1 Identification of the substance/mixture and of the company/undertaking

· Product Identifier
· Product Name: TB Carbolfuchsin KF
· Catalog Number: 212518

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
· Information Department: Technical Service
· 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 Composition/information on ingredients

· Chemical characterization: Mixture
· Description: Mixture consisting of the following components.

Dangerous Components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropanol</td>
<td>19.6%</td>
</tr>
<tr>
<td>108-95-2 phenol</td>
<td>4.9%</td>
</tr>
<tr>
<td>64-17-5 ethanol</td>
<td>4.7%</td>
</tr>
<tr>
<td>569-61-9 basic fuchsin</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

3 Hazards identification

· Classification of the substance or mixture
· Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Toxic</td>
</tr>
<tr>
<td>R45</td>
<td>May cause cancer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
<tr>
<td>R21/22</td>
<td>Harmful in contact with skin and if swallowed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xi</td>
<td>Irritant</td>
</tr>
<tr>
<td>R36/38</td>
<td>Irritating to eyes and skin.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10</td>
<td>Flammable.</td>
</tr>
</tbody>
</table>

· 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
· Labelling according to EU guidelines:
  The product has been classified and marked in accordance with regulations on hazardous materials.
· Code letter and hazard designation of product:
  T Toxic
Product Name: TB Carbolfuchsin KF

- **Hazard-determining components of labelling:**
  - ethanol
  - basic fuchsin
  - phenol

- **Risk phrases:**
  - 45 May cause cancer.
  - 10 Flammable.
  - 21/22 Also harmful in contact with skin and if swallowed.
  - 36/38 Irritating to eyes and skin.

- **Safety phrases:**
  - 53 Avoid exposure - obtain special instructions before use.
  - 7 Keep container tightly closed.
  - 16 Keep away from sources of ignition - No smoking.
  - 20 When using do not eat or drink.
  - 25 Avoid contact with eyes.
  - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
  - 45 In case of accident or if you feel unwell, seek medical advice immediately.
  - 60 This material and its container must be disposed of as hazardous waste.

- **NFPA ratings (scale 0-4)**
  - Health = 2
  - Fire = 3
  - Reactivity = 0

- **HMIS ratings (scale 0-4)**
  - Health = *2
  - Fire = 3
  - 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.

- **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 Firefighting measures

- **Suitable extinguishing agents**
  CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

(Contd. on page 3)
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**:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
  - Dispose contaminated material as waste according to item 13.
- **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 ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
- **Storage**
  - **Requirements to be met by storerooms and receptacles**: Store in a cool location.
  - **Information about storage in one common storage facility**:
    - Do not store together with oxidizing and acidic materials.
    - Do not store together with alkaline material.
  - **Further information about storage conditions**:
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed containers.
- **Storage class C**

8 Exposure controls/personal protection

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

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
</table>

**67-63-0 isopropanol**

- **PEL**: 980 mg/m³, 400 ppm
- **REL**
  - Short-term value: 1225 mg/m³, 500 ppm
  - Long-term value: 980 mg/m³, 400 ppm
- **TLV**
  - Short-term value: 984 mg/m³, 400 ppm
  - Long-term value: 492 mg/m³, 200 ppm

**108-95-2 phenol**

- **PEL**: 19 mg/m³, 5 ppm
- **REL**
  - Short-term value: C 60* mg/m³, C 15.6* ppm
  - Long-term value: 19 mg/m³, 5 ppm
  - *15-min
- **TLV**: 19 mg/m³, 5 ppm
  - Skin; BEI
Material Safety Data Sheet
acc. to ISO/DIS 11014

Product Name: TB Carbolfuchsin KF

64-17-5 ethanol
PEL 1900 mg/m³, 1000 ppm
REL 1900 mg/m³, 1000 ppm
TLV 1880 mg/m³, 1000 ppm

