

## Acetic Acid, 1%

### 1. Identification

**Product Name:** Acetic Acid, 1%

**Item #:** SSC1031

**Synonyms:** Diluted Glacial Acetic Acid

**Recommended Use:** N/A

**Restrictions on Use:** N/A

**Manufacturer:**

Cancer Diagnostics, Inc.  
116 Page Point Circle  
Durham, NC 27703  
1-877-846-5393

**In Case of Emergency:**

Chemtec US 1-800-424-9300  
Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Skin Irritation - Category 2  
Eye Irritation - Category 2B

**Signal Word:** Warning

**Hazard Statement(s):** Causes skin irritation. Causes eye irritation.

**Pictogram(s):**



**Precautionary Statement(s):** Prevention: Wash body thoroughly after handling. Wear protective gloves.

**Response:** If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

Storage: N/A

Disposal

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Water		7732-18-5	99
Glacial Acetic Acid		64-19-7	1

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

## Acetic Acid, 1%

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store in a well-ventilated, cool place. Keep lid tightly closed.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m <sup>3</sup>

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m <sup>3</sup>	15 ppm, 37 mg/m <sup>3</sup>

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Colorless, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** N/A

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** N/A

**Odor:** Pungent, like vinegar

**Odor Threshold:** N/A

**Color:** Colorless

**Flammability (solid/gas):** N/A

**Vapor Density:** N/A

**Upper/Lower flammability or explosive limits:** N/A

**Vapor Pressure:** N/A

**Evaporation Rate:** N/A

## Acetic Acid, 1%

**Partition Coefficient: n-octanol/water:** N/A

**Viscosity:** N/A

**Auto-ignition temperature:** N/A

**Solubility:** Soluble in water.

**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:** Not reactive

**Chemical Stability:** Stable

**Conditions of Stability/Instability:** Stable under normal conditions of temperature and pressure.

**Stabilizers needed:** None

**Safety issue indicated by appearance change:** N/A

**Other:** N/A

**Hazardous Reactions:** N/A

**Hazardous Polymerization:** Does not occur

**Conditions to avoid:** N/A

**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases

**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Irritation. Slightly hazardous in case of eye contact.

**Skin:** Irritation. Slightly hazardous in case of skin contact.

**Inhalation:** Dizziness, headache.

**Ingestion:** Nausea.

**Signs or Symptoms of Exposure:** Nausea.

**Effects from short term exposure (delayed, immediate, chronic):** Repeated or prolonged exposure is not known to aggravate medical conditions.

**Acute Toxicity (Numerical Measures):** Glacial Acetic Acid CAS 64-19-7: LD50 (mammal, skin)=1060mg/kg; LD50 (rabbit, skin)=1060 mg/kg; LC50(inhalation, mouse)=5620 ppm/1H; LC50(inhalation, mouse)=5620 mg/m<sup>3</sup>/1H

**Carcinogenicity (NTP, IARC, OSHA):** Not listed as a carcinogen.

### 12. Ecological Information

**Ecotoxicity:** Acute Aquatic Effects Data for 100% Glacial Acetic Acid 96 h LC-50 (fathead minnow): > 100mg/L 48 h LC-50 (golden orfe): 410 mg/L 48 h LC-50 (mosquito fish): 251 mg/L 96 h LC-50 (daphnid): > 100 mg/L

**Persistence and degradability:** The product itself and its products of degradation are not toxic.

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** This material is a strongly acidic aqueous solution, and this property may cause adverse environmental effects. Oxygen Demand Data for 100% Glacial Acetic Acid BOD-5: 340-880 mg/g BOD-20: 900 mg/g COD: 1,030 mg/g

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

## Acetic Acid, 1%

### 14. Transport Information

**UN Number:** Not regulated.

**UN Proper Shipping Name:**

**Transport Hazard Class(es):**

**Packing Group Number:**

**Environmental Hazards (IMDG code):**

**Marine Pollutant:**

**Transport in Bulk (IBC Code):**

**Special Transport Precautions:**

### 15. Regulatory Information

**OSHA:** N/A

**DOT:** N/A

**EPA:** N/A

**CPSC:** N/A

## Acetic Acid, 1%

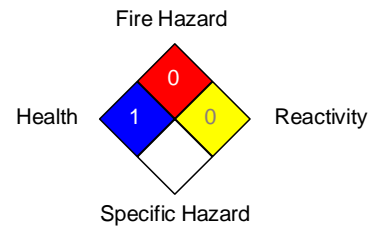
### 16. Other Information

**Revision Date:** 2019-01-11

#### NFPA

Health	1
Fire Hazard	0
Reactivity	0
Specific Hazard	

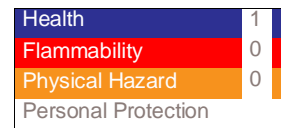
National Fire Protection Association (USA) NFPA



#### HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



#### Notice to Reader:

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## Aniline Blue Stain

### 1. Identification

**Product Name:** Aniline Blue Stain

**Item #:** SSC1048

**Synonyms:** N/A

**Recommended Use:** Special Stains

**Restrictions on Use:** N/A

**Manufacturer:**

 Cancer Diagnostics, Inc.  
 116 Page Point Circle  
 Durham, NC 27703  
 1-877-846-5393

**In Case of Emergency:**

 Chemtrec US 1-800-424-9300  
 Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

 Skin Irritation - Category 2  
 Eye Irritation - Category 2A

**Signal Word:** Warning

**Hazard Statement(s):** Causes skin irritation. Causes serious eye irritation.

**Pictogram(s):**

**Precautionary Statement(s):** Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

N/A

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Aniline Blue		28631-66-4	Trade Secret
Water		7732-18-5	Trade Secret
Glacial Acetic Acid		64-19-7	Trade Secret

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

## Aniline Blue Stain

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store in a well-ventilated place. Keep cool. Keep lid tightly closed.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Glacial Acetic Acid	64-19-7	10ppm

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m <sup>3</sup>	15 ppm, 37 mg/m <sup>3</sup>

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Dark Blue, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** 2.7-3.0

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** N/A

**Odor:** Characteristic of vinegar

**Odor Threshold:** N/A

**Color:** Dark Blue

**Flammability (solid/gas):** N/A

**Vapor Density:** N/A

**Upper/Lower flammability or explosive limits:** N/A

**Vapor Pressure:** N/A

## Aniline Blue Stain

**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** N/A  
**Solubility:** Soluble in water.  
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:** N/A  
**Chemical Stability:** Stable  
**Conditions of Stability/Instability:** N/A  
**Stabilizers needed:** None  
**Safety issue indicated by appearance change:** N/A  
**Other:** N/A  
**Hazardous Reactions:** N/A  
**Hazardous Polymerization:** Does not occur  
**Conditions to avoid:** N/A  
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases  
**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Irritation. May cause permanent damage. Very basic solution.  
**Skin:** Irritation. May cause mild irritation, redness, cracking, drying or permanent damage. Very basic solution.  
**Inhalation:** Dizziness, headache. Irritation to respiratory tract. High concentrations may cause central nervous system depression with weakness, drowsiness, nausea, vomiting, diarrhea, fatigue or loss of consciousness.  
**Ingestion:** Nausea, headache, double vision. May cause unconsciousness.

**Signs or Symptoms of Exposure:** Nausea, dizziness, headache, diarrhea.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** Glacial Acetic Acid: IDLH= 125 mg/m<sup>3</sup> =50ppm LD50 (mammal, skin)=1060mg/kg LD50 (rabbit, skin)=1060 mg/kg i/hl mus LC50 5620 ppm/1H i/hl mus LC50 5620 mg/m<sup>3</sup>/1H

**Carcinogenicity (NTP, IARC, OSHA):** Does not contain any known or suspect carcinogens.

### 12. Ecological Information

**Ecotoxicity:** Effects Data for 100% Glacial Acetic Acid 96 h LC-50 (fathead minnow): > 100mg/L 48 h LC-50 (golden orfe): 410 mg/L 48 h LC-50 (mosquito fish): 251 mg/L 96 h LC-50 (daphnid): > 100 mg/L

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** Oxygen Demand Data for 100% Glacial Acetic Acid BOD-5: 340-880 mg/g BOD-20: 900 mg/g COD: 1,030 mg/g

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** This material is a strongly acidic aqueous solution, and this property may cause adverse environmental effects.

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*



## Aniline Blue Stain

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:**

**UN Proper Shipping Name:**

**Transport Hazard Class(es):**

**Packing Group Number:**

**Environmental Hazards (IMDG code):**

**Marine Pollutant:**

**Transport in Bulk (IBC Code):**

**Special Transport Precautions:**

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**

## Aniline Blue Stain

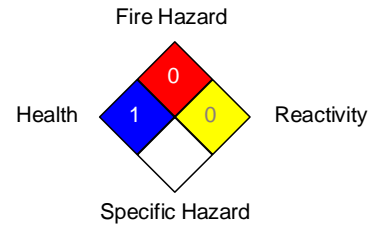
### 16. Other Information

Revision Date: 2019-01-11

#### NFPA

Health	1
Fire Hazard	0
Reactivity	0
Specific Hazard	

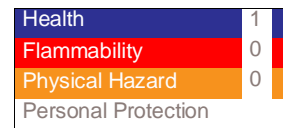
National Fire Protection Association (USA) NFPA



#### HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



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## Phosphomolybdic-Phosphotungstic Acid Solution

### 1. Identification

**Product Name:** Phosphomolybdic-Phosphotungstic Acid Solution

**Item #:** SSC1104

**Synonyms:** N/A

**Recommended Use:** Special Stain

**Restrictions on Use:** N/A

**Manufacturer:**

**In Case of Emergency:**

Cancer Diagnostics, Inc.

