

# Safety Data Sheet

Control Number: 907-061

CymoBrite Counterstain, FRR7310B

January 22, 2018

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## 1. Product and Company Identification

<b>Product(s)</b>	CymoBrite Counterstain (100ng/ml)
<b>Related Product Kit</b>	Not Applicable
<b>Intended Use &amp; Restrictions</b>	FISH reagent intended for use by professional laboratory personnel that have been properly trained in its use.
<b>Company Information</b>	Biocare Medical, LLC 60 Berry Drive Pacheco, CA 94553 United States Tel: +1 800-799-9499 (7AM-5PM, PST, Mon-Fri) Fax: +1 925-603-8080 Web: www.biocare.net
<b>24-Hour Emergency Contact</b>	CHEMTREC +1 800-424-9300 (USA and Canada only) +1 703-527-3887 (all other countries)

## 2. Hazards Identification

**Emergency Overview** Harmful solution containing *p*-phenylenediamine; may be toxic. Avoid contact with eyes and skin. Wear gloves, lab coat, and eye protection.

**OSHA Hazards** For *p*-Phenylenediamine:

Target Organ Effect, Irritant, Toxic, Harmful  
Target Organs: Kidney, Heart, Musculo-skeletal system, upper respiratory tract, skin, eyes

**GHS Classification** For *p*-Phenylenediamine:  
**Signal words, Symbol, Hazard & Precautionary Statements**



Danger

Hazard statement(s)

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H370 Causes damage to organs (Kidney, Heart, Musculo-skeletal system) if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

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

P264 Wash skin thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves/ protective clothing.

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or

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doctor/physician. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/ physician if you feel unwell.

P304 + P340 + P311 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician.

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

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

P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P361 Remove/Take off immediately all contaminated clothing.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

### Potential Health Effects

**Skin Contact** May be harmful if exposed to skin. May cause skin irritation, itching, redness or inflammation.

**Eye Contact** May be harmful if exposed to eyes. May cause eye irritation, watering eyes, stinging or burning sensation.

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** Toxic if swallowed. May cause irritation of gastrointestinal tract, nausea, or vomiting.

See Section 11: Toxicological Information for additional information.

**Environmental Effects** Toxic to aquatic life.

See Section 12: Ecological Information for additional information.

### 3. Composition / Information on Ingredients

Chemical Name	Synonyms	% Composition	CAS Number
<i>p</i> -Phenylenediamine	1,4-Diaminobenzene 1,4-Benzenediamine 1,4-Phenylenediamine	0.2	106-50-3
Glycerol	Glycerin	78	56-81-5
4', 6-Diamidino-2-phenylindole dihydrochloride	DAPI dihydrochloride	<0.1%	28718-90-3

Note: It has been determined that the remaining ingredients of this product are not classified as hazardous according to the Federal OSHA Hazardous Communication Standard (29 CFR 1910.1200) or the Globally Harmonized System of Classification and Labeling of Chemicals.

### 4. First Aid Measures

**General Advice** Avoid further exposure to product. Consult a physician.

**In case of skin contact** Wash exposed area with soap and plenty of water. Remove any contaminated clothing. Seek medical attention.

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**In case of eye contact** Wash eyes with plenty of water for at least 15 minutes. Have victim remove contact lenses. Be sure to wash under eyelids. Seek medical attention.

**If inhaled** Remove victim to well-ventilated area. If victim is not breathing, give artificial respiration. Seek medical attention.

**If swallowed** If victim is conscious, rinse mouth with water. Do not give anything to an unconscious victim. Seek medical attention.

### 5. Fire Fighting Measures

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**Suitable Extinguishing Media** Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Use extinguisher media appropriate for surrounding fire.

**Special Protective Equipment for Firefighters** Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

**Special Exposure Hazards** Avoid inhalation of fumes, which may be toxic or irritating.

### 6. Accidental Release Measures

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**Personal Precautions** Use of personal protective equipment is recommended as described in Section 8. Isolate hazard area and deny entry to unprotected personnel.

**Environmental Precautions** Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways.

**Methods for containment and clean up** Small spills may be contained and cleaned-up with paper towels or absorbent pads. Absorb large spills with sand or vermiculite and place in a closed container for waste disposal. Avoid physical contact during removal.

### 7. Handling and Storage

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**Precautions for Safe Handling** Avoid contact with eyes, skin and clothing. Do not ingest. Wash hands thoroughly after use.

**Conditions for Safe Storage** Keep container tightly closed. Store at -20°C and away from light.

### 8. Exposure Controls / Personal Protection

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**Permissible Exposure Limits** USA OSHA Exposure Limits (*p*-Phenylenediamine): TWA 0.10 mg/m<sup>3</sup>  
USA NIOSH Recommended Exposure Limits (*p*-Phenylenediamine): TWA 0.10 mg/m<sup>3</sup>  
USA ACGIH Threshold Limit Values (*p*-Phenylenediamine): 0.10 mg/m<sup>3</sup>

**Engineering Controls** No special controls needed.

#### Personal Protective Equipment

**Eye Protection** Wear chemical splash goggles and face shield when eye and face contact is possible due to splashing or spraying of material.

