1 Identification

- **Product identifier**
- **Trade name:** Thiosulfate
- **Article number:** IC-S2O3
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** High-Purity Standards
  - 7221 Investment Drive, North Charleston, SC 29418 United States
  - Telephone: +1-843-767-7900
  - Fax: +1-843-767-7906
  - highpuritystandards.com
  - Email: info@highpuritystandards.com
- **Information department:** Product safety department
- **Emergency telephone number:** INFOTRAC
  - Emergency telephone numbers: 1-800-535-5053
  - Other emergency telephone numbers: 1-352-323-3500

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0
- **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

(Contd. on page 2)
3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components: Void

<table>
<thead>
<tr>
<th>Chemical identification of the substance/preparation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5 water, distilled, conductivity or of similar purity</td>
<td>99.98%</td>
</tr>
<tr>
<td>497-19-8 sodium carbonate</td>
<td>0.01%</td>
</tr>
<tr>
<td>7772-98-7 sodium thiosulphate</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
50.1.3 Protective Action Criteria for Chemicals

- PAC-1:
  - 497-19-8 sodium carbonate: 7.6 mg/m³
  - 7772-98-7 sodium thiosulphate: 38 mg/m³

- PAC-2:
  - 497-19-8 sodium carbonate: 83 mg/m³
  - 7772-98-7 sodium thiosulphate: 410 mg/m³

- PAC-3:
  - 497-19-8 sodium carbonate: 500 mg/m³
  - 7772-98-7 sodium thiosulphate: 2,500 mg/m³

7 Handling and storage

- Handling:
  - Precautions for safe handling: No special measures required.
  - Information about protection against explosions and fires: No special measures required.

- Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: None.
    - Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters
  - Components with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      The usual precautionary measures for handling chemicals should be followed.
    - Breathing equipment: Not required.
    - Protection of hands:
      The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
      Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

**General Information**

- **Appearance:**
  - Form: Liquid
  - Color: colorless
  - Odor: Characteristic
  - Odor threshold: Not determined.

- **pH-value:** Not determined.

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100 °C (212 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

- **Density at 20 °C (68 °F):** 1.0002 g/cm³ (8.34667 lbs/gal)

- **Bulk density:** 1,000 kg/m³
- **Relative density**
- **Vapor density**
- **Evaporation rate**
- **Solubility in / Miscibility with Water:** Fully miscible.

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Safety Data Sheet
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Reviewed on 03/20/2020

Trade name: Thiosulfate

| · Partition coefficient (n-octanol/water): Not determined. |
| · Viscosity: |
| ∙ Dynamic: Not determined. |
| ∙ Kinematic: Not determined. |
| · Solvent content: |
| ∙ Water: 100.0 % |
| ∙ VOC content: 0.00 % |
| ∙ Solids content: 0.0 % |
| · Other information No further relevant information available. |

10 Stability and reactivity

· Reactivity No further relevant information available.
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions No dangerous reactions known.
· Conditions to avoid No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects
· Acute toxicity:
· Primary irritant effect:
  ∙ on the skin: No irritant effect.
  ∙ on the eye: No irritating effect.
· Sensitization: No sensitizing effects known.
· Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
· Carcinogenic categories
  ∙ IARC (International Agency for Research on Cancer) None of the ingredients is listed.
  ∙ NTP (National Toxicology Program) None of the ingredients is listed.

(Contd. on page 6)
### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability:** No further relevant information available.
  - **Behavior in environmental systems:**
  - **Bioaccumulative potential:** No further relevant information available.
  - **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** Not hazardous for water.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **Other adverse effects:** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **UN-Number**
  - **DOT, ADR, IMDG, IATA** not regulated
- **UN proper shipping name**
  - **DOT, ADR, IMDG, IATA** not regulated
- **Transport hazard class(es)**
  - **DOT, ADR, ADN, IMDG, IATA**
    - **Class** not regulated
- **Packing group**
  - **DOT, ADR, IMDG, IATA** not regulated
- **Environmental hazards:**
  - Not applicable.
## 15 Regulatory information

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety, health and environmental regulations/legislation specific for the substance or mixture</td>
<td>Sara</td>
</tr>
<tr>
<td>Section 355 (extremely hazardous substances):</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Section 313 (Specific toxic chemical listings):</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act):</td>
<td>All components have the value ACTIVE.</td>
</tr>
<tr>
<td>Hazardous Air Pollutants</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Proposition 65</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause cancer:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Carcinogenic categories</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>EPA (Environmental Protection Agency)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>GHS label elements</td>
<td>Void</td>
</tr>
<tr>
<td>Hazard pictograms</td>
<td>Void</td>
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Trade name: Thiosulfate

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Environment protection department.
- Contact:
  High-Purity Standards
  Tel: 843-767-7900
  Fax: 843-767-7906
- Date of preparation / last revision 03/20/2020 / -
- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit