



# Material Safety Data Sheet (MSDS) for Ammonium Chloride

## Section 1: Product Information

Product Name: Ammonium Chloride  
Chemical Formula:  $\text{NH}_4\text{Cl}$   
CAS Number: 12125-02-9

## Section 2: Hazard Identification

Classification:  
Acute Toxicity (Oral) - Category 4  
Eye Damage/Irritation - Category 2A  
Skin Corrosion/Irritation - Category 2  
Signal Word: Warning  
Hazard Statements:  
Harmful if swallowed.  
Causes serious eye irritation.  
Causes skin irritation.

## Section 3: Composition/Information on Ingredients

Chemical Name: Ammonium Chloride  
Concentration: 100%

## Section 4: First Aid Measures

Eye Contact: Rinse with water for at least 15 minutes. Seek medical attention if irritation persists.  
Skin Contact: Wash affected areas with plenty of water. Remove contaminated clothing. Seek medical attention if irritation occurs.  
Inhalation: Remove to fresh air. If breathing difficulties persist, seek medical attention.  
Ingestion: Rinse mouth with water. Do not induce vomiting. Seek immediate medical attention.

## Section 5: Fire-fighting Measures

Suitable Extinguishing Media: Water spray, dry chemical, carbon dioxide, foam.  
Specific Hazards: Ammonium chloride may release toxic fumes, including ammonia and hydrogen chloride, during combustion.  
Special Protective Equipment: Wear self-contained breathing apparatus and protective clothing.



## **Section 6: Accidental Release Measures**

Personal Precautions: Use personal protective equipment. Avoid inhalation and skin contact.

Environmental Precautions: Prevent entry into waterways. Neutralize with lime or soda ash if spilled.

## **Section 7: Handling and Storage**

Handling: Use in well-ventilated areas. Avoid contact with eyes, skin, and clothing.

Storage: Store in a cool, dry place away from incompatible materials. Keep containers tightly closed.

## **Section 8: Exposure Controls/Personal Protection**

Exposure Limits:

OSHA Permissible Exposure Limit (PEL): 10 mg/m<sup>3</sup> (TWA)

ACGIH Threshold Limit Value (TLV): 10 mg/m<sup>3</sup> (TWA)

Engineering Controls: Use local exhaust ventilation to maintain airborne concentrations below exposure limits.

Personal Protective Equipment: Wear appropriate protective clothing, gloves, and eye/face protection.

## **Section 9: Physical and Chemical Properties**

Physical State: Solid

Color: White

Odor: Odorless

Melting Point: 338°C (640°F)

Boiling Point: Sublimes at 520°C (968°F)

Solubility in Water: Highly soluble

## **Section 10: Stability and Reactivity**

Stability: Stable under normal conditions.

Incompatibility: Avoid contact with strong acids, bases, and incompatible materials.

Hazardous Decomposition Products: Hydrogen chloride gas, ammonia gas.

## **Section 11: Toxicological Information**

Acute Toxicity: LD50 (oral, rat) 1650 mg/kg

Skin Irritation: Causes irritation.

Eye Irritation: Causes serious eye irritation.

## **Section 12: Ecological Information**

Ecotoxicity: Harmful to aquatic life. Avoid release into the environment.



### **Section 13: Disposal Considerations**

Dispose of in accordance with local, regional, and national regulations.

### **Section 14: Transport Information**

UN Number: 1945

Proper Shipping Name: Ammonium chloride

Transport Hazard Class: 8 (Corrosive)

### **Section 15: Regulatory Information**

Follow all applicable regulations and guidelines.

### **Section 16: Other Information**

This MSDS is intended to provide a summary of key information. It is not a comprehensive document. For detailed information, refer to the product label and technical data sheet.