

Date Prepared: 10/15/2008

Reviewed On: 10/03/2008

### 1 Identification of substance:

- **Product name:** 10% Potassium Hydroxide Solution
- **Catalog number:** 261191
- **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:**

|           |                     |       |
|-----------|---------------------|-------|
| 1310-58-3 | potassium hydroxide | 10.0% |
| 67-68-5   | dimethyl sulfoxide  | 1.0%  |

### 3 Hazards identification

- **Hazard description:**



C Corrosive

- **Information pertaining to particular dangers for man and environment**  
 R 35 Causes severe burns.
- **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 = 2  
 Fire = 0  
 Reactivity = 0

- **HMIS ratings (scale 0-4)**


 Health = 4  
 Fire = 0  
 Reactivity = 0

### 4 First aid measures

- **General information** Immediately remove contaminated clothing.
- **After inhalation** Supply fresh air; consult doctor 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.

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- **After swallowing** Drink copious amounts of water and provide fresh air. 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:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Use neutralizing agent.

**7 Handling and storage**

- **Handling**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 15 - 30 C
- **Information about storage in one common storage facility:**  
Store away from oxidizing agents.  
Do not store together with acids.
- **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:**

**1310-58-3 potassium hydroxide**TLV 2 mg/m<sup>3</sup>

- **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.  
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.

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**· 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>  | Liquid         |
| <b>Color:</b> | Colorless      |
| <b>Odor:</b>  | Characteristic |

**· Change in condition**

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

|                       |                |
|-----------------------|----------------|
| <b>· Flash point:</b> | Not applicable |
|-----------------------|----------------|

|                         |                               |
|-------------------------|-------------------------------|
| <b>· Auto igniting:</b> | Product is not self igniting. |
|-------------------------|-------------------------------|

|                               |   |
|-------------------------------|---|
| <b>· Danger of explosion:</b> | Product does not present an explosion hazard. |
|-------------------------------|---|

|                   |                |
|-------------------|----------------|
| <b>· Density:</b> | Not determined |
|-------------------|----------------|

|  |         |
|--|---------|
| <b>· Solubility in / Miscibility with Water:</b> | Soluble |
|--|---------|

|                    |      |
|--------------------|------|
| <b>· pH-value:</b> | 12.5 |
|--------------------|------|

|                           |       |
|---------------------------|-------|
| <b>· Solvent content:</b> |       |
| <b>Organic solvents:</b>  | 1.0 % |

**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:**

 Corrosive gases/vapors  
 Sulfur oxides (SO<sub>x</sub>)

**11 Toxicological information**
**· Acute toxicity:**
**· LD/LC50 values that are relevant for classification:**
**1310-58-3 potassium hydroxide**

|      |      |                 |
|------|------|-----------------|
| Oral | LD50 | 273 mg/kg (mou) |
|      |      | 365 mg/kg (rat) |

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**67-68-5 dimethyl sulfoxide**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 14500 mg/kg (rat) |
|------|------|-------------------|

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Corrosive (causes skin burns)  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### 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 1 (Self-assessment): slightly hazardous for water.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed of with solid waste.  
Must adhere to official regulations.
- **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

- **DOT regulations:**



- **Hazard class:** 8
- **Identification number:** UN1814
- **Packing group:** III
- **Proper shipping name:** POTASSIUM HYDROXIDE SOLUTION
- **Label** 8

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· **Remarks:** This product can be transported using the "small quantity" exception. This package conforms to 49 CFR 173.4. The Hazard Class, Identification number, and Packing group listed above is for informational purposes only.

· **TDG (Transport dangerous goods):**



· **TDG class:** 8 (C5) Corrosive substances  
 · **Danger code (Kemler):** 80  
 · **UN-Number:** 1814  
 · **Packaging group:** III  
 · **Description of goods:** 1814 Potassium hydroxide, solution

· **Maritime transport IMDG:**



· **IMDG Class:** 8  
 · **UN Number:** 1814  
 · **Label:** 8  
 · **Packaging group:** III  
 · **EMS Number:** F-A,S-B  
 · **Marine pollutant:** No  
 · **Proper shipping name:** POTASSIUM HYDROXIDE SOLUTION

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



· **ICAO/IATA Class:** 8  
 · **UN/ID Number:** 1814  
 · **Label:** 8  
 · **Packaging group:** III  
 · **Proper shipping name:** POTASSIUM HYDROXIDE SOLUTION

**15 Regulations**

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

All ingredients are listed.

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

None of the ingredients is listed.

**· NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

**· Canadian Substance Listing**
**· Canadian Domestic Substance List (DSL)**

All ingredients are listed.

**· Canadian Ingredient Disclosure List (limit 0.1%)**

None of the ingredients is listed.

**· Canadian Ingredient Disclosure List (limit 1%)**

|           |                     |
|-----------|---------------------|
| 1310-58-3 | potassium hydroxide |
| 67-68-5   | dimethyl sulfoxide  |

**· Product related hazard information:**

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.

**· Hazard symbols:**

C Corrosive

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

potassium hydroxide

dimethyl sulfoxide

**· Risk phrases:**

35 Causes severe burns.

**· Safety phrases:**

20 When using do not eat or drink.

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.

**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 MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

**· Contact: Technical Service Representative**