Chemtec US 1-800-424-9300

116 Page Point Circle

Infotrac International 1-352-323-3500

Durham, NC 27703

1-877-846-5393

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Skin Corrosion - Category 1A

Eye Damage - Category 1

Oxidizing Liquids - Category 3

**Signal Word:** Danger

**Hazard Statement(s):** Causes severe skin burns and eye damage. Causes serious eye damage. May intensify fire; oxidizer.

**Pictogram(s):**



**Precautionary Statement(s):** Prevention: Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection. Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles and/or incompatible materials. Wear protective gloves, eye protection, face protection. Wear flame resistant clothing.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing In case of fire: Use water, dry chemical, CO<sub>2</sub> or foam to extinguish.

Storage: Store locked up.

Disposal: Disposal of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Phosphomolybdic Acid		51429-74-4	Trade Secret
Phosphotungstic Acid		12501-23-4	Trade Secret
Water		7732-18-5	Trade Secret

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention immediately.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention immediately.

## Phosphomolybdic-Phosphotungstic Acid Solution

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness. Chemical burns or redness to skin.

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store locked up. Store in a well-ventilated, cool place. Keep lid tightly closed.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Phosphomolybdic Acid	51429-74-4	15mg/m3 (as Mo)

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Phosphomolybdic Acid	51429-74-4	10 mg/m3 (as Mo)	
Phosphotungstic Acid	12501-23-4	5 mg/m3 (as W)	10mg/m3 (as W)

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Colorless, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** 1.6-1.8

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** 1.038

## Phosphomolybdic-Phosphotungstic Acid Solution

**Odor:** N/A  
**Odor Threshold:** N/A  
**Color:** Colorless  
**Flammability (solid/gas):** N/A  
**Vapor Density:** N/A  
**Upper/Lower flammability or explosive limits:** N/A  
**Vapor Pressure:** N/A  
**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** N/A  
**Solubility:** N/A  
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:** N/A  
**Chemical Stability:** Stable  
**Conditions of Stability/Instability:** N/A  
**Stabilizers needed:** None  
**Safety issue indicated by appearance change:** N/A  
**Other:** N/A  
**Hazardous Reactions:** N/A  
**Hazardous Polymerization:** Does not occur  
**Conditions to avoid:** N/A  
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases  
**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Corrosive solution.. May cause permanent damage to cornea, redness and pain in eyes. May cause blindness.  
**Skin:** Corrosive solution. May cause permanent damage to skin, redness, pain. Causes chemical burns.  
**Inhalation:** Dizziness, headache. Corrosive solution. Inhalation may irritate or burn inside nostrils. May irritate respiratory.  
**Ingestion:** Corrosive solution. May chemically burn mouth, throat, stomach, and digestive tract. Do not swallow.

**Signs or Symptoms of Exposure:** Nausea, dermatitis, headaches.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** Phosphotungstic Acid: LD50(oral, rat)=3300 mg/kg

**Carcinogenicity (NTP, IARC, OSHA):** Does not contain any known carcinogen.

### 12. Ecological Information

**Ecotoxicity:** N/A  
**Persistence and degradability:** N/A  
**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A  
**Mobility in the soil:** N/A  
**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations

## Phosphomolybdic-Phosphotungstic Acid Solution

**Recommended Disposal Containers:** Check with your local waste authorities.\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN3264

**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Inorganic, n.o.s. (Phosphomolybdic Acid Hydrate)

**Transport Hazard Class(es):** 8

**Packing Group Number:** II

**Environmental Hazards (IMDG code):**

**Marine Pollutant:** No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**

## Phosphomolybdic-Phosphotungstic Acid Solution

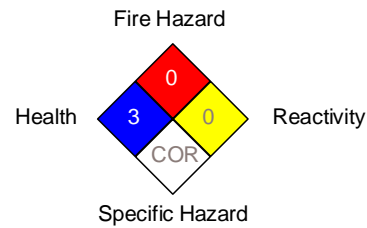
### 16. Other Information

**Revision Date:** 2019-01-11

#### NFPA

Health	3
Fire Hazard	0
Reactivity	0
Specific Hazard	COR

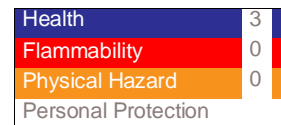
National Fire Protection Association (USA) NFPA



