

Material Safety Data Sheet

WEGO CHEMICAL & MINERAL CORP

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Sodium Thiosulfate Pentahydrate

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Sodium thiosulfate, pentahydrate

Chemical Formula: Na₂S₂O₃·5H₂O

CAS Number: 10102-17-7

Other Designations: Sodium Hyposulfite Pentahydrate; Sodium Hyposulfite; Sodothiol

Derivation:

General Use:

Emergency Telephone: (ChemTel) Contract MIS0000335; 800 255-3924; INTL 813 248-0585

Section 2 - Composition / Information on Ingredients

| Ingredient Name | CAS Number | EINECS/ELINCS | % wt or % vol |
|----------------------------------|------------|---------------|---------------|
| Sodium Thiosulfate, pentahydrate | 10102-17-7 | | |

Trace Impurities:

| Ingredient | OSHA PEL | | ACGIH TLV | | NIOSH REL | | NIOSH |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | TWA | STEL | TWA | STEL | TWA | STEL | IDLH |
| Sodium Thiosulfate, pentahydrate | None estab. | none estab. | none estab. | none estab. | none estab. | none estab. | none estab. |

Section 3 - Hazards Identification

☆☆☆☆☆ **Emergency Overview** ☆☆☆☆☆
CAUTION! MAY BE HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

| HMIS | |
|---------|---|
| H | 1 |
| F | 0 |
| R | 0 |
| PPE† | |
| †Sec. 8 | |

Potential Health Effects

Primary Entry Routes: Inhalation, ingestion and skin contact.

Target Organs: none

Acute Effects

Inhalation: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

Eye: Contact may cause mechanical irritation.

Skin: Irritation may occur from prolonged skin contact.

Ingestion: Low level of toxicity by ingestion. Diarrhea may occur by ingestion of large quantities.

Carcinogenicity: IARC, NTP, and OSHA do not list Sodium thiosulfate, pentahydrate as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: no information found.

Chronic Effects: Chronic exposure may cause skin effects.

Section 4 - First Aid Measures

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Eye Contact: Wash thoroughly with running water. Get medical advice if irritation develops.

Skin Contact: Wash exposed area with soap and water. Get medical advice if irritation develops.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: Treat symptomatically and supportively.

Sodium Thiosulfate Pentahydrate

Section 5 - Fire-Fighting Measures

Flash Point: noncombustible

Flash Point Method:

Burning Rate:

Autoignition Temperature:

LEL: n/a

UEL: n/a

Flammability Classification: not considered a fire hazard.

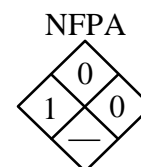
Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Unusual Fire or Explosion Hazards: Not considered to be an explosion hazard.

Hazardous Combustion Products:

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Sect. 8.

Small Spills: Sweep up and containerize for reclamation or disposal. **Large Spills**

Containment: For large spills, dike far ahead of spill for later disposal. Do not release into sewers or waterways.

Cleanup: Vacuuming or wet sweeping may be used to avoid dust dispersal.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Storage Requirements: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Sodium Thiosulfate Pentahydrate

Section 9 - Physical and Chemical Properties

Physical State: solid
Appearance and Odor: white/odorless
Odor Threshold:
Vapor Pressure: not available
Vapor Density (Air=1): not available
Formula Weight: 248.16
Density: 1.75
Specific Gravity (H₂O=1, at 4 °C):
pH: 6.5 – 8.0 (solution)

Water Solubility: 79g/100 ml water @ 4C (39F)
Other Solubilities:
Boiling Point: > 100C (> 212F) (decomposes)
Freezing/Melting Point: 48C (118F) Loses water @ 100C
Viscosity:
Refractive Index:
Surface Tension:
% Volatile: 0 @ 21 °C
Evaporation Rate:

Section 10 - Stability and Reactivity

Stability: Sodium thiosulfate, pentahydrate is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Reacts violently with sodium nitrile. Incompatible with strong oxidizers, acids.

Conditions to Avoid: incompatibilities and excessive heat.

Hazardous Decomposition Products: Thermal oxidative decomposition of Sodium thiosulfate, pentahydrate can produce hydrogen sulfide and sodium oxide.

Section 11- Toxicological Information

Toxicity Data:*

Acute Oral Effects:

Mouse, oral, LD₅₀: 2700 mg/kg

Mutagenicity: no data available

Teratogenicity: no data available

* See NIOSH, RTECS (WE6660000), for additional toxicity data.

Section 12 - Ecological Information

Ecotoxicity: This chemical is expected to cause some oxygen depletion in aquatic systems. It has a low potential to affect aquatic systems. It has a low potential to affect aquatic organisms, secondary waste treatment microorganisms and the germination of some plants. It has a moderate potential to affect the germination and growth of some plants.

Environmental Fate: This chemical does not bioconcentrate.

Environmental Degradation: No information found.

Soil Absorption/Mobility: No information found.

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements:

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101): Not Regulated

Shipping Name:

Shipping Symbols:

Hazard Class:

ID No.:

Packing Group:

Label:

Special Provisions (172.102):

Sodium Thiosulfate Pentahydrate

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 10102-17-7 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).

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.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

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 depleters.

This material does not contain any Class 2 Ozone depleters.

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

Sodium thiosulfate, Pentahydrate is not present on state lists from

CA, PA, MN, MA, FL, or NJ.

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 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 10102-17-7: 0

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

WHMIS: Not available.

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

Exposure Limits

Section 16 - Other Information

Disclaimer: All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable: However, it is the users responsibility to determine the safety, toxicity and suitability for its own use of this product. WEGO CHEMICAL & MINERAL CORP. DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE USE BY OTHERS OF THIS PRODUCT.