



## Material Safety Data Sheet

### Acetate buffer (for chlorine, for cyanide)

#### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Acetate buffer (for chlorine, for cyanide)

**Catalog Numbers:**

LC10030, LC10040

**Synonyms:**

Acetate buffer pH 4 (for chlorine), Acetate buffer (for cyanide)

**Company Identification:**

LabChem Inc  
 200 William Pitt Way  
 Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

#### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
64-19-7	Acetic acid	45-46
6131-90-4	Sodium acetate, trihydrate	24-41

#### Section 3 - Hazards Identification

##### Emergency Overview

**Appearance:** Clear, colorless solution**Caution!** Causes burns to eyes, skin, respiratory, and gastrointestinal tracts.**Target Organs:** Eyes, skin, respiratory system, teeth

##### Potential Health Effects

**Eye:**

Eye contact may result in swelling, irritation, and damage to the cornea and conjunctiva, resulting in blurred or partial loss of vision.

**Skin:**

May cause irritation, redness, burns, blisters, brown or yellow stains.

**Ingestion:**

May result in severe burns to mouth, throat, stomach with pain, diarrhea, vomiting. Asphyxia from throat swelling can occur.



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**Inhalation:**

Exposure to 50ppm acetic acid is intolerable for most individuals. May cause coughing, dizziness, weakness, dry throat/chest, chest pain, dyspnea, frothy sputum, hypotension, cyanosis, pneumonitis, fatal pulmonary edema.

**Chronic:**

Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. One case of a delayed asthmatic response to glacial acetic acid has been reported in a person with bronchial asthma. Skin sensitization to acetic acid is rare, but has occurred.

### Section 4 - First Aid Measures

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

**Skin:**

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage.

**Ingestion:**

Get medical aid at once. Give conscious victim large quantities of water to dilute acid. Give oxygen if respiration is depressed.

**Inhalation:**

Give artificial respiration if necessary. Move victim to fresh air. Get medical aid. Keep victim warm, at rest. Maintain airway, give oxygen (medical trained only), maintain blood pressure.

**Notes to Physician:**

Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:**

Move container if possible. Avoid breathing vapors or dust. Moderate fire and explosion hazard when exposed to heat or flame. Acetic acid may react explosively with oxidizing materials or give off flammable/explosive vapors above its flash point (104F). Acetic acid vapors are heavier than air and can flash back a considerable distance from ignition source.

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Autoignition Temperature:**

Not available

**Flash Point:**

Not available

**NFPA Rating:**

CAS# 7732-18-5: H-0, F-0, I-0.

CAS# 64-19-7: H-3, F-2, I-0.

CAS# 6131-90-4: H-1, F-1, I-0.

**Explosion Limits:** (for Acetic Acid)

Lower: 4.0 Upper: 19.0



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### Section 6 - Accidental Release Measures

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in suitable containers labeled for later disposal. Area may be washed down with water.

### Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

**Storage:**

Store capped at room temperature. Protect from heat and incompatibles.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Provide local exhaust or general dilution ventilation.

**Exposure Limits:**

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Acetic acid	10 ppm TWA; 15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA; 50 ppm IDLH	10 ppm TWA; 25 mg/m <sup>3</sup> TWA
Sodium acetate, trihydrate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

**OSHA Vacated PELs:**

Acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

### Personal Protective Equipment

**Eyes:**

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

**Skin:**

Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.



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### Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Clear liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Pungent vinegar-like odor
<b>pH:</b>	4 – 4.5
<b>Vapor Pressure:</b>	No information found.
<b>Vapor Density:</b>	No information found.
<b>Evaporation Rate:</b>	< ether
<b>Viscosity:</b>	No information found.
<b>Boiling Point:</b>	No information found.
<b>Freezing/Melting Point:</b>	No information found.
<b>Decomposition Temperature:</b>	No information found.
<b>Solubility in water:</b>	Soluble.
<b>Specific Gravity/Density:</b>	>1.5
<b>Molecular Formula:</b>	No information found.
<b>Molecular Weight:</b>	No information found.

### Section 10 - Stability and Reactivity

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials.

**Incompatibilities with Other Materials:**

Fluorinated halogens, strong oxidizing agents, strong caustics, chromic acid, nitric acid, attacks most metals including stainless steel and zinc.

**Hazardous Decomposition Products:**

Oxides of carbon, acrid smoke and fumes.

**Hazardous Polymerization:**

Has not been reported

### Section 11 - Toxicological Information

**RTECS:**

CAS# 7732-18-5: ZC0110000.

CAS# 64-19-7: AF1225000.

CAS# 6131-90-4: AJ4580000.

**LD50/LC50:**

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 64-19-7:

Inhalation, mouse: LC50 = 5620 ppm/1H

Oral, rat: LD50 = 3310 mg/kg

Skin, rabbit: LD50 = 1060 mg/kg.

CAS# 6131-90-4:

No information found.



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#### **Carcinogenicity:**

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 6131-90-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

#### **Epidemiology:**

Severe eye, skin, mucous membrane irritant and skin sensitizer. Sodium acetate-- moderately toxic by ingestion.

#### **Teratogenicity:**

No teratogenic effects were observed among the offspring of mice, rats, or rabbits that had been given very large doses of apple cider vinegar (containing acetic acid) during pregnancy. Acetic acid treatment of suckling rats (via maternal administration) was associated with abnormalities of behavioral testing.

#### **Reproductive:**

Intratesticular, rat: TDLo = 400 mg/kg (male 1 day(s) pre-mating) Fertility - male fertility index (e.g. # males impregnating females per # males exposed to fertile nonpregnant females).

#### **Mutagenicity:**

Sister Chromatid Exchange: Human, Lymphocyte = 5 mmol/L.; Unscheduled DNA Synthesis:

Administration onto the skin, mouse = 79279 ug/kg.; Cytogenetic Analysis: Hamster, Ovary = 10 mmol/L.

#### **Neurotoxicity:**

No information found.

### Section 12 - Ecological Information

No information found.

### Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

### Section 14 - Transport Information

#### **US DOT**

**Shipping Name:** Not regulated.

**Hazard Class:**

**UN Number:**

**Packing Group:**

### Section 15 - Regulatory Information

#### **US Federal**

##### **TSCA:**

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 64-19-7 is listed on the TSCA Inventory.



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CAS# 6131-90-4 is not on the TSCA Inventory, however, its anhydrous form is on the inventory and so this hydrate is exempt from TSCA Inventory requirements (40CFR270.3(u)(2)).

**SARA Reportable Quantities (RQ):**

CAS# 64-19-7: final RQ = 5000 pounds (2270 kg)

**CERCLA/SARA Section 313:**

None of the components are on this list.

**OSHA - Highly Hazardous:**

None of the components are on this list.

### US State

**State Right to Know:**

Acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**California Regulations:**

None.

### European/International Regulations

**Canadian DSL/NDSL:**

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 64-19-7 is listed on Canada's DSL List.

CAS# 127-09-3 (anhydrous sodium acetate) is listed on Canada's DSL List.

**Canada Ingredient Disclosure List:**

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 64-19-7 is listed on Canada's Ingredient Disclosure List.

CAS# 6131-90-4 is not listed on Canada's Ingredient Disclosure List.

## Section 16 - Other Information

MSDS Creation Date: October 21, 1997

Revision Date: September 18, 2009

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