

Carbol Fuchsin, Ziehl-Neelsen

1. Identification

Product Name: Carbol Fuchsin, Ziehl-Neelsen

Item #: SSC1055-ZN

Synonyms: N/A

Recommended Use: Special Stain

Manufacturer:

 Cancer Diagnostics, Inc.
 4300 Emperor Blvd. #400
 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
 Skin Corrosion - Category 1B
 Eye Damage - Category 1
 Germ Cell Mutagenicity - Category 1B
 Toxic to Reproduction - Category 2
 Specific Target Organ Toxicity (single exposure) - Category 2
 Specific Target Organ Toxicity (repeated exposure) - Category 2
 Carcinogenicity - Category 2

Signal Word: Danger

Hazard Statement(s): Toxic if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May cause genetic defects. Suspected of damaging fertility of the unborn child. May cause damage to organs (respiratory system). May cause damage to organs (respiratory system, central nervous system, liver, blood) through prolonged or repeated exposure. Suspected of causing cancer.

Pictogram(s):

Precautionary Statement(s): Prevention: Avoid breathing dust, vapors. Use only outdoors or in a well-ventilated area. 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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, vapors. Do not eat, drink or smoke when using this product.

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: 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. Immediately call a doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing 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 %
Water		7732-18-5	Trade Secret
Denatured Ethanol	Ethyl Alcohol	64-17-5	Trade Secret

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Phenol		108-95-2	Trade Secret
Select Stains		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: Corrosive to eyes, causes permanent damage. 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, causes permanent damage. 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: 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; anorexia, weight loss; lassitude (weakness, exhaustion), muscle ache, pain; dark urine; cyanosis; liver, kidney damage; skin burns; dermatitis; ochronosis; tremor, convulsions, twitching.

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: 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 refrigerator to keep cold. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Phenol	108-95-2	5 ppm (19 mg/m ³) [skin]
Ethyl Alcohol	64-17-5	1000 ppm (1900 mg/m ³)

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Phenol	108-95-2	5 ppm (19 mg/m ³) [skin]	
Ethyl Alcohol	64-17-5	1000ppm	

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.

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9. Physical and Chemical Properties Section

Appearance: Dark Violet, 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: N/A
Odor Threshold: N/A
Color: Dark Violet
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:
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: Heat, open flame.
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases, calcium hypochlorite, aluminum chloride, acids
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.
Ingestion: Irritation eyes, nose, throat; anorexia, weight loss; lassitude (weakness, exhaustion),

Signs or Symptoms of Exposure: Irritation eyes, nose, throat; anorexia, weight loss; lassitude (weakness, exhaustion), muscle ache, pain; dark urine; cyanosis; liver, kidney damage; skin burns; dermatitis; ochronosis; tremor, convulsions, twitching. Target Organs: Eyes, skin, respiratory system, liver, kidneys

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

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Acute Toxicity (Numerical Measures): Phenol CAS# 108-95-2: orl mus LD50 270 mg/kg; orl rat LD50 317 mg/kg; skn rat LD50 669 mg/kg; skn rbt LD50 630 mg/kg; ihl mus LC50 177 mg/m³; ihl rat LC50 316 mg/m³.

Carcinogenicity (NTP, IARC, OSHA): Contains Basic Fuchsin CAS#569-61-9 = IARC Group 2B "Possibly carcinogenic to humans".

12. Ecological Information

Ecotoxicity: Phenol Toxicity to fish: LC50 - Leuciscus idus (golden orfe) - 14.00-25.00mg/L - 48h; LC50 - Carassius auratus (goldfish) - 36.10-68.80mg/l - 96h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 12.00 mg/l - 24h; EC100 - Daphnia magna (Water flea) - 100.00mg/l - 24h. Toxicity to algae: EC50 - Chlorella vulgaris (Fresh water algae) - 370.00 mg/L - 96h

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: UN2821

UN Proper Shipping Name: Phenol Solutions

Transport Hazard Class(es): 6.1

Packing Group Number: III

Environmental Hazards (IMDG code):

Marine Pollutant: No

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: Please refer to 49 CFR to see shipping regulations that differ for air, ground and excepted quantity non hazardous.

15. Regulatory Information

OSHA: N/A

DOT: N/A

EPA: N/A

CPSC: N/A

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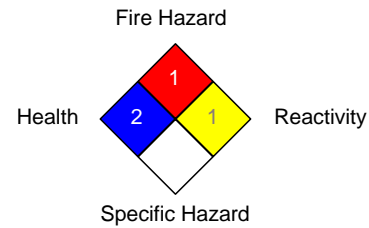
16. Other Information

Revision Date: 2019-01-11

NFPA

Health	2
Fire Hazard	1
Reactivity	1
Specific Hazard	

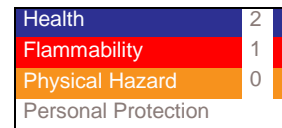
National Fire Protection Association (USA) NFPA



HMIS

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Acid Alcohol, 1%

1. Identification

Product Name: Acid Alcohol, 1%

Item #: SSC1036, ST0016, ST0017, ST0018

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

 Cancer Diagnostics, Inc.
 4300 Emperor Blvd. #400
 Durham, NC 27703
 1-877-846-5393

Restrictions on Use: Not a beverage.

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 %
Water		7732-18-5	Trade Secret
Etanol, Denatured		64-17-5	<65
Methyl Alcohol		67-56-1	<5
Isopropyl Alcohol		67-63-0	<5
Hydrochloric Acid (conc)		7647-01-0	<1

Acid Alcohol, 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: 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. 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, water. Use water spray to cool fire-exposed containers and disperse vapors.

