

# Safety Data Sheet

Date of Revision: 5/16/2019

## Sodium Thiosulfate Pentahydrate

### Section 1 - Chemical Product and Company Identification

#### WEGO CHEMICAL GROUP

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**Product/Chemical Name:** Sodium thiosulfate, pentahydrate

**Chemical Formula:** Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>.5H<sub>2</sub>O

**CAS Number:** 10102-17-7

**Other Designations:** Sodium Hyposulfite Pentahydrate; Sodium Hyposulfite; Sodothiol

**Derivation:**

**General Use:**

**Emergency Telephone:** (ChemTel) DOM 800 255-3924; INTL 813 248-0585

### Section 2 - Hazards Identification

#### Potential Health Effects

HMIS	
H	1
F	0
R	0
PPE <sup>†</sup>	
† Sec. 8	

**Target Organs:** none

**Primary Entry Routes:** Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

#### HAZARDS IDENTIFICATION

##### Classification of the substance or mixture

Not a hazardous substance or mixture.

##### GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

**Signal word:** None

**Hazard Statement(s):** None

**Pictogram(s) or Symbol(s):** None

**Precautionary Statement(s):** None

**Hazards not otherwise classified (HNOC) or not covered by GHS:** - 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 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	EINECS/ELINCS	% wt or % vol
Sodium Thiosulfate, pentahydrate	10102-17-7	231-867-5	100

#### Trace Impurities:

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

### Section 4 - First Aid Measures

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

## Sodium Thiosulfate Pentahydrate

**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.

## 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  
Vapor Pressure: not available  
Vapor Density (Air=1): not available  
Specific Gravity (H<sub>2</sub>O=1, at 4 °C):  
pH: 6.5 – 8.0 (solution)  
Evaporation Rate: Not available  
Viscosity: no data available  
LEL: no data available vol%  
UEL: no data available vol %  
% Volatile: 0 @ 21 °C

Water Solubility: 79g/100 ml water @ 4C (39F)  
Other Solubilities:  
Boiling Point: > 100 °C (> 212 °F) (decomposes)  
Freezing/Melting Point: 48 °C (118 °F) Loses water @ 100C  
Evaporation Rate:  
Specific Gravity/Density: 1.74 g/cm<sup>3</sup>  
Molecular Formula: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>.5H<sub>2</sub>O  
Molecular Weight: 248.21  
Flash Point: no data available °C ( °F)  
Auto-ignition Temperature: no data available °C ( °F)  
Partition coefficient: n-octanol/water log Pow: - 4.53 at 25 °C (77°F)

### 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, LD<sub>50</sub>: 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:**

**Sodium Thiosulfate Pentahydrate**  
**Section 14 - Transport Information**

**Not regulated for transportation**

<b>US DOT</b> (49 CFR 172.101): PSN: Hazard Class: UN Number: Packing Group:	<b>IATA</b> PSN: Hazard Class: UN Number: Packing Group:
<b>TDG</b> PSN: Hazard Class: UN Number: Packing Group:	<b>IMDG/IMO</b> PSN: Hazard Class: UN Number: Packing Group:

**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. However, listed as the anhydrous form. (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.

## Sodium Thiosulfate Pentahydrate

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 GROUP DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE USE BY OTHERS OF THIS PRODUCT.

