

Date Prepared: 03/26/2014

Reviewed On: 03/26/2014

**1 Identification**

- **Product Identifier**
- **Product Name:** Selenite Cystine Broth
- **Catalog Number:** 268740
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** *In-vitro Diagnostics*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 – 8663  
Email Address: [Technical\\_Services@bd.com](mailto:Technical_Services@bd.com)
- **Emergency telephone number:**  
In case of a chemical emergency, spill, fire, exposure, or accident, contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Hazard(s) identification**

- **Classification of the substance or mixture**

GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R20/22: Harmful by inhalation and if swallowed.

Xi; Irritant

R37: Irritating to respiratory system.

R33: Danger of cumulative effects.

- **Classification system:**

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

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

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**· Hazard pictograms**

GHS06

**· Signal word** Danger**· Hazard-determining components of labeling:**

sodium selenite

**· Hazard statements**

H300 Fatal if swallowed.

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

**· Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P363 Wash contaminated clothing before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· NFPA ratings (scale 0-4)**Health = 3  
Flammability = 0  
Reactivity = 0**· HMIS ratings (scale 0-4)**HEALTH 3 Health = 3  
FIRE 0 Flammability = 0  
REACTIVITY 0 Reactivity = 0

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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

- **Chemical characterization: Mixture**
- **Description:** Mixture consisting of the following components.

· **Dangerous Components:**

CAS: 7558-79-4 EINECS: 231-448-7	sodium phosphate, dibasic	Xi R37	43.46%
CAS: 10102-18-8 EINECS: 233-267-9	sodium selenite	T+ R28; T R23; Xi R43; N R51/53 R31	17.4%

- **Additional information** Risk phrases refer to section 15.

**4 First-aid measures**

- **Description of 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.
- **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.
- **Most important symptoms and effects, both acute and delayed**  
Nausea  
Dizziness  
Headache
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Wipe up with damp sponge or mop.
- **Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **Reference to other sections**  
 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**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
 Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **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.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

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

 · **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.
- **Exposure controls**
- **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

 · **Information on basic physical and chemical properties**

 · **General Information**

 · **Appearance:**

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

<b>pH-value:</b>	7.0 +/- 0.2
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 · **Change in condition**
**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

<b>Flash point:</b>	Not applicable
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<b>Auto igniting:</b>	Product is not self igniting.
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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<b>Density:</b>	Not determined
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 · **Solubility in / Miscibility with**

<b>Water:</b>	Soluble
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 · **Solvent content:**

<b>Organic solvents:</b>	0.0 %
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<b>Solids content:</b>	100.0 %
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 · **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Incompatible material: mineral acids, oxidizers, and reducers.
- **Hazardous decomposition products:**  
Carbon dioxide (CO<sub>2</sub>)  
Phosphorus oxides (PO<sub>x</sub>)  
selenium/selenium oxides (Se/SeO<sub>x</sub>)

**11 Toxicological information**

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
- |                                   |      |               |
|-----------------------------------|------|---------------|
| <b>10102-18-8 sodium selenite</b> |      |               |
| Oral                              | LD50 | 7 mg/kg (rat) |
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** No 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:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant
  - **Carcinogenic categories**

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

10102-18-8	sodium selenite	3
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 · **NTP (National Toxicology Program)**

10102-18-8	sodium selenite	R
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**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**  
 The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
 Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
 RCRA hazardous waste - RCRA # D010 (selenium).  
 Must not be disposed of with solid waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- |                                  |  |
|----------------------------------|--|
| · <b>UN-Number</b>               |  |
| · <b>DOT, ADR, IMDG, IATA</b>    | UN3288   |
| · <b>UN proper shipping name</b> |  |
| · <b>DOT</b>                     | Toxic solid, inorganic, n.o.s. (sodium selenite)                   |
| · <b>ADR</b>                     | 3288 Toxic solid, inorganic, n.o.s. (sodium selenite)              |
| · <b>IMDG</b>                    | TOXIC SOLID, INORGANIC, N.O.S. (sodium selenite), MARINE POLLUTANT |
| · <b>IATA</b>                    | TOXIC SOLID, INORGANIC, N.O.S. (sodium selenite)                   |

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· **Transport hazard class(es)**

· **DOT**

· **Class** 6.1 Toxic substances.

· **Label** 6.1

· **ADR**

· **Class** 6.1 (T5) Toxic substances

· **Label** 6.1

· **IMDG**

· **Class** 6.1 Toxic substances.

· **Label** 6.1

· **IATA**

· **Class** 6.1 Toxic substances.

· **Label** 6.1

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** Yes  
Symbol (fish and tree)

· **Special precautions for user** Warning: Toxic substances

· **Danger code (Kemler):** 66

· **EMS Number:** F-A,S-A

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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**· Transport/Additional information:**

**· DOT**

**· Remarks:**

Limited quantity  
Special marking with the symbol (fish and tree).

**· IMDG**

**· Remarks:**

Limited quantity

**· IATA**

**· Remarks:**

Limited quantity

**· UN "Model Regulation":**

UN3288, Toxic solid, inorganic, n.o.s. (sodium selenite), 6.1, II

## 15 Regulatory information

**· Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

10102-18-8 sodium selenite

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

10102-18-8 sodium selenite

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

7558-79-4 sodium phosphate, dibasic

10102-18-8 sodium selenite

63-42-3 lactose

56-89-3 L-cystine

**· 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.

**· Carcinogenic categories**

**· TLV (Threshold Limit Value established by ACGIH)**

10102-18-8 sodium selenite

0.2 mg/kg as Se

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**· GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms**

GHS06

**· Signal word** Danger**· Hazard-determining components of labeling:**

sodium selenite

**· Hazard statements**

H300 Fatal if swallowed.

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

**· Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

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P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P363 Wash contaminated clothing before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· National regulations****· Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**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

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*unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.*

**· Department issuing MSDS:**

*Environmental, Health & Safety  
Created by Michael J. Spinazzola*

**· Contact:** *Technical Service Representative***· Date of preparation / last revision** *03/26/2014 / -***· Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Acute Tox. 2: Acute toxicity, Hazard Category 2*

*Acute Tox. 4: Acute toxicity, Hazard Category 4*

*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*