1 Identification

- **Product Identifier:**
- **Product Name:** BD SurePath™ Preservative Fluid
- **Catalog Number:** 490527
- **Application of the substance / the mixture** Laboratory Chemicals

2 Hazard(s) identification

- **Classification of the substance or mixture**

  - Flame
  
  *Flam. Liq. 3 H226 Flammable liquid and vapor.*

- **Label elements**
- **GHS label elements**
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

  - GHS02

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - ethanol
  - methanol
  - isopropanol

- **Hazard statements**
  H226 Flammable liquid and vapor.
Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

NFPA ratings (scale 0-4)

Health = 0
Flammability = 3
Reactivity = 0

HMIS ratings (scale 0-4)

HEALTH Health = 0
FIRE Flammability = 3
REACTIVITY Reactivity = 0

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:

<table>
<thead>
<tr>
<th>CAS: 64-17-5</th>
<th>Ethanol</th>
<th>21.7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-578-6</td>
<td>Flam. Liq. 2, H225</td>
<td></td>
</tr>
</tbody>
</table>
Product Name: BD SurePath™ Preservative Fluid

| CAS: 67-56-1 | methanol | Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370 | 1.2% |
| CAS: 67-63-0 | isopropanol | Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336 | 1.1% |

Additional information
Risk phrases refer to section 15.

4 First-aid measures

· Description of first aid measures
· General information Immediately remove contaminated clothing.
· After inhalation
  Supply fresh air and seek medical advice.
  In case of unconsciousness place patient on side position for transportation.
· 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
  Do not induce vomiting; immediately call for medical help.
  Drink copious amounts of water and provide fresh air. Immediately call a doctor.
· Information for doctor
  · Most important symptoms and effects, both acute and delayed
    No further relevant information available.
  · Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

5 Fire-fighting measures

· Extinguishing media
· Suitable extinguishing agents
  CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
· For safety reasons unsuitable extinguishing agents Water with full jet.
· Special hazards arising from the substance or mixture
  No further relevant information available.
· Advice for firefighters
· Protective equipment:
  Wear fully protective suit.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Use respiratory protective device.
  Wear protective clothing.
- **Environmental precautions:** Wipe up with damp sponge or mop.
- **Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
  Dispose contaminated material as waste according to item 13.
  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.
  Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  **Requirements to be met by storerooms and receptacles:** No special requirements.
- **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.
- **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

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethanol</td>
<td>1900 mg/m³</td>
<td>1900 mg/m³</td>
<td>1880 mg/m³</td>
</tr>
<tr>
<td>67-56-1 methanol</td>
<td>260 mg/m³</td>
<td>260 mg/m³</td>
<td>260 mg/m³</td>
</tr>
<tr>
<td>67-63-0 isopropanol</td>
<td>980 mg/m³</td>
<td>980 mg/m³</td>
<td>492 mg/m³</td>
</tr>
</tbody>
</table>

- 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.
  Immediately remove all soiled and contaminated clothing.
  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

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Liquid</td>
</tr>
<tr>
<td>Color: Clear</td>
</tr>
<tr>
<td>Colorless</td>
</tr>
<tr>
<td>Odor: Alcohol-like</td>
</tr>
<tr>
<td>pH-value: 7.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: Not determined</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 86 °C (186.8 °F)</td>
</tr>
</tbody>
</table>

| Flash point: 35 °C (95 °F)                           |
| Ignition temperature: 425.0 °C (797 °F)              |
| Auto igniting: Product is not self igniting.         |
| Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |

<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower: 3.5 Vol %</td>
</tr>
<tr>
<td>Upper: 15.0 Vol %</td>
</tr>
</tbody>
</table>

| Vapor pressure at 20 °C (68 °F): 59.0 hPa (44.3 mm Hg) |
| Density: Not determined |
| Solubility in / Miscibility with Water: Soluble |
Product Name: BD SurePath™ Preservative Fluid

