1 Identification of substance:

- **Product name:** Liver Infusion Agar
- **Catalog number:** 252100
- **Manufacturer/Supplier:**
  BD Diagnostic Systems
  7 Loveton Circle
  Sparks, MD 21152
  Telephone: (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 (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

2 Composition/Data on components:

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

3 Hazards identification

- **Hazard description:**
  This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **Information pertaining to particular dangers for man and environment** Not applicable
- **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 = 0
  - Fire = 0
  - Reactivity = 0
- **HMIS ratings (scale 0-4)**
  - Health = 0
  - Fire = 0
  - Reactivity = 0

4 First aid measures

- **General information** No special measures required.
- **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 several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

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5 Fire fighting measures

- **Suitable extinguishing agents**: CO2, 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**: No special measures required.
- **Additional information**: No dangerous substances are released.

7 Handling and storage

- **Handling**
  - **Information for safe handling**: Prevent formation of dust.
  - **Information about protection against explosions and fires**: No special measures required.
  - **Storage**
  - **Requirements to be met by storerooms and receptacles**: < 30 C
  - **Information about storage in one common storage facility**: Store away from oxidizing 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**: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information**: The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
  - **General protective and hygienic measures**: The usual precautionary measures for handling chemicals should be followed.
  - **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
Product name: Liver Infusion Agar

9 Physical and chemical properties:

- **Form:** Solid, Powder
- **Color:** Beige
- **Odor:** Characteristic
- **Change in condition**
  - **Melting point/Melting range:** Not determined
  - **Boiling point/Boiling range:** 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:** 6.9 +/- 0.2
- **Solvent content:**
- **Solids content:** 100.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - 7632-00-0 sodium nitrite
      - Oral LD50 180 mg/kg (rat)
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
  The product is not subject to OSHA classification according to internally approved calculation methods for preparations.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 12 Ecological information:

- **Ecotoxic effects:**
- **Other information:**
  The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Generally not hazardous for water.

### 13 Disposal considerations

- **Product:**
  - **Recommendation**
    Smaller quantities can be disposed of with solid waste.
    Must adhere to official regulations.
- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to state and federal regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **DOT regulations:**
  - **Hazard class:** -
- **TDG (Transport dangerous goods):**
  - **TDG class:** -
- **Maritime transport IMDG:**
  - **IMDG Class:** -
  - **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** -

**Transport/Additional information:**
If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

### 15 Regulations

- **SARA Section 355 (extremely hazardous substances)**
  None of the ingredients is listed.
- **SARA Section 313 (specific toxic chemical listings)**
  7632-00-0 sodium nitrite
  9000-70-8 Gelatin

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### Product name: Liver Infusion Agar

<table>
<thead>
<tr>
<th>9002-18-0 agar</th>
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<tbody>
<tr>
<td>9004-53-9 dextrin</td>
</tr>
<tr>
<td>9000-71-9 casein</td>
</tr>
<tr>
<td>50-99-7 dextrose</td>
</tr>
<tr>
<td>7647-14-5 sodium chloride</td>
</tr>
<tr>
<td>7632-00-0 sodium nitrite</td>
</tr>
<tr>
<td>497-19-8 sodium carbonate</td>
</tr>
<tr>
<td>7631-90-5 sodium bisulfite</td>
</tr>
</tbody>
</table>

**Carcinogenicity categories**
- **IARC (International Agency for Research on Cancer)**
  - 7631-90-5 sodium bisulfite 3
- **NTP (National Toxicology Program)**
  - None of the ingredients is listed.
- **TLV (Threshold Limit Value established by ACGIH)**
  - 7631-90-5 sodium bisulfite A4

**Canadian Substance Listing**
- **Canadian Domestic Substance List (DSL)**
  - 9000-70-8 Gelatin
  - 9002-18-0 agar
  - 9004-53-9 dextrin
  - 9000-71-9 casein
  - 50-99-7 dextrose
  - 7647-14-5 sodium chloride
  - 7632-00-0 sodium nitrite
  - 497-19-8 sodium carbonate
  - 7631-90-5 sodium bisulfite

- **Canadian Ingredient Disclosure List (limit 0.1%)**
  - None of the ingredients is listed.

- **Canadian Ingredient Disclosure List (limit 1%)**
  - 7632-00-0 sodium nitrite

**Product related hazard information:**
- Observe the general safety regulations when handling chemicals
- The product is not subject to identification regulations pertaining to regulations on hazardous materials.
- This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR), and the MSDS contains all of the information required by the CPR.

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.

(Contd. on page 6)
Product name: Liver Infusion Agar

- **Department issuing MSDS:**
  Safety and Environment Department
  MSDS created by Michael J. Spinazzola
- **Contact:** Technical Service Representative