

MATERIAL SAFETY DATA SHEET

HF scientific, inc.
3170 Metro Parkway
Fort Myers, FL 33916-7597
(239) 337-2116
Mon-Fri 8 am - 4:30 pm

24 Hour Emergency
Telephone Number
CHEMTREC
1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATIONPRODUCT NAME: **BUFFER SOLUTION pH4**

CATALOG NUMBER:

HF scientific, inc.: 1 gallon - 10124, 10124A
Ecometrics: 1 gallon - 10125
U.S. Filter/Wallace & Tiernan: 1 gallon - 10194/U24494
4 - 1 gallon - 10195/U13765
4 ounce - 10206/U28962

FORMULA:

Glacial acetic acid <50% (CAS # 64-19-7)
Water <40% (CAS # 7732-18-5)
Sodium Acetate <15% (CAS # 127-09-3)

SECTION 2 HAZARDOUS INGREDIENTS

Hazardous Component(s)	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Glacial acetic acid (CAS # 64-19-7)	10 ppm	10 ppm	

SECTION 3 Physical/Chemical Characteristics

Boiling point (F): >212 ° F (100 ° C)
Specific gravity H₂O=1: 1.11
Vapor pressure (mm Hg): approx. 11.65 mm Hg
Vapor density (air=1): approx. 2.01
Evaporation rate (butyl acetate = 1): undetermined
Solubility in water: completely
Appearance and odor: clear liquid, at room temperature, with an odor of vinegar

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point (method used): unknown for mixture.
acetic acid: 102° F(closed cup)
Flammable limits: acetic acid: lcl 5.40%
uel 16.0%
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 explosive hazards: hydrogen gas can be generated by the action of acid on most metals.

SECTION 5 REACTIVITY DATA

Stability: stable under ordinary conditions of use and storage. Heat and light can contribute to instability.
Conditions to avoid: oxidizing materials, bases & common metals other than aluminum or stainless steel.
Incompatibility (materials to avoid): see above.

Hazardous decomposition or byproducts: produces carbon monoxide if burned with limited air. Hydrogen may be generated by the action on metals.

Hazardous polymerization: will not occur.

SECTION 6 HEALTH HAZARD DATA

Route(s) of entry: Inhalation? Yes Skin? No* Ingestion? Yes

*contact may cause skin damage

Health hazards (acute and chronic): repeated or prolonged exposures may cause chronic inflammation of the nose, throat, and bronchial tubes.

Carcinogenicity: NTP? IARC monographs? OSHA regulated?
not listed

Signs and symptoms of exposure: irritation of skin, eyes, and respiratory tract.

Medical conditions generally aggravated by exposure: preexisting skin disorders, eye problems or respiratory problems.

Emergency first aid procedures:

Eyes or skin: flush with water for at least 15 minutes. See a physician.

Ingestion: give large amounts of water which may contain milk of magnesia and may be followed with raw egg white beaten with water. See a physician.

Inhalation: remove to fresh air.

SECTION 7 SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled: shut off sources of ignition. Ventilate.

Waste disposal method: dispose of in accordance with all applicable federal, state and local environmental regulations.

Precautions to be taken in handling & storage: keep away from heat and flame. Keep container closed when not in use.

Other precautions: none found

SECTION 8 CONTROL MEASURES

Respiratory protection: local exhaust ventilation to keep below exposure limits.

Ventilation systems: local exhaust.

Skin protection: wear appropriate impervious gloves and protective clothing.

Eye protection: splash goggles

Other protective clothing or equipment: eyewash stations in use area.

Work/hygienic practices: wash well after handling. Avoid breathing vapors.

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see back 

U-13765
**BUFFER/INV/SOLUTION/PH 4/
ALKI/4-1GAL KIT**
RN 3C

U-23661
**BOTTLE/INV/POWDER/POTASSIUM/
IODIDE/MICRO 2000/ALKI**
RN D2-7