

Rec 1-10-99

MATERIAL SAFETY
DATA SHEET

Material Name
Sodium Thiosulfate Pentahydrate

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Issue Date: 12/29/1994
MSDS No.: C1-153

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: Sodium Thiosulfate Pentahydrate
Internal Part No.: Technical Grade

Manufacturer Information

Chem One Corporation
(Importer of record)
15150 Sommermeyer, Suite 100
Houston, Texas 77041-5308
----PHONE #: (713)-896-9966
EMERGENCY #: 1-800-424-9300
Mfg. Part #NA

Supplier Information

Chem-One, as importer of record
provides materials manufactured
by various suppliers.
----PHONE #: (713) 896-9966
EMERGENCY #: 1-800-424-9300

Sup. Part #NA

Synonyms: Chlorine control, Declor-it, Disodium thiosulfate, S-hydril,
Sodium hyposulfite, Sodium oxide sulfide, Antichlor, Sodothioli,
Sulfothiorine, Ametox

NOTE: Emergency telephone numbers are to be used only in the
event of chemical emergencies involving a spill, leak, fire,
exposure, or accident involving chemicals. All non-emergency
questions should be directed to customer service.

Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Components	% Wt.
10102-17-7	Sodium Thiosulfate Pentahydrate	>98

Component Information/Information on Non-Hazardous Components

All components have been identified under criteria established in 29
CFR 1910.1200 (Hazard Communication).

Section 3 - HAZARDS IDENTIFICATION

Emergency Overview

Product exists as a white solid in crystal or powder forms. May cause
irritation to the eyes, skin, and mucous membranes of the upper
respiratory tract. At 100 degrees C, highly irritating sulfur dioxide
gas is given off. Sulfur dioxide is toxic, corrosive, flammable and a
strong oxidizer. Keep material away from sodium nitrite and metal
nitrates. Firefighters should wear full protective equipment and
clothing.

Label Information

WARNING! MAY CAUSE EYE AND SKIN IRRITATION. RELEASES TOXIC, IRRITATING
GAS AT HIGH TEMPERATURES (100 deg. C). MAY CAUSE ALLERGIC SKIN
REACTIONS. Avoid contact with eyes and skin. Avoid breathing dusts.
Avoid exposure of material to high temperatures. Wash thoroughly after
handling. Keep container closed. Use with adequate ventilation.

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Potential Health Effects

Eyes

Dusts and mists can burn eyes and cause temporary conjunctivitis.

Skin

Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis. This product may cause an allergic skin reaction.

Ingestion

Ingestion of this product may cause nausea, vomiting and diarrhea.

Inhalation

Under normal conditions, dusts and mists may irritate respiratory tract. At temperatures above 100 degrees C, sulfur dioxide gas is given off and will cause significant irritation.

Section 4 - FIRST AID MEASURES

Eyes

Immediately flush eyes with plenty of water for 15 minutes. If irritation persists, seek medical attention immediately.

Skin

If irritation occurs, wash gently and thoroughly with water and non-abrasive soap. If irritation persists, seek medical advice.

Ingestion

Immediately give large amounts of water. If vomiting occurs, rinse mouth and repeat administration of water. Obtain medical advice. Never give anything by mouth to a person who is unconscious or convulsing.

Inhalation

If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing, apply artificial respiration.

Notes to Physician

Provide general supportive measures and treat symptomatically. Monitoring serum electrolytes and arterial blood gases is recommended if a serious overexposure has occurred.

Section 5 - FIRE FIGHTING MEASURES

Flash Point

Not applicable

Method Used

Not applicable

UFL

Not applicable

LFL

Not applicable

Auto Ignition

Not available

Flammability Classification

Not applicable

Rate of Burning

Not applicable

General Fire Hazards

Heating this product above 100 degrees C will release hazardous sulfur dioxide gas. Explosion hazard with sodium nitrate and metal nitrates.

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Hazardous Combustion Products

Sulfur dioxide gas.

Extinguishing Media

Use methods appropriate for surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Fire: 0 Health: 1 Reactivity: 0 Other:

HMIS Ratings: Fire: 0 Health: 1 Reactivity: 0
Personal Protection: chemical goggles, dust mask

Section 6 - ACCIDENTAL RELEASE MEASURES

Containment Procedures

If sweeping of a contaminated area is necessary, use a dust suppressant agent.

Clean-Up Procedures

Ventilate the contaminated area. Vacuum up the spilled material. Do not allow the spilled product to enter public drainage system or open water courses. Put material in suitable, covered, labelled containers.

Evacuation Procedures

Keep unnecessary personnel away. Close off area.

Special Instructions

Keep upwind of the spilled material and isolate exposure. Avoid inhalation of dusts and exposure of material to sources of heat.

Section 7 - HANDLING AND STORAGE

Procedures for Handling

Avoid inhalation of dusts. Avoid contact with eyes and skin. Use only in designated areas with adequate ventilation. Wash hands thoroughly after handling.

