

### 1 Identification of substance:

- **Product name:** TB Auramine-Rhodamine T  
(TB Fluorescent Stain Set T)
- **Catalog number:** 212521
- **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.

· <b>Dangerous components:</b>		
67-63-0	isopropanol	14.0%
108-95-2	phenol	8.8%
2465-27-2	auramine O	1.2%
81-88-9	rhodamine B	0.6%

### 3 Hazards identification

- **Hazard description:**



T Toxic

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

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 Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(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** 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**

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.

· **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:**

Do not store together with oxidizing and acidic materials.

Do not store together with alkaline material.

Do not store with halogens.

- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

- **Storage class C**

**Product name: TB Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 2)

### 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:**

**67-63-0 isopropanol**

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

**108-95-2 phenol**

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

· **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Red
<b>Odor:</b>	Characteristic

· **Change in condition**

<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	82°C (180°F)

(Contd. on page 4)

**Product name: TB Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 3)

· <b>Flash point:</b>	30°C (86°F)
· <b>Ignition temperature:</b>	425.0°C (797°F)
· <b>Auto igniting:</b>	Product is not self igniting.
· <b>Danger of explosion:</b>	In use, may form flammable/explosive vapour-air mixture.
· <b>Explosion limits:</b>	
<b>Lower:</b>	4.0 Vol %
<b>Upper:</b>	9.5 Vol %
· <b>Vapor pressure at 25°C (77°F):</b>	43.0 hPa (32 mm Hg)
· <b>Density:</b>	Not determined
· <b>Solubility in / Miscibility with Water:</b>	Soluble
· <b>pH-value:</b>	Alkaline
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	14.0 %

### 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 (NO<sub>x</sub>)  
Hydrogen chloride (HCl)  
Carbon dioxide (CO<sub>2</sub>)

### 11 Toxicological information

· **Acute toxicity:**

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

<b>108-95-2 phenol</b>		
Oral	LD50	300 mg/kg (mus)
		317 mg/kg (rat)
Dermal	LD50	670 mg/kg (rat)
<b>2465-27-2 auramine O</b>		
Oral	LD50	480 mg/kg (rat)

- **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: thyroid, kidney, ureter or bladder tumors.

(Contd. on page 5)

Printing date 01/11/2006

Reviewed on 11/21/2003

**Product name: TB Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 4)

**· 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.

Harmful

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:** 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

(Contd. on page 6)

USA

**Product name: TB Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 5)

· **Description of goods:** 3316 CHEMICAL KIT

· **Maritime transport IMDG:**



- **IMDG Class:** 9
- **UN Number:** 3316
- **Label** 9
- **Packaging group:** II
- **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)**

108-95-2 phenol

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

67-63-0 isopropanol

108-95-2 phenol

81-88-9 rhodamine B

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

67-63-0 isopropanol

108-95-2 phenol

2465-27-2 auramine O

81-88-9 rhodamine B

· **California Proposition 65 - Chemicals known to cause cancer**

81-88-9 rhodamine B

· **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.

(Contd. on page 7)

**Product name: TB Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 6)

**· 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
81-88-9	rhodamine B	3

**· NTP (National Toxicology Program)**

None of the ingredients is listed.

**· 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:**

auramine O  
phenol

**· Risk phrases:**

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

**· Safety phrases:**

7 Keep container tightly closed.  
16 Keep away from sources of ignition - No smoking.  
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.

**· National regulations**

**· Technical instructions (air):**

Class	Share in %
I	8.8
III	14.0

**· Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

USA

(Contd. on page 8)



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

Printing date 01/11/2006

Reviewed on 11/21/2003

**Product name: TB Auramine-Rhodamine T**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 7)

**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 TM***  
***(TB Fluorescent Stain Set T)***
- **Catalog number:** 212521
- **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	70.0%
7647-01-0	hydrochloric acid	0.5%

### 3 Hazards identification

· **Hazard description:**



C Corrosive  
F Highly flammable

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

R 11 Highly flammable.

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 = 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.

(Contd. on page 2)

**Product name: TB Decolorizer TM**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 1)

- **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**  
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.
- **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:**  
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.

(Contd. on page 3)

**Product name: TB Decolorizer TM**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 2)

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

**67-63-0 isopropanol**

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

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic

**· Change in condition**

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** 82°C (180°F)

**· Flash point:** 16.7°C (62°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:**

<b>Lower:</b>	3.0 Vol %
<b>Upper:</b>	12.0 Vol %

**· Vapor pressure at 25°C (77°F):** 43.0 hPa (32 mm Hg)

(Contd. on page 4)

**Product name: TB Decolorizer TM**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 3)

· <b>Density at 25°C (77°F):</b>	1.53 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Soluble
· <b>pH-value:</b>	1.3 - 1.9
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	70.0 %

### 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:**  
Hydrogen chloride (HCl)  
Carbon dioxide (CO<sub>2</sub>)

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **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.  
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.