#### HMIS

Health	3
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



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## Biebrich Scarlet-Acid Fuchsin Solution

### 1. Identification

**Product Name:** Biebrich Scarlet-Acid Fuchsin Solution

**Item #:** SSC1052

**Synonyms:** N/A

**Recommended Use:** Special Stains

**Restrictions on Use:** N/A

**Manufacturer:**

 Cancer Diagnostics, Inc.  
 116 Page Point Circle  
 Durham, NC 27703  
 1-877-846-5393

**In Case of Emergency:**

 Chemtrec US 1-800-424-9300  
 Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

 Skin Irritation - Category 2  
 Eye Irritation - Category 2A

**Signal Word:** Warning

**Hazard Statement(s):** Causes skin irritation. Causes serious eye irritation.

**Pictogram(s):**

**Precautionary Statement(s):** Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

N/A

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Biebrich Scarlet		4196-99-0	Trade Secret
Acid Fuchsin		3244-88-0	Trade Secret
Water		7732-18-5	Trade Secret
Glacial Acetic Acid		64-19-7	Trade Secret

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.



## Biebrich Scarlet-Acid Fuchsin Solution

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store in a well-ventilated place. Keep cool. Keep lid tightly closed.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Glacial Acetic Acid	64-19-7	10ppm

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Glacial Acetic Acid	64-19-7	10ppm	15ppm

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Red, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** 2.7-2.9

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** 1.004

**Odor:** N/A

**Odor Threshold:** N/A

**Color:** Red

**Flammability (solid/gas):** N/A

**Vapor Density:** N/A

**Upper/Lower flammability or explosive limits:** N/A

**Vapor Pressure:** N/A

## Biebrich Scarlet-Acid Fuchsin Solution

**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** N/A  
**Solubility:** N/A  
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:** N/A  
**Chemical Stability:** Stable  
**Conditions of Stability/Instability:** N/A  
**Stabilizers needed:** None  
**Safety issue indicated by appearance change:** N/A  
**Other:** N/A  
**Hazardous Reactions:** N/A  
**Hazardous Polymerization:** Does not occur  
**Conditions to avoid:** N/A  
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases  
**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Irritation. May cause permanent damage.  
**Skin:** Irritation. May cause chemical burns or redness.  
**Inhalation:** Dizziness, headache.  
**Ingestion:** Nausea. May cause chemical burns in mouth, throat, stomach and digestive tract.

**Signs or Symptoms of Exposure:** Nausea.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** Glacial Acetic Acid: LD50 (mammal, skin)=1060mg/kg; LD50 (rabbit, skin)=1060 mg/kg; LC50(inhalation, mouse)=5620 ppm/1H; LC50(inhalation, mouse)=5620 mg/m<sup>3</sup>/1H

**Carcinogenicity (NTP, IARC, OSHA):** Does not contain any known carcinogens.

### 12. Ecological Information

**Ecotoxicity:** Acute Aquatic Effects Data for 100% Glacial Acetic Acid 96 h LC-50 (fathead minnow): > 100mg/L 48 h LC-50 (golden orfe): 410 mg/L 48 h LC-50 (mosquito fish): 251 mg/L 96 h LC-50 (daphnid): > 100 mg/L

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** Oxygen Demand Data for 100% Glacial Acetic Acid BOD-5: 340-880 mg/g BOD-20: 900 mg/g COD: 1,030 mg/g

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** May cause adverse environmental effects.

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

## Biebrich Scarlet-Acid Fuchsin Solution

### 14. Transport Information

**UN Number:** N/A

**UN Proper Shipping Name:**

**Transport Hazard Class(es):**

**Packing Group Number:**

**Environmental Hazards (IMDG code):**

**Marine Pollutant:**

**Transport in Bulk (IBC Code):**

**Special Transport Precautions:**

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**

## Biebrich Scarlet-Acid Fuchsin Solution

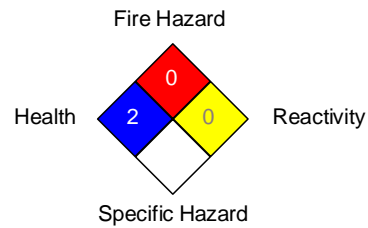
### 16. Other Information

Revision Date: 2019-01-11

#### NFPA

Health	2
Fire Hazard	0
Reactivity	0
Specific Hazard	

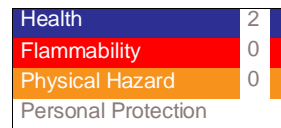
National Fire Protection Association (USA) NFPA



#### HMIS

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



#### Notice to Reader:

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## PureView™ Iron Hematoxylin, Solution B

