07/22/2013	Kit Components		
Product code	duct code Description		
212522 TB Stain Set K			
Components:			
212522a	TB Carbolfuchsin KF		
212522b	TB Decolorizer		

TB Brilliant Green K

212522c



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

1 Identification

· Product Identifier

· Product Name: <u>TB Carbolfuchsin KF</u> (TB Stain Set K)

· Catalog Number: 212522

· Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

· Application of the substance / the preparation In-vitro Diagnostics

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

BD Diagnostic Systems

7 Loveton Circle

Sparks, MD 21152

Telephone: (410) 771 - 0100 or (800) 638 – 8663 Email Address: Technical_Services@bd.com

· Information Department: Technical Service

· Emergency telephone number:

In case of a chemical emergency, spill, fire, exposure, or accident, contact BD Diagnostic

Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Lig. 3 H226 Flammable liquid and vapour.



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1B H350 May cause cancer.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Acute Tox. 5 H303 May be harmful if swallowed.

Acute Tox. 5 H333 May be harmful if inhaled.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic

R45: May cause cancer.

(Contd. on page 2)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 1)

×

Xn; Harmful

R21/22-40: Harmful in contact with skin and if swallowed. Limited evidence of a

carcinogenic effect.

×

Xi; Irritant

R36/38: Irritating to eyes and skin.

R10: Flammable.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms







GHS02 GHS05 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

phenol

basic fuchsin

· Hazard statements

H226 Flammable liquid and vapour.

H303 May be harmful if swallowed.

H333 May be harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.
P240 Ground/bond container and receiving equipment.

P233 Keep container tightly closed. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.P201 Obtain special instructions before use.

(Contd. on page 3)



Reviewed On: 06/14/2013 Date Prepared: 07/22/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 2)

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician. P310

P321 Specific treatment (see on this label).

P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel

unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

Store locked up. P405

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

· NFPA ratings (scale 0-4)



Health = 2Flammability = 3Reactivity = 0

· HMIS ratings (scale 0-4)



*2 Health = *2 Flammability = 3REACTIVITY \bigcirc Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable. · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixture
- Description: Mixture consisting of the following components.

· Dangerous Compo	nents:		
CAS: 67-63-0	' '	Xi R36; F R11	19.6%
EINECS: 200-661-7		R67	
CAS: 108-95-2 EINECS: 203-632-7		T R23/24/25; C R34; Xn R48/20/21/22-68 Muta. Cat. 3	4.9%

(Contd. on page 4)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

		(Contd.	of page 3)
CAS: 64-17-5	ethanol	F R10	4.7%
EINECS: 200-578-6			
CAS: 569-61-9 EINECS: 209-321-2	basic fuchsin	T Carc. Cat. 2 R45	1.5%

· Additional information Risk phrases refer to section 15.

4 First-aid measures

- · Description of 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.
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents

CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Wipe up with damp sponge or mop.
- Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- · Reference to other sections
 - See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

(Contd. on page 5)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 4)

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- Storage
- \cdot Requirements to be met by storerooms and receptacles: 15 30 $^{\circ}{\rm C}$
- · 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.
- · Storage class C
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems:

No further data; see Section 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

67-63-0 isopropanol

PEL 980 mg/m³, 400 ppm

REL Short-term value: 1225 mg/m³, 500 ppm

Long-term value: 980 mg/m³, 400 ppm

TLV Short-term value: 984 mg/m³, 400 ppm Long-term value: 492 mg/m³, 200 ppm

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

(Contd. on page 6)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 5)

64-17-5 ethanol

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

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · 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

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid
Color: Dark red
Odor: Characteristic

· Change in condition

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

· **Flash point:** 29.4 °C (85 °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: 1.7 Vol %

(Contd. on page 7)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 6)

Upper: 18 Vol %

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

· **Density:** Not determined

· Solubility in / Miscibility with

Water: Soluble

· Solvent content:

Organic solvents: 29 %

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Nitrogen oxides (NOx) Hydrogen chloride (HCl)

Carbon dioxide (CO2)

11 Toxicological information

· Information on toxicological effects

· Acute t		ri texteeregieur cheete /:
· LD/LC5	50 valu	es that are relevant for classification:
108-95-	·2 pher	nol
Oral	LD50	300 mg/kg (mus)
		317 mg/kg (rat)
Dermal	LD50	670 mg/kg (rat)
64-17-5	ethan	ol
Oral	LD50	3450 mg/kg (MOU)
		7060 mg/kg (rat)
569-61-	9 basi	c fuchsin
Oral	LD50	500 mg/kg (mou)

(Contd. on page 8)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 7)

67-63-0	•	•		
Oral	LD50	5045 mg/kg (rat)		
Dermal	LD50	12800 mg/kg (rab)		

- · 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: reproductive disorders, and tumor formation.

