

HELICOBACTER STAIN KIT MSDS

Catalog # 882, kit components:

1% Periodic acid

Hp Yellow Stain

10% Acetic acid

Hp Blue Stain

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: 1% PERIODIC ACID

Catalog number: 874, 882A

General use: Oxidizing solution used in histology procedures.

Product description: Aqueous solution of periodic acid.

Manufacturer

Anatech Ltd.
1020 Harts Lake Road
Battle Creek, MI 49037
USA

Emergency contact information

Health:	Anatech Ltd.	800-262-8324	8 am - 5 pm ET, M-F
Transportation:	CHEMTREC	800-424-9300	24 hours

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Component

Periodic acid (1% w/v)

CAS #

10450-60-9

Exposure limits

Not established.

3. HAZARDS IDENTIFICATION

Emergency overview

Colorless liquid.

Not likely to pose a hazard under normal conditions of use.

Potential health effects

(Human health effects only.)

Primary route(s) of exposure: Eyes and skin.

Inhalation: Nonhazardous.

Eye: Contact of liquid may be mildly irritating.

Skin: Nonhazardous.

Ingestion: Effects are unknown but anticipated to be slight.

Chronic effects: None known.

Signs and symptoms: Eyes may water. Effects on the gastrointestinal tract may include discomfort and nausea.

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air if coughing or difficulty in breathing is experienced. Consult a physician if symptoms persist or worsen. Administer oxygen or artificial respiration as needed.

Eye: Flush eyes for at least 15 minutes in an eyewash station. If symptoms persist after washing, consult a physician.

Skin: Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly; apply a good quality skin lotion. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. For severe conditions, consult a physician.

Ingestion: Call a poison control center immediately. If victim is conscious, have him/her drink several glasses of water to dilute the solution. Induce vomiting only upon the advice of a physician or poison control authority.

5. FIRE FIGHTING MEASURES

Flammable properties

Flash point: > 200°F (> 93.3°C) closed cup.

Flammable limit: Not applicable.

Autoignition temperature: Not applicable.

Flammability classification: Class IIIB Combustible liquid (OSHA).

Flame propagation: None.

Hazardous products of combustion: Due to the dilute nature of periodic acid, none are expected. Periodic acid crystals can produce irritating and toxic fumes and gases, hydrogen iodide, iodide ions.

Extinguishing media: ABC rated portable fire extinguishers should be used. Professional fire fighters may use water spray, dry chemical or carbon dioxide.

Fire fighting instructions: Self contained breathing apparatus are necessary for fighting fires involving substantial volumes of this product.

6. ACCIDENTAL RELEASE MEASURES

Wear protective gloves, impermeable aprons and splash-proof goggles. Use a damp sponge or mop to remove spilled liquid. Wash contaminated area with water. Discard absorbents and other contaminated solids in a trash receptacle. Liquid waste may be discarded down the drain with approval by wastewater authorities, or may be removed by a licensed waste hauler.

Comply with all applicable governmental regulations on spill reporting and on the handling and disposal of hazardous waste.

7. HANDLING AND STORAGE

Handling: Wear a plastic or rubber apron, protective gloves and splash-proof goggles. Avoid contact with skin and eyes. Do not continue to wear contaminated clothing after a spill.

Storage: Store at room temperature.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Good general room ventilation is essential.

Personal protective equipment

Respiratory protection: None needed.

Skin protection: Anatech Ltd. recommends nitrile gloves. Do not use latex surgical gloves for protection. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

Eye protection: Use splash-proof goggles. Do not use safety glasses. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless liquid.

Odor: Odorless.

Physical state: Liquid.

pH: 2.0-2.5.

Vapor pressure: Not determined.

Vapor density: Not determined.

Boiling point: Not determined.

Freezing point: Not determined.

Solubility in water: Complete.

Specific gravity: 1.0

10. STABILITY AND REACTIVITY

Chemical stability: Stable.

Conditions to avoid: None.

Incompatibility with other materials: Oxidizing reagents, reducing agents, acids and alkali.

Hazardous decomposition products: None.

Hazardous polymerization: None.

11. TOXICOLOGICAL INFORMATION

Acute effects: None known.

Chronic effects/carcinogenicity: No evidence of carcinogenicity.

12. ECOLOGICAL INFORMATION

No environmental information is known.

13. DISPOSAL CONSIDERATIONS

1% periodic acid has no hazardous characteristics. Drain disposal is recommended with the permission of local wastewater treatment authorities.

