SECTION 1 : Identification of the substance/mixture and of the supplier

Product name: Ammonium Chloride,

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25168

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:
   AquaPhoenix Scientific
   9 Barnhart Drive, Hanover, PA 17331

Supplier Details:
   Fisher Science Education
   15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:
   Fisher Science Education    Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Acute Tox. 4 H302
Eye Irrit. 2 H319

Hazard statements:

Precautionary statements:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Wash skin thoroughly after handling
Rinse mouth
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
If eye irritation persists get medical advice/attention

Combustible Dust Hazard:
May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

WHMIS
D2B
NFPA/HMIS
Ammonium Chloride,

NFPA SCALE (0-4)

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

| CAS 12125-02-9 | Ammonium Chloride | 100 % |

Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

**After inhalation:** Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Give artificial respiration if necessary. Get medical assistance if cough or other symptoms appear.

**After skin contact:** Wash affected area with soap and water. Seek medical advice if discomfort or irritation persists.

**After eye contact:** Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Continue rinsing eyes for an additional 15 minutes. Immediately get medical assistance.

**After swallowing:** Rinse mouth thoroughly. Do not induce vomiting. Dilute mouth with sips of water or milk after rinsing. Get medical assistance.

**Most important symptoms and effects, both acute and delayed:**


**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention, provide SDS document to physician.

SECTION 5 : Firefighting measures

**Extinguishing media**

**Suitable extinguishing agents:** Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**For safety reasons unsuitable extinguishing agents:**

**Special hazards arising from the substance or mixture:**

**Advice for firefighters:**

**Protective equipment:** Wear protective eyeware, gloves, and clothing.

**Additional information (precautions):** Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.
SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental precautions:

Methods and material for containment and cleaning up:

If necessary use trained response staff or contractor. Absorb with suitable material. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Wear protective eyeware, gloves, and clothing. Refer to Section 8. Always obey local regulations.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Wash hands after handling. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Store with like hazards. Protect from freezing and physical damage.

SECTION 8 : Exposure controls/personal protection

Control Parameters:

12125-02-9, Ammonium Chloride, ACGIH TLV: 10mg/m3, OSHA PEL TWA (Total Dust) 15 mg/m3 (50 mppcf*), ACGIH TLV TWA (inhalable particles) 10 mg/m3

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Normal ventilation is adequate.

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators refer to Section 6.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wear protective clothing.

Eye protection:

Safety glasses with side shields or goggles.

General hygienic measures:

Wash hands before breaks and at the end of work. Wash hands and exposed skin with soap and plenty of water. Perform routine housekeeping. Before wearing again wash contaminated clothing.

SECTION 9 : Physical and chemical properties

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**Ammonium Chloride,**

<table>
<thead>
<tr>
<th>Appearance (physical state,color):</th>
<th>White solid</th>
<th>Explosion limit lower:</th>
<th>Non Explosive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion limit upper:</td>
<td>Non Explosive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
<td>Vapor pressure:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not Applicable</td>
<td>Vapor density:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>pH-value:</td>
<td>5.0-5.5 (1-10%) aqueous solution</td>
<td>Relative density:</td>
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<tr>
<td>Melting/Freezing point:</td>
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<td>Solubilities:</td>
<td>Approx 29.7g/100 g water at 0°C</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>Approx 520°C</td>
<td>Partition coefficient (n-octanol/water):</td>
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</tr>
<tr>
<td>Flash point (closed cup):</td>
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<td>Auto/Self-ignition temperature:</td>
<td>Not Applicable</td>
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<tr>
<td>Evaporation rate:</td>
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<td>Decomposition temperature:</td>
<td>Not Available</td>
</tr>
<tr>
<td>Density:</td>
<td>Not Available</td>
<td>b. Dynamic: Not Applicable</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 10 : Stability and reactivity

**Reactivity:** None under normal processing.

**Chemical stability:** Stable under normal conditions.

**Possible hazardous reactions:** Reacts explosively with potassium chloride or bromine trifluoride. Reacts violently with bromide pentafluoride, ammonium compounds, nitrates, and iodine heptafluoride.

**Conditions to avoid:** Incompatible Materials.


**Hazardous decomposition products:** Ammonia. Hydrogen chloride.

### SECTION 11 : Toxicological information

**Acute Toxicity:**

| Oral: | LD50:1650 mg/kg (rat) | Ammonium Chloride (12125-02-9) |

**Chronic Toxicity:** No additional information.

**Corrosion Irritation:** No additional information.

**Sensitization:** No additional information.

**Single Target Organ (STOT):** No additional information.

**Numerical Measures:** No additional information.

**Carcinogenicity:** No additional information.

**Mutagenicity:** No additional information.

**Reproductive Toxicity:** No additional information.
SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability:
Bioaccumulative potential:
Mobility in soil:
Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:
Dilute with water and flush to sewer. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

UN-Number

UN proper shipping name

Transport hazard class(es)

Packing group:

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):
None of the ingredients is listed

SARA Section 313 (Specific toxic chemical listings):
None of the ingredients is listed

RCRA (hazardous waste code):
None of the ingredients is listed

TSCA (Toxic Substances Control Act):
All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:
None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed

Chemicals known to cause developmental toxicity:
None of the ingredients is listed

Canada

**Canadian Domestic Substances List (DSL):**
12125-02-9 Not Regulated.

**Canadian NPRI Ingredient Disclosure list (limit 0.1%):**
None of the ingredients is listed

**Canadian NPRI Ingredient Disclosure list (limit 1%):**
None of the ingredients is listed

**SECTION 16 : Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases:**

**Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)

**Effective date**: 01.06.2015
**Last updated**: 03.23.2015