### 1. Identification

**Product Name:** PureView™ Iron Hematoxylin, Solution B

**Item #:** SSC1061

**Synonyms:** N/A

**Recommended Use:** Special Stain

**Restrictions on Use:** N/A

**Manufacturer:**

Cancer Diagnostics, Inc.  
116 Page Point Circle  
Durham, NC 27703  
1-877-846-5393

**In Case of Emergency:**

Chemtec US 1-800-424-9300  
Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Skin Corrosion - Category 1A

Eye Damage - Category 1

**Signal Word:** Danger

**Hazard Statement(s):** Causes severe skin burns and eye damage. Causes serious eye damage.

**Pictogram(s):**



**Precautionary Statement(s):** Prevention: Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Ferric Chloride	Iron III Chloride	10025-77-1	Trade Secret
Water		7732-18-5	Trade Secret
Hydrochloric Acid	HCl	7647-01-0	Trade Secret

### 4. First Aid Measures

**Eye Contact:** Corrosive to eyes. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** Corrosive to skin. If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Corrosive to mouth, throat and stomach. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness. Skin burns or dermatitis.

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

## PureView™ Iron Hematoxylin, Solution B

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store locked up. Store in a well-ventilated place, keep cool. Store at room temperature. Keep lid tightly closed. Do not store in metal containers, may be corrosive to metals.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Hydrochloric Acid	7647-01-0	5ppm

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Hydrochloric Acid	7647-01-0	2ppm	
Ferric Chloride	10025-77-1	1 mg(Fe)/m <sup>3</sup>	

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Red/Brown, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** 1.2-1.5

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** N/A

**Odor:** N/A

**Odor Threshold:** N/A

**Color:** Red/Brown

**Flammability (solid/gas):** N/A

**Vapor Density:** N/A

## PureView™ Iron Hematoxylin, Solution B

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: N/A

Decomposition Temperature: N/A

### 10. Stability and Reactivity

Reactivity:

Chemical Stability: Stable

Conditions of Stability/Instability: N/A

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: N/A

Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Corrosive to eyes, may cause chemical burns, redness or permanent damage to cornea. May cause blindness.

**Skin:** Corrosive to skin. May cause chemical burns, redness, dermatitis and pain.

**Inhalation:** Dizziness, headache.

**Ingestion:** Corrosive solution. May cause chemical burns in mouth, throat, stomach and digestive tract.

**Signs or Symptoms of Exposure:** Nausea, headaches.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** Hydrochloric Acid: LD50(oral, rat)=900 mg/kg; LC50(inhalation, mouse)=1108 ppm/1H; LC50(inhalation, mouse)=3940 mg/m<sup>3</sup>/30M

**Carcinogenicity (NTP, IARC, OSHA):** Does not contain any known carcinogens.

### 12. Ecological Information

**Ecotoxicity:** Ecotoxicity: CAS 7647-01-0 Hydrochloric Acid Fish: LC50 (96 Hr) Mosquito Fish: 282 mg/L LC100(24Hr) Trout: 10 mg/L Invertebrates: LC50(48Hr) Starfish: 100-330 mg/L LC50 (48Hr) Shrimp: 100-330 mg/L

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

## PureView™ Iron Hematoxylin, Solution B

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN3264

**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Inorganic, n.o.s., (Hydrochloric Acid)

**Transport Hazard Class(es):** 8

**Packing Group Number:** II

**Environmental Hazards (IMDG code):**

**Marine Pollutant:** No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**



## PureView™ Iron Hematoxylin, Solution B

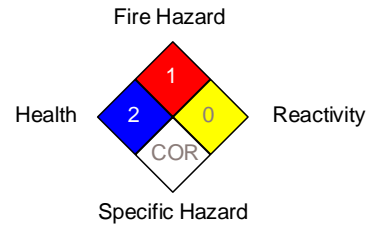
### 16. Other Information

**Revision Date:** 2019-01-11

#### NFPA

Health	2
Fire Hazard	1
Reactivity	0
Specific Hazard	COR

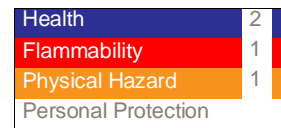
National Fire Protection Association (USA) NFPA



#### HMIS

Health	2
Flammability	1
Physical Hazard	1
Personal Protection	

Hazardous Material Information System HMIS



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## PureView™ Iron Hematoxylin, Solution A

### 1. Identification

**Product Name:** PureView™ Iron Hematoxylin, Solution A

**Item #:** SSC1060

**Synonyms:** N/A

**Recommended Use:** Special Stains

**Restrictions on Use:** Not a beverage

**Manufacturer:**

Cancer Diagnostics, Inc.

