

Date Prepared: 03/14/2014

Reviewed On: 03/14/2014

1 Identification

- **Product Identifier**
- **Product Name: BD CytoRich™ Blue Preservative**
- **Catalog Number: 490509**
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture In-vitro Diagnostics**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
BD Diagnostics - TriPath
780 Plantation Drive
Burlington, NC 27215
Telephone: (336) 290 - 8300 or 866 - TriPath (option#1)
- **Information Department: Technical Service**
- **Emergency telephone number:**
(336) 290-8300 or (866) TriPath (option # 1), or ChemTrec at (800) 424-9300.

2 Hazard(s) identification

- **Classification of the substance or mixture**

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

GHS08 Health hazard

STOT SE 2 H371 May cause damage to organs.

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

Xn; Harmful

R20/21/22-40-68/20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
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.

- **Label elements**

- **GHS label elements**

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

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· Hazard pictograms

GHS02 GHS08

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

methanol

· Hazard statements

H225 Highly flammable liquid and vapor.

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.
- 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 = 3
Reactivity = 0**· HMIS ratings (scale 0-4)**HEALTH 2 Health = 2
FIRE 3 Flammability = 3
REACTIVITY 0 Reactivity = 0**· Other hazards****· Results of PBT and vPvB assessment****· PBT: Not applicable.**

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· **vPvB:** Not applicable.**3 Composition/information on ingredients**

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

· **Dangerous Components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol	F R10	44.0%
CAS: 67-56-1 EINECS: 200-659-6	methanol	T R23/24/25-39/23/24/25; F R11	5.0%
CAS: 25322-68-3	Polyethylene Glycol		1.0%

- **Additional information** Risk phrases refer to section 15.

4 First-aid measures

- **Description of first aid measures**
- **General information**
Immediately remove contaminated clothing.
Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.
- **After inhalation**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek medical advice.
In case of unconsciousness place patient on side position for transportation.
- **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**
Do not induce vomiting; immediately call for medical help.
Drink copious amounts of water and provide fresh air. 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.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.

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- **Special hazards arising from the substance or mixture**
During heating or in case of fire toxic gases may be produced.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Use respiratory protective device.
- **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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.
Prevent formation of aerosols.
- **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**
- **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.
- **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.

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- **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

- **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.

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: Clear

Blue

- **Odor:** Alcohol-like

- **pH-value:** Not applicable

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- **Change in condition**
 Melting point/Melting range: Not determined
 Boiling point/Boiling range: 82 °C (180 °F)
- **Flash point:** 15 °C (59 °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: 3.5 Vol %
 Upper: 15.0 Vol %
- **Density:** 0.93 g/cm³ (7.761 lbs/gal)
- **Solubility in / Miscibility with Water:** Soluble
- **Solvent content:**
 Organic solvents: 49.0 %
 Water: 49.0 %
- **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:** Incompatible material: strong oxidizers.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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)

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67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
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- **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: thyroid, kidney, ureter or bladder tumors.

Target organ: liver

Target organs: eyes, and epidermological effects

- **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)**

3844-45-9	FDC Blue #1	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** This material is not expected to be toxic to aquatic life.

- **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.

- **Ecotoxicological 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.

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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:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT	UN1987
· ADR, IMDG, IATA	1987
· UN proper shipping name	
· ADR	1987 ALCOHOLS, N.O.S., special provision 640D (ETHANOL , METHANOL)
· IMDG, IATA	ALCOHOLS, N.O.S. (ETHANOL , METHANOL)
· Transport hazard class(es)	
· DOT	
· Class	3 Flammable liquids.
· Label	3
· ADR	
· Class	3 (F1) Flammable liquids
· Label	3

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· **IMDG, IATA**

· **Class** 3 Flammable liquids.
· **Label** 3

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Warning: Flammable liquids

· **Danger code (Kemler):** 33

· **EMS Number:** F-E,S-D

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **UN "Model Regulation":** UN1987, ALCOHOLS, N.O.S., special provision 640D (ETHANOL , METHANOL), 3, II

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)**

64-17-5 ethanol

67-56-1 methanol

· **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.

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· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

64-17-5	ethanol
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· **Carcinogenic categories**

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

64-17-5	ethanol	A4
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· **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 vapor.

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.

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.

· **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

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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

· Date of preparation / last revision 03/14/2014 / -**· 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

Flam. Liq. 2: Flammable liquids, Hazard Category 2

STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2

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