harmful or deadly if inhaled. Breathing product dust or mist may irritate respiratory tract.

Skin Contact: Dust or mist may cause irritation from prolonged contact. Aqueous solutions may cause irritation from repeated or prolonged contact.

Eye Contact: Dust, solutions or mist may irritate or burn the eyes and cause temporary conjunctivitis.

Medical Conditions Aggravated By Exposure:

IV – FIRST AID MEASURES

Emergency and First Aid Procedures:

Ingestion: If conscious, promptly give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. If symptoms develop, get medical attention.

Inhalation: Remove to fresh air. If short of breath, give oxygen, provided a qualified operator is available. If symptoms persist, get medical attention.

Skin Contact: Wash with soap and water, then flush with water until all chemical is removed. Remove contaminated clothing and wash before reuse.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical assistance.

V – FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD DATA

Flash Point: No Flash Point

Auto Ignition Temperature: Not Applicable

Flammable Limits:

LEL: Not applicable

UEL: Not applicable

Extinguishing Media: If involved in a fire, choose extinguishing agent most suitable for type of surrounding fire. Material itself is not combustible.

Special Fire-fighting Procedures: Firefighters should wear self-contained, NIOSH-approved breathing apparatus to protect against any release of toxic and/or irritating fumes. Skin and eye protection should also be provided. Use water spray to keep fire-exposed containers cool and to knock down fumes.

Unusual Fire and Explosion Hazards: If involved in a fire, toxic and irritating gases and residue may evolve.

VI – ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Spilled Or Released:

Promptly shovel or sweep up the dry chemical into an empty container with a minimum of dusting. Cover and store in a cool, dry area, away from acids or oxidizers. Cautiously spray residue with plenty of water to complete clean up. Contact appropriate regulatory authorities for approved methods of disposal, as necessary.

VII – HANDLING AND STORAGE

Precautions to Be Taken in Handling and Storage:

Normal Handling: Avoid contact with eyes, skin, or clothing. Do not breathe dust or mist. Use with adequate ventilation. Wash thoroughly after handling.

Storage: Store in a cool, dry area, away from acids or oxidizers. Keep container closed when not in use and protect from physical damage.

VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: If dusty or misty conditions prevail, use dust or mist respirator, approved by NIOSH. If sulfur dioxide should be released, use a supplied-air respirator or self-contained breathing apparatus or other alternative choice, approved NIOSH, as recommended for this gas.

Ventilation: Provide local exhaust if dusty or misty conditions prevail, and if there should be a release of sulfur dioxide gas.

Eyes and Face: If probable exposure to dust or mist of solution exists, wear chemical safety goggles and hard hats (or other head covering) Do not wear contact lenses. Eyes must be protected if dissolving this material in water.

Hands, Arms, and Body: For routine product handling or use, wear full work clothing, including long-sleeved shirt and trousers. Cotton gloves are usually adequate when handling dry product. For solutions, wear impervious gloves and apron. If contact is repeated or prolonged, wear full impervious clothing.

Other Protective Clothing or Equipment: Provide eyewash facilities convenient to area of use or handling

Work/ Hygienic Practices:

IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 100°C

Vapor Pressure (mm Hg): Not applicable

Vapor Density (Air=1): Not applicable.

Solubility in Water: 42 @ 0°C (hydrate) 33 @ 0°C (anhydrous)

Appearance and odor: White granules with no odor (anhydrous), Clear to white crystals or granules with no odor (hydrate), solid at normal conditions.

Specific Gravity (H₂O=1): Anhydrous: 1.667 Hydrate: 1.685

Percent volatile by volume: Not applicable

Melting Point: 48°C

Evaporation Rate: Not applicable

pH: 7.5% solution anhydrous basis, pH = 8.6 (approx)

X – STABILITY AND REACTIVITY

Stability: Unstable Stable

Conditions to Avoid: High temperatures (above 100°C) yield sulfur dioxide gas and hazardous residue

Incompatibility:

Strong oxidizers: cause vigorous exothermic reactions.

Acids: release sulfur dioxide and/or hydrogen sulfide gas.

Water-reactive materials such as sodium: cause strong exothermic reaction with the hydrate. Violent reaction with sodium nitrite when water of crystallization has been driven off by heating.

Hazardous Decomposition or By-Products:

Sulfur dioxide gas: toxic and corrosive.

Sodium sulfide residue: flammable, dangerous fire risk; strong irritant to skin and tissue; incompatible with acids.

Hydrogen sulfide gas: toxic.

Hazardous Polymerization: May Occur Will Not Occur

Conditions to Avoid: None known

XI- TOXICOLOGICAL INFORMATION

Acute Toxicity:

Target Organ Toxicity:

Reproductive and Development Toxicity:

Carcinogenicity:

Mutagenicity:

Octanol/water Partition Coefficient: Unknown

XII – ECOLOGICAL INFORMATION

Aquatic Toxicity: no data found

Degradability – not applicable (inorganic)

Avian Toxicity:

ENVIRONMENTAL HAZARDS (PR Notice 93-10)

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water board or Regional Office of the EPA.

XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Method: Treatment or disposal of waste generated by use of this product

should be reviewed in terms of applicable federal, state and local laws and regulations. Users are advised to consult with appropriate regulatory agencies before discharge, treatment or disposal. RCRA status of unused material if discarded: "Not a hazardous waste", if discarded, unused, 40 CFR 261.

Other Precautions: Contact with acids releases irritating sulfur dioxide gas. When dissolving and making solutions, add to water cautiously and with stirring as solutions can get hot and may splatter.

XIV - TRANSPORTATION DATA

U.S. Department of Transportation - 49 CFR

Not Regulated.

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 800-424-9300

International Maritime Organization - IMDG

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 202-483-7616 [call collect]

XV - REGULATORY INFORMATION

This chemical appears on the following lists:

() SARA Section 313

() TSCA

XVI - ADDITIONAL INFORMATION

ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section XV of this document should NOT be considered all-inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

The information in this MSDS was obtained from sources, which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.** The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.** This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Revised: 5/01/1996