SECTION 1: Identification

1.1. Identification
Product form: Mixture
Product name: Ammonium Chloride, 0.1M (0.1N)
Product code: LC10975

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: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Not classified

2.2. Label elements
No labeling obligation.

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

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance
Not applicable

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>99.47</td>
<td>Not classified</td>
</tr>
<tr>
<td>Ammonium Chloride</td>
<td>(CAS No) 12125-02-9</td>
<td>0.53</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

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: Allow victim to breathe fresh air. 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

<table>
<thead>
<tr>
<th>5.1. Extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media: Do not use a heavy water stream.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.2. Special hazards arising from the substance or mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information available</td>
</tr>
</tbody>
</table>

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th>6.1.1. For non-emergency personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective equipment: Safety glasses.</td>
</tr>
<tr>
<td>Emergency procedures: Evacuate unnecessary personnel.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6.1.2. For emergency responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective equipment: Equip cleanup crew with proper protection.</td>
</tr>
<tr>
<td>Emergency procedures: Ventilate area.</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Precautions for safe handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 vapor.</td>
</tr>
</tbody>
</table>

#### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Storage conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep container closed when not in use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incompatible products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong acids.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incompatible materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of ignition. Direct sunlight.</td>
</tr>
</tbody>
</table>

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Ammonium Chloride (12125-02-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH ACGIH TWA (mg/m³) 10 mg/m³ (Ammonium chloride fume; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)</td>
</tr>
<tr>
<td>ACGIH ACGIH STEL (mg/m³) 20 mg/m³ (Ammonium chloride fume; USA; Short time value; TLV - Adopted Value)</td>
</tr>
<tr>
<td>NIOSH NIOSH REL (TWA) (mg/m³) 10 mg/m³</td>
</tr>
<tr>
<td>NIOSH NIOSH REL (STEL) (mg/m³) 20 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water (7732-18-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Ammonium Chloride, 0.1M (0.1N)
Safety Data Sheet

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

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. Ensure adequate ventilation.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses.

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

Physical state : Liquid
Color : Colorless
Odor : None.
Odor threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Non flammable.
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available
Specific gravity / density : 1 g/ml
Solubility : Miscible with water.
Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : 1 cSt
Viscosity, dynamic : No data available
Explosion limits : No data available
Explosive properties : No data available
Oxidizing properties : No data available

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

Strong acids.

### 10.6. Hazardous decomposition products

Gaseous ammonia.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Likely routes of exposure</th>
<th>Skin and eye contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**Ammonium Chloride (12125-02-9)**

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>1650 mg/kg (Rat; Literature study)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>1650.000 mg/kg body weight</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>≥ 90000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>90000.000 mg/kg body weight</td>
</tr>
</tbody>
</table>

- **Skin corrosion/irritation**: Not classified
- **Serious eye damage/irritation**: Not classified
- **Respiratory or skin sensitization**: 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

**Ammonium Chloride (12125-02-9)**

<table>
<thead>
<tr>
<th>EC50 Daphnia</th>
<th>161 mg/l (EC50; 48 h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold limit algae 2</td>
<td>&lt; 70 mg/l (EC50; 240 h)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

**Ammonium Chloride, 0.1M (0.1N)**

Persistence and degradability: Not established.

**Ammonium Chloride (12125-02-9)**

Persistence and degradability: Readily biodegradable in water.

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

Persistence and degradability: Not established.

#### 12.3. Bioaccumulative potential

**Ammonium Chloride, 0.1M (0.1N)**

Bioaccumulative potential: Not established.

**Ammonium Chloride (12125-02-9)**

Log Pow: -4.37 (Estimated value)

Bioaccumulative potential: Bioaccumulation: not applicable.

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

Bioaccumulative potential: Not established.
Ammonium Chloride, 0.1M (0.1N)
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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

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

Department of Transportation (DOT)
In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Ammonium Chloride (12125-02-9)
RQ (Reportable quantity, section 304 of EPA's List of Lists) 5000 lb

15.2. International regulations

CANADA
Ammonium Chloride, 0.1M (0.1N)
WHMIS Classification Uncontrolled product according to WHMIS classification criteria

Ammonium Chloride (12125-02-9)
WHMIS Classification Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date : 11/02/2016
Other information : None.
Ammonium Chloride, 0.1M (0.1N)
Safety Data Sheet

Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>H302</th>
<th>Harmful if swallowed</th>
</tr>
</thead>
</table>

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

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.

HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health
Flammability : 0 Minimal Hazard - Materials that will not burn
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : A
A - Safety glasses

SDS US LabChem

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