

1. IDENTIFICATION:

Product Name: BUFFER SOLUTION pH 4
Synonyms: N/A
CAS Number: Mixture
Catalog Numbers: 10124 10124A 10200 10125 W2T15435 W2T8150 10194
 U24494 W2T16226 10195 W2T12534 10206 U28962
Product Use: Analytical / Laboratory Reagent
Manufacturer: HF Scientific, Inc
Address: 3170 Metro Parkway Fort Myers, FL 33916

General Information: 888-203-7248
Transportation Emergency Number: CHEMTREC® 24 hr US 800-424-9300
 CHEMTREC® 24 hr International 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Health	Environmental	Physical
Acute Toxicity: Category 5 Skin corrosion: Category 3 Eye Irritation: Category 2B	Aquatic Toxicity: None	Flammable Liquid: No

GHS Label

Pictogram: No Symbol	Signal Word: WARNING
Hazard Statements May be harmful if swallowed May be harmful in contact with skin Causes mild skin irritation Causes eye irritation	Precautionary Statements IF INHALED, remove to fresh air. Get medical attention immediately. IF IN EYES, flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Cas Number	Weight %
Glacial Acetic Acid	64-19-7	< 50%
Water	7732-18-5	< 40%
Sodium Acetate	127-09-3	< 15%

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon Dioxide, Dry Chemical, Alcohol Foam or Water Fog.
Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing.
Unusual Fire and Exposure Hazards: Hydrogen gas can be generated by the action of acid on most metals.
Combustion Products: N/A
NFPA Classification HEALTH: 3 FLAMMABLE: 0 REACTIVITY: 0

6. ACCIDENTAL RELEASE MEASURES

Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. HANDLING AND STORAGE

Handling: Do not breathe gas/fumes/ vapor/spray. Never add water to this product. Avoid contact with skin and eyes. Wash well after handling. Avoid breathing vapors.
Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep away from incompatibles such as oxidizing agents, acids, alkalis.
 May corrode metallic surfaces. Store in a metallic or coated fiberboard drum using a strong polyethylene inner package.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: Not established
Engineering Controls: Ventilation System: Local exhaust ventilation to keep below exposure limits.
Personal Protective Equipment:
Eyes: Use splash goggles. Eye stations in use in area.
Skin: Wear impervious gloves and protective clothing.
Respiratory: Local exhaust ventilation to keep below exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint: N/A
Autoignition Temperature: N/A
Boiling Point: > 212°F
Melting Point: 61.9°F
Vapor Pressure: 11.65 mmHg

Vapor Density: 2.07
% Solubility in Water: 100%

Pour Point: N/A
Molecular Formula: Mixture
Odor / Appearance: Clear liquid with vinegar-like odor

Lower Flammability Limit: N/A
Upper Flammability Limit: N/A
Specific Gravity: 1.12
% Volatile: N/A
Evaporation Rate (Water=1): N/A
Viscosity: N/A
Octanol / Water Partition Coefficient: N/A
pH: 4.0
Molecular Weight: Mixture

10. STABILITY AND REACTIVITY

Stability / Incompatibility: Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability. Highly reactive with acids, alkalis. Reactive with oxidizing agents. Corrosive in presence of steel, of aluminum, of zinc, of copper, of stainless steel (304), of stainless steel (316).
Hazardous Reactions / Decomposition Products: Produces carbon monoxide if burned with limited air. Hydrogen may be generated by the action on metals. Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Symptoms of Overexposure: Irritation of skin, eyes, gastrointestinal and respiratory tract.
Acute Effects: Irritation of skin, eyes, gastrointestinal and respiratory tract.
Eye Contact: Irritation of the mucous membranes of the eyes.
Skin Contact: Irritation and inflammation of skin.
Inhalation: Irritation of the mucous membranes of the respiratory tract.
Ingestion: Irritation of the mucous membranes of the mouth and gastrointestinal tract.
Target Organs Effects: N/A
Chronic Effects: Repeated or prolonged exposures may cause chronic inflammation of the nose, throat, and bronchial tubes.
Medical Conditions Aggravated by Exposure: N/A
Acute Toxicity Values: N/A

12. ECOLOGICAL INFORMATION

Possibly hazardous short term degradation products are not likely.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

US DOT (United States Department of Transportation):
 Proper Name: Acetic Acid
 Hazard Class: 8
 Identification Number: UN2790

15. REGULATORY INFORMATION

CERCLA: 5000
SARA/Title III: 302, 313
TSCA Inventory: No
Cal. Proposition 65: N/A
WHMIS: B3; E
DSL: Yes
NSDL: No

16. OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. ALL PRODUCTS ARE OFFERED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PRODUCTION SPECIFICATIONS AND ARE INTENDED SOLELY FOR USE IN ANALYTICAL TESTING. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE RESULTING FROM THE HANDLING, USE OR MISUSE OF THESE PRODUCTS.

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