SECTION 1: Identification

1.1. Identification
Product form : Mixtures
Product name : Ammonia Standard, 1000ppm as Nitrogen
Product code : LC17940

1.2. Recommended use and restrictions on use
Use of the substance/mixture : For laboratory and manufacturing use only.
Recommended use : Laboratory chemicals
Restrictions on use : Not for food, drug or household use

1.3. Supplier
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-6290 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number : CHEMTREC: 1-800-424-9300 or +1-703-741-5970

SECTION 2: Hazard(s) identification

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

2.2. GHS Label elements, including precautionary statements
Not classified as a hazardous chemical.
Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<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>99.62</td>
<td>Not classified</td>
</tr>
<tr>
<td>Ammonium Chloride</td>
<td>(CAS-No.) 12125-02-9</td>
<td>0.38</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 persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media
Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical
Fire hazard: Non-flammable.

5.3. Special protective equipment and precautions for fire-fighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering 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
General measures: Dike and contain spill.

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 vapor.
Hygiene measures: Always wash hands after handling the product.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical</th>
<th>ACGIH TWA (mg/m³)</th>
<th>ACGIH STEL (mg/m³)</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
<th>NIOSH REL (STEL) (mg/m³)</th>
<th>Water (7732-18-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Chloride (12125-02-9)</td>
<td>10 mg/m³</td>
<td>20 mg/m³</td>
<td>10 mg/m³</td>
<td>20 mg/m³</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

03/20/2018 EN (English US) 2/6
8.2. Appropriate engineering controls

Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Safety glasses.

Hand protection:
Wear protective gloves.

Eye protection:
Chemical goggles or safety glasses

Respiratory protection:
Respiratory protection not required in normal conditions

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
Appearance: Clear, colorless liquid.
Color: Colorless
Odor: Odorless
Odor threshold: No data available
pH: 5 - 7
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: Soluble in water.
Log Pow: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity, kinematic: No data available
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. Hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Likely routes of exposure</th>
<th>Ammonium Chloride (12125-02-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD50 oral rat 1410 mg/kg body weight</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal rat &gt; 2000 mg/kg body weight</td>
</tr>
<tr>
<td></td>
<td>ATE US (oral) 1650 mg/kg body weight</td>
</tr>
<tr>
<td></td>
<td>Water (7732-18-5) ≥ 90000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>ATE US (oral) 90000 mg/kg body weight</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Chloride (12125-02-9)</td>
<td>Water (7732-18-5)</td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>1410 mg/kg body weight (Other, Rat, Male/female, Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg body weight (EU Method B.3: Acute toxicity (dermal), 24 h, Rat, Male/female, Experimental value)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1650 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>90000 mg/kg body weight</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin corrosIon/irritation</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH: 5 - 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serious eye damage/irritation</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH: 5 - 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respiratory or skin sensitization</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Germ cell mutagenicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reproductive toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Specific target organ toxicity – single exposure</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Specific target organ toxicity – repeated exposure</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Aspiration hazard</th>
<th>Not classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Potential Adverse human health effects and symptoms</th>
<th>Based on available data, the classification criteria are not met.</th>
</tr>
</thead>
</table>

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Ammonium Chloride (12125-02-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1 209 mg/l (96 h, Cyprinus carpio, Semi-static system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>EC50 Daphnia 1 101 mg/l (ASTM E729-80, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)</td>
</tr>
</tbody>
</table>
## 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Compound</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia Standard, 1000ppm as Nitrogen</td>
<td>Not established.</td>
</tr>
<tr>
<td>Ammonium Chloride (12125-02-9)</td>
<td>Biodegradability: not applicable.</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

## 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Compound</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia Standard, 1000ppm as Nitrogen</td>
<td>Not established.</td>
</tr>
<tr>
<td>Ammonium Chloride (12125-02-9)</td>
<td>Log Pow -4.37 (Estimated value), Not bioaccumulative.</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

## 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Compound</th>
<th>Ecology - soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Chloride (12125-02-9)</td>
<td>No (test)data on mobility of the substance available.</td>
</tr>
</tbody>
</table>

## 12.5. Other adverse effects

Other information: Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal 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

<table>
<thead>
<tr>
<th>Compound</th>
<th>RQ (Reportable quantity, section 304 of EPA's List of Lists)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Chloride (12125-02-9)</td>
<td>5000 lb</td>
</tr>
</tbody>
</table>

### 15.2. International regulations

**CANADA**

No additional information available

**EU-Regulations**

No additional information available

**National regulations**

No additional information available
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: 03/20/2018
Other information: None.

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 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity: 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard 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

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