### 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).  
RCRA hazardous waste - RCRA # D002 (corrosive).

(Contd. on page 5)

**Product name: TB Decolorizer TM**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 4)

- **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
- **Danger code (Kemler):** 33
- **UN-Number:** 3316
- **Packaging group:** II
- **Description of goods:** 3316 CHEMICAL KIT

· **Maritime transport IMDG:**



- **IMDG Class:** 9
- **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

(Contd. on page 6)



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**Product name: TB Decolorizer TM**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 5)

- **Packaging group:** II
- **Proper shipping name:** CHEMICAL KITS

### 15 Regulations

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

7647-01-0	hydrochloric acid
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· **SARA Section 313 (specific toxic chemical listings)**

67-63-0	isopropanol
7647-01-0	hydrochloric acid

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

67-63-0	isopropanol
7647-01-0	hydrochloric acid

· **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:**

None of the ingredients is listed.

· **Carcinogenicity categories**

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

67-63-0	isopropanol	3
7647-01-0	hydrochloric acid	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Product related hazard information:**

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

· **Hazard symbols:**

C Corrosive  
F Highly flammable

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

isopropanol  
hydrochloric acid

· **Risk phrases:**

11 Highly flammable.  
34 Causes burns.

(Contd. on page 7)

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

Printing date 01/11/2006

Reviewed on 11/21/2003

**Product name: TB Decolorizer TM**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 6)

**· Safety phrases:**

- 7/9      *Keep container tightly closed and in a well-ventilated place.*  
16      *Keep away from sources of ignition - No smoking.*  
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.*

**· National regulations****· Technical instructions (air):**

Class	Share in %
III	70.0

**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

USA

### 1 Identification of substance:

- **Product name:** *TB Potassium Permanganate (TB Fluorescent Stain Set T)*
- **Catalog number:** 212521
- **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
- **Chemical characterization**
- **Description:** Mixture consisting of the following components.

· **Dangerous components:**

7722-64-7	potassium permanganate	0.5%
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### 3 Hazards identification

· **Hazard description:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment**  
R 36/37/38 Irritating to eyes, respiratory system and skin.
- **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 = 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.

(Contd. on page 2)



**Product name: TB Potassium Permanganate  
(TB Fluorescent Stain Set T)**

(Contd. of page 1)

- **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**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
In certain fire conditions, traces of other toxic gases cannot be excluded.
- **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:** 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 reducing 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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 3)

**Product name: TB Potassium Permanganate  
(TB Fluorescent Stain Set T)**

(Contd. of page 2)

- **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:** Brown  
**Odor:** Characteristic

· **Change in condition**  
**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with**  
**Water:** Soluble

· **Solvent content:**  
**Organic solvents:** 0.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:**  
Incompatible materials: AL4C3, AS, DMSO, ethylene glycol, glycerin, H2O2, H2S3, HCL, H2SO4, ammonia, NO3, P, S, Sb, Ti, organic matter.
- **Dangerous reactions** No dangerous reactions known

(Contd. on page 4)

**Product name: TB Potassium Permanganate  
(TB Fluorescent Stain Set T)**

(Contd. of page 3)

· **Dangerous products of decomposition:** Irritant gases/vapors

### 11 Toxicological information

· **Acute toxicity:**

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

7722-64-7 potassium permanganate

Oral	LD50	1090 mg/kg (rat)
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· **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:**

Irritant

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.

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

(Contd. on page 5)



Printing date 01/11/2006

Reviewed on 11/21/2003

**Product name: TB Potassium Permanganate  
(TB Fluorescent Stain Set T)**

(Contd. of page 4)

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

### 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)**

7722-64-7 | potassium permanganate

- **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:**

None of the ingredients is listed.

- **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.

- **Product related hazard information:**

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

- **Hazard symbols:**

Xi Irritant

- **Risk phrases:**

36/37/38 Irritating to eyes, respiratory system and skin.

- **Safety phrases:**

7 Keep container tightly closed.

24/25 Avoid contact with skin and eyes.

36 Wear suitable protective clothing.

(Contd. on page 6)

USA



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

Printing date 01/11/2006

Reviewed on 11/21/2003

**Product name: TB Potassium Permanganate**  
**(TB Fluorescent Stain Set T)**

(Contd. of page 5)

- **National regulations**
- **Additional classification according to Decree on Hazardous Materials:**
  - CERCLA: This product contains potassium Permanganate which has a Reporting Quantity (RQ) of 100 lbs.
  - SARA 311/312: May be subject to reporting.
  - 313: Not subject to reporting.
  - TSCA: This product is exempt under TSCA.

**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