



# SAFETY DATA SHEET

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Preparation Date: 01/01/2019

Revision Date: N/A

**Revision Number:** 1

## **SECTION 1: Identification**

## **1.1. Product Identifier**

Trade Name or Designation: Ammonium Chloride 25% Solution Product Number: PS18010

**1.2. Recommended Use and Restrictions on Use** General Laboratory Reagent

## 1.3. Details of the Supplier of the Safety Data Sheet

## **Dawn Scientific Inc**

121 Liberty Street, Metuchen, NJ, 08840 Tel : 732-902-6300 | Fax : 973-802-1005 sales@dawnscientific.com | www.dawnscientific.com

## 1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)	800-424-9300
CHEMTREC (International)	1+ 703-527-3887

## SECTION 2: Hazard(s) Identification

## 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class			
Reproductive Toxicity	Category 2	H361	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Single	Category 2	H371	P260, P264, P270, P308+P311, P405, P501
Exposure			
Specific Target Organs/Systemic Toxicity Following Repeated	Category 1	H372	P260, P264, P270, P314, P501
Exposure			
Hazardous to the Aquatic Environment (Chronic)	Category 2	H411	P273, P391, P501

## 2.2. GHS Label Elements

Pictograms:



Signal Word:

Danger

#### Hazard Statements:

Hazard Number	Hazard Statement
H361	Suspected of damaging fertility or the unborn child.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

#### Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P308+P311	IF exposed or concerned: Call a POISON CENTER or physician.
P308+P313	IF exposed or concerned: Get medical attention.
P314	Get medical attention if you feel unwell.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

## 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition / Information on Ingredients

#### 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H <sub>2</sub> O	18.01 g/mol	7732-18-5	74.75
Ammonium Chloride	NH <sub>4</sub> Cl	53.49 g/mol	12125-02-9	25-26

#### SECTION 4: First-Aid Measures

#### 4.1. General First Aid Information

Eye Contact: May cause slight irritation.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause slight irritation.

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

## 4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected of damaging fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. Non-flammable, non-toxic, non-corrosive. Does not present any significant health hazards. Wash areas of contact with water. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

#### 4.3. Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

#### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material (paper towels, etc.) and treat as normal refuse if local regulations allow. Liquid may be flushed to the sewer. Always dispose of in accordance with local, state and federal regulations.

#### SECTION 7: Handling and Storage

## 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protectior

## 8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Ammonium Chloride (12125-02-9)	TLV-STEL	USA	20 mg/m³ STEL (fume)	ACGIH - Threshold Limit Values -
				Short Term Exposure Limits
				(TLV-STEL)
Ammonium Chloride (12125-02-9)	TLV-TWA	USA	10 mg/m³ TWA (fume)	ACGIH - Threshold Limit Values - Time
				Weighted Averages (TLV-TWA)

### 8.2. Exposure Controls

Engineering Controls:	No specific controls are needed. Normal room ventilation is adequate.
Respiratory Protection:	Normal room ventilation is adequate.
Skin Protection:	Wear protective gloves and eye protection. Chemical resistant gloves.
Eye Protection:	Wear protective gloves and eye protection. Safety glasses or goggles.

#### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

## 9.1. Basic Physical and Chemical Properties

Appearance:	Colorless liquid
Physical State:	Liquid
Odor:	Data not available.
Odor Threshold:	Data not available.
pH:	Data not available.
Melting/Freezing Point:	Approximately 0°C
Initial Boiling Point/Range:	Approximately 100°C - Approximately 100°C
Flash Point:	Data not available.
Evaporation Rate:	Data not available.
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Vapor Pressure:	Data not available.
Vapor Density:	Data not available.
Relative Density:	1.03
Solubility:	Miscible
Partition Coefficient:	Data not available.
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
Viscosity:	Data not available.
Explosive Properties:	Data not available.
Oxidizing Properties:	Data not available.

#### SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Strong Oxidizing agents, strong acids, strong bases.

10.4. Hazardous Decomposition Products

Will not occur.

## 11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

#### Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: 1650 mg/kg (Ammonium Chloride), details of toxic effects not reported other than lethal dose value.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Not applicable.

#### Respiratory Sensitization:

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

Not applicable.

#### Reproductive Toxicity:

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Single Exposure:

May cause damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

#### Aspiration Hazard:

Not applicable.

#### Additional Toxicology Information:

Data not available.

## SECTION 12: Ecological Information

#### 12.1. Ecotoxicity

Toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations.

#### 12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

## 13.1. Waste Treatment Methods

Data not available.

## SECTION 14: Transportation Information

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

- 14.2. Transportation by Air International Air Transport Association (IATA)
- Not regulated according to IATA Dangerous Goods Regulations.
- 14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

## SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

- 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals Ammonium Chloride (CAS # 12125-02-9): 5000 lb final RQ; 2270 kg final RQ
- 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Ammonium Chloride (CAS # 12125-02-9): 1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)

- 15.5. Massachusetts Right-to-Know Substance List Ammonium Chloride (CAS # 12125-02-9): Present
- 15.6. Pennsylvania Right-to-Know Hazardous Substances Ammonium Chloride (CAS # 12125-02-9): Environmental hazard Ammonium Chloride (CAS # 12125-02-9): Present Water (CAS # 7732-18-5): Present

## 15.7. New Jersey Worker and Community Right-to-Know Components

Ammonium Chloride (CAS # 12125-02-9): sn 0093

15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ammonium Chloride (CAS # 12125-02-9): Present (DSL)

Water (CAS # 7732-18-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

## All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory. Ammonium Chloride (CAS # 12125-02-9): Present

Water (CAS # 7732-18-5): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European

List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Ammonium Chloride (CAS # 12125-02-9): 234-607-9

Ammonium Chloride (CAS # 12125-02-9): 235-186-4

Water (CAS # 7732-18-5): 231-791-2

Water (CAS # 7732-18-5): 232-148-9

#### SECTION 16: Other Information

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

Suspected of damaging fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe fumes, mist,

vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the

environment. Wear protective gloves and eye protection.

IF exposed or concerned: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Collect spillage. Store locked up.

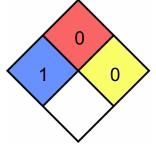
Dispose of contents in accordance with local, state, federal and international regulations.

#### 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class:	Not Applicable.
Physical Hazards Not Otherwise Classified (PHNOC):	Not Applicable.
Health Hazards Not Otherwise Classified (HHNOC):	Not Applicable.
Biohazardous Infectious Materials Hazard Class:	Not Applicable.

#### 16.3. National Fire Protection Association (NFPA) Rating

Health:	1
Flammability:	0
Reactivity:	0
Special Hazard:	



#### 16.4. Document Revision

Last Revision Date: 01/01/2019

#### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and Dawn Sciemtic Inc assumes no legal responsibility or liability whatsoever resulting from its use.