

**Sodium thiosulphate ≥99 %, p.a., anhydrous**

article number: **HN25**  
 Version: **GHS 3.0 en**  
 Replaces version of: 2017-02-28  
 Version: (GHS 2)

date of compilation: 2020-01-14  
 Revision: 2020-01-14

## SECTION 1: Identification of the substance/mixture and of the company/ undertaking

**1.1 Product identifier**

|                                 |                            |
|---------------------------------|----------------------------|
| Identification of the substance | <b>Sodium thiosulphate</b> |
| Article number                  | HN25                       |
| Registration number (REACH)     | 01-2119531537-38-xxxx      |
| EC number                       | 231-867-5                  |
| CAS number                      | 7772-98-7                  |

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

**Identified uses:** laboratory chemical  
laboratory and analytical use

**1.3 Details of the supplier of the safety data sheet**

Carl Roth GmbH + Co KG  
 Schoemperlenstr. 3-5  
 D-76185 Karlsruhe  
 Germany

**Telephone:** +49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)  
**Website:** [www.carlroth.de](http://www.carlroth.de)

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

**e-mail (competent person):** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**1.4 Emergency telephone number**

| Name   | Street          | Postal code/city   | Telephone | Website |
|--|-----------------|--------------------|-----------|---------|
| NSW Poisons Information Centre<br>Childrens Hospital | Hawkesbury Road | 2145 Westmead, NSW | 131126    |         |

Emergency information service

**Poison Centre Munich: +49/(0)89 19240**

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture****Classification acc. to GHS**

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC. This substance does not meet the criteria for classification.

**2.2 Label elements****Labelling GHS**

not required

**Signal word** not required

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There is no additional information.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

|                             |                                   |
|-----------------------------|-----------------------------------|
| Name of substance           | Sodium thiosulphate               |
| Registration number (REACH) | 01-2119531537-38-xxxx             |
| EC number                   | 231-867-5                         |
| CAS number                  | 7772-98-7                         |
| Molecular formula           | $\text{Na}_2\text{S}_2\text{O}_3$ |
| Molar mass                  | 158.1 $\text{g/mol}$              |

**SECTION 4: First aid measures****4.1 Description of first aid measures****General notes**

No special measures are necessary.

**Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

**Following skin contact**

Rinse skin with water/shower.

**Following eye contact**

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

**Following ingestion**

Rinse mouth. Call a doctor if you feel unwell.

**4.2 Most important symptoms and effects, both acute and delayed**

Gastrointestinal complaints, Irritant effects

**4.3 Indication of any immediate medical attention and special treatment needed**

none

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

**Sodium thiosulphate  $\geq 99$  %, p.a., anhydrous**article number: **HN25****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

water jet

**5.2 Special hazards arising from the substance or mixture**

Non-combustible.

**Hazardous combustion products**

In case of fire may be liberated: sulphur oxides (SO<sub>x</sub>)

**5.3 Advice for firefighters**

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Control of dust.

**6.2 Environmental precautions**

Keep away from drains, surface and ground water.

**6.3 Methods and material for containment and cleaning up****Advice on how to contain a spill**

Covering of drains.

**Advice on how to clean up a spill**

Take up mechanically.

**Other information relating to spills and releases**

Place in appropriate containers for disposal.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

No special measures are necessary.

**Advice on general occupational hygiene**

Wash hands before breaks and after work.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed. Store in a dry place.

**Incompatible substances or mixtures**

Observe hints for combined storage.

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### Consideration of other advice

- **Ventilation requirements**

Use local and general ventilation.

- **Specific designs for storage rooms or vessels**

Recommended storage temperature: 15 – 25 °C.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Data are not available.