Follow federal, state (provincial) and local regulations. Proper waste disposal is the generator's responsibility. Canadian disposal regulations generally parallel those in the United States.

14. TRANSPORTATION INFORMATION

DOT (ground and air) and IATA: Not regulated.

15. REGULATORY INFORMATION

OSHA (USA): 1% periodic acid is not a hazardous material.

FDA (USA): 1% periodic acid is for in vitro diagnostic use as an general purpose reagent in histology.

EPA (USA): 1% periodic acid is a reportable substance under SARA Title III.

16. OTHER INFORMATION

Label warnings: Avoid contact with eyes and skin to prevent irritation.

NFPA (National Fire Protection Association) Rating:

General note: This rating is applicable only to safeguard the lives of individuals who may be concerned with fires occurring in an industrial plant or storage location. The ratings provide information to emergency personnel on whether to evacuate the area or how to perform control procedures. It is not descriptive of hazards under normal conditions of occupational use, and is even less applicable to anticipated laboratory-scale use.

Health 0: Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

Flammability 0: Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

Instability 0: Materials that are normally stable even under fire conditions.

This Material Safety Data Sheet has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard. It conforms to the provisions of the American National Standards Institute (ANSI) Standard Z400.1 (Standard for the Preparation of Material Safety Data Sheets). Information contained herein was obtained from sources which Anatech Ltd. believes are reliable. It is the user's responsibility to determine suitability of the product for his/her own use, and to assure proper use and disposal of it to protect the safety and health of employees and the protection of the environment.

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Hp YELLOW

Catalog number: 869, 877, 882B

General use: Stain to demonstrate polysaccharides.

Product description: Aqueous solution of yellow dye and sulfurous acid; a Schiff-type reagent.

Manufacturer

Anatech Ltd.
1020 Harts Lake Road
Battle Creek, MI 49037
USA

Emergency contact information

Health:	Anatech Ltd.	800-262-8324	8 am - 5 pm ET, M-F
Transportation:	CHEMTREC	800-424-9300	24 hours

2. COMPOSITION AND INFORMATION ON INGREDIENTS

(Note: Percentage composition is withheld as a trade secret.)

<u>Component</u>	<u>CAS #</u>	<u>Exposure limits</u>
N- (and/or N,N-) sulfinated, 3,6-diamino-10-methylacridinium dihydrochloride	None assigned	Not established.
N- (and/or N,N-) sulfinated, 3,6-diaminoacridinium dihydrochloride	None assigned	Not established.
Sulfurous acid	7782-99-2	5 ppm (OSHA 8 hour TWA) for sulfur dioxide 2 ppm (NIOSH, ACGIH 8 hour TWA) for sulfur dioxide 5 ppm (NIOSH, ACGIH 15 minute STEL) for sulfur dioxide
Hydrochloric acid	7647-01-0	5 ppm (OSHA, NIOSH Ceiling) 50 ppm (NIOSH IDLH*)

* Immediately dangerous to life and health

3. HAZARDS IDENTIFICATION

Emergency overview

Clear orange liquid.

Corrosive to skin, eyes and mucous membranes. Persons with allergies and/or asthma may exhibit hypersensitivity to sulfites.

3. HAZARDS IDENTIFICATION (continued)

Potential health effects

(Human health effects only; animal effects in Section 11: Toxicological Information.)

Primary route(s) of exposure: Eyes, skin and inhalation.

Inhalation: Corrosive to mucous membranes. Inhalation may result in spasm, inflammation and edema of the upper respiratory system, chemical pneumonitis and pulmonary edema.

Eye: Contact of liquid or vapor with eyes may cause irritation or burns.

Skin: Prolonged contact of liquid with skin may cause irritation or burns.

Ingestion: Ingestion is corrosive to mucous membranes.

Chronic effects: None documented.

Signs and symptoms: Affected skin will be stained yellow. Eyes may water and become reddened. Effects on the respiratory system may include coughing. Persons with allergies and/or asthma may exhibit hypersensitivity to sulfites.

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air if coughing or difficulty in breathing is experienced. Consult a physician if symptoms persist or worsen. Administer oxygen or artificial respiration as needed.

Eye: Flush eyes for at least 15 minutes in an eyewash station. If symptoms persist after washing, consult a physician.

Skin: Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly; apply a good quality skin lotion. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. For severe conditions, consult a physician.

Ingestion: Call a poison control center immediately. If victim is conscious, have him/her drink several glasses of water to dilute the solution. Induce vomiting only upon the advice of a physician or poison control authority.

