**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. **Product identifier**

- **Product form:** Mixture
- **Product name:** Acetate Buffer for Arsenic, pH 5.5
- **Product code:** LC10005

1.2. **Relevant identified uses of the substance or mixture and uses advised against**

- **Use of the substance/mixture:** For laboratory and manufacturing use only.

1.3. **Details of the supplier of the safety data sheet**

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. **Emergency telephone number**

- **Emergency number:** CHEMTREC: 1-800-424-9300 or 011-703-527-3887

**SECTION 2: Hazards identification**

2.1. **Classification of the substance or mixture**

**GHS-US classification**

- Not classified

2.2. **Label elements**

**GHS-US labelling**

- No labelling applicable

2.3. **Other hazards**

- **Other hazards not contributing to the classification:** None under normal conditions.

2.4. **Unknown acute toxicity (GHS-US)**

- No data available

**SECTION 3: Composition/information on ingredients**

3.1. **Substance**

- Not applicable

- Full text of H-phrases: see section 16

3.2. **Mixture**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>97.49</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sodium Acetate, Trihydrate</td>
<td>(CAS No) 6131-90-4</td>
<td>2.34</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acetic Acid</td>
<td>(CAS No) 64-19-7</td>
<td>0.17</td>
<td>Flam. Liq. 3, H226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

**SECTION 4: First aid measures**

4.1. **Description of first aid measures**

- **First-aid measures general:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

- **First-aid measures after inhalation:** Assure fresh air breathing. Allow the victim to rest.

- **First-aid measures after skin contact:** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

- **First-aid measures after eye contact:** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

- **First-aid measures after ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture
No additional information available

5.3. Advice for firefighters
Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Protective equipment : Safety glasses.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions : Keep container closed when not in use.
Incompatible products : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Acetic Acid (64-19-7)</th>
<th>ACGIH TWA (ppm)</th>
<th>USA ACGIH ACGIH STEL (ppm)</th>
<th>USA OSHA OSHA PEL (TWA) (mg/m³)</th>
<th>USA OSHA OSHA PEL (TWA) (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 ppm</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
<td>10 ppm</td>
</tr>
</tbody>
</table>

12/10/2013 EN (English)
8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: Wear appropriate mask.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5.5</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials


10.6. Hazardous decomposition products

**Acetate Buffer for Arsenic, pH 5.5**
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**
- Not classified

**Water (7732-18-5)**
- LD50 oral rat: $\geq 90000$ mg/kg

**Skin corrosion/irritation**
- Not classified
  - pH: 5.5

**Serious eye damage/irritation**
- Not classified
  - pH: 5.5

**Respiratory or skin sensitisation**
- Not classified

**Germ cell mutagenicity**
- Not classified

**Carcinogenicity**
- Not classified

**Reproductive toxicity**
- Not classified

**Specific target organ toxicity (single exposure)**
- Not classified

**Specific target organ toxicity (repeated exposure)**
- Not classified

**Aspiration hazard**
- Not classified

**Potential Adverse human health effects and symptoms**
- Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Acetic Acid (64-19-7)**
- LC50 fishes: 75 mg/l (96 h; Lepomis macrochirus)
- EC50 Daphnia: 47 mg/l (24 h; Daphnia magna; Not neutralized)
- EC50 other aquatic organisms: $> 5000$ mg/l (5 h; Activated sludge)
- LC50 fish 2: 94 mg/l (96 h; Oryzias latipes)
- EC50 Daphnia 2: 95 mg/l (24 h; Daphnia magna; Static system)
- TLM fish 1: 100 ppm (96 h; Carassius auratus)
- Threshold limit algae 1: 90 mg/l (192 h; Microcystis aeruginosa; Neutralized)
- Threshold limit algae 2: 4000 mg/l (192 h; Scenedesmus quadricauda; Neutralized)

**Acetate Buffer for Arsenic, pH 5.5**
- Persistence and degradability: Not established.

**Acetic Acid (64-19-7)**
- Biochemical oxygen demand (BOD): 0.6 - 0.74 g O²/g substance
- Chemical oxygen demand (COD): 1.03 g O²/g substance
- ThOD: 1.07 g O²/g substance
- BOD (% of ThOD): 0.56 - 0.69 % ThOD

**Sodium Acetate, Trihydrate (6131-90-4)**
- Persistence and degradability: Not established.

**Water (7732-18-5)**
- Persistence and degradability: Not established.

#### 12.2. Persistence and degradability

**Acetate Buffer for Arsenic, pH 5.5**
- Persistence and degradability: Not established.

**Acetic Acid (64-19-7)**
- Biochemical oxygen demand (BOD): 0.6 - 0.74 g O²/g substance
- Chemical oxygen demand (COD): 1.03 g O²/g substance
- ThOD: 1.07 g O²/g substance
- BOD (% of ThOD): 0.56 - 0.69 % ThOD

**Sodium Acetate, Trihydrate (6131-90-4)**
- Persistence and degradability: Not established.

**Water (7732-18-5)**
- Persistence and degradability: Not established.

#### 12.3. Bioaccumulative potential

**Acetate Buffer for Arsenic, pH 5.5**
- Bioaccumulative potential: Not established.

**Acetic Acid (64-19-7)**
- Log Pow: -0.31 (Experimental value)
**Acetate Buffer for Arsenic, pH 5.5**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Acetic Acid (64-19-7)</th>
<th>Bioaccumulative potential</th>
<th>Bioaccumulation: not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Acetate, Trihydrate (6131-90-4)</td>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.4. **Mobility in soil**

**Acetic Acid (64-19-7)**

Surface tension 0.028 N/m (20 °C)

12.5. **Other adverse effects**

Other information : Avoid release to the environment.

**SECTION 13: Disposal considerations**

13.1. **Waste treatment methods**

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

**SECTION 14: Transport information**

In accordance with DOT

No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.

**ADR**

Transport document description :

Transport by sea

No additional information available

Air transport

No additional information available

**SECTION 15: Regulatory information**

15.1. **US Federal regulations**

**Acetic Acid (64-19-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 5000 lb

**Sodium Acetate, Trihydrate (6131-90-4)**

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

**Water (7732-18-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. **International regulations**

**CANADA**

**Acetate Buffer for Arsenic, pH 5.5**

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

**Acetic Acid (64-19-7)**

WHMIS Classification Class B Division 3 - Combustible Liquid

Class E - Corrosive Material

**Sodium Acetate, Trihydrate (6131-90-4)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Uncontrolled product according to WHMIS classification criteria
Acetate Buffer for Arsenic, pH 5.5
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Water (7732-18-5) | WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |

EU-Regulations
No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC
Not classified

15.2.2. National regulations

Sodium Acetate, Trihydrate (6131-90-4)
Not listed on the Canadian Ingredient Disclosure List

15.3. US State regulations
No additional information available

SECTION 16: Other information
Other information : None.

Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Flam. Liq. 3</td>
<td>Flammable liquids, Category 3</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
</tbody>
</table>

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 0 - Materials that will not burn.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HNIS III Rating
Health : 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability : 0 Minimal Hazard
Physical : 0 Minimal Hazard
Personal Protection : A

SDS US (GHS HazCom 2012)

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

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