#### Relevant DNELs/DMELs/PNECs and other threshold levels

- **human health values**

| Endpoint | Threshold level       | Protection goal, route of exposure | Used in           | Exposure time              |
|----------|-----------------------|------------------------------------|-------------------|----------------------------|
| DNEL     | 374 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |

- **environmental values**

| Endpoint | Threshold level | Environmental compartment    | Exposure time                |
|----------|-----------------|------------------------------|------------------------------|
| PNEC     | 0.8 mg/l        | freshwater                   | short-term (single instance) |
| PNEC     | 0.08 mg/l       | marine water                 | short-term (single instance) |
| PNEC     | 102.6 mg/l      | sewage treatment plant (STP) | short-term (single instance) |

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

#### Skin protection



- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

- **type of material**

NBR (Nitrile rubber)

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- **material thickness**

>0,11 mm

- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P1 (filters at least 80 % of airborne particles, colour code: White).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                 |                             |
|-----------------|-----------------------------|
| Physical state  | solid (powder, crystalline) |
| Colour          | white                       |
| Odour           | odourless                   |
| Odour threshold | No data available           |

#### Other physical and chemical parameters

|   |  |
|---|--|
| pH (value)                              | 6 – 8.5 (water: 50 g/l, 20 °C)                 |
| Melting point/freezing point            | not determined                                 |
| Initial boiling point and boiling range | This information is not available.             |
| Flash point                             | not applicable                                 |
| Evaporation rate                        | no data available                              |
| Flammability (solid, gas)               | These information are not available            |
| <u>Explosive limits</u>                 |  |
| • lower explosion limit (LEL)           | this information is not available              |
| • upper explosion limit (UEL)           | this information is not available              |
| Explosion limits of dust clouds         | these information are not available            |
| Vapour pressure                         | This information is not available.             |
| Density                                 | 1.67 g/cm <sup>3</sup> at 20 °C                |
| Vapour density                          | This information is not available.             |
| Bulk density                            | ~ 1,350 kg/m <sup>3</sup>                      |
| Relative density                        | Information on this property is not available. |

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### Solubility(ies)

Water solubility ~ 764,000 mg/l at 25 °C

### Partition coefficient

n-octanol/water (log KOW) -4.35 (Lit.)

Auto-ignition temperature Information on this property is not available.

Decomposition temperature >300 °C

Viscosity not relevant (solid matter)

Explosive properties Shall not be classified as explosive

Oxidising properties none

## 9.2 Other information

There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Acids, Nitrate, Nitrites, Peroxides, Strong oxidiser,  
=> Explosive properties

### 10.4 Conditions to avoid

Keep away from heat. Decomposition takes place from temperatures above: >300 °C.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Shall not be classified as acutely toxic.

| Exposure route        | Endpoint | Value        | Species | Source |
|-----------------------|----------|--------------|---------|--------|
| oral                  | LD50     | >2,000 mg/kg | rat     | ECHA   |
| inhalation: dust/mist | LC50     | >5.5 mg/l/4h | rat     | ECHA   |
| dermal                | LD50     | >2,000 mg/kg | rabbit  | ECHA   |

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

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### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

#### • Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### • Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

gastrointestinal complaints, diarrhoea

#### • If in eyes

essentially non-irritating

#### • If inhaled

Inhalation of dust may cause irritation of the respiratory system

#### • If on skin

Frequently or prolonged contact with skin may cause dermal irritation

### Other information

None

## SECTION 12: Ecological information

### 12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

#### Aquatic toxicity (acute)

| Endpoint | Value    | Species               | Source | Exposure time |
|----------|----------|-----------------------|--------|---------------|
| EC50     | 230 mg/l | aquatic invertebrates | ECHA   | 48 h          |

#### Aquatic toxicity (chronic)

| Endpoint | Value           | Species        | Source | Exposure time |
|----------|-----------------|----------------|--------|---------------|
| EC50     | >1,000 mg/l     | microorganisms | ECHA   | 3 h           |
| NOEC     | $\geq 316$ mg/l | fish           | ECHA   | 34 d          |