Note to physician: Solutions of sulfurous acid generate sulfur dioxide vapors which cause the corrosive properties of this product.

5. FIRE FIGHTING MEASURES

Flammable properties

Flash point: None.

Flammable limit: None.

Autoignition temperature: Not determined.

Flammability classification: Not applicable.

Flame propagation: None.

5. FIRE FIGHTING MEASURES (continued)

Hazardous products of combustion: Oxides of carbon, nitrogen and sulfur.

Extinguishing media: ABC rated portable fire extinguishers should be used. Professional fire fighters may use water spray, dry chemical or carbon dioxide.

Fire fighting instructions: Sealed chemical suits and self contained breathing apparatus are necessary for fighting fires involving substantial volumes of this product.

6. ACCIDENTAL RELEASE MEASURES

The size of a spill is defined in part by the local situation, especially regarding ventilation. At room temperature in a well ventilated room, a few milliliters might be considered a small spill. Hazardous vapors are generated during a spill and may exceed Permissible Exposure Limits. Wear protective gloves, rubber boots, impermeable aprons and full-face respirators. Use a damp sponge or mop to remove spilled liquid. Wash contaminated area with water. Discard absorbents and other contaminated solids in a receptacle suitable for hazardous chemical waste. Liquid waste may be neutralized and discarded down the drain with approval by wastewater authorities, or may be removed by a licensed waste hauler.

With large spills, evacuate the area and have an emergency response team perform the cleanup. Have a licensed waste hauler remove contaminated solids and recovered liquid.

Comply with all applicable governmental regulations on spill reporting and on the handling and disposal of hazardous waste.

7. HANDLING AND STORAGE

Handling: Wear a plastic or rubber apron, protective gloves and splash-proof goggles. Avoid all contact with skin and eyes. Do not continue to wear contaminated clothing after a spill.

Storage: Store at room temperature.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Good general room ventilation is essential. Product should be used with local ventilation (fume hood).

Personal protective equipment

Respiratory protection: A NIOSH-approved respirator suitable for inorganic acid vapors must be used if vapor levels exceed the exposure limits. Above 20 ppm, a supplied air respirator is recommended by NIOSH.

Skin protection: Anatech Ltd. recommends nitrile gloves. Do not use latex surgical gloves for protection against any hazardous liquid. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

Eye protection: Use of splash-proof goggles. Do not use safety glasses. If a face shield is worn as protection against biohazards, splash-proof goggles also must be used. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear orange liquid.

Odor: Pungent sulfurous odor.

Physical state: Liquid.

pH: 1.1 - 1.7.

Vapor pressure: Not determined.

Vapor density: Not determined.

Boiling point: Not determined.

Freezing point: Not determined.

Solubility in water: Complete.

Specific gravity: Not determined.

10. STABILITY AND REACTIVITY

Chemical stability: Slowly evolves sulfur dioxide gas and decomposes, forming a conspicuous black precipitate. Keeping product in tightly closed container inhibits this process.

Conditions to avoid: Do not microwave this solution. Heating this solution will give off irritating and potentially life-threatening vapors.

Incompatibility with other materials: Strong oxidants, ammonia or chlorine bleach.

Hazardous decomposition products: None.

Hazardous polymerization: None.

11. TOXICOLOGICAL INFORMATION

No toxicological data available.

12. ECOLOGICAL INFORMATION

No environmental information is known.

13. DISPOSAL CONSIDERATIONS

The corrosive properties of this solution can be neutralized with magnesium oxide. Some wastewater treatment authorities may grant permission for drain disposal of limited amounts of neutralized solution. Otherwise, waste product should be disposed of via a licensed waste hauler.

Canadian disposal regulations generally parallel those in the United States.

Regardless of the method chosen for disposal, be sure to follow federal, state (provincial) and local regulations. Proper waste disposal is the generator's responsibility.

14. TRANSPORTATION INFORMATION

Packaging for hazardous shipments must meet the specifications as required by the current editions of *International Air Transportation Association (IATA) Dangerous Goods Regulations* and the United States Department of Transportation *49 CFR*.

DOT (ground and air) and IATA: **Proper Shipping Name:** Corrosive liquid, n.o.s. (sulfite solution)
UN #: 1760
Hazard Class: 8
Packing Group: II

15. REGULATORY INFORMATION

OSHA (USA): Under the Hazard Communication Standard and the Laboratory Standard, this product is a hazardous material: it is corrosive.