Target organs: thyroid, kidney, ureter or bladder tumors.

· Additional toxicological information:

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

Harmful

Irritant

Carcinogenic

· Carcinogenic categories

· IARC (Int	ernational Agency for Research on Cancer)	
67-63-0	isopropanol	3
108-95-2	phenol	3
569-61-9	basic fuchsin	2B
· NTP (Nat	ional Toxicology Program)	
569-61-9	basic fuchsin	R

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Water danger class 3 (Self-assessment): extremely hazardous for water.
- Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 8)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements. RCRA hazardous waste - RCRA # D001 (ignitable).

Must not be disposed of with solid waste.

- · Uncleaned packagings:
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

· UN-Number	
· DOT	UN3316
· ADR, IMDG, IATA	3316
· UN proper shipping name	
· DOT, IMDG, IATA	CHEMICAL KIT
· ADR	3316 CHEMICAL KITS
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	9 Miscellaneous dangerous substances and articles.
· Label	9
· ADR	
· Class	9 (M11) Miscellaneous dangerous substance and articles
· Label	9
· Packing group	
· DOT, ADR, IMDG, IATA	III



Reviewed On: 06/14/2013 Date Prepared: 07/22/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

	(Contd. of page 9)
Environmental hazards:Marine pollutant:	No
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles
EMS Number:	F-A, <u>S-P</u>
· Transport in bulk according to Annex II	of
MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN3316, CHEMICAL KITS, 9, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or

mixture	
· SARA S	ection 355 (extremely hazardous substances)
108-95-2	? phenol

· SARA Section 313 (specific toxic chemical listings)

67-63-0 isopropanol 108-95-2 phenol

64-17-5 ethanol

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· 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.

- · 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
- · Carcinogenic categories

· TLV (Thr	eshold Limit Value established by ACGIH)	
67-63-0	isopropanol	A4
108-95-2	phenol	A4
64-17-5	ethanol	A4

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS). (Contd. on page 11)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 10)

· Hazard pictograms







GHS02 GHS05 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

phenol

basic fuchsin

· Hazard statements

H226 Flammable liquid and vapour. H303 May be harmful if swallowed.

H333 May be harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.
P240 Ground/bond container and receiving equipment.

P233 Keep container tightly closed. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.
P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel

unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P405 Store locked up.

(Contd. on page 12)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Carbolfuchsin KF (TB Stain Set K)

(Contd. of page 11)

P403+P235 Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/ P501

international regulations.

· National regulations

· Water hazard class:

Water danger class 3 (Self-assessment): extremely hazardous for water.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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:

Environmental, Health & Safety Created by Michael J. Spinazzola

· Contact: Technical Service Representative

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

1 Identification

· Product Identifier

· Product Name: <u>TB Decolorizer</u> (TB Stain Set K)

· Catalog Number: 212522

· Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

· Application of the substance / the preparation In-vitro Diagnostics

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

BD Diagnostic Systems

7 Loveton Circle

Sparks, MD 21152

Telephone: (410) 771 - 0100 or (800) 638 – 8663 Email Address: Technical_Services @bd.com • Information Department: Technical Service

· Emergency telephone number:

In case of a chemical emergency, spill, fire, exposure, or accident, contact BD Diagnostic

Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Lig. 2 H225 Highly flammable liquid and vapour.



GHS08 Health hazard

STOT SE 2 H371 May cause damage to organs.

Acute Tox. 5 H303 May be harmful if swallowed. Acute Tox. 5 H333 May be harmful if inhaled.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R40-68/20/21/22:

Limited evidence of a carcinogenic effect. Harmful: possible risk of

irreversible effects through inhalation, in contact with skin and if

swallowed.



F; Highly flammable

R11: Highly flammable.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

(Contd. on page 2)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 1)

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS02 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

methanol

· Hazard statements

H225 Highly flammable liquid and vapour.

H303 May be harmful if swallowed.

H333 May be harmful if inhaled.

H371 May cause damage to organs.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground/bond container and receiving equipment.

P233 Keep container tightly closed. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/

physician.

P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel

unwell.

