1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name Ammonium Chloride

Other means of identification
Product Code(s) 0621
Synonyms No information available

Recommended use of the chemical and restrictions on use
Recommended Use For Further Manufacturing Use Only.
Uses advised against Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet
Company Address VWR International, LLC
Radnor Corporate Center 100 Matsonford Road
Radnor, PA 19087-8660

Manufacturer Address VWR International, LLC
28600 Fountain Parkway
Solon, Ohio 44139

Company Phone Number 1-800-448-4442
E-mail Address info@amresco-inc.com

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Acute Toxicity - Oral</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Warning

Hazard statements
H302 - Harmful if swallowed
H319 - Causes serious eye irritation

Appearance White
Physical State Granular Powder
Odor No information available

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not regulated

Other Information
Unknown Acute Toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>EC No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>12125-02-9</td>
<td>235-186-4</td>
<td>95-100</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**First Aid Measures**

**Eye Contact**
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin Contact**
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

**Inhalation**
Move to fresh air. If not breathing, give artificial respiration.

**Ingestion**
Never give anything by mouth to an unconscious person. Rinse mouth.

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

**Most Important Symptoms/Effects**
No information available.

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

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**
No information available.

**Specific Hazards Arising from the Chemical**
No information available.

**Hazardous Combustion Products**
Hydrogen Chloride gas. Ammonia.

**Explosion Data**

<table>
<thead>
<tr>
<th>Sensitivity to Mechanical Impact</th>
<th>Sensitivity to Static Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>None.</td>
<td>None.</td>
</tr>
</tbody>
</table>

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protection
Ensure adequate ventilation, especially in confined areas.

Environmental Precautions

Environmental Precautions
See Section 12 for additional Ecological information.

Methods and material for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up
Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Hygroscopic.

Conditions for safe storage, including any incompatibilities

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic.

Incompatible Products
Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride 12125-02-9</td>
<td>20 mg/m³ STEL (fume)</td>
<td>-</td>
<td>TWA: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³</td>
<td></td>
<td>STEL: 20 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Measures
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Avoid contact with eyes. Safety glasses with side-shields.

Skin and Body Protection
Wear protective gloves/clothing.

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
**Physical State**
Granular Powder

**Appearance**
White

**Color**
No information available

**Odor**
No information available

**Odor Threshold**
No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks · Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH</strong></td>
<td><strong>(1% in water)</strong> 5.5</td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Boiling Point/Range</strong></td>
<td>520 °C</td>
<td></td>
</tr>
<tr>
<td><strong>Flash Point (High in °C)</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Flammability Limit in Air</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Upper flammability limit:</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Lower flammability limit:</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>1.53</td>
<td></td>
</tr>
<tr>
<td><strong>Water Solubility</strong></td>
<td>Appreciable</td>
<td></td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Autoignition Temperature</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Kinematic viscosity</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Dynamic viscosity</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Explosive Properties</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Oxidizing Properties</strong></td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

**Other Information**

- **Softening Point**
  No information available
- **Molecular Weight**
  No information available
- **VOC Content**
  No information available
- **Density**
  1.9
- **Bulk Density**
  No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**
No data available

**Chemical Stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Conditions to Avoid**
Protect from moisture.

**Incompatible Materials**
Strong acids. Strong bases.

**Hazardous Decomposition Products**
Hydrogen chloride gas. Ammonia.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**
Causes skin, eye and respiratory tract irritation Toxic if swallowed

- **Inhalation**
  There is no data available for this product.

- **Eye Contact**
  There is no data available for this product.
**Product Code(s)** 0621 - **Ammonium Chloride**  
**Revision Date** 08-Jan-2016

**Skin Contact**  
There is no data available for this product.

**Ingestion**  
There is no data available for this product.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride 12125-02-9</td>
<td>1650 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Information on toxicological effects**

**Symptoms**  
No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization**  
No information available.

**Mutagenic Effects**  
No information available.

**Carcinogenicity**  
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride 12125-02-9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive Toxicity**  
No information available.

**STOT - single exposure**  
No information available.

**STOT - repeated exposure**  
No information available.

**Target Organ Effects**  
Liver, Kidneys, Lungs.

**Aspiration hazard**  
No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity**  
0 % of the mixture consists of ingredient(s) of unknown toxicity  
The following values are calculated based on chapter 3.1 of the GHS document.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Toxicity to Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride 12125-02-9</td>
<td>-</td>
<td>209: 96 h Cyprinus carpio mg/L LC50 static 725: 24 h Lepomis macrochirus mg/L LC50</td>
<td>202: 24 h Daphnia magna mg/L LC50</td>
</tr>
</tbody>
</table>

**Persistence and Degradability**  
No information available.

**Bioaccumulation/Accumulation**  
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride 12125-02-9</td>
<td>-</td>
</tr>
</tbody>
</table>

**Other Adverse Effects**  
No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste Disposal Method**  
Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging**  
Do not re-use empty containers.
--- | --- | --- | --- | --- | ---
Ammonium chloride 12125-02-9 | 0621 | - | - | - | -

Chemical Name | California Hazardous Waste Status
--- | ---
Ammonium chloride 12125-02-9 | -

### 14. TRANSPORT INFORMATION

**DOT**
Not regulated

**IATA**
Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**
- TSCA: Complies
- DSL/NDSL: Complies
- EINECS/ELINCS: Complies
- ENCS: Complies
- IECSC: Complies
- KECL: Complies
- PICCS: Complies
- AICS: Complies

**Legend:**
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

**U.S. Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

<table>
<thead>
<tr>
<th>Component</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride 12125-02-9 (95-100)</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**
- Acute Health Hazard: Yes
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

**Clean Water Act**
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>5000 lb</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>
CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>5000 lb</td>
<td>-</td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td>12125-02-9</td>
<td></td>
<td></td>
<td>RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>-</td>
</tr>
<tr>
<td>12125-02-9</td>
<td></td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>12125-02-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number Not regulated

16. OTHER INFORMATION

Issuing Date 03-Mar-2010
Revision Date 08-Jan-2016
Revision Note No information available

Disclaimer
The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

End of Safety Data Sheet