



Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

**1 Identification of substance:**

- **Product name:** *TB Decolorizer*
- **Catalog number:** 212517
- **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 at (410)771-0100 or (800) 638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

64-17-5	ethanol	92.3%
67-56-1	methanol	4.7%
7647-01-0	hydrochloric acid	3.0%

**3 Hazards identification**

· **Hazard description:**



Xn Harmful  
F Highly flammable

- **Information pertaining to particular dangers for man and environment**  
R 11 Highly flammable.  
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R 40 Limited evidence of a carcinogenic effect.  
R 68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
- **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 = 1  
Fire = 3  
Reactivity = 0

USA

(Contd. on page 2)



Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

Product name: TB Decolorizer

(Contd. of page 1)

#### 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** 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.
- **After swallowing** 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:** No special measures required.
- **Additional information:**  
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**  
· **Information 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:** 15 - 30 C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
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.

(Contd. on page 3)

Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

**Product name: TB Decolorizer**

(Contd. of page 2)

**Components with limit values that require monitoring at the workplace:**
**64-17-5 ethanol**

PEL 1900 mg/m<sup>3</sup>, 1000 ppm  
 REL 1900 mg/m<sup>3</sup>, 1000 ppm  
 TLV 1880 mg/m<sup>3</sup>, 1000 ppm

**67-56-1 methanol**

PEL 260 mg/m<sup>3</sup>, 200 ppm  
 REL Short-term value: 325 mg/m<sup>3</sup>, 250 ppm  
 Long-term value: 260 mg/m<sup>3</sup>, 200 ppm  
 Skin  
 TLV Short-term value: 328 mg/m<sup>3</sup>, 250 ppm  
 Long-term value: 262 mg/m<sup>3</sup>, 200 ppm  
 Skin; BEI

**7647-01-0 hydrochloric acid**

PEL Short-term value: C 7 mg/m<sup>3</sup>, C 5 ppm  
 REL Short-term value: C 7 mg/m<sup>3</sup>, C 5 ppm  
 TLV Short-term value: C 2.98 mg/m<sup>3</sup>, C 2 ppm

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.  
 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:**
**General Information**

Form: Liquid  
 Color: Clear  
 Odor: Characteristic

**Change in condition**

Melting point/Melting range: Not determined  
 Boiling point/Boiling range: 78°C (172°F)

Flash point: 15.5°C (60°F)

Ignition temperature: 425.0°C (797°F)

(Contd. on page 4)



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

Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

Product name: TB Decolorizer

(Contd. of page 3)

· <b>Auto igniting:</b>	<i>Product is not self igniting.</i>
· <b>Danger of explosion:</b>	<i>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</i>
· <b>Explosion limits:</b>	
Lower:	3.8 Vol %
Upper:	13.5 Vol %
· <b>Vapor pressure at 25°C (77°F):</b>	59.0 hPa (44 mm Hg)
· <b>Density at 25°C (77°F):</b>	1.53 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Soluble
· <b>Solvent content:</b>	
Organic solvents:	97.0 %

**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:**  
*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)

**67-56-1 methanol**

Oral	LD50	5628 mg/kg (rat)
------	------	------------------

· **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: liver, gastrointestinal tumors, blood, lymphomas.*

· **Additional toxicological information:**

*Harmful*

*The product shows the following dangers according to internally approved calculation methods for preparations:*

USA

(Contd. on page 5)

Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

**Product name: TB Decolorizer**

(Contd. of page 4)

**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.*  
*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.*
- **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

**14 Transport information**

- **DOT regulations:**



- **Hazard class:** 9
- **Identification number:** UN3316
- **Packing group:** II
- **Proper shipping name:** CHEMICAL KITS
- **Label:** 9

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 9 (M11) *Miscellaneous dangerous substances and articles*
- **Danger code (Kemler):** 33
- **UN-Number:** 3316
- **Packaging group:** II
- **Description of goods:** 3316 CHEMICAL KIT

- **Maritime transport IMDG:**



- **IMDG Class:** 9

(Contd. on page 6)

USA



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

Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

**Product name: TB Decolorizer**

(Contd. of page 5)

- **UN Number:** 3316
- **Label** 9
- **Packaging group:** II
- **EMS Number:** F-A,S-P
- **Marine pollutant:** No
- **Proper shipping name:** CHEMICAL KITS

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



- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3316
- **Label** 9
- **Packaging group:** II
- **Proper shipping name:** CHEMICAL KITS

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**  
7647-01-0 | hydrochloric acid

· **SARA Section 313 (specific toxic chemical listings)**  
All ingredients are listed.

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

· **California Proposition 65 - Chemicals known to cause cancer**  
None of the ingredients is listed.

· **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

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**  
7647-01-0 | hydrochloric acid 3

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

· **TLV (Threshold Limit Value established by ACGIH)**  
64-17-5 | ethanol A4

· **Product related hazard information:**  
The product has been classified and marked in accordance with regulations on hazardous materials.

(Contd. on page 7)



Date Prepared: 07/31/2007

Reviewed On: 07/31/2007

Product name: TB Decolorizer

(Contd. of page 6)

**Hazard symbols:**

- Xn Harmful
- F Highly flammable

**Hazard-determining components of labeling:**

- methanol
- ethanol

**Risk phrases:**

- 11 Highly flammable.
- 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- 40 Limited evidence of a carcinogenic effect.
- 68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

**Safety phrases:**

- 7/9 Keep container tightly closed and in a well-ventilated place.
- 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.

**National regulations**

**Technical instructions (air):**

Class	Share in %
III	97.0

**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**