

1 Identification of substance:

- **Product name:** TB Quick Stain, Carbol Fuchsin
(TB Quick Stain Kit)
- **Catalog number:** 212315
- **Manufacturer/Supplier:**
BD Diagnostic Systems
7 Loveton Circle
Sparks, MD 21152
Tel: (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	19.0%
108-95-2	phenol	6.0%
569-61-9	basic fuchsin	0.1%

3 Hazards identification

· **Hazard description:**



T Toxic

· **Information pertaining to particular dangers for man and environment**

- R 45 May cause cancer.
- R 10 Flammable.
- R 24/25 Toxic in contact with skin and if swallowed.
- R 34 Causes burns.
- R 40 Limited evidence of a carcinogenic effect.

· **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 = 3
Fire = 3
Reactivity = 0

Product name: TB Quick Stain, Carbol Fuchsin
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4 First aid measures

- **General information**
Remove breathing apparatus only after contaminated clothing have been completely removed.
- **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** Call a doctor immediately.
- **Information for doctor** Show this product label or this MSDS.

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, 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).

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:** Store away from oxidizing agents.
 - **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:**

64-17-5 ethanol

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

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108-95-2 phenol

PEL 19 mg/m³, 5 ppm
Skin
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

67-56-1 methanol

PEL 260 mg/m³, 200 ppm
REL Short-term value: 325 mg/m³, 250 ppm
Long-term value: 260 mg/m³, 200 ppm
Skin
TLV Short-term value: 328 mg/m³, 250 ppm
Long-term value: 262 mg/m³, 200 ppm
Skin; BEI

· **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.
- Store protective clothing separately.
- 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**

Form: Liquid
Color: Red
Odor: Alcohol-like

· **Change in condition**

Melting point/Melting range: Not determined
Boiling point/Boiling range: 92°C (198°F)

· **Flash point:** 26.7°C (80°F)

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· 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:	3.5 Vol %
Upper:	15.0 Vol %
· Vapor pressure at 20°C (68°F):	59.0 mbar
· Density:	Not determined
· Solubility in / Miscibility with Water:	Soluble
· Solvent content:	
Organic solvents:	19.0 %

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:**
Nitrogen oxides (NOx)
Carbon monoxide (CO) and carbon dioxide (CO2)
Ammonia (NH4)

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)

108-95-2 phenol

Oral	LD50	300 mg/kg (mus)
		317 mg/kg (rat)
Dermal	LD50	670 mg/kg (rat)

569-61-9 basic fuchsin

Oral	LD50	500 mg/kg (mou)
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- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.

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- **Subacute to chronic toxicity:** Target organs: respiratory tract, eyes, kidneys, and skin.
- **Additional toxicological information:**
Toxic
The product shows the following dangers according to internally approved calculation methods for preparations:

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 2 (Self-assessment): 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:**
- **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
- **Danger code (Kemler):** 30
- **UN-Number:** 3316
- **Packaging group:** III

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Product name: TB Quick Stain, Carbol Fuchsin
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· **Description of goods:** 3316 CHEMICAL KIT

· **Maritime transport IMDG:**



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

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

108-95-2 phenol

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

64-17-5 ethanol

108-95-2 phenol

67-56-1 methanol

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

64-17-5 ethanol

108-95-2 phenol

67-56-1 methanol

569-61-9 basic fuchsin

· **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.

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Product name: TB Quick Stain, Carbol Fuchsin
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· 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)

108-95-2	phenol	3
569-61-9	basic fuchsin	2B

· NTP (National Toxicology Program)

569-61-9	basic fuchsin	R
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· TLV (Threshold Limit Value established by ACGIH)

64-17-5	ethanol	A4
108-95-2	phenol	A4

· Product related hazard information:

The product has been classified and marked in accordance with regulations on hazardous materials.

· Hazard symbols:

T Toxic

· Hazard-determining components of labeling:

ethanol
basic fuchsin
phenol

· Risk phrases:

45 May cause cancer.
10 Flammable.
24/25 Toxic in contact with skin and if swallowed.
34 Causes burns.
40 Limited evidence of a carcinogenic effect.