Fire Hazards (Chemical): OSHA classified Flammable Liquid Category 2

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. Vapors can travel distances to ignition source and flash back. Cool fire exposed containers with water. Fine mist or spray may be flammable at temperatures below the flash point. When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive.

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.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Ethyl Alcohol	64-17-5	1000ppm
Methyl Alcohol	67-56-1	200ppm
Isopropyl Alcohol	67-63-0	400ppm
Hydrochloric Acid (conc)	7647-01-0	5ppm

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Ethyl Alcohol	64-17-5	1000ppm	1000ppm
Methyl Alcohol	67-56-1	200ppm	250ppm

Acid Alcohol, 1%

Isopropyl Alcohol	67-63-0	200ppm	400ppm
Hydrochloric Acid (conc)	7647-01-0	2ppm	

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: Vinous odor

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): Flammable liquid, emits flammable vapors

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 conditions of heat or exposure to open flame/sparks.

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, sparks.

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

Acid Alcohol, 1%

Eyes: Irritation.

Skin: Irritation.

Inhalation: Dizziness, headaches, nausea, narcosis.

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

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): Ethyl Alcohol: LD50 (oral, mouse)= 3450 mg/kg, LC50(inhalation, mouse)=39000 mg/m³/4H;

Hydrochloric Acid: LD50(oral, rat)=900 mg/kg; LC50(inhalation, mouse)=1108 ppm/1H; LC50(inhalation, mouse)=3940 mg/m³/30M

Carcinogenicity (NTP, IARC, OSHA): Ethanol in alcoholic beverages is listed as IARC List 1 Carcinogenic to humans.

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.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN1170

UN Proper Shipping Name: Ethanol Solutions

Transport Hazard Class(es): 3

Packing Group Number: II

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

Acid Alcohol, 1%

16. Other Information

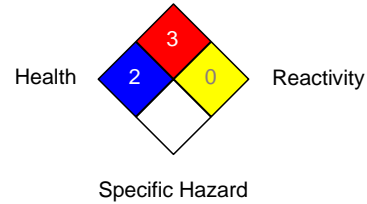
Revision Date: 2020-11-13

NFPA

Health	2
Fire Hazard	3
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA

Fire Hazard



HMIS

Health	2
Flammability	3
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	2
Flammability	3
Physical Hazard	0
Personal Protection	

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Revises: 2019-01-11 Revision ID: SDS1003

Methylene Blue Stock Solution

1. Identification

Product Name: Methylene Blue Stock Solution

Item #: SSC1096

Synonyms: N/A

Recommended Use: Staining Solution

Restrictions on Use: Not a beverage

Manufacturer:
In Case of Emergency:

Cancer Diagnostics, Inc.

Chemtrec US 1-800-424-9300

4300 Emperor Blvd. #400

Infotrac International 1-352-323-3500

Durham, NC 27703

1-877-846-5393

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 approved protective gloves made of neoprene, nitrile or equivalent. Wear approved eye protection/face protection. Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces.— No smoking. 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.

Response: 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. 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. If exposed: Call a doctor. Get medical advice/attention if you feel unwell. In case of fire: Use water, dry chemical, carbon dioxide to extinguish.

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

Disposal: Dispose of contents 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 Ethanol Blend	Ethyl Alcohol Denatured	64-17-5	Trade Secret
Water		7732-18-5	Trade Secret
Methylene Blue		7220-79-3	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.

Methylene Blue Stock Solution

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: 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

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

Fire Hazards (Chemical): Vapors are flammable. Flammable Liquid OSHA Category 2

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. No smoking. 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.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

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

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Ethyl Alcohol	64-17-5	1000 ppm	
Isopropyl Alcohol	67-63-0	400 ppm	500 ppm
Methyl Alcohol	67-56-1	200 ppm	250 ppm
Methyl Isobutyl Ketone	108-10-1	50 ppm	75 ppm

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.

Methylene Blue Stock Solution

9. Physical and Chemical Properties Section

Appearance: Dark Blue, Blue 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: Vinous
Odor Threshold: N/A
Color: Dark Blue
Flammability (solid/gas): Flammable liquid, emits flammable vapors
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: Heat source, open flame
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases, 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. may cause nausea and 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)

Signs or Symptoms of Exposure: Irritation to the 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

Methylene Blue Stock Solution

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): If consumed Ethanol is considered a carcinogen. IARC List 1 - Ethanol in alcoholic beverages

12. Ecological Information

Ecotoxicity:

Persistence and degradability:

Bioaccumulation Potential (octanol-water partition coefficient, BCF):

Mobility in the soil:

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.*

14. Transport Information

UN Number: UN1170

UN Proper Shipping Name: Ethanol Solutions

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:

Methylene Blue Stock Solution

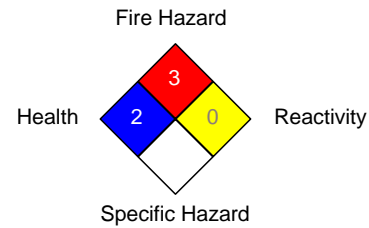
16. Other Information

Revision Date: 2019-01-11

NFPA

Health	2
Fire Hazard	3
Reactivity	0
Specific Hazard	

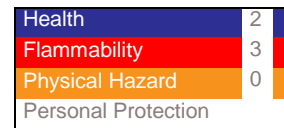
National Fire Protection Association (USA) NFPA



HMIS

Health	2
Flammability	3
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



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