The two OSHA Standards cited above mandate that exposed workers receive proper training in the properties of this product, work practices involved with its handling and disposal, and interpretation of its MSDS.

FDA (USA): Hp Yellow is for in vitro diagnostic use as a stain in histology.

EPA (USA): Hp Yellow is corrosive and is a reportable substance under SARA Title III.

16. OTHER INFORMATION

Label warnings: Corrosive; may cause burns to skin and eyes. Vapor is irritating to eyes and respiratory system. Avoid breathing vapor; use with adequate ventilation. Avoid contact with skin and eyes.

NFPA (National Fire Protection Association) Rating:

General note: This rating is applicable only to safeguard the lives of individuals who may be concerned with fires occurring in an industrial plant or storage location. The ratings provide information to emergency personnel on whether to evacuate the area or how to perform control procedures. It is not descriptive of hazards under normal conditions of occupational use, and is even less applicable to anticipated laboratory-scale use.

Health 3: Materials that, under emergency conditions, can cause serious or permanent injury.

Flammability 0: Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

Instability 0: Materials that are normally stable even under fire conditions.

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: 10% ACETIC ACID

Catalog number: 875, 882C

General use: Decolorizing solution used in histology procedures.

Product description: Aqueous solution of acetic acid.

Manufacturer

Anatech Ltd.
1020 Harts Lake Road
Battle Creek, MI 49037
USA

Emergency contact information

Health:	Anatech Ltd.	800-262-8324	8 am - 5 pm ET, M-F
Transportation:	CHEMTREC	800-424-9300	24 hours

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Component

Acetic acid (10% v/v)

CAS #

64-19-7

Exposure limits

10 ppm (OSHA, NIOSH, ACGIH 8 hour TWA)
15 ppm (NIOSH, ACGIH 15 minute STEL)

3. HAZARDS IDENTIFICATION

Emergency overview

Colorless liquid.

Irritant to eyes and skin. Extensive, unprotected skin contact may cause dermatitis. Not likely to pose an inhalation threat under normal conditions of use. Ingestion is likely to cause adverse effects on gastrointestinal tract.

Potential health effects

(Human health effects only.)

Primary route(s) of exposure: Eyes and skin.

Inhalation: Inhalation of vapors during normal conditions of use are not likely to present a health hazard. Pungent odor is irritating to nose, throat and lungs.

Eye: Contact of liquid with eyes may cause irritation.

Skin: Brief contact with skin is nonirritating. Prolonged contact can cause burns and dermatitis.

Ingestion: Effects are unknown but anticipated to be slight.

Chronic effects: None expected under anticipated conditions of use.

Signs and symptoms: Eyes may water. Effects on the gastrointestinal tract may include discomfort and nausea.

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air if coughing or difficulty in breathing is experienced. Consult a physician if symptoms persist or worsen. Administer oxygen or artificial respiration as needed.

Eye: Flush eyes for at least 15 minutes in an eyewash station. If symptoms persist after washing, consult a physician.

Skin: Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly; apply a good quality skin lotion. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. For severe conditions, consult a physician.

Ingestion: Call a poison control center immediately. If victim is conscious, have him/her drink several glasses of water to dilute the solution. Induce vomiting only upon the advice of a physician or poison control authority.

5. FIRE FIGHTING MEASURES

Flammable properties

Flash point: > 200°F (> 93.3°C) closed cup.

Flammable limit: Not applicable.

Autoignition temperature: Not applicable.

Flammability classification: Class IIIB Combustible liquid (OSHA).

Flame propagation: None.

Hazardous products of combustion: Carbon monoxide and carbon dioxide.

Extinguishing media: ABC rated portable fire extinguishers should be used. Professional fire fighters may use water spray, dry chemical or carbon dioxide.

Fire fighting instructions: Self contained breathing apparatus are necessary for fighting fires involving substantial volumes of this product.

6. ACCIDENTAL RELEASE MEASURES

Wear protective gloves, impermeable aprons and splash-proof goggles. Use a damp sponge or mop to remove spilled liquid. Wash contaminated area with water. Discard absorbents and other contaminated solids in a trash receptacle. Liquid waste may be discarded down the drain with approval by wastewater authorities, or may be removed by a licensed waste hauler.

Comply with all applicable governmental regulations on spill reporting and on the handling and disposal of hazardous waste.

