

1. Product and Company Identification

Material name	SODIUM THIOSULFATE PENTAHYDRATE
Version #	02
Revision date	08-30-2011
CAS #	10102-17-7
Product Codes	J.T.Baker: 3945, 3946, 3951, 3960 Macron: 7763, 8100
Synonym(s)	Sodium thiosulfate, pentahydrate; thiosulfuric acid, disodium salt, pentahydrate
Manufacturer	Avantor Performance Materials, Inc.
Address	3477 Corporate Parkway Suite #200 Center Valley, PA 18034 US
Customer Service	855-282-6867
24 Hour Emergency	908-859-2151
Chemtrec	800-424-9300

2. Hazards Identification

Emergency overview	Low hazard for usual industrial or commercial handling. Handle in accordance with good industrial hygiene and safety practice.
OSHA regulatory status	This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Skin contact. Eye contact. Ingestion.
Eyes	Dust or powder may irritate eye tissue.
Skin	Health injuries are not known or expected under normal use.
Inhalation	Health injuries are not known or expected under normal use.
Ingestion	Expected to be a low ingestion hazard. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.
Target organs	Eyes.
Chronic effects	None known.
Potential environmental effects	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
SODIUM THIOSULFATE PENTAHYDRATE	10102-17-7	90 - 100

Composition comments CAS # 10102-17-7 can be described by the CAS # 7772-98-7.

4. First Aid Measures

First aid procedures	
Eye contact	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if irritation develops or persists.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops or persists.
Inhalation	Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

Notes to physician	Treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	This product is not flammable.
Extinguishing media	
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	None known.
Protection of firefighters	
Protective equipment and precautions for firefighters	Firefighters should wear full protective gear. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Ventilate the area. Wear appropriate protective equipment and clothing during clean-up.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Avoid dust formation.
	Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.
	Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.
	Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.
Storage	Keep containers tightly closed.

8. Exposure Controls / Personal Protection

Exposure guidelines	Not established.
Engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Personal protective equipment	
Eye / face protection	Use tight fitting goggles if dust is generated.
Skin protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	Wear respirator if there is dust formation.
General hygiene considerations	Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Crystalline.
Color	Colorless.
Odor	Not available.
Odor threshold	Not available.
Physical state	Solid.
Form	Solid.
pH	Not available.
Melting point	118.4 °F (48 °C)
Freezing point	Not available.
Boiling point	> 212 °F (> 100 °C)
Flash point	Not available.
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor density	Not available.
Specific gravity	1.75
Relative density	Not available.
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available.
Molecular weight	248.19
Molecular formula	Na ₂ O ₃ S ₂ ·5H ₂ O

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions. The substance is hygroscopic and will absorb water by contact with the moisture in the air.
Conditions to avoid	Exposure to air. Exposure to moisture.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	Carbon oxides. Sulfur oxide. Sodium oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization	Not a skin sensitizer.
Acute effects	Low hazard for usual industrial or commercial handling.
Local effects	May cause eye irritation.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin corrosion/irritation	Not applicable.
Epidemiology	No epidemiological data is available for this product.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Neurological effects	None known.
Reproductive effects	Contains no ingredient listed as toxic to reproduction

Teratogenicity No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

Symptoms and target organs Mild eye irritation.

12. Ecological Information

Ecotoxicological data

Product	Test Results
SODIUM THIOSULFATE PENTAHYDRATE (10102-17-7)	LC50 Western mosquitofish (<i>Gambusia affinis</i>): 24000 mg/l 96.00 hours

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability Not known.

Partition coefficient (n-octanol/water) Not available

13. Disposal Considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
CERCLA/SARA Hazardous Substances - Not applicable.

This product is not listed on the U.S. EPA TSCA Inventory. Under TSCA, hydrates are considered mixtures of their anhydrous salt and water. Accordingly, the anhydrous form is subject to TSCA reporting requirements.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 311 hazardous chemical No

Food and Drug Administration (FDA) Total food additive
Direct food additive
GRAS food additive

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Saf-T-Data

Health: 1 - Slight
Flammability: 0 - None
Reactivity: 1 - Slight
Contact: 1 - Slight
Lab Protective Equip: C - GOGGLES; LAB COAT; PROPER GLOVES
Storage Color Code: G - Green (General Storage)

16. Labeling Info

Label Hazard Warning

Low hazard for usual industrial or commercial handling. Handle in accordance with good industrial hygiene and safety practice.

Label Precautions

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Keep container closed.

Label First Aid

Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If ingestion of a large amount does occur, call a poison control center immediately.

17. Other Information

NFPA ratings

Health: 1
Flammability: 0
Instability: 0

Disclaimer

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