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- Skin Protection** Use chemically resistant gloves and a lab coat with sleeves.
- Respiratory Protection** Exceeding exposure limits is unlikely during normal usage. However, if irritating vapors are produced, respiratory protection is recommended. Attempt to reduce exposure levels to an acceptable range.
- General Hygiene Measures** Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling and before eating or drinking.

## 9. Physical and Chemical Properties

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<b>Appearance</b>	Clear, pink solution
<b>Odor</b>	none
<b>pH (as supplied)</b>	8 ± 0.2
<b>Melting point</b>	No data available
<b>Boiling point</b>	No data available
<b>Flash point</b>	No data available
<b>Flammability</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Specific gravity</b>	No data available
<b>Solubility (in water)</b>	Soluble
<b>Partition coefficient (n-octanol/water)</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available

## 10. Stability and Reactivity

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<b>Chemical Stability</b>	Stable under recommended storage conditions (see Section 7).
<b>Conditions to avoid</b>	Direct light.
<b>Materials to avoid</b>	Strong oxidizers, acid chlorides, acid, acid anhydrides, chloroformates
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.
<b>Possibility of hazardous reactions</b>	None identified.

## 11. Toxicological Information

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<b>Acute dose effects</b>	<i>p</i> -Phenylenediamine: LD50 Oral - Rat - 80 mg/kg
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LC50 Inhalation - Rat - male - 4 h - 0.92 mg/l  
(OECD Test Guideline 403)  
Dermal: No data available

Glycerol:  
LD50 Intraperitoneal - Rat - 4420 mg/kg  
LD50 Intravenous - Rat - 5566 mg/kg  
LD50 Oral - Mouse - 4090 mg/kg  
LD50 Oral - Rat - 12600 mg/kg  
LD50 Oral - Guinea pig - 7750 mg/kg  
LD50 Subcutaneous - Rat - 100 mg/kg

**Repeat dose effects** No data available

**Skin irritation** *p*-Phenylenediamine:  
Skin - Rabbit  
Result: Mild skin irritation - 24 h

Glycerol:  
Not determined

**Skin and respiratory sensitization** *p*-Phenylenediamine: Mouse- May cause sensitisation by skin contact.

Glycerol:  
Not determined

**Eye irritation** *p*-Phenylenediamine: Eyes – Rabbits - Irritating to eyes.

**Carcinogenicity** No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, potential, known, anticipated, or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

**Mutagenicity** *p*-Phenylenediamine: Rat Embryo -Morphological transformation.

**Reproductive effects** No data available

**Developmental effects** No data available

**Target organ effects** *p*-Phenylenediamine: Kidney, Heart, Musculo-skeletal system  
Glycerol: Kidney, upper respiratory tract, skin, eyes

*To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated at product concentrations.*

## 12. Ecological Information

**Ecotoxicity** *p*-Phenylenediamine:  
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 3.9 mg/l - 96 h  
Toxicity to daphnia and other aquatic invertebrates  
EC50 - Daphnia magna (Water flea) - 0.33 mg/l - 48 h  
Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 0.27 mg/l - 72 h  
Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - 13.4 mg/l - 3 h

Glycerol:  
Toxicity to fish LC50- 54000 mg/L- 96 h  
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout)- 0.9g -54 to 57 ml/L-96 h

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<b>Persistence and degradability</b>	<i>p</i> -Phenylenediamine: aerobic - Exposure time 28 d Result: 30 % - Not readily biodegradable.
	Glycerol: No data available
<b>Bioaccumulation/accumulation</b>	No data available
<b>Mobility in environmental media</b>	No data available
<b>Other hazardous effects</b>	No data available

### 13. Disposal Considerations

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<b>Product</b>	Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of disposal.
<b>Contaminated packaging</b>	Dispose of as unused product.

### 14. Transportation Information

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<b>Proper shipping name</b>	Not applicable
<b>Technical name</b>	Not applicable
<b>Hazard class</b>	Not applicable
<b>Identification number</b>	Not applicable
<b>Packing group</b>	Not applicable
<b>DOT (US)</b>	Not applicable
<b>IMDG</b>	Not applicable
<b>IATA</b>	Not applicable
<b>TDG</b>	Not applicable

### 15. Regulatory Information

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#### Inventory Status

**United States (TSCA)** All ingredients are on the inventory or exempt from listing.

**Canada (DSL / NDSL)** All ingredients are on the inventory or exempt from listing.

**SARA 302 Components** No chemicals in this product are subject to reporting requirements.

**SARA 313 Components** No chemicals in this product are subject to reporting requirements.

**SARA 311/312 Hazards** *p*-Phenylenediamine:

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Acute health hazard, Chronic health hazard

**California Prop. 65 components** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

### 16. Other Information

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**Sources and Suitability** The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. Biocare shall not be held liable for any damage resulting from use, handling, or contact with the above product.

**Revision Date** January 22, 2018  
(All SDS's before this date should be discarded.)

**Replaces Revision** February 26, 2016. This SDS has been updated to reflect current hazard information and product formulations.

**Note: Before using this product, please visit the Biocare Medical website at <http://biocare.net> for the current version of this SDS.**