



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Sodium Thiosulfate Pentahydrate, Technical Grade

### Other means of identification

**CAS number** 10102-17-7

**Recommended use** Industrial use.

**Recommended restrictions** NOT TO BE USED AS A PESTICIDE.

### Manufacturer/Importer/Supplier/Distributor information

**Manufacturer** Chem One Ltd.

**Address** 14140 Westfair East Drive

Houston, TX 77041

United States

**Telephone number** (713) 896-9966

**(General)**

**Emergency telephone** (800) 424-9300

**number (24 Hours)**

(703) 527-3887

## 2. Hazard(s) identification

### Hazards for the product as sold

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

### Label elements

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The substance does not meet the criteria for classification.

### Precautionary statement

**Prevention** Not available.

**Response** Not available.

**Storage** Not available.

**Disposal** Not available.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Substances

| Chemical name                   | Common name and synonyms | CAS No./Unique ID | %    |
|---------------------------------|--------------------------|-------------------|------|
| Sodium thiosulfate pentahydrate |                          | 10102-17-7        | > 90 |

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

|                                                                               |                                                                                                                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Most important symptoms/effects, acute and delayed</b>                     | Dusts may irritate the respiratory tract, skin and eyes.                                                         |
| <b>Indication of immediate medical attention and special treatment needed</b> | Treat symptomatically.                                                                                           |
| <b>General information</b>                                                    | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

## 5. Fire-fighting measures

|                                                                      |                                                                                               |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>                                  | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).                                   |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.                                         |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>                                              | Use standard firefighting procedures and consider the hazards of other involved materials.    |
| <b>General fire hazards</b>                                          | No unusual fire or explosion hazards noted.                                                   |

## 6. Accidental release measures

|                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. For personal protection, see section 8 of the SDS.                                                                                                                                                                                                       |
| <b>Methods and materials for containment and cleaning up</b>               | Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.<br><br>Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.<br><br>Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS. |
| <b>Environmental precautions</b>                                           | Avoid discharge into drains, water courses or onto the ground.                                                                                                                                                                                                                                                                                                                                                                                                                          |

## 7. Handling and storage

|                                                                     |                                                                                                                                                |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b>                                | Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Practice good housekeeping. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).       |

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)

| Additional components | Type | Value    | Form                 |
|-----------------------|------|----------|----------------------|
| Dust                  | TWA  | 5 mg/m3  | Respirable fraction. |
|                       |      | 15 mg/m3 | Total dust.          |
|                       |      | 50 mppcf | Total dust.          |
|                       |      | 15 mppcf | Respirable fraction. |

#### US. ACGIH Threshold Limit Values (TLV)

| Additional components | Type | Value   | Form                  |
|-----------------------|------|---------|-----------------------|
| Dust                  | TWA  | 3 mg/m3 | Respirable particles. |

|                                                                              |                                                                                                                                                                                   |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Biological limit values</b>                                               | No biological exposure limits noted for the ingredient(s).                                                                                                                        |
| <b>Appropriate engineering controls</b>                                      | If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. |
| <b>Individual protection measures, such as personal protective equipment</b> |                                                                                                                                                                                   |
| <b>Eye/face protection</b>                                                   | Wear safety glasses with side shields (or goggles).                                                                                                                               |

|                                       |                                                                                                                                                                                                                       |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin protection</b>                |                                                                                                                                                                                                                       |
| <b>Hand protection</b>                | Wear appropriate chemical resistant gloves.                                                                                                                                                                           |
| <b>Other</b>                          | Wear suitable protective clothing.                                                                                                                                                                                    |
| <b>Respiratory protection</b>         | Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.                                                                                             |
| <b>Thermal hazards</b>                | Wear appropriate thermal protective clothing, when necessary.                                                                                                                                                         |
| <b>General hygiene considerations</b> | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

## 9. Physical and chemical properties

|                                                                 |                                                 |
|-----------------------------------------------------------------|-------------------------------------------------|
| <b>Physical state</b>                                           | Solid.                                          |
| <b>Form</b>                                                     | Crystalline. or Powder.                         |
| <b>Color</b>                                                    | White.                                          |
| <b>Odor</b>                                                     | Odorless.                                       |
| <b>Melting point/freezing point</b>                             | 118.4 °F (48 °C)                                |
| <b>Boiling point or initial boiling point and boiling range</b> | Not available.                                  |
| <b>Flammability</b>                                             | The product is not flammable.                   |
| <b>Upper/lower flammability or explosive limits</b>             |                                                 |
| <b>Explosive limit - lower (%)</b>                              | Not applicable.                                 |
| <b>Explosive limit - upper (%)</b>                              | Not applicable.                                 |
| <b>Flash point</b>                                              | Not applicable.                                 |
| <b>Auto-ignition temperature</b>                                | Not applicable.                                 |
| <b>Decomposition temperature</b>                                | >212 °F (>100 °C)                               |
| <b>pH</b>                                                       | 6.5 - 8 (1% solution.)                          |
| <b>Kinematic viscosity</b>                                      | Not applicable.                                 |
| <b>Solubility</b>                                               |                                                 |
| <b>Solubility (water)</b>                                       | 42 % w/w @ 0°C                                  |
| <b>Partition coefficient (n-octanol/water)</b>                  | Not available.                                  |
| <b>Vapor pressure</b>                                           | <0.0000001 kPa (77 °F (25 °C))                  |
| <b>Density and/or relative density</b>                          |                                                 |
| <b>Relative density</b>                                         | 1.69                                            |
| <b>Vapor density</b>                                            | Not applicable.                                 |
| <b>Particle characteristics</b>                                 | Not available.                                  |
| <b>Other information</b>                                        |                                                 |
| <b>Explosive properties</b>                                     | Not explosive.                                  |
| <b>Molecular formula</b>                                        | Na <sub>2</sub> -O <sub>3</sub> -S <sub>2</sub> |
| <b>Oxidizing properties</b>                                     | Not oxidizing.                                  |

