

### 1 Identification of substance:

- **Product name:** Selenite Broth
- **Catalog number:** 227540
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Tel: (410) 771-0100 or (800) 638-8663
- **Information department:** Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems at (410)771-0100 or (800)638-8663, or ChemTrec at (800)424-9300.

### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

7558-79-4	sodium phosphate, dibasic	43.48%
10102-18-8	sodium selenite	17.39%

### 3 Hazards identification

· **Hazard description:**



Xn Harmful

· **Information pertaining to particular dangers for man and environment**

R 20/22 Harmful by inhalation and if swallowed.

R 33 Danger of cumulative effects.

R 37 Irritating to respiratory system.

· **Classification system**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0-4)**



Health = 3

Fire = 0

Reactivity = 0

### 4 First aid measures

· **General information**

Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.

- **After inhalation** Seek medical treatment in case of complaints.

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- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Immediately call a doctor.
- **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** Ensure adequate ventilation.
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
Keep respiratory protective device available.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** < 30 C
- **Information about storage in one common storage facility:**  
Do not store together with oxidizing and acidic materials.  
Store away from reducing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

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

- **Components with limit values that require monitoring at the workplace:**

**10102-18-8 sodium selenite**

PEL	0.2 mg/m <sup>3</sup> as Se
REL	0.2 mg/m <sup>3</sup> as Se
TLV	0.2 mg/m <sup>3</sup> as Se

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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Solid. Powder
<b>Color:</b>	Whitish
<b>Odor:</b>	Characteristic

#### · Change in condition

<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

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

· **Density:** Not determined

#### · Solubility in / Miscibility with

**Water:** Soluble

· **pH-value at 25°C (77°F):** 7.0 +/- 0.2

#### · Solvent content:

**Organic solvents:** 0.0 %

· **Solids content:** 100.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: mineral acids, oxidizers, and reducers.
- **Dangerous reactions** No dangerous reactions known

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- **Dangerous products of decomposition:**  
Carbon dioxide (CO<sub>2</sub>)  
Phosphorus oxides (PO<sub>x</sub>)  
selenium/selium oxides (Se/SeO<sub>x</sub>)

**11 Toxicological information**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**10102-18-8 sodium selenite**

Oral LD50 7 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Other information (about experimental toxicology):**

This product has a LD50 of 40.2 mg/Kg (oral-rat) based on sodium selenite content.

- **Subacute to chronic toxicity:** Target organs: kidney, spleen, and liver.

- **Additional toxicological information:**

Toxic

Irritant

The product shows the following dangers according to internally approved calculation methods for preparations:

**12 Ecological information:**

- **Ecotoxicological effects:**

- **Other information:**

The ecological effects have not been thoroughly investigated, but currently none have been identified.

- **General notes:** Water hazard class 2 (Self-assessment): hazardous for water.

**13 Disposal considerations**

- **Product:**

- **Recommendation**

Must not be disposed of with solid waste.

Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.

RCRA hazardous waste - RCRA # D010 (selenium).

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to state and federal regulations.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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**14 Transport information**

· **DOT regulations:**



- **Hazard class:** 6.1
- **Identification number:** UN3288
- **Packing group:** II
- **Proper shipping name:** TOXIC SOLID, INORGANIC, N.O.S. (sodium selenite)
- **Label:** 6.1

· **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 6.1 (T5) Toxic substances
- **Danger code (Kemler):** 66
- **UN-Number:** 3288
- **Packaging group:** II
- **Description of goods:** 3288 TOXIC SOLID, INORGANIC, N.O.S. (sodium selenite)

· **Maritime transport IMDG:**



- **IMDG Class:** 6.1
- **UN Number:** 3288
- **Label:** 6.1
- **Packaging group:** II
- **EMS Number:** F-A,S-A
- **Marine pollutant:** Yes
- **Proper shipping name:** TOXIC SOLID, INORGANIC, N.O.S. (sodium selenite)
- **Remarks:** Limited quantity

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 6.1
- **UN/ID Number:** 3288
- **Label:** 6.1
- **Packaging group:** II
- **Proper shipping name:** TOXIC SOLID, INORGANIC, N.O.S. (sodium selenite)
- **Remarks:** Limited quantity

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**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

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· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

7558-79-4	sodium phosphate, dibasic
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10102-18-8	sodium selenite
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63-42-3	lactose
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· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

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· **NTP (National Toxicology Program)**

10102-18-8	sodium selenite	R
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· **TLV (Threshold Limit Value established by ACGIH)**

10102-18-8	sodium selenite	0.2 mg/kg as Se
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· **Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

· **Hazard symbols:**

Xn Harmful

· **Hazard-determining components of labeling:**

sodium selenite

sodium phosphate, dibasic

· **Risk phrases:**

20/22 Harmful by inhalation and if swallowed.

33 Danger of cumulative effects.

37 Irritating to respiratory system.

· **Safety phrases:**

9 Keep container in a well-ventilated place.

20/21 When using do not eat, drink or smoke.

28 After contact with skin, wash immediately with plenty of soap and water

36 Wear suitable protective clothing.

60 This material and its container must be disposed of as hazardous waste.

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**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

Printing date 01/11/2006

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- **National regulations**
- **Water hazard class:** *Water hazard class 2 (Self-assessment): hazardous for water.*

**16 Other information:**

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:** *Safety and Environment Department*
- **Contact:** *Technical Service Representative*

USA