

1 Identification of substance:

- **Product name:** TB Carbofuchsin ZN
(TB Stain Set ZN)
- **Catalog number:** 212520
- **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:		
67-63-0	isopropanol	9.5%
108-95-2	phenol	5.5%
569-61-9	basic fuchsin	0.17%

3 Hazards identification

- **Hazard description:**



T Toxic

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

R 45 May cause cancer.
R 24/25 Toxic in contact with skin and if swallowed.
R 34 Causes 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 = 3
Fire = 1
Reactivity = 0

Product name: TB Carbofuchsin ZN
(TB Stain Set ZN)

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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:**

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:** No special measures required.

· **Storage**

· **Requirements to be met by storerooms and receptacles:** 15 - 30 C

· **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:** 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.

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Product name: TB Carbofuchsin ZN
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· Components with limit values that require monitoring at the workplace:

67-63-0 isopropanol

PEL	980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm

108-95-2 phenol

PEL	19 mg/m ³ , 5 ppm Skin
REL	Short-term value: C 60* mg/m ³ , C 15.6* ppm Long-term value: 19 mg/m ³ , 5 ppm *15-min
TLV	19 mg/m ³ , 5 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

9 Physical and chemical properties:

· General Information

Form:	Liquid
Color:	Red Purple
Odor:	Characteristic

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined

· Flash point: Not applicable

· Ignition temperature: 425.0°C (797°F)

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Product name: TB Carbofuchsin ZN
(TB Stain Set ZN)

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- | | |
|--|--|
| · Auto igniting: | <i>Product is not self igniting.</i> |
| · Danger of explosion: | <i>Product does not present an explosion hazard.</i> |
| · Density: | <i>Not determined</i> |
| · Solubility in / Miscibility with Water: | <i>Soluble</i> |

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:** *No dangerous decomposition products known.*

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

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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67-63-0 isopropanol

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rab)

· **Primary irritant effect:**

- **on the skin:** *Caustic effect on skin and mucous membranes.*
- **on the eye:** *Strong caustic effect.*
- **Sensitization:** *No sensitizing effects known.*
- **Subacute to chronic toxicity:** *Target organs: liver, gastrointestinal tumors, blood, lymphomas.*

· **Additional toxicological information:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Toxic

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



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Reviewed on 07/21/2003

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12 Ecological information:

· **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.

This product is not considered a RCRA hazardous waste.

· **Uncleaned packagings:**

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

14 Transport information

· **DOT regulations:**

· **Hazard class:** -

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

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

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

· **ICAO/IATA Class:** -

15 Regulations

· **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

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

67-63-0 isopropanol

108-95-2 phenol

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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Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 01/11/2006

Reviewed on 07/21/2003

Product name: TB Carbofuchsin ZN
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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:

None of the ingredients is listed.

· Carcinogenicity categories

· IARC (International Agency for Research on Cancer)

67-63-0	isopropanol	3
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)

108-95-2	phenol	A4
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· 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:

basic fuchsin
phenol

· Risk phrases:

45 May cause cancer.
24/25 Toxic in contact with skin and if swallowed.
34 Causes burns.

· Safety phrases:

53 Avoid exposure - obtain special instructions before use.
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.
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

· Additional classification according to Decree on Hazardous Materials:

CERCLA: This product contains Phenol which has a Reporting Quantity (RQ) of 1000#.

SARA 311/312: Subject to reporting.

313: Isopropyl Alcohol and Phenol are subject to reporting.

TSCA: This product is exempt under TSCA.

· Technical instructions (air):

Class	Share in %
I	5.5
III	9.5

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Material Safety Data Sheet
acc. to ISO/DIS 11014

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Product name: TB Carbofuchsin ZN
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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:** *TB Decolorizer*
(TB Stain Set ZN)
- **Catalog number:** 212520
- **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	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 = 4
Fire = 3
Reactivity = 0

Product name: TB Decolorizer
(TB Stain Set ZN)

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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** Immediately call a doctor.
- **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).

· **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:** 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.

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Product name: TB Decolorizer
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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

7647-01-0 hydrochloric acid

PEL Short-term value: C 7 mg/m³, C 5 ppm
REL Short-term value: C 7 mg/m³, C 5 ppm
TLV Short-term value: C 2.98 mg/m³, 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)

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Product name: TB Decolorizer
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· 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:	3.8 Vol %
Upper:	13.5 Vol %
· Vapor pressure at 25°C (77°F):	59.0 hPa (44 mm Hg)
· Density at 25°C (77°F):	1.53 g/cm ³
· Solubility in / Miscibility with	
Water:	Soluble
· Solvent content:	
Organic solvents:	97.0 %

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:**
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)
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

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Printing date 01/11/2006

Reviewed on 10/15/2003

Product name: TB Decolorizer
(TB Stain Set ZN)

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

12 Ecological information:

- **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:**
- **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
- **UN-Number:** 3316
- **Packaging group:** II
- **Description of goods:** 3316 CHEMICAL KIT

- **Maritime transport IMDG:**



- **IMDG Class:** 9

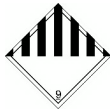
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Product name: TB Decolorizer
(TB Stain Set ZN)

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- **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 IATA-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

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Product name: TB Decolorizer
(TB Stain Set ZN)

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· **Product related hazard information:**

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

· **Hazard symbols:**

Xn Harmful

F Highly flammable

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

ethanol

methanol

hydrochloric acid

· **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 cannot guarantee that these are the only hazards that exist.

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

· **Contact:** Technical Service Representative

1 Identification of substance:

- **Product name:** TB Methylene Blue
(TB Stain Set ZN)
- **Catalog number:** 212520
- **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	28.5%
67-56-1	methanol	1.5%

3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**
R 10 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

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.

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Product name: TB Methylene Blue
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- **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**
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).
- **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:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.
- **Storage class II A**

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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Product name: TB Methylene Blue
(TB Stain Set ZN)

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67-56-1 methanol

PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 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.
- 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:	Blue
Odor:	Characteristic

· **Change in condition**

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

· **Flash point:** 29°C (84°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:	7.0 Vol %
Upper:	20.0 Vol %

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Product name: TB Methylene Blue
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· **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.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:**
Nitrogen oxides (NO_x)
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.
- **Subacute to chronic toxicity:**
Target organs: eyes, kidneys, liver, gastrointestinal tumors, blood, lymphomas.
- **Additional toxicological information:**
Harmful
The product shows the following dangers according to internally approved calculation methods for preparations:

12 Ecological information:

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

USA

(Contd. on page 5)

Printing date 01/11/2006

Reviewed on 10/15/2003

Product name: TB Methylene Blue
(TB Stain Set ZN)

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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 KIT
- **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
- **Marine pollutant:** No

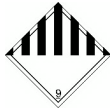
(Contd. on page 6)

**Product name: TB Methylene Blue
(TB Stain Set ZN)**

(Contd. of page 5)

· **Proper shipping name:** CHEMICAL KIT

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



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

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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Printing date 01/11/2006

Reviewed on 10/15/2003

Product name: TB Methylene Blue
(TB Stain Set ZN)

(Contd. of page 6)

· Hazard symbols:*Xn Harmful***· Hazard-determining components of labeling:***ethanol**methanol***· Risk phrases:***10 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.***· National regulations****· Technical instructions (air):**

Class	Share in %
III	30.0

16 Other information:

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