P312 Call a POISON CENTER or doctor/physician if you feel unwell. P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P405 Store locked up.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

· NFPA ratings (scale 0-4)



Health = 2 Flammability = 3Reactivity = 0



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 2)

· HMIS ratings (scale 0-4)



- · Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixture
- · Description: Mixture consisting of the following components.

· Dangerous Compo	nents:		
CAS: 64-17-5 EINECS: 200-578-6	ethanol	F R10	92.3%
CAS: 67-56-1 EINECS: 200-659-6	methanol	T R23/24/25-39/23/24/25; F R11	4.7%
CAS: 7647-01-0 EINECS: 231-595-7	hydrochloric acid	C R34; Xi R37	3.0%

· Additional information Risk phrases refer to section 15.

4 First-aid measures

- · Description of first aid measures
- · General information No special measures required.
- · 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.
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

HS



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 3)

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents

CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Wipe up with damp sponge or mop.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- Conditions for safe storage, including any incompatibilities
- Storage
- \cdot Requirements to be met by storerooms and receptacles: 15 30 $^{\circ}C$
- 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.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems:

No further data; see Section 7.

(Contd. on page 5)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 4)

· Control parameters

· 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.
- · Exposure controls
- · 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

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid

(Contd. on page 6)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 5) Color: Clear Characteristic · Odor: · 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) · Auto igniting: Product is not self igniting. Product is not explosive. However, formation of explosive · Danger of explosion: 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/cm3 · Solubility in / Miscibility with Water: Soluble · Solvent content: Organic solvents: 97.0 % · Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Carbon dioxide (CO2)

Hydrogen chloride (HCI)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer

(TB Stain Set K)

(Contd. of page 6)

11 Toxicological information

- · Information on toxicological effects
- · 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: No irritating effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Subacute to chronic toxicity:

Target organs: liver, gastrointestinal tumors, blood, lymphomas.

Target organs: thyroid, kidney, ureter or bladder tumors.

· Additional toxicological information:

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

Product is suspected to cause birth defects.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

7647-01-0 hydrochloric acid

3

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · **Mobility in soil** No further relevant information available.
- · Additional ecological information:
- · General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 8)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 7)

· Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements. RCRA hazardous waste - RCRA # D001 (ignitable).

Must not be disposed of with solid waste.

- · Uncleaned packagings:
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

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· UN-Number

DOT ADR, IMDG, IATA

 UN3316

 3316

· UN proper shipping name

· **DOT, IMDG, IATA**· **ADR**CHEMICAL KITS

3316 CHEMICAL KITS

· Transport hazard class(es)

· DOT, IMDG, IATA



· Class 9 Miscellaneous dangerous substances and

articles.

· Label 9

· ADR



· Class 9 (M11) Miscellaneous dangerous substances

and articles

· Label

(Contd. on page 9)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 8) · Packing group · DOT, ADR, IMDG, IATA II· Environmental hazards: · Marine pollutant: No · Special precautions for user Warning: Miscellaneous dangerous substances and articles · Danger code (Kemler): 33 · EMS Number: F-A,S-P · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

UN3316, CHEMICAL KITS, 9, II

15 Regulatory information

· UN "Model Regulation":

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · 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
- · Carcinogenic categories

· TLV (Thre	shold Limit Value established by ACGIH)	
64-17-5	ethanol	A4
7647-01-0	hydrochloric acid	A4
	(Contd. o	n naga 10)

on page 10



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 9)

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS02 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling: methanol
- · Hazard statements

H225 Highly flammable liquid and vapour.

H303 May be harmful if swallowed.

H333 May be harmful if inhaled.

H371 May cause damage to organs.

· Precautionary statements

P210	Keep away f	from heat/sparks/o _l	oen flames/hot	surfaces No smoking.
------	-------------	---------------------------------	----------------	----------------------

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground/bond container and receiving equipment.

P233 Keep container tightly closed. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/

physician.

P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel

unwell.

P312 Call a POISON CENTER or doctor/physician if you feel unwell. P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P405 Store locked up.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

- · National regulations
- · Additional classification according to Decree on Hazardous Materials:

(Contd. on page 11)



Date Prepared: 07/22/2013 Reviewed On: 06/14/2013

Product Name: TB Decolorizer (TB Stain Set K)

(Contd. of page 10)

CERCLA: This product contains Hydrochloric Acid and Methanol which have

a Reporting Quantity (RQ) of 5000 lbs. for each.

SARA 311/312: Subject to reporting.

313: Hydrochloric Acid and Methanol are subject to reporting.

