Bouins Solution

1. Identification

Product Name: Bouins Solution

Item #: FX1035, FX1035-20, FX1035-40, FX1035-60, FX1035-500, FX1036, SSC1053

Synonyms: N/A

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:
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 %

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

Picric Acid	88-89-1	0.1 mg/m3 [skin]

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 with are sensitive to heat, friction or impact, e.g. lead, iron, zinc, nickel, copper, and should be considered dangerously sensitive. The salts

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/m3 (inh, rat); LC50 454 mg/m3/4H (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. (Formaldehyde, Acetic acid)

Transport Hazard Class(es): 8

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:

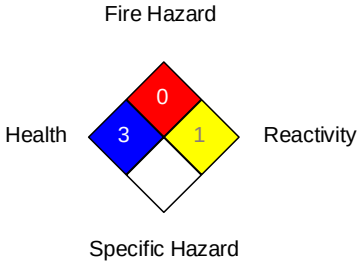
16. Other Information

Revision Date: 2019-09-09

NFPA

Health	3
Fire Hazard	0
Reactivity	1
Specific Hazard	

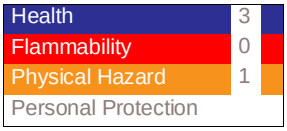
National Fire Protection Association (USA) NFPA



HMIS

Health	3
Flammability	0
Physical Hazard	1
Personal Protection	

Hazardous Material Information System HMIS



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