

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

- **Product Identifier**
- **Product Name:** TB Methylene Blue
- **Catalog Number:** 212516
- **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:**

64-17-5	ethanol	28.5%
67-56-1	methanol	1.5%

## 3 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
 *Xn; Harmful*  
*R40: Limited evidence of a carcinogenic effect.*
-  *F; Highly flammable*  
*R10: Flammable.*
- **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:**  
*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.*
- **Code letter and hazard designation of product:**  
*Xn Harmful*  
*F Highly flammable*
- **Hazard-determining components of labelling:**  
*ethanol*  
*methanol*
- **Risk phrases:**  
*10 Flammable.*  
*40 Limited evidence of a carcinogenic effect.*

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**· Safety phrases:**

- 7 Keep container tightly closed.
- 16 Keep away from sources of ignition - No smoking.
- 36/37 Wear suitable protective clothing and gloves.
- 60 This material and its container must be disposed of as hazardous waste.

**· Classification system**
**· NFPA ratings (scale 0-4)**

**· HMIS ratings (scale 0-4)**

HEALTH	0	Health = *0
FIRE	3	Fire = 3
REACTIVITY	0	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**

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**

During heating or in case of fire toxic gases may be produced.

**· 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:** No special measures required.

**· 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.

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## 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:** No special requirements.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

## 8 Exposure controls/personal protection

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

- **Components with limit values that require monitoring at the workplace:**

### 64-17-5 ethanol

 TLV 1900 mg/m<sup>3</sup>, 1000 ml/m<sup>3</sup>

### 67-56-1 methanol

 TLV Short-term value: 325 mg/m<sup>3</sup>, 250 ml/m<sup>3</sup>

 Long-term value: 260 mg/m<sup>3</sup>, 200 ml/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.
- **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: Blue

- **Odor:** Characteristic

- **Change in condition**

Melting point/Melting range: Not determined

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<b>Boiling point/Boiling range:</b> 78°C	
· <b>Flash point:</b>	29°C
· <b>Ignition temperature:</b>	425.0°C
· <b>Auto igniting:</b>	Product is not self igniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	7.0 Vol %
<b>Upper:</b>	20.0 Vol %
· <b>Vapor pressure:</b>	59.0 hPa
· <b>Density:</b>	Not determined
· <b>Solubility in / Miscibility with Water:</b>	Slightly soluble
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	30.0 %

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Hazardous decomposition products:**  
 Nitrogen oxides (NO<sub>x</sub>)  
 Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)  
 Hydrogen chloride (HCl)

## 11 Toxicological information

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

## 12 Ecological information

- **Acquatic toxicity:** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**  
 The ecological effects have not been thoroughly investigated, but currently none have been identified.

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- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed of with solid waste.  
Must adhere to official regulations.
- **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

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



- **TDG class:** 9 (M11) Miscellaneous dangerous substances and articles
- **UN-Number:** 3316
- **Packaging group:** III
- **UN proper shipping name:** 1993 Flammable liquid, n.o.s. (ethanol)

- **Maritime transport IMDG:**



- **IMDG Class:** 9
- **UN Number:** 3316
- **Label** 9
- **Packaging group:** III
- **EMS Number:** F-A,S-P
- **Marine pollutant:** No

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· **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)**

None of the ingredients is listed.

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

64-17-5 ethanol

67-56-1 methanol

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

7732-18-5 water

64-17-5 ethanol

67-56-1 methanol

· **Carcinogenic categories**

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

64-17-5 ethanol

A4

· **Canadian Substance Listing**

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

7732-18-5 water

64-17-5 ethanol

67-56-1 methanol

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

64-17-5 ethanol

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

67-56-1 methanol

### 16 Other information

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**Material Safety Data Sheet**  
**acc. to ISO/DIS 11014**

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· **Department issuing MSDS:**

*Environmental, Health & Safety*

*Created by Michael J. Spinazzola*

· **Contact:** *Technical Service Representative*

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