· Safety phrases:

53 Avoid exposure - obtain special instructions before use.
1/2 Keep locked up and out of the reach of children.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
43 In case of fire, use water or powdered extinguishing agent
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.

· National regulations

· Technical instructions (air):

Class	Share in %
I	6.0
III	19.0

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· **Water hazard class:** Water hazard class 2 (Self-assessment): 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 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 cannot guarantee that these are the only hazards that exist.

- **Department issuing MSDS:** Safety and Environment Department
- **Contact:** Technical Service Representative

USA

1 Identification of substance:

- **Product name:** Methylene Blue
(TB Quick Stain Kit)
- **Catalog number:** 212315
- **Manufacturer/Supplier:**
BD Diagnostic Systems
7 Loveton Circle
Sparks, MD 21152
Tel: (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:**
- **CAS No. Description:**
Not applicable
- **Identification number(s):** Not applicable
- **Chemical characterization**
- **Description:** Mixture consisting of the following components.

· **Dangerous components:**

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

3 Hazards identification

· **Hazard description:**



Xn Harmful
F Highly flammable

· **Information pertaining to particular dangers for man and environment**

R 11 Highly flammable.
R 40 Limited evidence of a carcinogenic effect.

· **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 = 3
Reactivity = 0

Printing date 01/11/2006

Reviewed on 12/03/2003

Product name: Methylene Blue
(TB Quick Stain Kit)

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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** Call a doctor immediately.
- **Information for doctor** Show this product label or this MSDS.

5 Fire fighting measures**· Suitable extinguishing agents**

CO₂, 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:** 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.

· **Storage class C**

8 Exposure controls and personal protection

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

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Product name: Methylene Blue
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· Components with limit values that require monitoring at the workplace:

64-17-5 ethanol

PEL 1900 mg/m³, 1000 ppm
REL 1900 mg/m³, 1000 ppm
TLV 1880 mg/m³, 1000 ppm

67-56-1 methanol

PEL 260 mg/m³, 200 ppm
REL Short-term value: 325 mg/m³, 250 ppm
Long-term value: 260 mg/m³, 200 ppm
Skin
TLV Short-term value: 328 mg/m³, 250 ppm
Long-term value: 262 mg/m³, 200 ppm
Skin; BEI

· 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: Blue
Odor: Characteristic

· Change in condition Undetermined
· Melting point/Melting range: Not determined
· Boiling point/Boiling range: 78°C (172°F)

· Flash point: 29°C (84°F)

· Ignition temperature: 425°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.

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Product name: Methylene Blue
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- **Explosion limits:**
 - Lower:** 7.0 Vol %
 - Upper:** 20.0 Vol %
- **Vapor pressure at 25°C (77°F):** 59.0 hPa (44 mm Hg)
- **Density:** Not determined
- **Solubility in / Miscibility with Water:** Soluble
- **Solvent content:**
 - Organic solvents:** 30.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:**
Nitrogen oxides (NOx)
Carbon monoxide (CO) and carbon dioxide (CO2)
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:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
Harmful
Irritant
The product shows the following dangers according to internally approved calculation methods for preparations:

12 Ecological information:

- **Ecotoxicological effects:**
- **Other information:**
The ecological effects have not been thoroughly investigated, but currently none have been identified.

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Product name: Methylene Blue
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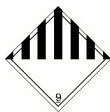
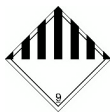
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· **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**13 Disposal considerations**· **Product:**· **Recommendation**

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:** 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· **Description of goods:** 3316 CHEMICAL KITS· **Maritime transport IMDG:**· **IMDG Class:** 9· **UN Number:** 3316· **Label** 9· **Packaging group:** III· **EMS Number:** F-A,S-P

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USA

Product name: Methylene Blue
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- **Marine pollutant:** No
- **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 Regulations

· **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)**

64-17-5 ethanol

67-56-1 methanol

· **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)**

None of the ingredients is listed.

· **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.

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· **Hazard symbols:**

Xn Harmful

F Highly flammable

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

ethanol

· **Risk phrases:**

11 Highly flammable.

40 Limited evidence of a carcinogenic effect.

· **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.

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 cannot guarantee that these are the only hazards that exist.

· **Department issuing MSDS:** Safety and Environment Department

· **Contact:** Technical Service Representative

USA