

Material Safety Data Sheet (MSDS)

Product Name: Sodium Selenite BP Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance/Preparation and Company

Product Name: Sodium Selenite BP Grade

Synonyms: Disodium selenite, Selenious acid disodium salt

Recommended Use: Used in pharmaceutical formulations, nutritional supplements (trace element), laboratory reagents, and animal feed (under strict limits).

2. Hazard Identification

Classification (GHS):

- Acute toxicity (oral, inhalation, dermal): Category 2
- Specific target organ toxicity (repeated exposure): Category 2
- Aquatic acute and chronic hazard: Category 1

Hazard Statements:

- H300: Fatal if swallowed.
- H310: Fatal in contact with skin.

- H330: Fatal if inhaled.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H400: Very toxic to aquatic life.

Precautionary Statements:

- P260: Do not breathe dust or fumes.
- P262: Do not get in eyes, on skin, or on clothing.
- P270: Do not eat, drink, or smoke when using this product.
- P273: Avoid release to the environment.
- P301 + P310: If swallowed: Immediately call a poison center or doctor.

3. Composition / Information on Ingredients

Chemical Name: Sodium Selenite

CAS Number: 10102-18-8

Purity: Not less than 99%

Chemical Formula: Na_2SeO_3

Nature of Material: Inorganic compound, white crystalline powder

4. First Aid Measures

Inhalation: Move person to fresh air. If breathing is difficult, provide oxygen and get medical attention immediately.

Skin Contact: Wash with plenty of water and soap for at least 15 minutes. Remove contaminated clothing. Seek medical attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present. Seek immediate medical help.

Ingestion: Rinse mouth. Do not induce vomiting. Get immediate medical assistance.

Note for Physician: Treat symptomatically. Sodium Selenite is a toxic selenium compound; monitor for systemic selenium poisoning.

5. Fire-Fighting Measures

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

Unsuitable Media: Avoid strong jets of water.

Specific Hazards: Emits toxic fumes of selenium oxides under fire conditions.

Protective Equipment: Firefighters should wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions: Avoid dust formation. Use PPE including gloves, mask, and goggles.

Environmental Precautions: Prevent contamination of soil and water sources.

Cleanup Methods: Sweep up carefully without creating dust. Store in suitable, closed containers for disposal.

7. Handling and Storage

Handling:

- Handle in well-ventilated areas.
- Avoid direct contact and inhalation of dust.
- Do not eat, drink, or smoke while handling.

Storage:

- Store in tightly closed containers.
 - Keep in cool, dry, and well-ventilated areas.
 - Store away from strong acids and oxidizing agents.
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8. Exposure Controls / Personal Protection

Exposure Limits:

- OSHA PEL: 0.2 mg/m³ (as Se)
- ACGIH TLV: 0.2 mg/m³ (as Se)

Engineering Controls: Local exhaust ventilation recommended.

Personal Protection:

- Respiratory Protection: NIOSH-approved respirator if dust is present.
- Skin Protection: Chemical-resistant gloves.
- Eye Protection: Safety goggles or face shield.
- Hygiene Measures: Wash thoroughly after handling.

9. Physical and Chemical Properties

Appearance: White crystalline powder

Odor: Odorless

Solubility: Soluble in water

pH (1% solution): 8.0 – 9.0

Melting Point: 710°C (decomposes)

Density: 3.1 g/cm³

Boiling Point: Not applicable (decomposes)

Flash Point: Non-flammable

Stability: Stable under normal condition

10. Stability and Reactivity

Stability: Stable under normal temperature and pressure.

Conditions to Avoid: Heat, moisture, and incompatible substances.

Incompatible Materials: Strong acids, strong oxidizers, reducing agents.

Decomposition Products: Selenium oxides, sodium oxides.

11. Toxicological Information

Acute Toxicity: Highly toxic by ingestion, inhalation, and skin contact.

LD50 (Oral, Rat): ~7 mg/kg

Symptoms of Overexposure:

Nausea, vomiting, metallic taste, garlic odor on breath, liver and kidney damage, nervous system disturbances.

Chronic Effects: Long-term exposure may cause selenosis (hair loss, brittle nails, skin lesions).

12. Ecological Information

Ecotoxicity: Very toxic to aquatic organisms.

Persistence and Degradability: Not readily biodegradable.

Bioaccumulative Potential: Selenium may accumulate in aquatic life.

Mobility: Soluble in water, may spread in the environment.

13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, regional, and national regulations. Do not discharge into drains or the environment.

Packaging Disposal: Contaminated containers must be handled as hazardous waste.

14. Transport Information (Detailed Information)

UN Number: UN 3283

Proper Shipping Name: Selenium Compound, Solid, N.O.S. (Sodium Selenite)

Transport Hazard Class: 6.1 (Toxic Substance)

Packing Group: II

Label Required: Toxic Substance (Skull and Crossbones symbol)

Marine Pollutant: Yes

Transport by Road (ADR/RID): Class 6.1, PG II

Transport by Air (IATA): Class 6.1, PG II; forbidden in passenger aircraft in bulk

Transport by Sea (IMDG): Class 6.1, PG II; Marine Pollutant

Special Precautions: Avoid contact with incompatible materials and prevent leaks. Transport in tightly closed containers. Avoid release into the environment.

Emergency Response Guide Number (ERG): 157

Environmental Hazards: Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

15. Regulatory Information

GHS Classification: Toxic, Environmental Hazard

TSCA: Listed

EC No.: 233-267-9

Regulations: Follow all applicable local and international chemical safety regulations (REACH, OSHA, IATA, IMDG).

16. Other Information

Disclaimer:

The information above is believed to be accurate and represents the best data currently available. Users are advised to make their own determination as to the suitability of this material for their particular purposes.

- **MSDS Generate Date:** 20-05-2017
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- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.