SAFETY DATA SHEET
according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 08/12/2014  Version 1.2

SECTION 1. Identification

Product identifier

Product number 106513
Product name Sodium thiosulfate pentahydrate pure
CAS-No. 10102-17-7

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Pharmaceutical production, Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS-Labeling
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

OSHA Hazards
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS and may deviate from the GHS information.

Other hazards
None known.

SECTION 3. Composition/information on ingredients

Formula \( \text{Na}_2\text{O}_3\text{S}_2 \cdot 5 \text{H}_2\text{O} \) (Hill)
Molar mass 248.21 g/mol
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SECTION 4. First aid measures
Description of first-aid measures
Inhalation
After inhalation: fresh air.

Skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

Eye contact
After eye contact: rinse out with plenty of water.

Ingestion
After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed
We have no description of any toxic symptoms.

Indication of any immediate medical attention and special treatment needed
No information available.

SECTION 5. Fire-fighting measures
Extinguishing media
Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture
Not combustible.
Ambient fire may liberate hazardous vapors.
Fire may cause evolution of:
Sulfur oxides

Advice for firefighters
Special protective equipment for fire-fighters
In the event of fire, wear self-contained breathing apparatus.

Further information
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions
Do not empty into drains.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage
Precautions for safe handling
Observe label precautions.

Conditions for safe storage, including any incompatibilities
Tightly closed. Dry.
Store at +15°C to +25°C (+59°F to +77°F).

SECTION 8. Exposure controls/personal protection
Exposure limit(s)
Contains no substances with occupational exposure limit values.

Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures
Change contaminated clothing. Wash hands after working with substance.

Eye/face protection
Safety glasses

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Respiratory protection
required when dusts are generated.
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties
Physical state solid
Color: colorless
Odor: odorless
Odor Threshold: not applicable
pH: 6.0 - 7.5
   at 100 g/l
   68 °F ( 20 °C)
Melting point: 48 °C
Boiling point/boiling range: not applicable
Flash point: does not flash
Evaporation rate: No information available.
Flammability (solid, gas): No information available.
Lower explosion limit: not applicable
Upper explosion limit: not applicable
Vapor pressure: No information available.
Relative vapor density: No information available.
Density: 1.74 g/cm³
   at 68 °F ( 20 °C)
Relative density: No information available.
Water solubility: 701 g/l
   at 68 °F ( 20 °C)
Partition coefficient: n-octanol/water: log Pow: -4.53
   (calculated)
   (anhydrous substance) Bioaccumulation is not expected. (Lit.)
Autoignition temperature: No information available.
Decomposition temperature: 212 °F ( 100 °C)
   Elimination of water of crystallization
Viscosity, dynamic: not applicable
Explosive properties: Not classified as explosive.
Oxidizing properties: none
SECTION 10. Stability and reactivity

Reactivity
See below

Chemical stability
releases water of crystallization when heated.

Possibility of hazardous reactions
Risk of explosion with:
nitrates, nitrites, peroxi compounds, Strong oxidizing agents
Violent reactions possible with:
Fluorine, acids

Conditions to avoid
Strong heating (decomposition).

Incompatible materials
no information available

Hazardous decomposition products
in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact, Ingestion

Acute oral toxicity
LD50 rat: > 5,000 mg/kg (anhydrous substance) (RTECS)

Genotoxicity in vitro
Ames test
Result: negative
(Lit.)

Specific target organ systemic toxicity - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard
Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity
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IARC  No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information
Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity
Toxicity to fish
LC50  Pimephales promelas (fathead minnow):  > 10,000 mg/l;  96 h  (External MSDS)

Toxicity to daphnia and other aquatic invertebrates
EC50  Daphnia magna (Water flea):  1,223 mg/l;  48 h  (External MSDS)

Persistence and degradability
Chemical Oxygen Demand (COD)
405 mg/g
(anhydrous substance) (IUCLID)

Bioaccumulative potential
Partition coefficient: n-octanol/water
log Pow:  -4.53
(calculated)
(anhydrous substance) Bioaccumulation is not expected. (Lit.)

Mobility in soil
No information available.

Additional ecological information
Discharge into the environment must be avoided.
SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)
Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)
Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)
Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

OSHA Hazards
No OSHA Hazards

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards
No SARA Hazards

SARA 313
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

DEA List I
Not listed

DEA List II
Not listed

US State Regulations

Massachusetts Right To Know
Remarks
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know
Ingredients
sodium thiosulphate pentahydrate

New Jersey Right To Know
Ingredients
sodium thiosulphate pentahydrate

California Prop 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status
TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice
Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.

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