7. HANDLING AND STORAGE

Handling: Wear a plastic or rubber apron, protective gloves and splash-proof goggles. Avoid contact with skin and eyes. Do not continue to wear contaminated clothing after a spill.

Storage: Store at room temperature.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Good general room ventilation is essential.

Personal protective equipment

Respiratory protection: None needed.

Skin protection: Anatech Ltd. recommends nitrile gloves. Do not use latex surgical gloves for protection. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

Eye protection: Use splash-proof goggles. Do not use safety glasses. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless liquid.

Odor: Pungent.

Physical state: Liquid.

pH: 2.0-2.5.

Vapor pressure: Not determined.

Vapor density: Not determined.

Boiling point: Not determined.

Freezing point: Not determined.

Solubility in water: Complete.

Specific gravity: 1.01

10. STABILITY AND REACTIVITY

Chemical stability: Stable.

Conditions to avoid: None.

Incompatibility with other materials: Due to the dilute nature of the acetic acid, this product is very slightly reactive with oxidizing reagents, reducing agents, metals, acids and alkali.

Hazardous decomposition products: None.

Hazardous polymerization: None.

11. TOXICOLOGICAL INFORMATION

Acute effects: None known for dilute acetic acid. The following data are from studies using 100% acetic acid.

Man

Severe toxic effects: 200 ppm = 500 mg/cu m, 60 min.
Symptoms of illness: 40 ppm = 100 mg/cu m, 60 min.
Unsatisfactory: 20 ppm + 50 mg/cu m

Chronic effects/carcinogenicity: No evidence of carcinogenicity.

12. ECOLOGICAL INFORMATION

No environmental information is known for this dilution of acetic acid. The following data are from studies using 100% acetic acid.

Toxicity threshold (cell multiplication inhibition test):

Bacteria

Pseudomonas putida: 28,500 mg/l

Algae

Microcystis aeruginosa: 90 mg/l
Scenedesmus quadricauda: 4,000 mg/l

Protozoa

Entosiphon sulcatum: 78 mg/l
Uronema parduczi: 1,350 mg/l

Fish

Bluegill: 96 hr TL_m: 75 mg/l
Cheek chub: LD₀: 24 hr in Detroit river water: 100 mg/l
LD₁₀₀: 24 hr in Detroit river water: 200 mg/l
Goldfish: 20 hr, lethal at 423 mg/l
Fathead minnow: static bioassay in reconstituted water at 18°C - 22°C, pH≤5.9,
LC₅₀: (1, 24, 48, 72, 96 hours) 175, 106, 106, 79, 79 mg/l respectively.

13. DISPOSAL CONSIDERATIONS

10% acetic acid has no hazardous characteristics. Drain disposal is recommended with the permission of local wastewater treatment authorities.

Follow federal, state (provincial) and local regulations. Proper waste disposal is the generator's responsibility. Canadian disposal regulations generally parallel those in the United States.

14. TRANSPORTATION INFORMATION

DOT (ground and air) and IATA: Not regulated.

15. REGULATORY INFORMATION

OSHA (USA): 10% acetic acid is not a hazardous material.

FDA (USA): 10% acetic acid is for in vitro diagnostic use as an general purpose reagent in histology.

EPA (USA): 10% acetic acid is a reportable substance under SARA Title III.

16. OTHER INFORMATION

Label warnings: Avoid contact with eyes and skin to prevent irritation.

NFPA (National Fire Protection Association) Rating:

General note: This rating is applicable only to safeguard the lives of individuals who may be concerned with fires occurring in an industrial plant or storage location. The ratings provide information to emergency personnel on whether to evacuate the area or how to perform control procedures. It is not descriptive of hazards under normal conditions of occupational use, and is even less applicable to anticipated laboratory-scale use.

Health 0: Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

Flammability 0: Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

Instability 0: Materials that are normally stable even under fire conditions.

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Hp BLUE

Catalog number: 870, 876, 882D

General use: Stain to demonstrate *Helicobacter pylori*.

Product description: Aqueous solution of Basic blue 41.

Manufacturer

Anatech Ltd.
1020 Harts Lake Road
Battle Creek, MI 49037
USA

Emergency contact information

Health:	Anatech Ltd.	800-262-8324	8 am - 5 pm ET, M-F
Transportation:	CHEMTREC	800-424-9300	24 hours

2. COMPOSITION AND INFORMATION ON INGREDIENTS

(Note: Percentage composition is withheld as a trade secret.)

Component

Basic blue 41 (C.I. 11154)

CAS #

12270-13-2

Exposure limits

Not established.