### 12.2 Process of degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) -4.35

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### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

#### Sewage disposal-relevant information

Do not empty into drains.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

- |             |  |  |
|-------------|--|--|
| <b>14.1</b> | UN number  | (not subject to transport regulations)                                       |
| <b>14.2</b> | UN proper shipping name  | not relevant   |
| <b>14.3</b> | Transport hazard class(es)   | not relevant   |
|             | Class  | -  |
| <b>14.4</b> | Packing group  | not relevant not assigned to a packing group                                 |
| <b>14.5</b> | Environmental hazards  | nONE (non-environmentally hazardous acc. to the dangerous goods regulations) |
| <b>14.6</b> | <b>Special precautions for user</b>  |  |
|             | There is no additional information.  |  |
| <b>14.7</b> | <b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>  |  |
|             | The cargo is not intended to be carried in bulk.   |  |
| <b>14.8</b> | <b>Information for each of the UN Model Regulations</b>  |  |
|             | <ul style="list-style-type: none"> <li>• <b>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)</b><br/>Not subject to ADR, RID and ADN.</li> <li>• <b>International Maritime Dangerous Goods Code (IMDG)</b><br/>Not subject to IMDG.</li> <li>• <b>International Civil Aviation Organization (ICAO-IATA/DGR)</b><br/>Not subject to ICAO-IATA.</li> </ul> |  |



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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### National inventories

Substance is listed in the following national inventories:

| Country | National inventories | Status              |
|---------|----------------------|---------------------|
| AU      | AICS                 | substance is listed |
| CA      | DSL                  | substance is listed |
| CN      | IECSC                | substance is listed |
| EU      | ECSI                 | substance is listed |
| EU      | REACH Reg.           | substance is listed |
| JP      | CSCL-ENCS            | substance is listed |
| KR      | KECI                 | substance is listed |
| MX      | INSQ                 | substance is listed |
| NZ      | NZIoC                | substance is listed |
| PH      | PICCS                | substance is listed |
| TR      | CICR                 | substance is listed |
| TW      | TCSI                 | substance is listed |
| US      | TSCA                 | substance is listed |

##### Legend

|            |   |
|------------|---|
| AICS       | Australian Inventory of Chemical Substances                             |
| CICR       | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)  |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances               |
| REACH Reg. | REACH registered substances   |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act   |

#### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

### SECTION 16: Other information

##### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)  | Actual entry (text/value)                                      | Safety-relevant |
|---------|--|--|-----------------|
| 1.1     | Registration number (REACH):<br>This information is not available. | Registration number (REACH):<br>01-2119531537-38-xxxx          | yes             |
| 14.4    | Packing group:<br>not relevant                                     | Packing group:<br>not relevant not assigned to a packing group | yes             |

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### Abbreviations and acronyms

| Abbr.    | Descriptions of used abbreviations  |
|----------|---|
| ADN      | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR      | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| CAS      | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CMR      | Carcinogenic, Mutagenic or toxic for Reproduction   |
| DGR      | Dangerous Goods Regulations (see IATA/DGR)  |
| DMEL     | Derived Minimal Effect Level  |
| DNEL     | Derived No-Effect Level   |
| EC50     | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval                                      |
| EINECS   | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS   | European List of Notified Chemical Substances   |
| GHS      | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA     | International Air Transport Association   |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO     | International Civil Aviation Organization   |
| IMDG     | International Maritime Dangerous Goods Code   |
| LC50     | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval   |
| LD50     | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval  |
| MARPOL   | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP      | No-Longer Polymer   |
| NOEC     | No Observed Effect Concentration  |
| PBT      | Persistent, Bioaccumulative and Toxic   |
| PNEC     | Predicted No-Effect Concentration   |
| REACH    | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID      | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)   |
| vPvB     | very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

- UN Recommendations on the Transport of Dangerous Good
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

not relevant.

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**Disclaimer**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.