- Additional information: The lists that were valid during the creation were used as basis.
- Personal Protective Equipment
  - General protective and hygiene 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.
    Avoid contact with the eyes and skin.
  - 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
  - Appearance:
    Form: Liquid
    Color: Dark red
    Odor: Characteristic
  - Change in condition
    Melting point/Melting range: Not determined
    Boiling point/Boiling range: Not determined
  - Flash point: 29.4°C (85 °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.
  - Explosion limits:
    Lower: 1.7 Vol %
    Upper: 18 Vol %
  - Vapor pressure at 25°C (77 °F): 43.0 hPa (32 mm Hg)
  - Density: Not determined
  - Solubility in / Miscibility with Water: Soluble
**Product Name:** TB Carbolfuchsin KF

<table>
<thead>
<tr>
<th>Solvent content:</th>
<th>29 %</th>
</tr>
</thead>
</table>

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Hazardous decomposition products:**
  - No dangerous decomposition products known.
  - Nitrogen oxides (NOx)
  - Hydrogen chloride (HCl)
  - Carbon dioxide (CO2)

**11 Toxicological information**

- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - **108-95-2 phenol**
      - Oral LD50: 300 mg/kg (mus)
      - 670 mg/kg (rat)
      - Dermal LD50: 317 mg/kg (rat)
    - **64-17-5 ethanol**
      - Oral LD50: 3450 mg/kg (MOU)
      - 7060 mg/kg (rat)
    - **569-61-9 basic fuchsin**
      - Oral LD50: 500 mg/kg (MOU)

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Subacute to chronic toxicity:**
  - Target organs: reproductive disorders, and tumor formation.
  - Target organs: thyroid, kidney, ureter or bladder tumors.

- **Additional toxicological information:**
  - The product shows the following dangers according to internally approved calculation methods for preparations:
    - Harmful
    - Irritant
    - Carcinogenic

**12 Ecological information**

- **Aquatic toxicity:** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**
  - The ecological effects have not been thoroughly investigated, but currently none have been identified.
Product Name: TB Carbolfuchsin KF

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:
  · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· DOT regulations:
  · Hazard class: 9
  · Identification number: UN3316
  · Packing group: III
  · Proper shipping name: CHEMICAL KITS
  · Label 9

· Land transport ADR/RID (cross-border):
  · ADR/RID class: 9 (M11) Miscellaneous dangerous substances and articles
  · UN-Number: 3316
  · Packaging group: III
  · UN proper shipping name: 3316 CHEMICAL KITS

· Maritime transport IMDG:
  · IMDG Class: 3
  · UN Number: 3316
  · Label 9
  · Packaging group: III
  · EMS Number: F-A,S-P
  · Marine pollutant: No
**Product Name:** TB Carbolfuchsin KF

- **Proper shipping name:** CHEMICAL KITS
- **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** 9
  - **UN/ID Number:** 3316
  - **Label:** 9
  - **Packaging group:** III
  - **Proper shipping name:** CHEMICAL KITS

### 15 Regulatory information

- **SARA Section 355 (extremely hazardous substances)**
  - 108-95-2 phenol

- **SARA Section 313 (specific toxic chemical listings)**
  - 67-63-0 isopropanol
  - 108-95-2 phenol
  - 64-17-5 ethanol

- **TSCA (Toxic Substances Control Act)**
  - All ingredients are listed.

- **California Proposition 65 - Chemicals known to cause cancer**
  - 569-61-9 basic fuchsin

- **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**
  - **NTP (National Toxicology Program)**
    - 569-61-9 basic fuchsin
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 67-63-0 isopropanol
    - 108-95-2 phenol
    - 64-17-5 ethanol
  - **National regulations**
  - **Water hazard class:** Water danger class 3 (Self-assessment): extremely 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 in this Material Safety Data Sheet.
**Product Name: TB Carbolfuchsin KF**

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 MSDS:**
  Environmental, Health & Safety
  Created by Michael J. Spinazzola
- **Contact:** Technical Service Representative

USA