Methyl paraben

99-76-3

Not established.

3. HAZARDS IDENTIFICATION

Emergency overview

Blue liquid.

Not likely to pose a hazard under normal conditions of use.

Potential health effects

(Human health effects only.)

Primary route(s) of exposure: Eyes and skin.

Inhalation: Nonhazardous.

Eye: Contact of liquid may be mildly irritating.

Skin: Nonhazardous.

Ingestion: Effects are unknown but anticipated to be slight.

Chronic effects: None known.

Signs and symptoms: Affected skin will be stained blue.

4. FIRST AID MEASURES

Inhalation: None needed.

Eye: Flush eyes for at least 15 minutes in an eyewash station. If symptoms persist after washing, consult a physician.

Skin: Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly; apply a good quality skin lotion. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. For severe conditions, consult a physician.

Ingestion: Call a poison control center immediately. If victim is conscious, have him/her drink several glasses of water to dilute the solution. Induce vomiting only upon the advice of a physician or poison control authority.

5. FIRE FIGHTING MEASURES

Flammable properties

Flash point: Not applicable.

Flammable limit: Not applicable.

Autoignition temperature: Not determined.

Flammability classification: Not applicable.

Flame propagation: None.

Hazardous products of combustion: None known.

Extinguishing media: ABC rated portable fire extinguishers should be used. Professional fire fighters may use water spray, dry chemical or carbon dioxide.

Fire fighting instructions: No special precautions are necessary.

6. ACCIDENTAL RELEASE MEASURES

Wear protective gloves, impermeable aprons and splash-proof goggles. Use a damp sponge or mop to remove spilled liquid. Wash contaminated area with water and decolorize with household bleach. Discard absorbents and other contaminated solids in a trash receptacle. Liquid waste may be discarded down the drain with approval by wastewater authorities, or may be removed by a licensed waste hauler.

Comply with all applicable governmental regulations on spill reporting and on the handling and disposal of hazardous waste.

7. HANDLING AND STORAGE

Handling: Wear a plastic or rubber apron, protective gloves and splash-proof goggles. Avoid contact with skin and eyes. Do not continue to wear contaminated clothing after a spill.

Storage: Store at room temperature.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Good general room ventilation is essential.

Personal protective equipment

Respiratory protection: None needed.

Skin protection: Anatech Ltd. recommends nitrile gloves. Do not use latex surgical gloves for protection. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

Eye protection: Use splash-proof goggles. Do not use safety glasses. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue liquid.

Odor: None.

Physical state: Liquid.

pH: 4.2 - 5.0.

Vapor pressure: Not determined.

Vapor density: Not determined.

Boiling point: 212°F (100°C).

Freezing point: 32°F (0°C).

Solubility in water: Complete.

Specific gravity: Not determined.

10. STABILITY AND REACTIVITY

Chemical stability: Stable.

Conditions to avoid: None.

Incompatibility with other materials: Strong oxidants, ammonia, chlorine bleach or hydrochloric acid.

Hazardous decomposition products: None.

Hazardous polymerization: None.

11. TOXICOLOGICAL INFORMATION

No toxicological data available.

12. ECOLOGICAL INFORMATION

No environmental information is known.

13. DISPOSAL CONSIDERATIONS

Hp Blue has no hazardous characteristics. Drain disposal is recommended with the permission of local wastewater treatment authorities.

Canadian disposal regulations generally parallel those in the United States.

Follow federal, state (provincial) and local regulations. Proper waste disposal is the generator's responsibility.

14. TRANSPORTATION INFORMATION

DOT (ground and air) and IATA: Not regulated.

15. REGULATORY INFORMATION

OSHA (USA): Hp Blue is not a hazardous material.

FDA (USA): Hp Blue is for in vitro diagnostic use as a stain in histology.

EPA (USA): Hp Blue is not a reportable substance under SARA Title III.

16. OTHER INFORMATION

Label warnings: Avoid contact with eyes to prevent irritation. Avoid contact with skin to prevent staining.

NFPA (National Fire Protection Association) Rating:

General note: This rating is applicable only to safeguard the lives of individuals who may be concerned with fires occurring in an industrial plant or storage location. The ratings provide information to emergency personnel on whether to evacuate the area or how to perform control procedures. It is not descriptive of hazards under normal conditions of occupational use, and is even less applicable to anticipated laboratory-scale use.

Health 0: Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

Flammability 0: Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

Instability 0: Materials that are normally stable even under fire conditions.

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