116 Page Point Circle

Durham, NC 27703

1-877-846-5393

**In Case of Emergency:**

Chemtrec US 1-800-424-9300

Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Skin Irritation - Category 2

Eye Irritation - Category 2A

Specific Target Organ Toxicity (single exposure) - Category 1

Specific Target Organ Toxicity (repeated exposure) - Category 2

Flammable Liquids - Category 2

**Signal Word:** Danger

**Hazard Statement(s):** Causes skin irritation. Causes serious eye irritation. Causes damage to organs (respiratory system). May cause damage to organs (respiratory system, central nervous system, liver, blood) through prolonged or repeated exposure. Highly flammable liquid and vapor.

**Pictogram(s):**

**Precautionary Statement(s):** Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection. Do not breathe dust, vapors. Do not eat, drink or smoke when using this product. Keep away from heat sources and open flame. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If exposed or concerned: Call a doctor. Call a doctor if you feel unwell. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Denatured Ethyl Alcohol	Ethanol	67-17-5	Trade Secret
Water		7732-18-5	Trade Secret
Hematoxylin		517-28-2	Trade Secret

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

## PureView™ Iron Hematoxylin, Solution A

Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Vapor Harmful. Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Poison. May be fatal or cause blindness if swallowed. If exposed: Call a doctor. Cannot be made nonpoisonous. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic effects.

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors.

**Fire Hazards (Chemical):** OSHA classified Flammable Liquid. Vapors are flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

**Storage:** Store locked up. Store in a well-ventilated place. Keep cool. Keep lid tightly closed.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Ethyl Alcohol	64-17-5	1000ppm
Isopropyl Alcohol	67-63-0	400ppm
Methyl Alcohol	67-56-1	200ppm
Methyl Isobutyl Ketone	108-10-1	100ppm (410 mg/m3)

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Ethyl Alcohol	64-17-5	1000ppm	
Isopropyl Alcohol	67-63-0	400ppm (983 mg/m3)	500ppm (1230 mg/m3)
Methyl Alcohol	67-56-1	200ppm (262 mg/m3)	250ppm (328 mg/m3)
Methyl Isobutyl Ketone	108-10-1	50ppm	75ppm

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

## PureView™ Iron Hematoxylin, Solution A

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Colorless, Brownish Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** N/A

**Boiling Point and Boiling Range:** 173°F

**Melting Point/Freezing Point:** N/A

**Flash Point:** 55°F

**Specific Gravity/Relative Density:** N/A

**Odor:** Characteristic alcohol odor

**Odor Threshold:** N/A

**Color:** Colorless

**Flammability (solid/gas):** Emits flammable vapors, flammable liquid

**Vapor Density:** N/A

**Upper/Lower flammability or explosive limits:** N/A

**Vapor Pressure:** N/A

**Evaporation Rate:** N/A

**Partition Coefficient: n-octanol/water:** N/A

**Viscosity:** N/A

**Auto-ignition temperature:** N/A

**Solubility:** Miscible in water

**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:**

**Chemical Stability:** Stable

**Conditions of Stability/Instability:** Instable under heat

**Stabilizers needed:** None

**Safety issue indicated by appearance change:** N/A

**Other:** N/A

**Hazardous Reactions:** N/A

**Hazardous Polymerization:** Does not occur

**Conditions to avoid:** Heat, open flame.

**Classes of Incompatible Materials:** Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium

**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

**Likely Routes of Exposure**

**Eyes:** Irritation.

**Skin:** Irritation.

**Inhalation:** Dizziness, headache, nausea, narcosis

**Ingestion:** May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys and cardiovascular system. Carcinogenic if ingested repeatedly over time (IARC List 1-Ethanol in alcoholic beverages)

## PureView™ Iron Hematoxylin, Solution A

**Signs or Symptoms of Exposure:** Irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic effects

**Effects from short term exposure (delayed, immediate, chronic):** May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys and cardiovascular system

**Acute Toxicity (Numerical Measures):** N/A

**Carcinogenicity (NTP, IARC, OSHA):** Not listed as a carcinogen.\* \*Note: Ethanol in alcoholic beverages is listed as IARC List 1 Carcinogenic to humans.