Recommended Storage Methods

Keep the container tightly closed and in a cool, well-ventilated place. Do not store this material in open or unlabeled containers. Guard against dust accumulation of this material. Store away from sources of heat and oxidizing agents.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

A. General Product Information

Sulfur dioxide, which may be released at high temperatures, has an OSHA established exposure limit of 2 ppm TWA and 5 ppm STEL (15 minutes). NIOSH has recommended an exposure limit of 0.5 ppm TWA and has established a level of 100 ppm as Immediately Dangerous to Life and Health (IDLH).

B. Component Exposure Limits

No ACGIH, NIOSH or OSHA exposure guidelines listed for this product's components.

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Engineering Ctrl.: Use general mechanical ventilation. Local exhaust is necessary for use in enclosed or confined spaces.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face: Wear safety glasses with side shields or chemical goggles. Use of a dust mask may be appropriate to avoid inhalation of fine dusts. Never wear contact lenses in the proximity of this material.

Skin: Wear appropriate work gloves for type of operation. Rubber or latex gloves are recommended. Wear long-sleeved shirt and trousers.

Respiratory: Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit. Special applications may necessitate the use of more stringent respiratory protection equipment.

General: Use good hygiene practices when handling this material including changing and laundering work clothing after use.

Section 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance	: White	Odor	: Odorless
Physical State	: Solid	pH	: 6.5-8.0 (1% solution)
Vapor Pressure	: Not available	Vapor Density	: Not applicable
Boiling Point	: Decomposes above 100 deg C	Freezing Point	: Not applicable
Melting Point	: 118 deg F (48 deg C)	Solubility (H2O):	: 42% by wt. @ 0 deg C
Specific Gravity:	: 1.69 (water=1)	Particle Size	: Not available
Softening Point	: Not applicable	Evaporation Rate:	: Not applicable
Viscosity	: Not applicable	Bulk Density	: Not available
Percent Volatile:	: Not available	Molecular Weight:	: 248.2

Additional Properties

The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION

Chemical Stability: May be unstable in solution.

Conditions to Avoid: Temperatures above 100 degrees C.

Incompatibility

Oxidizers, chlorates, nitrates, permanganates, iodine, acids, lead, mercury, silver salts, sodium and any other water reactive materials.

A violent reaction occurs with sodium nitrite when the water of crystallization has been driven off by heating.

Hazardous Decomposition Products

Oxides of sulfur.

Hazardous Polymerization

Will not occur.

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Section 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity/Target Organ Information

A. General Product/Component Information

Administration of this product intravenously has caused high blood pressure and EKG changes in dogs. Ingestion causes violent vomiting.

B. Component LD50/LC50

Epidemiology

Prolonged skin contact may cause allergic skin reactions (allergic dermatitis).

Carcinogenicity

A. General Product/Component Information

Information not available.

B. Component Carcinogenicity Listings

None of this product's components are listed by ACGIH, IARC, NIOSH, NTP or OSHA.

Teratogenicity/Reproductive Effects

Information not available.

Neurotoxicity

Information not available.

Mutagenicity

Information not available.

Other Information

Thiosulfate occurs naturally in the body.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life in very low concentrations.

Environmental Fate

No potential for food chain concentration.

Section 13 - DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions

A. General Product Information

As shipped, product is not considered a hazardous waste by the EPA.

B. Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Review federal, provincial, and local government requirements prior to disposal. Disposal by controlled incineration or secure landfill may be acceptable.

Section 14 - TRANSPORTATION INFORMATION

DOT Information

Shipping Name: Non-regulated
Hazard Class: Not Applicable
UN/NA #: Not Applicable
Packing Group: Not Applicable

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Additional Shipping Information
None.

International Transportation Regulations

I.M.O.: Not regulated as dangerous goods. NOTE: The data in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under I.M.O., I.C.A.O. (I.A.T.A.) and 49 CFR to assure regulatory compliance.

Section 15 - REGULATORY INFORMATION

US Federal Regulations

A. General Product Information

Other federal regulations may apply.

B. Component Information

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) or CERCLA (40 CFR 302.4).

State Regulations

A. General Product Information

Other state regulations may apply.

B. Component Information

None of this product's components are listed on the state lists from CA, FL, MA, MN, NJ, or PA.

Other Regulations

A. General Product Information

WHMIS Classification - D2B.

B. Component Information

None of this product's components are listed on the Canadian Controlled Product Ingredient Disclosure List.

Section 16 - OTHER INFORMATION

Other Information

Reasonable care has been taken in preparation of this information, but Chem One makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. Chem One makes no representations and assumes no liability for any direct, incidental, or consequential damages resulting from it's use.

Revision Information: revised 12/29/94. Previous issue 7/5/94.
Changes: New 16 section format and literature review.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration

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End of MSDS #C1-153