A. GENERAL INFORMATION

TRADE NAME (COMMON NAME)
SODIUM THIOSULFATE, ANHYDROUS
SODIUM THIOSULFATE, CRYSTAL

C.A.S. NO.
7772-98-7 (anhydrous)
10102-17-7 (pentahydrate)

CHEMICAL NAME AND/OR SYNONYM
Sodium Thiosulfate
Sodium Thiosulfate pentahydrate

SYNONYMS: Sodium hyposulfite; "hypo".

FORMULA
Na₂S₂O₃ (anhydrous)
Na₂S₂O₃ • 5H₂O (pentahydrate/crystal)

MOLECULAR WEIGHT
158.11
248.18

ADDRESS (NO., STREET, CITY, STATE AND ZIP CODE)
GENERAL CHEMICAL CORPORATION
CN 1829
Morristown, N.J. 07960-1829

CONTACT
Director of Environmental Matters
PHONE NUMBER
(201) 455-5630

EMERGENCY PHONE NUMBER
(201) 455-3700

B. FIRST AID MEASURES

Inhalation: Remove to fresh air. If short of breath, give oxygen, provided a qualified operator is available.
If symptoms persist, get medical attention.

Ingestion: If conscious, promptly give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat.
If symptoms develop, get medical attention.

Eyes: Flush eyes with plenty of water for at least 15 minutes.
If irritation persists, get medical attention.

Skin: Wash with soap and water, then flush with water until all chemical is removed.
Remove contaminated clothing and wash before reuse.

C. HAZARDS INFORMATION

INHALATION

Breathing product dust or mist may irritate respiratory tract.

INGESTION

Relatively low in acute toxicity but may cause irritation of the gastrointestinal tract and purging, if large quantity is ingested.
Doses of 8 g/kg in rats were non-toxic upon ingestion. For summary, see Reference (a), Section J.

SKIN

Dust or mist may cause irritation from prolonged contact.
Aqueous solutions may cause irritation from repeated or prolonged contact.

EYES

Dust, solutions or mist may irritate or burn the eyes and cause temporary conjunctivitis.

PERMISSIBLE CONCENTRATION: AIR
(SEE SECTION J)

No OSHA/TWA or ACGIH/TLV established for Sodium Thiosulfate.

ACGIH/TLV for SO₂ is 5 mg/cu.m. with STEL: 10 mg/cu.m.

BIOLOGICAL

None established.

UNUSUAL CHRONIC TOXICITY

None reported.
D. PRECAUTIONS/PROCEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED

If involved in a fire, choose extinguishing agent most suitable for type of surrounding fire. Material itself is not combustible.

FIRE EXTINGUISHING AGENTS TO AVOID

None known.

SPECIAL FIRE FIGHTING PRECAUTIONS

Firefighters should wear self-contained, NIOSH-approved breathing apparatus to protect against any release of toxic and/or irritating fumes. Skin and eye protection should also be provided. Use water spray to keep fire-exposed containers cool and to knock down fumes.

VENTILATION

Provide local exhaust if dusty or misty conditions prevail, and if there should be a release of sulfur dioxide gas (see Section G). Keep incompatible materials out of hoods, ducts, etc.

NORMAL HANDLING

Avoid contact with eyes, skin, clothing. Do not breathe dust or mist. Use with adequate ventilation. Wash thoroughly after handling.

STORAGE

Store in a cool, dry area, away from acids or oxidizers. Keep container closed when not in use and protect from physical damage.

SPILL OR LEAK (ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENT – SECTION E)

Promptly shovel or sweep up the dry chemical into an empty container with a minimum of dusting. Cover and store as above. Cautiously spray residue with plenty of water to complete clean-up. Contact appropriate regulatory authorities for approved method of disposal, as necessary.

E. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION

If dusty or misty condition prevails, use dust or mist respirator, approved by NIOSH. If sulfur dioxide should be released (see Section G), use a supplied-air respirator or self-contained breathing apparatus or other alternate choice, approved by NIOSH, as recommended for this gas [see Ref. (c)].

EYES AND FACE

If probable exposure to dust or mist of solution exists, wear chemical safety goggles and hard hat (or other head covering). Do not wear contact lenses. Eyes must be protected as above if dissolving this material in water.

HANDS, ARMS, AND BODY

For routine product-handling or use, wear full work clothing, including long-sleeved shirt and trousers. Cotton gloves are usually adequate when handling dry product. For solutions, wear impervious gloves and apron. If contact is repeated or prolonged, wear full impervious clothing.

OTHER CLOTHING AND EQUIPMENT

Provide eye-wash facilities convenient to areas of use or handling.
## PHYSICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>Black Granules with no odor (anhydrous). Clear to white crystals or granules with no odor (hydrate).</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LIQUID</td>
<td>SOLID</td>
<td>GAS</td>
<td><strong>BOILING POINT</strong></td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>(transition)</td>
<td>48°C</td>
<td>SOLUBILITY IN WATER</td>
</tr>
<tr>
<td></td>
<td>42 @ 0°C (hydrate)</td>
<td>33 @ 0°C (anhydrous)</td>
<td>EVAPORATION RATE</td>
</tr>
<tr>
<td></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
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</tbody>
</table>

## G. REACTIVITY DATA

### STABILITY
- **UNSTABLE** | **STABLE**
- **CONDITIONS TO AVOID**
  - High temperatures (above 100°C): yield sulfur dioxide gas and hazardous residue (details below).
- **INCOMPATIBILITY (MATERIALS TO AVOID)**
  - Strong oxidizers: cause vigorous exothermic reactions.
  - Acids: release sulfur dioxide gas (details below).
  - Water-reactive materials such as sodium: cause strong exothermic reaction with the hydrate.
  - Violent reaction with sodium nitrite when water of crystallization has been driven off by heating.
- **HAZARDOUS DECOMPOSITION PRODUCTS**
  - Sulfur dioxide gas: toxic, corrosive, and an oxidizer.
  - Sodium sulfide residue: flammable, dangerous fire risk; strong irritant to skin and tissue; incompatible with acids.
- **HAZARDOUS POLYMERIZATION**
- **CONDITIONS TO AVOID**
  - None known.

## H. HAZARDOUS INGREDIENTS (Mixtures Only)

<table>
<thead>
<tr>
<th>MATERIAL OR COMPONENT/C.A.S. #</th>
<th>WT.%</th>
<th>HAZARD DATA (SEE SECT. J)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable.</td>
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</table>
Degradability – not applicable (inorganic).
Aquatic Toxicity: no data found.

EPA HAZARDOUS SUBSTANCE?
(CLEAN WATER ACT sect. 311) □ YES □ NO
If so, Reportable Quantity: ____________

Waste Disposal Methods (Disposer Must Comply With Federal, State and Local Disposal or Discharge Laws)
Flush to sewer with plenty of water, if permitted by applicable disposal regulations. Otherwise, waste Sodium Thiosulfate might have to be disposed of by an approved contractor.

RCRA Status of Unused Material If Discarded
Not a “hazardous waste”, if discarded, unused.

J. REFERENCES

Permissible Concentration References
None established for Sodium Thiosulfate.

Regulatory Standards
D.O.T. Classification: Not regulated.

K. ADDITIONAL INFORMATION

This product is not for food or drug use.