MATERIAL SAFETY DATA SHEET
Sodium thiosulfate

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium thiosulfate
Catalog Numbers: S/7250/53, S/7250/60, S/7250/63
Synonyms: Sodium Hyposulfite; Sodium Oxide Sulfide; Thiosulfuric Acid Disodium Salt
Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
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<tr>
<td>7772-98-7</td>
<td>Sodium thiosulfate</td>
<td>&gt;98</td>
<td>231-867-5</td>
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</table>

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Hygroscopic (absorbs moisture from the air).

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Notes to Physician:

Section 5 - Fire Fighting Measures
General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, or carbon dioxide.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
Exposure Limits

CAS# 7772-98-7:

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to minimize contact with skin.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: white
Odor: odorless
pH: 6.5-8 (solution)

Vapor Pressure: Negligible.
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 43 deg C (109.40°F)
Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density: 1.66
Molecular Formula: Na2O3S2
Molecular Weight: 158.0978

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Deliquescent (tending to absorb atmospheric water vapor and become liquid).

Conditions to Avoid: High temperatures, moisture.

Incompatibilities with Other Materials: Strong acids.

Hazardous Decomposition Products: Oxides of sulfur, hydrogen sulfide, sodium oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7772-98-7: XN6476000
LD50/LC50: RTECS: Not available.
Carcinogenicity: Sodium thiosulfate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

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<th>RID/ADR</th>
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<td>Not regulated as a hazardous material</td>
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<td>Hazard Class:</td>
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<td>Packing Group:</td>
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Section 15 - Regulatory Information

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# 7772-98-7: 0

Canada
- CAS# 7772-98-7 is listed on Canada's DSL List
US Federal
TSCA
CAS# 7772-98-7 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/12/1997
Revision #5 Date 2/12/2007

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