### 12. Ecological Information

**Ecotoxicity:** N/A

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN1170

**UN Proper Shipping Name:** Ethanol

**Transport Hazard Class(es):** 3

**Packing Group Number:** II

**Environmental Hazards (IMDG code):**

**Marine Pollutant:** No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**

## PureView™ Iron Hematoxylin, Solution A

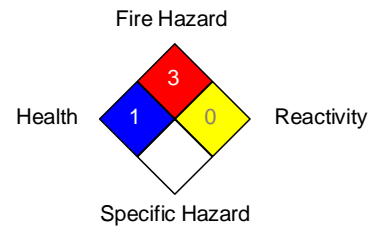
### 16. Other Information

**Revision Date:** 2019-01-11

#### NFPA

Health	1
Fire Hazard	3
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



#### HMIS

Health	1
Flammability	3
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	3
Physical Hazard	0
Personal Protection	

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## Bouins Solution

### 1. Identification

**Product Name:** Bouins Solution

**Item #:** SSC1053

**Synonyms:** N/A

**Recommended Use:** N/A

**Manufacturer:**

 Cancer Diagnostics, Inc.  
 116 Page Point Circle  
 Durham, NC 27703  
 1-877-846-5393

**Restrictions on Use:** N/A

**In Case of Emergency:**

 Chemtrec US 1-800-424-9300  
 Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

 Acute Toxicity - Inhalation - Category 3  
 Acute Toxicity - Oral - Category 4  
 Skin Corrosion - Category 2  
 Eye Damage - Category 1  
 Sensitization - Respiratory - Category 1A  
 Sensitization - Skin - Category 1A  
 Germ Cell Mutagenicity - Category 1B  
 Carcinogenicity - Category 1A  
 Specific Target Organ Toxicity (single exposure) - Category 2  
 Specific Target Organ Toxicity (repeated exposure) - Category 2

**Signal Word:** Danger

**Hazard Statement(s):** Toxic if inhaled. Harmful if swallowed. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause genetic defects. May cause cancer. May cause damage to organs(lungs,nose). May cause damage to organs (lungs,nose) through prolonged or repeated exposure.

**Pictogram(s):**

**Precautionary Statement(s):** Prevention: Avoid breathing dust, vapors. Use only outdoors or in a well-ventilated area. Wash body thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection, face protection. Wear NIOSH approved respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Do not breathe dust, vapors.

Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a doctor. Specific treatment (see first aid section on this label). If swallowed: Call a doctor if you feel unwell. Rinse mouth. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing Immediately call a doctor. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If exposed or concerned: Get medical attention. If exposed or concerned: Call a doctor. Call a doctor if you feel unwell.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
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## Bouins Solution

Formaldehyde		50-00-0	Trade Secret
Picric Acid		88-89-1	Trade Secret
Glacial Acetic Acid		64-19-7	Trade Secret
Water		7732-18-5	Trade Secret

### 4. First Aid Measures

**Eye Contact:** Corrosive to eyes, may cause permanent damage. If in eyes: Wash eyes immediately with large amounts of water occasionally lifting lower and upper lids until no evidence of chemical remains (at least 15 to 20 minutes). Immediately remove contact lenses, if present and easy to do. In case of burns apply sterile bandages loosely without medication. Get medical attention immediately. If you have experienced appreciable eye irritation from a splash or excessive exposure you should be referred promptly to an ophthalmologist for evaluation.

**Skin Contact:** Corrosive to skin, may cause permanent damage. If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash the affected are of your body with large amounts of water until no evidence of the chemical remains (at least 15 to 20 minutes). If there are chemical burns, get first aid to cover the area with sterile, dry dressing and bandages.. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Vapor harmful. Remove to fresh air immediately. Where the formaldehyde concentration may be very high, each rescuer must put on a self-contained breathing apparatus before attempting to remove the victim and medical personnel should be informed of the formaldehyde exposure immediately. Give artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Qualified first-aid or medical personnel should administer oxygen, if available, and maintain the patient's airways and blood pressure until the victim can be transported to a medical facility. If exposure results in a highly irritated upper respiratory tract and coughing continues for more than 10 minutes, the worker should be hospitalized for observation and treatment.

**Ingestion:** Toxic by ingestion. If the victim is conscious, dilute, inactive or absorb the ingested formaldehyde by giving milk, activated charcoal or water. Any organic material will inactivate formaldehyde. Keep affected person warm and at rest. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness. May cause sensitization by skin or respiratory contact. See section 11.

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Carbon monoxide, irritating and toxic gases, carbon dioxide and formaldehyde may be produced during combustion. Contains Picric acid, explosive when dry.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Do not store in metal container.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
Formaldehyde	50-00-0	0.75ppm
Glacial Acetic Acid	64-17-5	10 ppm, 25 mg/m3



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Picric Acid	88-89-1	0.1 mg/m3 [skin]
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### ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Formaldehyde	50-00-0	0.75ppm	2.0ppm
Glacial Acetic Acid	64-17-5	10ppm	15ppm
Picric Acid	88-89-1	0.1 mg/m3	