TSCA: This product is exempt under TSCA.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 quarantee that these are the only hazards that exist.

Department issuing MSDS:

Environmental, Health & Safety Created by Michael J. Spinazzola

· Contact: Technical Service Representative

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

1 Identification

· Product Identifier

· Product Name: TB Brilliant Green K

· Catalog Number: 212522c

· Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

· Application of the substance / the preparation In-vitro Diagnostics

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

BD Diagnostic Systems

7 Loveton Circle

Sparks, MD 21152

Telephone: (410) 771 - 0100 or (800) 638 - 8663 Email Address: Technical_Services@bd.com

· Information Department: Technical Service

· Emergency telephone number:

In case of a chemical emergency, spill, fire, exposure, or accident, contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

2 Hazard(s) identification

- · Classification of the substance or mixture The product is not classified according to the Globally Harmonized System (GHS).
- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 67/548/EEC and 1999/45/EC.
- Classification system:

The classification was made according to the latest editions of international substances lists. and expanded upon from company and literature data.

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · NFPA ratings (scale 0-4)



Health = 0Flammability = 0Reactivity = 0

· HMIS ratings (scale 0-4)



 \bigcirc Health = 0 Flammability = 0



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

(Contd. of page 1)

- · Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · Identification number(s):
- · EC number: 2317912
- · Chemical characterization: Mixture
- · **Description**: Mixture consisting of the following components.
- · Dangerous Components: Void
- · Additional information Risk phrases refer to section 15.

4 First-aid measures

- · Description of 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.
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents

CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · Special hazards arising from the substance or mixture
 - In certain fire conditions, traces of other toxic gases cannot be excluded.
- · Advice for firefighters
- · Protective equipment: No special measures required.



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

(Contd. of page 2)

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Wipe up with damp sponge or mop.
- · Methods and material for containment and cleaning up: No special measures required.
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: The product is not flammable
- · Conditions for safe storage, including any incompatibilities
- · Storage
- \cdot Requirements to be met by storerooms and receptacles: 15 30 $^{\circ}$ C
- · Information about storage in one common storage facility:

Do not store together with acids.

Store away from oxidizing agents.

Store away from metals.

Store away from organic material, and chlorinated solvents.

- Further information about storage conditions:
- Store in cool, dry conditions in well sealed containers.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems:

No further data; see Section 7.

- · Control parameters
- · 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.
- Exposure controls
- · Personal Protective Equipment
- · General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

· Breathing equipment:

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

(Contd. on page 4)



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

· Protection of hands:

(Contd. of page 3)





Chemical resistant gloves (i.e. nitrile, or equivalent).

· Eye protection: Safety glasses

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

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Liquid
Color: Green
• Odor: Odorless

Change in condition
 Melting point/Melting range:
 Boiling point/Boiling range:
 Undetermined
 0 °C (32 °F)
 100 °C (212 °F)

· Flash point: Not applicable

• Danger of explosion: Product does not present an explosion hazard.

· Vapor pressure at 25 °C (77 °F): 23 hPa (17 mm Hg)

• **Density at 25 °C (77 °F):** 0.99 g/cm3

· Solubility in / Miscibility with

Water: Soluble

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Carbon monoxide (CO) and carbon dioxide (CO2)

Nitrogen oxides (NOx)

(Contd. on page 5)



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

Sulfur oxides (SOx)

(Contd. of page 4)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritating effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Subacute to chronic toxicity:

Target organs: respiratory system, gastrointestinal, eyes and skin.

· Additional toxicological information:

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

Harmful

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Other information:

The ecological effects have not been thoroughly investigated, but currently none have been identified.

- · Additional ecological information:
- · General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

US



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

(Contd. of page 5)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements. This product is not considered a RCRA hazardous waste.

Must not be disposed of with solid waste.

- · Uncleaned packagings:
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number	
DOT, ADR, ADN, IMDG, IATA	Void
UN proper shipping name	
DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA	
Class	Void
Packing group	
DOT, ADR, IMDG, IATA	Void
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
UN "Model Regulation":	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · 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.

(Contd. on page 7)



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

(Contd. of page 6)

· 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:

None of the ingredients is listed.

- · Carcinogenic categories
- · TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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:

Environmental, Health & Safety

Created by Michael J. Spinazzola

- · Contact: Technical Service Representative
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

(Contd. on page 8)



Date Prepared: 07/22/2013 Reviewed On: 12/04/2012

Product Name: TB Brilliant Green K

(Contd. of page 7)

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

us.