- **Solvent content:**
  - Organic solvents: 24.2 %
  - Water: 74.7 %
- **Solids content:** 0.0 %
- **Other information**
  - No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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: strong oxidizers.
  - **Hazardous decomposition products**: No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
    - **LD/LC50 values that are relevant for classification:**
      - 64-17-5 ethanol
      - Oral LD50: 3450 mg/kg (MOU)
      - 7060 mg/kg (rat)
  - **Primary irritant effect:**
    - **on the skin**: No irritating effect.
    - **on the eye**: No irritating effect.
  - **Sensitization**: No sensitizing effects known.
  - **Subacute to chronic toxicity:**
    - Target organs: thyroid, kidney, ureter or bladder tumors.
    - Target organ: liver
  - **Additional toxicological information:**
    - The product shows the following dangers according to internally approved calculation methods for preparations:

(Contd. on page 8)
46.0.22

· Carcinogenic categories

- IARC (International Agency for Research on Cancer)
  67-63-0 isopropanol 3
  50-00-0 formaldehyde 1

- NTP (National Toxicology Program)
  None of the ingredients is listed.

- OSHA-Ca (Occupational Safety & Health Administration)
  50-00-0 formaldehyde

12 Ecological information

· Toxicity
  · Aquatic toxicity: This material is not expected to be toxic to aquatic life.
  · 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.

· 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
    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 # D001 (ignitable).

· Uncleaned packagings:
  · Recommendation: Disposal must be made according to state and federal regulations.
### 14 Transport information

- **UN-Number**
  - Void
- **DOT, ADN, IMDG, IATA**
  - Void
- **UN proper shipping name**
  - Void
- **DOT, ADN, IMDG, IATA**
  - Void
- **Transport hazard class(es)**
  - Void
- **Class**
  - Void
- **Packing group**
  - Void
- **DOT, IMDG, IATA**
  - Void
- **Environmental hazards:**
  - **Marine pollutant:**
    - No
- **Special precautions for user**
  - Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.
- **Transport/Additional information:**
  - **DOT**
  - **Remarks:**
    - 49CFR 173.150(e)(2) - States that aqueous solution of alcohol containing 24 percent or less alcohol by volume and no other hazardous material can be re-class as a combustible liquid and is not subject to the requirements.
  - **IMDG**
  - **Remarks:**
    - IMDG Special Provision 144 - An aqueous solution containing not more than 24% alcohol by volume is not subject to the provisions of this code.
### 15 Regulatory information

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

  - **SARA Section 355 (extremely hazardous substances)**
    None of the ingredients is listed.

  - **SARA Section 313 (specific toxic chemical listings)**
    - 64-17-5 ethanol
    - 67-56-1 methanol
    - 67-63-0 isopropanol

- **TSCA (Toxic Substances Control Act)**
  - 7732-18-5 water
  - 64-17-5 ethanol
  - 67-56-1 methanol
  - 67-63-0 isopropanol
  - 7647-14-5 sodium chloride
  - 7758-11-4 potassium phosphate, dibasic
  - 50-00-0 formaldehyde

- **California Proposition 65 - Chemicals known to cause cancer**
  The concentration of formaldehyde is less than the OSHA regulated limit

  - 50-00-0 formaldehyde

- **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:

- 64-17-5 ethanol

Carcinogenic categories

- TLV (Threshold Limit Value established by ACGIH)
  - 64-17-5 ethanol A4
  - 67-63-0 isopropanol A4

GHS label elements

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

Hazard pictograms

- GHS02

Signal word Warning

Hazard-determining components of labeling:
- ethanol
- methanol
- isopropanol

Hazard statements

- H226 Flammable liquid and vapor.

Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
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- P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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 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 SDS:**
  Environmental, Health & Safety
  Created by Michael J. Spinazzola
- **Contact:** Technical Service Representative
- **Abbreviations and acronyms:**
  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
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Flam. Liq. 2: Flammable liquids – Category 2
  Flam. Liq. 3: Flammable liquids – Category 3
  Acute Tox. 3: Acute toxicity – Category 3
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3