## 10. Stability and reactivity

|                                           |                                                                                                  |
|-------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.    |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.                                                      |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                                      |
| <b>Conditions to avoid</b>                | Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Strong oxidizing agents.                                                                         |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known.                                                   |

## 11. Toxicological information

### Information on likely routes of exposure

|              |                                        |
|--------------|----------------------------------------|
| Inhalation   | Dust may irritate respiratory system.  |
| Skin contact | Dust or powder may irritate the skin.  |
| Eye contact  | Dust may irritate the eyes.            |
| Ingestion    | Expected to be a low ingestion hazard. |

**Symptoms related to the physical, chemical and toxicological characteristics**      Dusts may irritate the respiratory tract, skin and eyes.

### Information on toxicological effects

#### Acute toxicity

| Product                                          | Species    | Test Results                                                                                                                      |
|--------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sodium thiosulfate pentahydrate (CAS 10102-17-7) |            |                                                                                                                                   |
| <b><u>Acute</u></b>                              |            |                                                                                                                                   |
| <b>Oral</b>                                      |            |                                                                                                                                   |
| LD50                                             | Rat        | 8100 mg/kg                                                                                                                        |
| <b>Other</b>                                     |            |                                                                                                                                   |
| LD50                                             | Mouse      | 775 mg/kg Intraperitoneal                                                                                                         |
| LDL0                                             | Guinea pig | 250 mg/kg Intravenous                                                                                                             |
|                                                  | Rat        | 176 mg/kg Intravenous; Behavioral: convulsions or effect on seizure threshold; coma; Lungs, Thorax, or Respiration: other changes |

**Skin corrosion/irritation**      Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**      Direct contact with eyes may cause temporary irritation.

#### Respiratory or skin sensitization

**Respiratory sensitization**      Not a respiratory sensitizer.

**Skin sensitization**      This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**      No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**      Not classifiable as to carcinogenicity to humans.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**Reproductive toxicity**      This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**      Not classified.

**Specific target organ toxicity - repeated exposure**      Not classified.

**Aspiration hazard**      Not likely, due to the form of the product.

## 12. Ecological information

**Ecotoxicity**      The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Product                                          | Species | Test Results                                                 |
|--------------------------------------------------|---------|--------------------------------------------------------------|
| Sodium thiosulfate pentahydrate (CAS 10102-17-7) |         |                                                              |
| <b>Aquatic</b>                                   |         |                                                              |
| <b>Acute</b>                                     |         |                                                              |
| Fish                                             | LC50    | Western mosquitofish (Gambusia affinis) 24000 mg/l, 96 hours |

|                                      |                                                                                                                                                                                         |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Persistence and degradability</b> | No data is available on the degradability of this substance.                                                                                                                            |
| <b>Bioaccumulative potential</b>     | No data available.                                                                                                                                                                      |
| <b>Mobility in soil</b>              | No data available.                                                                                                                                                                      |
| <b>Other adverse effects</b>         | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

### 13. Disposal considerations

|                                              |                                                                                                                                                                                                            |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal instructions</b>                 | Collect and reclaim or dispose in sealed containers at licensed waste disposal site.                                                                                                                       |
| <b>Local disposal regulations</b>            | Dispose in accordance with all applicable regulations.                                                                                                                                                     |
| <b>Hazardous waste code</b>                  | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.                                                                                             |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.                        |
| <b>Contaminated packaging</b>                | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to IMO instruments** Not applicable.

### 15. Regulatory information

**US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)** This substance is on the TSCA 8(b) inventory and is designated "active".

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** No

##### SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Food and Drug Administration (FDA)** Total food additive  
Direct food additive  
GRAS food additive

## US state regulations

### California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## International Inventories

| Country(s) or region        | Inventory name                                                         | On inventory (yes/no)* |
|-----------------------------|------------------------------------------------------------------------|------------------------|
| Australia                   | Australian Inventory of Industrial Chemicals (AICIS)                   | Yes                    |
| Canada                      | Domestic Substances List (DSL)                                         | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| Korea                       | Existing Chemicals List (ECL)                                          | Yes                    |
| New Zealand                 | New Zealand Inventory                                                  | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |
| Taiwan                      | Taiwan Chemical Substance Inventory (TCSI)                             | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                          | Yes                    |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 12-23-2025

**Version #** 01

### Disclaimer

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