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

## 9. Physical and Chemical Properties Section

**Appearance:** Yellow, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** N/A

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** N/A

**Odor:** Pungent

**Odor Threshold:** N/A

**Color:** Yellow

**Flammability (solid/gas):** N/A

**Vapor Density:** N/A

**Upper/Lower flammability or explosive limits:** N/A

**Vapor Pressure:** N/A

**Evaporation Rate:** N/A

**Partition Coefficient: n-octanol/water:** N/A

**Viscosity:** N/A

**Auto-ignition temperature:** N/A

**Solubility:** Miscible in water.

**Decomposition Temperature:** N/A

## 10. Stability and Reactivity

**Reactivity:**

**Chemical Stability:** Stable

**Conditions of Stability/Instability:** N/A

**Stabilizers needed:** None

**Safety issue indicated by appearance change:** N/A

**Other:** N/A

**Hazardous Reactions:** N/A

**Hazardous Polymerization:** Does not occur

**Conditions to avoid:** Picric acid is explosive when dry. Keep wetted. Picric acid forms salts with many metals, some of which are sensitive to heat, friction or impact, e.g. lead, iron, zinc, nickel, copper, and should be considered dangerously sensitive. The salts

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formed with ammonia and amines and the molecular complexes with aromatic hydrocarbons, etc, are in general not as sensitive. Contact of picric acid with concrete floors may form the friction-sensitive calcium salt.

**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases, Reducing Agents, Heavy Metals, Heavy metal salts, Ammonia

**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Formaldehyde solutions splashed in the eye can cause injuries ranging from transient discomfort to severe, permanent corneal clouding and loss of vision. The severity of the effect depends on the concentration of formaldehyde in the solution and whether or not the eyes are flushed with water immediately after the accident.

**Skin:** Formaldehyde is a severe skin irritant and sensitizer. Contact with formalin causes white discoloration, smarting, drying, cracking and scaling. Prolonged and repeated contact can cause numbness and a hardening or tanning of the skin. Previously exposed persons may react to future exposure with an allergic eczematous dermatitis or hives.

**Inhalation:** Formaldehyde is highly irritating to the upper respiratory tract and eyes. Concentrations of 0.5 to 2.0 ppm may irritate the eyes, nose and throat of some individuals. Concentrations of 3 to 5 ppm also cause tearing of the eyes and are intolerable to some persons. A concentration of 100 ppm is immediately dangerous to life and health. Deaths from accidental exposure to high concentrations of formaldehyde have been reported.

**Ingestion:** If the victim is conscious; dilute, inactivate or absorb the ingested formaldehyde by giving milk, activated charcoal or water. Any organic material will inactivate formaldehyde. Keep affected person warm and at rest. Get medical attention immediately. If vomiting occurs keep head lower than hips.

**Signs or Symptoms of Exposure:** Irritation to eyes, nose, throat; headache; dizziness. See above for more information. Nausea. Note: The perception of formaldehyde by odor and eye irritation becomes less sensitive with time as one adapts to formaldehyde. This can lead to overexposure if a worker is relying on formaldehyde's warning properties to alert him or her to the potential for exposure.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea. May cause cancer, mutagenic and reproductive effects. May effect organs after single or repeat exposure.

**Acute Toxicity (Numerical Measures):** Formaldehyde CAS 50-00-0: LD50 385 mg/kg (oral mouse); LD50 100 mg/kg (oral, rat); LC50 200 mg/m<sup>3</sup> (inh, rat); LC50 454 mg/m<sup>3</sup>/4H (inh, mouse)

**Carcinogenicity (NTP, IARC, OSHA):** Contains Formaldehyde IARC Group 1 Carcinogen associated with nasal sinus cancer, nasopharyngeal cancer, myeloid leukemia.

### 12. Ecological Information

**Ecotoxicity:** N/A

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN3265

**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Organic, n.o.s.

**Transport Hazard Class(es):** 8



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**Packing Group Number:** III  
**Environmental Hazards (IMDG code):**  
**Marine Pollutant:** No  
**Transport in Bulk (IBC Code):** N/A  
**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**  
**DOT:**  
**EPA:**  
**CPSC:**

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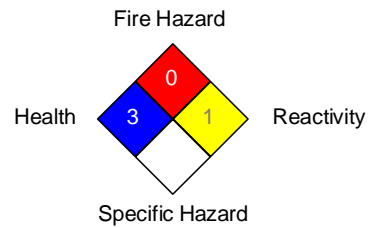
### 16. Other Information

**Revision Date:** 2019-01-11

#### NFPA

Health	3
Fire Hazard	0
Reactivity	1
Specific Hazard	

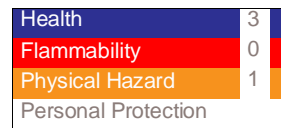
National Fire Protection Association (USA) NFPA



#### HMIS

Health	3
Flammability	0
Physical Hazard	1
Personal Protection	

Hazardous Material Information System HMIS



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